CHAPTER III

RESEARCH METHOD

This chapter discusses the research method in this study. It covers the discussion about research design, variable of the study, subject of the study, data and data source, method of collecting data and research instrument, data analysis, and hypothesis testing.

A. Research Design

Before conducting the research, it is better to know what the meaning of research. Research is a way of observation or inquiry and has the objective to find the answer of problems or discovery process (Sukardi, 2003: 3).

Educational research is typically classified into two group categories: quantitative and qualitative research. Each approach has its own methodology and terminology. Quantitative research uses objective measurement to gather numeric data that are used to answer questions or test predetermined hypothesis. It generally required well-controlled setting. Qualitative research, in contrast, focuses on understanding social phenomena from the perspective of the human participants in natural setting. It does not begin with a formal hypothesis, but it may result in hypothesis as the study unfolds (Ary *et.al* : 2006 : 22).

In conducting the research, the researcher chooses a quantitative as the research study, especially correlational research. A Quantitative is further classified into experimental and nonexperimental. Experimental research involves a study of the effect of the systematic manipulation of the variable(s) on another

variable, while Nonexperimental research identifies variables and may look for relationships among them but does not manipulate the variables.

Correlational research is a type of nonexperimental research where the researcher employs the data derived from preexisting variables. There is no manipulation of the variables in that type of research. Besides, a correlational research is useful in a wide variety of studies. The most useful applications of correlation are: (1) assessing relationship, where correlational research method used to assesses the relationship among two or more variables in a single group of subjects. (2) Assessing consistency, where correlational research can be used to measure consistency (or lack thereof) in a wide variety of cases. (3) Prediction, where correlation can be predicted, for instance: if you find two variables are correlated, you can use one variable to predict the other (Ary *et.al*, 2006: 351).

B.   Population, Sampling and Sample

A population can be defined as all members of any well-defined class of people, events or objects. It is the larger group about which the generalization is made (Ary *et.al*, 2006: 148). Another definition of population according to Cresswell (2008: 151-152) a population is a group of individuals who have the same characteristic. For example, all teachers would make up the population of teachers, and all high school administrators in a school district would comprise the population of administrators. As these examples illustrate, population can be small or large. In this research, the researcher will take the fourth grade students

of Gontor 5 *(Kulliyatu-l-Mu'allimat Al-Islamiyyah)* that involve 63 persons as the population.

Sampling is the process of taking sample. It is concerned with the selection of a subset of individuals from within a statistical population to estimate characteristics of the whole population. Sampling is indispensible to the researcher. Usually, the time, money, and effort involved do not permit a researcher to study all possible member of a population. In this research, the researcher uses probability sampling by simple random sampling type. In this sampling, the members of populations under this study will be gotten equal opportunities to be sample. The intent of simple random sampling is to choose individuals to be sampled who will be representative of the population. The typical procedure used in simple random sampling is to assign a number to each individual (or site) in the population and then use a random numbers table, available in many statistic books, to select the individuals (or site) for the sample (Cresswell, 2008: 153).

Sample is a set of data collected and/or selected from a population by a defined procedure. According to Ary *et.al* (2006: 148) sample is a portion of a population and the small group that is observed. Besides, a sample is a sub group of the target population that the researcher plans to study for generalizing about the target population (Cresswell, 2008: 152). In this case, the researcher will takes 33 students of class 4B and 4C as the objects of the investigation.

C.   Variable of the data

A variable is a construct or a characteristic that can take on different values or scores. Researchers study variables and the relationship that exist among variables (Ary *et.al*, 2006: 37).

In this case, there are two kinds of variables: dependent variable and independent variable. Dependent variable is the output or effect. It shows the effect of manipulating or introducing the independent variables. While independent variable is the input variable. It refers to abstract processes that are not directly observable but that link the independent and dependent variables. In this research the dependent variable is student's speaking ability and the independent variable is the student's negative reinforcement.

D.   Data and data source

Data is any information collected in the research study. According to Arikunto (2006: 118) data are all of fact and member that can be used by the researcher as information, whereas information is result of data process that used necessary. In this research, the researcher need to get the data deal with the frequency of negative reinforcement of the fourth grade students of Gontor 5 (Kulliyatu-l-Mu'allimat Al-Islamiyyah) and about their ability in speaking. In this case, the data that will be gotten here is in the form of score. The score will be gotten from the frequency of negative reinforcement given to the students correlated to their speaking ability.

Data source is subject from where the data can be taken (Arikunto, 2006: 129). Data sources also be devided into two kinds, they are: Primary source is the

data which is collected by the researcher directly and Secondary source is the data which is collected by the researcher indirectly (Sugiono, 2009:308). Primary sources are original documents, relics, remains, or artifacts. These are the direct outcomes of events or the records of participants. With secondary source, the mind of a nonobserver comes between the event and the user of the user of the record. Common examples of secondary sources are history books, articles in encyclopedias, and reviews of research (Ary *et.al*, 2006: 467). Here, the researcher only use the primary data as the data source which taken from the person, field, and any kinds of documentations of the fourth grade students of Gontor 5 *(Kulliyatu-l-Mu'allimat Al-Islamiyyah)*.

