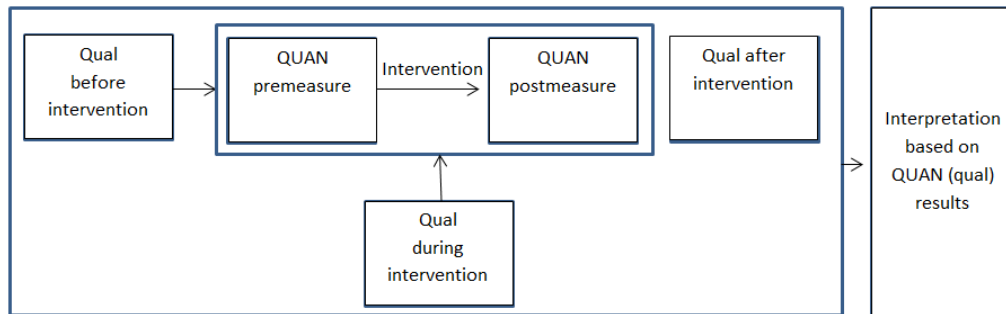# CHAPTER III
# Research Methodology

## 3.1 Research Design

The research approach used in this research is mixed method, with both quantitative and qualitative analysis on the population. This research concerned with how the design implemented and how the research carried out. This method often used to determine the quality by combining the result of the analysis that being done with quantitative and qualitative approaches. This



reasearch will use quantitative design as primary approach and use qualitative design added to supplement and improve the quantitative studies.

Picture 3.1.1 Embedded Design: Embedded Experimental Model

The mixing of data is a unique method in research, this will provide the researcher a better understanding of the problem. There are three ways of mixing data, and connecting as shown in table 3.1.1 is one of them by bringing them together and then analyzed them. Embedded qualtative data

within their experimental design in two different ways: before interention and after interevention, to explain the result. This model that the writer use is defined having qualitative data embedded within and experimental design. The priority of this model is established by the quantitative, experimental methodology, and qualitative dataset is included within that methodology. These sequential approaches are useful to shape the experiment and develop intervention, instrument, or after intervention, to explain the result of intervention or to follow up on the experiment of the participants with certain results.

In this study, one group pre-test and post-test design used to collect the data. This study measured by pre-test before giving the treatment and post-test after giving the treatment. Evelyn (2001) proposes the procedure used in pre-experiment one group pre-test-post-test design as in the following: Participant selection Pre-test Treatment post-test. This method collects numerical data through evaluation sheet that administrated by the writer. It aimed to answer questions concerning the status of the subjects of the study. Questionnaire sheets used to find out the students responses toward using Student Teams. While also interviewing some of the populations about the research that being implemented, to seek information about the student personal progress on how they improve their english in which method the teacher used.

Achievement Divisions in promoting their reading skill. The writer also used field research. Field research is a quantitative method of data

collection aimed at understanding, surveying, and interacting with people in their natural settings.

### 3.2.1 Population and Samples

3.2.1 The Population

According to Arikunto (2010:186), *population is the entire group of entities or persons to whom the results of a study intended to apply*. The population of this study is all students of the second year students in state junior high school 48. The number of population of this study is 63 students who are composed of two classes.

3.2.2 The Sample

The sample was the small unit of population that was taken as representative of all population. Based on Suharsimi (2003), *if the subject is less than 100, it is suggested to take the whole population.* The numbers of students were approximatelly 25 students in each class. All samples that had enrolled were in class. The technique of taking sample was purposive sampling.

### 3.3 Technique of Data Collection

Apply the STAD method in learning recount text to maximize the improvements of students vocabulary To support this study, the writer needs

to collect data. To carry out the data needed, the writer will apply some technique, which considered appropriate; they are pre-experimental teaching, test and questionnaire. The explanation that being discussed as follow:

3.3.1 The implementation of STAD method in teaching learning recount text to maximize the improvements of students vocabulary

3.3.1.1 Observations

Class observastion is done to find the situations and conditions on the class, before and while the reseach is being implemented. It is important to gain the informations around the class on how they respond to the STAD method, because it will affect further data collection, and also the score that student will get.

Darlington (2002: 74) states that observation is a very effective way to finding out what people do in particular contexts, the routines and interactional patterns of their daily lives. In addition, observational research methods can provide an understanding of what is happening in encounter between a service provider and user, a commitee, a ward or residental unit, a large organizational or a community.

