**CHAPTER III**

**RESEARCH METHOD**

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

1. **Research Design**

This study is conducted in an pre-experimental design using quantitative approach with one-group pretest-posttest design.This study uses pre-experimental because it does not have random assignment of subject to group or other strategy to control extraneous variable. That is why in this study the researcher just takes one group or class and uses pretest and posttest to see the result of the treatment. The subject is not randomized and there is no pre treatment.

Research is finding theory, try out the theory or solving the problem(Sevilla 1993:2). Experimental is an scientific investigation in which the researcher manipulates one or more independent variables, controls, any other relevant variables, and observes the effect of the manipulations on the dependent variables(Ary 1985:284). Experimental research is unique in two very important respect : it is the only type of research that directly attempts to influence a particular variable, and when properly applied, it one or more dependent variable. 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 groups).

This study uses pre-experimental with one-group pretest-posttest design. According to Arikunto (2010:123) there are kind of pre-experimental design, those are: one shot case study, pre-test and post-test group and static group comparison. In pre-test and post-test group of observation do two times, those are: before experiment and after experiment. The research which is done before experiment is called pre test,and The research which is done after experiment is called post test(Arikunto 2010:124)

This study is classified as pre-experimental design because it is little or no control of extraneous variables. In the one-group pre-test post-test design, a single group is measured or observed not only after being exposed to a treatment of same sort, but also before.

A diagram of one-group pretest posttest design.

Y1 X Y

Pretest treatment posttest

 (independent variable) (dependent variable)

The procedures of pre-experimental research that use one-group pretest posttest design:

1. Administering a pretest with a purpose of measuring writing descriptive text achievement of first year students at MTsN Tunggangri.
2. Applying the experimental treatment teaching writing descriptive text by using *Inquiry Learning Method* to the subject first year students at MTsN Tunggangri.
3. Administering a posttest with a purpose of measuring writing descriptive text achievement of first year students at MTsN Tunggangri.

Different distributed to application of the experimental treatment are determined by comparing the pretest and posttest score. In this study, the researcher use experimental research with quantitative approach. The researcher want to know the effect of using *Inquiry Learning Method* in teaching writing descriptive text to the students writing descriptive text achievement by experimental research. The impact is assessed by providing a specific treatment. The effect will be known after know the significant differences between the students who are taught before using *Inquiry Learning Method* and those are taught after using *Inquiry Learning Method.*

1. **Population and Sample of Research**
2. Population

In this research the population is all first year students at MTsN Tunggangri which the total of VII class are 297 students. In this research, the researcher just take one class. the researcher take the class as sample of this research which consist of 33 students. The researcher use one class because the researcher wants to know in teaching writing descriptive text.

Population is the whole subject of the research.(Arikunto 2010:173) In the other book is explained that population is totality of whole object or individual which have a certain characteristics,clear and complete which will be observed.(Hasan 2003:84)

1. Sample

The sample in this research is taken from one class from the first students of MTsN Tunggangri, in C class, there are 33 students consist of 12 boys an 21 girls. Because the headmaster of this school only allowed the C class to be subject of this study.

Sample is the part of population which is observed by the researcher(Tanzeh 2009:94). The researcher use one class to be observed which is VII C class because this class is the one of good class than other but they still any knowledge about english material.

Sampling method is the way of data collecting which only take the part of population element or the characteristic which is any in the population.(Arikunto 2010:85) In this research, the technique which is used is purposive sampling. This technique is done by taking the selected people by a researcher, based on their specific characteristics. Purposive sampling is the sample which is selected accurately, so it is relevant with the researcg design. (Nasution 2003:98). By using the technique which has done, in order that the data which is gotten can represent the population.

1. **Variable**

Variable is a phenomenon, so there is no phenomenon that is experienced which can not be defined as variable,it depends on how the quality of its variable,that is how the variation of those phenomenon (Bungin 2003:59) The variables in this research are two, they are :

1. Independent Variable (*x*),is variable which is manipulated by a researcher deliberately. In this research, the independent variable are :

*X =* teaching writing descriptive text by using *Inquiry Learning Method*

1. Dependent Variable (*y*), is variable which is measured as the effect of independent variable manipulation. In this research,its dependent variable is :

*Y* = Students’ achievement in writing descriptive text of the first year students at MTsN Tunggangri.

1. **Data and Data Source**

Data in this research is score. Data is the facts note or information will be produced in the research activity (Tanzeh 2009:54). Data source is the subject where the data is gotten.(Arikunto 2010:172). In this research the researcher use primary data.Primary Data is data collected directly by the researcher from the first subject(Sugiono 2006:225), that is the students’ test score of MTsN Tunggangri, especially students of VII class.

1. Procedure of Collecting Data

After the researcher has got permission from headmaster, the researcher was conducted on 2 April 2012 at MTsN Tunggangri Kalidawir Tulungagung.

The procedure were:

1. The researcher gives the pre – test to the students in VII C class. Pretest here is to measure how far the students’ understanding about the course and how far they know about writing paragraph as like descriptive.
2. The researcher gives treatment to the students in writing descriptive text using *Inquiry Learning Method*. The steps are as follow:

1. Formulate the problems. The student can formulate the problems of their writing in descriptive text by how the way to describe the person in the picture form correctly.

2. Collect the data by observation. The student can do it by read the book or other source to get the supporter information. Collect the data as many as possible from the source or the object which is observed.

