**CHAPTER III**

**RESEARCH METHOD**

This chapter describes the research design, population, sampling and sample, variable of research, data collection method and instrument, the validity of test, the reliability of test, technique of data analysis.

1. **Research Design**

In this study the research design used Pre-experimental design. This research is intended to investigate the effectiveness of using STAD technique on the reading comprehension’s achievement of the second year student at MTs Sunan Ampel Ringinrejo Kediri

The experimental method is the only method of research that can truly test hypothesis concerning cause-and-effect relationships. (L.R.Gay,1992:298). There are two major classes of experimental designs, single-variable designs, which involve one independent variable, and factorial designs, which involve two or more independent variables. Single-variable designs are classified as pre-experimental, true experimental and quasi experimental (L.R.Gay, 1992:318). This study uses Pre-experimental design.

According to the explanation above, experimental design refer to the conceptual framework within which the experiment is conducted. An experimental design serves two functions:

1. It establishes the condition for the comparisons by the hypothesis of the experimental.
2. It enables the experimenter through statistical analysis of the data to make a meaningful interpretation of the result of the study.

There are three designs included in Pre-Experimental. They are One-shot case study, One-group pretest-posttest design and Static-group comparison. The researcher uses Static-group comparison. This design involves at least two group; one group receives STAD technique, the other receives a traditional, and both groups are posttested. The first group is usually referred to as the experimental group, and the second group as the control group. Posttest score are then compared to determine the effectiveness of the treatment. (L.R.Gay, 1992:319). It means that there are two classes. One class as experimental group taught using STAD technique and one class as control group taught using traditional method. Both experimental group and control group in this study are taken from two classes.

Table 3.1 Design of the study

Design of the study

|  |  |  |
| --- | --- | --- |
| Group | Treatment | Reading comprehension test  comprehension test |
| Experimental  Control | Using STAD technique  Without Using STAD technique | Post-Test  Post-Test |

The procedures of experimental in this study consist of post-test. The post-test is given to take the score of the students’ achievement after taught both by using STAD technique and using traditional method. Then based score computed by using T-test find out if there is significant influence of teaching reading comprehension by using STAD technique.

Based on the explanation above, it can be concluded that descriptive social variable to give information to apply research. This study takes quantitative method.

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

Population is the object / subject that have some qualities and characteristics that are chosen to be learned and to be concluded by the researcher. (Sugiyono, 2010:117)

A population is all the subject research (Arikunto.2006:130), states that a population is a set (or correction) of all elements processing one or more attribute of interest.

The population in this research is the second year students of MTs Sunan Ampel Ringinrejo Kediri in the academic year 2011/ 2012.The total numbers of the second year students of MTs Sunan Ampel Ringinrejo Kediri in the academic year 20011/2012 are 55 students.

1. Sampling and Sample

The researcher chose purposive sampling because the researcher only had a limited time, and the teacher also gave advice to choose A and C class that consist of heterogonous (high, middle, and low achievement).

Sampling is the process of selecting a number of individuals for a study in such 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 subjects. (Gay, 1992:123)

The sample is two classes of second year of MTs Sunan Ampel Ringinrejo Kediri. Those are class A and C. The total number of sample is 39 students that consist of 21 students for class A and 18 students for class C. Class A become the experimental group and C as the control group.

1. **Variable of research**

According to Donal Ary (2006:39) Variable is a construct or a characteristic that can take on different values or score. Suharsimi (2006:118) said that variable is object of research or that become point of research. Based on the title of the thesis, it has two variables; they have independent variable and dependent variable. Independent variable in this research is the uses of STAD technique and dependent variable in this research is the student’s achievement in reading comprehension.

1. **Data Collection Method and Instrument**

Data collection method means that the researcher needs to take the information to collect the data from any source. (Sugiyono,2009:308).

There are many instruments used to collect data such as observation, documentation, interview and test. Using instrument is one of the significant steps in conducting the research. Therefore the writer must choose some instrument in data gathering process. In this research the researcher hopes that, this study attempts to discover the effectiveness of using STAD technique on the reading comprehension’s achievement. Concerning with the aim, here in collecting data the researcher uses documentation and test.