E.   Method of Collecting Data and Research Instruments

1.   Data collection method

Data collection method is systematical and standard procedure used to collect data that is need. In this research, the researcher uses to collect data through:

a.   Distributing Questionnaire

The questionnaire is a widely used and useful instrument for collecting survey information, providing structured, often numerical data, being able to be administered without the presence of the researcher, and often being comparatively straightforward to analyze (Wilson and Mclean, 1994) in (cohen, 2000: 245). In this research, the questionnaire is given to the students in order to know about the student's daily life or activity, related to their attitudes and

behavior. The result of the questionnaire is in the form of score. It is uses to correlate with the score of the speaking test of the students.

b. Administering Test

A test is an important thing to be given to the students in order to know their ability especially in speaking. According to Arikunto (2010:193) "A test is a list of question used to measure the ability or talent in individual or group". Another definition of the test is a systematic procedure for measuring a sample of behavior to represent an educational or psychological characteristic (Ary et.al, 2006: 651). In this case, the researcher gives a test after distributing the questionnaire. It is done in order to know their ability in speaking after investigating their daily life that followed by a negative reinforcement.

2.   Research Instrument

Research instrument is a tool used to catch the data and to dig a variable that observed. Research instrument refers to any equipment used to collect the data (Arikunto, 2010:262).

The instruments used in this research are:

a.   Questionnaire

An instrument in which respondents provide written response to questions or mark items that indicate their responses (Ary et.al, 2006: 648). It is a list of question to be answered to get information. Questionnaire is a means as eliciting

the feelings, beliefs, experiences, perceptions, or attitude of some sample of individuals**.**

In this research, the questionnaire is written in Indonesian in order to make the respondents easier in understanding the question. The questionnaire consists of 10 questions in the form of multiple choices. In this case, the respondents only needed to choose one of the choices reflected to their real life. According to the statement before, there are four choices for each question, and each choice has a different score. The researcher given 6 score for a choice or *ya*, given 4 score for b choice or *sering*, given 2 score for c choice or *kadang-kadang,* and given 1 score for d choice or *tidak*. Besides, the questionnaire will be counted by Likert scale. It is a scale for behavior or an attitude. Each question is related to the statement or attitude's support.

b. Test

In this research, the researcher gives a test in the form of oral test. There are 10 questions that should be answered by the students kindly. The students will be asked one by one and will be scored directly by the researcher. The giving score was almost same as in questionnaire scoring. Each question has the same score with different level. The highest score of the speaking test is 6, it is for those who answered the question correctly and fluently. The 5 score is for those who answered the question correctly but less fluently. The 4 score is for those who answer the question correctly but with occasional hesitation. The 3 score for those who answered the question almost correctly with hesitantly speaking because of

searching words. The 2 score is for those who answered the question less correct and speaks using a single-word utterances and short patterns. And the 1 score is for those who answered the question incorrectly with repeating words and phrase. In this case, the test will be given in the last process of the investigation. The researcher intended to know the result of the students in speaking ability from the process of negative reinforcement.

F.   Data Analysis

According to Bodgan (in Sugiyono, 2009: 334), data analysis is the process of systematically searching and arranging the interview transcripts, interview record and other materials that researcher accumulate to increase understanding and to enable the researcher to present what the researcher has discovered to others. In quantitative research, especially in correlational study, the analyzing data is used statistical data analysis and the data analysis is using the coefficient correlation of Pearson Product Moment technique. In this case, the research will be used statistical method which is used to investigate the correlation between negative reinforcement and student's speaking ability.

The formula is: $r_{xy} = \dfrac{\sum xy}{\sqrt{(\sum x)^2 (\sum y)^2}}$

r_{xy} =   the   correlation   index   numbers   "r"   product   moment

Σxy =   the amount of multiplying the deviation scores x and y deviation scores

Σx^2 = the amount of deviation after the first score of x squared

Σy^2 = the amount of deviation after the first score y squared

G. Hypothesis testing

According to Sujianto (2009: 48) stated" to test the hypothesis it can used the guidance as follow:

- If the $r_{count} > r_{table}$, or the p-value in the sig. (2 tailed) < level of significant (α) than Ha is accepted. It means that there is a correlation between negative reinforcement and student's speaking ability.

- If the $r_{count} < r_{table}$, or the p-value in the sig. (2 tailed) > level of significant (α) than Ho is accepted. It means that there is no correlation between negative reinforcement and student's speaking ability.