**CHAPTER III**

**RESEARCH METHOD**

This chapter discusses about the research methods used in this study. It covers the discussion of the research design, population and sample, research variable, source of data, data collecting method and research instrument and technique of data analyis.

* 1. **Research Design**

This study is conducted in 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.

According Donald Ary , an experiment is as scientific investigation in which the research manipulates one or more independent variable, controls any other relevant variable, and observes the effect of manipulations on the dependent variable(s) ( Ary donald, 2006).

This study is classified as pre experimental design because it is little or no control of extraneous variables. In the One Group pretest-posttest design, a single group is measured or observed not only after being exposed to a treatment of some sort, but also before. Pre experimental research involves administering pre test to the dependent variable , applying the experimental treatment X to the subjects, and administering the post test. The result of the treatment is found by comparing the pre test and post test scores.

**The designed can be diagramed as follow:**

**Y1 X Y2**

**Pretest Treatment Posttest**

**(Independent variable) (Dependent variable)**

Explanation:

Y1 = Pre-test for experimental group

X = The treatment by using script picture

Y2 = Posttest for experimental and control group

In this study, The researcher measure the effectiveness of using Script Picture. In teaching Writing to the students’ writing achievement by experimental research. The impact is assessed by providing a specific treatment. The effectiveness will be known after knowing the significant differences between the students who are taught before using Script picture and those who are taught after using Script picture. And this design uses quantitative approach because involved complex experiment with many variables and treatments.

* 1. **Population, Sampling and Sample Research**

1. Population

The population on this research is the second grade of MTs Asyafi’iyah Gondang which consist of one classes. The researcher took the C class as sample of this research. There are 35 Students. Population is all of the research subjects which can be consist of human, animal, testing score/event as a source data which have a certain characteristic in the research. According to Arikunto, population is the entire research object. A population is the group to which the results of the study are intended to apply stated by (R.Frankael 1996: 91).

1. Sample

A sample is a group in a research study on which information is obtained state by (R.Frankael 1996: 91). Sampling is also as a way the researcher select number of individuals as a sample which represents the population. The sample in this study is 35 of students the second year of MTs As – Syafi’iyah Gondang.

1. Sampling

In this research, the researcher used purposive sampling technique because this class is the one of good class than other but they still any knowledge about English material. Sampling is the process of selecting a number of individuals for a study in such as a way that the individuals represent the larger group from which they were selected. The purpose of sampling is to gain information about a population; rarely is a study conducted that includes the total population of interest as subject (Gay. 1992: 123).

* 1. **Research Variable**

In this research, the writer thinks it is important to know the meaning of variable itself. According to R.Frankael (1996: 51) Variable is concept a noun that stands for variation within a class of objects. According to Donald Ary (1985:39) A variable is a construct or a characteristic that can take on different values or scores.The most important classification is on the bass of their use within the research under consideration, when they are classified as independent variables or dependent variables.

1. Independent variable (X)

Independent Variable is variable which is manipulated by a researcher deliberately. In this research independent variable is teaching writing narrative text by using script picture.

Description of using Script Picture in teaching writing. Firstly, the researcher gives the pre – test to the students in VIII 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 narrative. Secondly, the researcher gives treatment to the students in writing narrative text using *Script picture media* with to find formulate the problems. The student can formulate the problems of their writing in narrative text by how the way to write narrative text by using script picture form correctly, and the researcher analyze and present the result in the written narrative text. In the end, the researcher gives the post – test to the students in VIII C given task to make about writing narrative text by using Script Picture Media.

1. Dependent Variable (Y)

Dependent variable is a variable that enrage in function relationship influence by independent variable. In this research, dependent variable is students achievement in writing narrative text.

* 1. **Source of Data**

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 MTs AS – Syafi’iyah, especially students of VIII class.There are two kinds of data:

1. Primary data is the data that are collected by the researcher directly (Suryabrata,2005:39). As the primary data in this research were the students’ score of pretest and posttest.
2. Secondary data is the data that are collected by the researcher indirectly, such as documentation (Suryabrata, 2005:39). The secondary data in this research got from person, place, and paper. The secondary data in this research were the documentations about the conditions and situations of the school.

Based on the statement above, the researcher uses primary data because the researcher using pre- test and post-test to get the data.

* 1. **Method of Collecting Data**

Data of this study is collected by administering test. Test in simple terms, a method of measuring a person’s ability, knowledge, or performance in a given domain. Brown (2004: 3 ) Researcher uses two kinds of tests those are Pre-test and Post-test.

In this research, the researcher used test by gave script picture media to measure the student writing skill. The test is given through an activity in writing text. The test with gave task to the student to make a narrative text base on the script picture.