1. Documentation

According Riduwan (2011: 77) "Documentation is a method of data collection in order to obtain data directly from the research, including relevant books, regulations, activity reports, photographs, documentaries, and research relevant data".

In this research the researcher uses photographs to take the documentation.

1. Test

According to Suharsimi Arikunto, a 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 (Arikunto, 2006:150). Thus a test is a method to gain the data by giving some question to the respondent.

In this research the researcher uses achievement test. The test is subjective and the form is essay test. Achievement test is test that is used to measure someone’s achievement after learn something. (Arikunto,2006:151) The researcher applied post-test. Post-test is applied in the two classes, A Class and C Class. This test used to measure the student’s achievement in reading comprehension after they taught by using STAD technique in MTs Sunan Ampel Ringinrejo Kediri.

There are two kinds of test. They are post-test after taught by using STAD technique and without using STAD technique:

1. Post test after taught by using traditional method

The researcher gave treatment and post test at May, 25th 2012.Post test is given to the students after process of taught by using traditional method. The aim of this test is to measure students’ reading comprehension after treatment. Format of post test is essay test that consist 10 items which is answered based on narrative text given.

1. Post test after taught by using STAD technique

The researcher gave treatment and post test at May, 19th 2012. Post test of reading comprehension is conducted after process of teaching learning using STAD technique. The aim of this test is to measure students’ reading comprehension after treatment. The kind of post test is essay test that consist 10 items. The students answer the essay test based on the narrative text given

The test that was used by the researcher was taken from the book of “Passport to the World 2 a Fun and Easy English Book for Grade VIII of Junior High Schools” page 134. This book was published by Tiga Serangkai Pustaka Mandiri.

1. **The validity of test**

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 asked students to answer the essay test to measure students’ comprehension in reading narrative text. The researcher made this test based on the course objectives in the syllabus of second years of MTs Sunan Ampel Ringinrejo Kediri. Therefore, this test is valid in term of content validity. The content validity in this research can be showed as below:

**Table 3.2. Content Validity**

|  |  |  |  |
| --- | --- | --- | --- |
| No | Competence Indicators | Test Item | Percentage |
| 1 | Students are able to answer the question based on the narrative text. | 1  2  3  10 | 10%  10%  10%  10% |
| 2 | Students are able to use verb 2 to answer the question based on the narrative text. | 4  5  6  7  8  9 | 10%  10%  10%  10%  10%  10% |
|  | Total | 10 | 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 the students to answer the essay based narrative text to measure the students’ comprehension in reading and this fulfill the construct of reading test and therefore valid in term of construct validity.

1. **The Reliability of test**

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 reading comprehension. After that, the researcher analyzed the correlation of two scores by using Pearson correlation which is called product Moment Pearson. For analyzing the correlation, the researcher used SPSS 16.0.

From the correlation analyzing, the researcher got the correlation of two scores. The value of correlation is 0.984. It means that the correlation of score 1 and score 2 is very strong, because the value is between 0.80 – 1.000. From the above evidence, it was found that this test is very reliable.

1. **Technique of Data Analysis**

The data collected (data result) was processed by comparing with the first data to see whether there will be a significant difference between the teaching of reading comprehension using the Student Team Achievement Division technique and the reading comprehension using the traditional method in class. The data result of reading comprehension test was data of average score of reading comprehension test taught by Student Team Achievement Division. The first data is data of student’s score taught using the traditional method. If data result of reading comprehension test is higher than first data, it means that the teaching of reading comprehension by using Student Team Division technique is more effective than teaching reading comprehension by using traditional method in class. To get the achievement of reading comprehension test, the writer gave the students a test after they had been taught by Student Team Achievement Division technique. The test was essay test. To know the significant difference of the reading comprehension ability between the students taught using Student Team Achievement Division technique and those taught without using Student Team Achievement Division technique, the researcher in this research uses independent samples T test at SPSS 16.0 statistic application.