3. Analyze and present the result in the written, picture or report. The students make the descriptive text by their self.

4. Communicate the result of work to the readers, their class mates or others audiences.(Nurhadi 2004:44)

1. The researcher gives the post – test to the students.
2. After that, the researcher get the point result in the score form of the test of writing descriptive text.
3. **Data Collecting Method and Instrument**
4. Data Collecting Method

 In the research activity, data collecting method is the way to get data.Test as a data collecting method is a sequence or training which is used to measure the skill, knowledge, attitude, intellegence which is had by individual or group (Arikunto 2010:193) The teacher give the test by using *Inquiry Learning* *Method* tomeasure the students*’*  achievement in writing descriptive text and this method is used to get the score of study result of students in class VII C at MTsN Tunggangri.

1. Instrument

The instrument in this study is test.Instrument is defined as the art and science of measurement and control of process variables within a production of manufacturing media. (En.wikipedia.org/wiki/instrumentation ). Actually there are 2 kinds of instrument, those are; test instrument is to measure students’ ability and non test instrument uses to measure attitude.(Sugiono 2007)

The test was conducted by the researcher. In this study, the researcher uses test as instrument, therefore, the researcher applied pre-test and post-test. Pre-test was given before doing an experimental research study or before teaching by using *Inquiry Learning Method* at way, in this pretest students given task to make about writing descriptive text during 90 minutes on April, 5 2012. Post test which was given after doing the experimental research study or after teaching by *Inquiry Learning Method* at way, in this post test he students given task to make about writing descriptive text by using *Inquiry Learning Method* during 90 minutes on April,26 2012.

To get the data, which is VII C class that becomes an experiment group the researcher as a teacher teaches the students during three weeks. Firstly, in the teaching learning process the teacher givse pre test in writing descriptive test. Secondly, the teacher teaches writing descriptive text by using *Inquiry Learning Method.* In the end, the teacher gives post test in writing descriptive text to the students.

Before the written test question is used, previously the researcher try out the test to get validity and reliability of the test. Furthermore, the researcher can determine the validity and reliability of the test( questions), so expected the test which is used is really can measure the students’ study result.

1. **Validity Test and Reliability Test**

Validity is a concept which related to what extent the test has measured what should be measured (Surapranata 2006:50). Because the form of the test is objective test, so the validity of the test can be measured by match the objectives of test with the criteria of scoring.

Based on the Heaton’s opinions, the aspect of testing writing or criteria of scoring are as belows:

a. Organization, include what are the text developed. In the descriptive text organizations are identification and description.

The objective of the test is the students be able to make writing descriptive text well and correctly. So,the students can make a writing descriptive text well by they be able to find which is identification or description part of the text.

b. Content, consists of how the students describe the picture in detail. So,the students can make a writing descriptive text well by they be able to dscribe the picture in detail.

c. Grammar, descriptive text using simple present tense. So,the students can make a writing descriptive text well by they be able to use simple present tense.

d. Punctuation, it is an essential part of the properly constructed english sentences. It may be said that, as integral part of the written form of the language, punctuation is the reflection of the pauses and of the rising and falling intonation patterns of the spoken language. The standard marks of punctuation are based on Burks and Wishon (1980:A-28): period (.), question mark (?), exlamation point (!), comma (,), semicolon (;), colon (:), dash (-), parenthese (), brakets [], and quotation marks(“...”,’...’). So,the students can make a writing descriptive text well by they be able to use punctuation well and correctly.

Reliability of the test is the measurement that explain the consistency of the test. The test is consistance if those test have the same relative score although examined frequent. Because the form of the test is objective test so the reliability of the test can be measured by match and compare the scoring of some experts or more than one rather who are scoring the test and next will be mathed or compared with the researcher’s score so can be seen it’s result (inter rater reliability)

 To measure the reliability of the test, the researcher uses formula of pearson product moment as follows: $r\_{xy }$ = $\frac{Σ \left(Y-Y\right)(X-X)}{N S\_{y S\_{x}}}$

Where : N : The number os students who took the two tests.

 $r\_{xy }$ : pearson product moment

 Y : each students’ score on test Y

 Y : mean of test Y

 $S\_{y}$ : standar deviation on test Y

 X : each students’ score on test X

 X : mean on test X

 $S\_{x}$ : standard deviation on test X

**Table 3.1 Table score on test ( see appendix)**

Based on the computation of the pearson product moment the value is 3,39. It is bigger than the r table that is 0,344.

So, we can conclude that the test is reliable.

1. **Technique of Data Analysis**

To know students’ percentage before and after being taught by using Inquiry Learning Method (students’ pretest and posttest scores), the researcher uses percentage from Sudiyono (1987:43) as follow :

P =$\frac{F}{N}$ x 100 %

Where : F : frequency or total of students that are finding the percentage.

N : the number of students in VII C class or number of cases.

P : number of percentage.

The decision criterion based on the standard value in English lesson of the school, it is 75. The criterion used are as follows :

1. Enough : students involved in this criterion if they get score under standard value (<75).
2. Good : students involved in this criterion if they get score in standard value up to 75 (75-79).
3. Very good : students involved in this criterion if they get score 80-84.
4. Excellent : students involved in this criterion if they get score(>85).

To investigate whether there is a significant effectiveness between students’ achievement before and after being taught by using Inquiry Learning Method, the researcher uses t test (statistic application SPSS 16.00).