According to Fraenkel (1996) the device the researcher uses to collect data is called instrument. Research instrument is the tool of collecting data that should be valid and reliable. A research instrument can be valid if the instrumen can measure what will be measured. In this research, the instrument used in writing test. It is to know the students’ ability in writing before and after taught by using script picture. Furtherrmore, there are two writing tests administered here, namely Pretest and Posttest . They are Pretest and Post test :

1. Pre test

Pre-test is that is given to all of second year students at MTs As – Syafi’iyah Gondang Tulungagung. To measure their ability before treatment process, this test was given to know the basic competence for 35 students and to know their earlier knowledge before they get treatment. Before treatment is a test which was done to measure the student achievement in the first time. Pre-test was done before treatment process. Pre- test was given to the experimental group; it is to know the writing achievement of the students. The score were analyzes to determine the students’ scores between pre-test and post- test. The respondents were asked to do the question of writing. Time location of the test is 90 minutes.

1. Post-test

Pos test is test that is given to all second year students at MTs As – Syafi’iyah Gondang Tulungagung. To measure their ability after treatment process, this test was given to know the basic competence for 35 students and to know their earlier knowledge after they get treatment. It is done to know the final score and to know the students, difference competence before and after they get treatment. Treatment here means that the researcher applied script picture as media in teaching writing. This test giving after teaching process was done. The researcher only used one class to got one post-test. A post-test was given in order to know the scores of the students after they were taught by using script picture. Time allocation of test is 90 minutes. This test was used to measure the student’s achievement after they were given treatment. The post test conducted on May 18th. To know the good test is all good tests possess the researcher is always dependent upon measurement. There are two important characteristics that every measuring instrument should process validity and reliability.

* 1. **Research Instrument**

According to Fraenkel (1996) the device the researcher uses to collect data is called instrument. Research instrument is the tool of collecting data that should be valid and reliable. A research instrument can be valid if the instrumen can measure what will be measured.

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 script picture media at way, in this pretest students given task to make about writing narrative text during 90 minutes on May,10, 2012. Post test which was given after doing the experimental research study or after teaching by script picture mediaat way, in this post test he students given task to make about writing narrative text by using script picture mediaduring 90 minutes on May, 18 2012.

To get the data, which is VIII 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 give pre test in writing narrative test. Secondly, the teacher teaches writing narrative text by using script picture*.* In the end, the teacher gives post test in writing narrative 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.

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

* 1. **Validity and Reliability**
  2. **Validity**

According to Brown, 2004: 22 as quoted by Isnawati, 2010: 16 Validity is the the extent to which inferences made from assessment results are appropriate, meaningful, and useful in terms of the purpose of the assessment.

In experimental research, the researcher had to check validity and reliability of the instrument. Validity (in testing) is the degree to which a test measures what it is supposed to measure, or can be used successfully for the purpose for which it is intended. (Richard, 1992: 296)

According to Heaton (1988: 159) validity of the test is the extent to which it measures what it is supposed to measure and nothing else.

In this test, the researcher give the written test to measure students’ ability in writing narrative text. The researcher made this test based on the course objectives in the syllabus of second years of MTs As – Syafi’iyah Gondang Tulungagung. Therefore, this test is valid in term of content validity. The content validity in this research can be showed as below:

Table 3.1.

**Content Validity**

|  |  |  |  |
| --- | --- | --- | --- |
| No | Competence | Test Item | Percentage |
| 1 | Students are able to write simple narrative text about script picture media | 1 | 100% |

The construct validity of test is test which is capable of measuring certain specific characteristics in accordance with a theory of language behavior and learning (Heaton, 1975: 159). Based on the theory above, in the test, the researcher asked students to answer the written test to measure students’ ability in writing narrative text. So, this fulfill the construct of writing test and therefore valid in term of construct validity.

* 1. **Reliability**

Reliability (in testing) is a measure of the degree to which a test gives consistent results. (Richard, 1992: 314)

According to Heaton (1988: 162). Reliability is a necessary characteristic of any good test: for it to be valid at all, a test must be reliable as a measuring instrument. In this test, the researcher used the inter rater reliable, where the researcher involved two raters for scoring the student’s writing ability. After that, the researcher analyzed the correlation of two scores by using product Moment Pearson. For analyzing the correlation, the researcher used formula by (Sumarna,2004). The data of the student’s achievement of realibilty can be seen in appendix 2.

From the correlation analyzing above, the researcher got the correlation of two scores. The value of correlation is 0.86. It means that the correlation of score 1 and score 2 is very strong, it was found that this test is very reliable.

* 1. **Technique of 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 student’s achievement in writing taught by script picture as media. The researcher in this research uses Paired sample T Test stated by SPSS 16.0.

* 1. **Hypothesis Testing**

The hypothesis of this studies are as follows:

1. If the significant level is bigger than T-table ,the alternative hypothesis (ha) is accepted and null hypothesis (ho) is rejected. It means that there is different score to the students who was not taught using Script Picture Media and the students who was taught using Script Picture Media.
2. If the significant level is smaller than T-table, the Null Hypothesis (Ho) is accepted and the alternative hypothesis (Ha) is rejected. It means that there is not different score to the students who was taught without using Script Picture Media and the students who was taught using Script Picture Media.