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At this point also will be conducted interview to the student and the teacher about how the teaching english progress before STAD method being iplemented and also after being implemented, this will give additional information of students personal view about how much research affect them.

### 3.3.1.2 Documentation

Documentation is needed to know about the situation and condition of the students, teachers, and school's profiles. Documentation not only includes the official organizational papers, brochures, and reports, but also more of work a day, lesson plans, and materials.

The researcher collects the data as documentation by taking photos or videos since the teaching and learning process is going. Document is a record of events in the past in the forms of handwriting, pictures, or even literature works (Sugiyono, 2007:329). The researcher ask the school to complete the data that is needes, so this research can produce a good result that depict the teaching and learning process in second grade by using STAD method.

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3.3.1.2     Pre-experimental teaching

The writer used pre-experimental research. The writer used one group pretest-posttest design and chose one class to be the sample of this study. One group pretest-posttest design not allowed using control class. That was why the writer only took one class as the sample. Pre-experimental teaching was one of the techniques used by the writer to get the data. It held six meetings to teach the students how to promote their reading ability by STAD technique as materials. This technique was essential in this study to give a treatment, as it expected to promote students reading ability. In the first meeting and the last meeting were used for conducting tests, while the third one the writer gave some treatments to the students.

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

a.   Post test after taught by using traditional method

The researcher gave treatment and post test. Post test is given to the students after process of taught by using traditional method. The aim of this test is to measure students vocabulary after treatment in learning recount text. Format of post test is essay test that consist 10 items which is answered based on recount text given.

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b. Post test after taught by using STAD technique

The researcher gave treatment and post test. Post test of reading comprehension is conducted after process of teaching learning using STAD technique. The aim of this test is to measure students vocabulary after treatment in learning recount text. The kind of post test is essay test that consist 10 items. The students answer the essay test based on the recount 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.*

3.3.1.3     Test

Tests in this research given to measure the students skill before and after the treatment given. The tests divided into two categories; pretest and posttest. The function of pretest is to find out students skill before giving treatment. On the other hand, posttest is to find out whether their reading ability improve or not after the treatment.

3.3.1.4    Questionnaire

To get additional data, the writer also distributed questionnaires for students. Questionnaire is the list of questions given to the respondents. It is simply a tool for collecting and recording information about a particular issue of interest. It is mainly contains of a list of questions, but should also include clear instructions and space for answers or administrative details (Lisa, 2006). It given to gain students opinion. The questionnaires given for students in the last meeting and they had 15 minutes to answer all questions.

3.3.2    The result of students' vocabulary after using STAD method in learning recount text

After applying the STAD technique to the students, the writer will get the result from the result of the test. The result will be focused on comparing the data from pre-test and post-test.

3.3.3    Teaching equipment of using STAD method in teaching recount text

The equipments that used for applying the STAD methods to the student will also be determined by how effective the

equipments are, by knowing how effective the equipment therefore increase the effectiveness of applying STAD method.

## 3.4 Technique of Data Analysis

After all data collection process, and the data needed for the research had been obtained, all of the data will be analyzed for conclusion for the research.

3.4.1 The implemantation of STAD method in teaching learning recount text to maximize the improvements of students vocabulary.

In analyzing the data of pre-test and post-test, the writer used 10 questions and each question is score 10 points. The writer used the statistical formula by following the steps below:

To find out the range of the data Sudjana (2002) stated that range is the difference between the highest and the lowest scores. The range of pre-test and post-test scores Would be determined by using the formula below:

$$R = H - L$$

Where:

R: the range of the score

H: the highest score

L: the lowest score

The Average score of the test can be determined by:

$A = TS \div TN$

A: Average score

TS: Total score

TN: Total number of students

3.4.2 Analyzing the result of students' vocabulary after using STAD method in learning recount text

After applying the STAD Method to the students and obtain data from pre-test and post-test, the analyzing process would compare pre-test and post test. It will show that wheter the STAD method increase the students ability or not.

After comparing the data between pre-test and post test then the writer will give questionnaires to the students about their opinions on the STAD method that being used.

The questionnaires would be analyzed by using the following

formula as stated by Anas (2002):

$P = \textbf{F N} \text{ x } 100\%$

Where:

P : percentage

F : frequency

N : the number of sample

3.4.3  Teaching equipment of using STAD method in teaching recount text.

The equipment that being used to implement the STAD method to te students. the analyzing process will be determined how effective the equipment that being used in learning proedures thus increase the improvements of students.