CHAPTER III
METHODOLOGY OF RESEARCH

A. Location and Time of Research

The writer takes this research in MA Jam'iyatul Quro. The time of the research is around 1 month start on 20 March until 20 April 2017.

The place of research that the writer chosen for this research is MA Jam'iyatul Quro Mekar Baru Kronjo. Its location at Jl. KH. Umar Kp. Cirako Ds. Cijeruk Kec. Mekar Baru Kronjo 15550 Kab. Tangerang E-mail:jmq@yahoo.co.id Hp. 081219531536. And in this study, the writer took at grade X IPS A and B with the following considerations:

a. There is the problem of the students, so the writer wanted to examine the scientific and directly in the field.

b. The study of this case, anyone has never been doing the study related with this case while researcher writing.

B. The Method of Research

The method can be used by the writer is the quantitative research and the kind is experimental research. Experiment is observed under artificial conditions, where the conditions are created and regulated by the researcher. Thus, experimental research is research conducted by rely manipulation of the object of study with using control.[1] Experimental method is the method most preferred and most productive in the study.[2] In an experimental research there is a treatment. Thus the experimental research method can be interpreted as research methods used to find a specific treatment effect against the other in uncontrolled conditions.

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[1] Moh. Nazir, *Metode Penelitian*, 9th Edition 2014, (Bogor, Ghalia Indonesia), p.51
[2] Emzir, *Metode Penelitian Pendidikan*, 2013 (Jakarta, Rajawali Pers), p.64

In this research, there are two groups' namely experimental class and the control class. An experimental class of treatment in the form of a using flipchart media, while the control class is the class that using method conventional. At the end of X grade learning outcomes will be measured learning by using a measuring instrument in the form of tests. It is intended to see the learning outcomes in both classes. Based on the type of issues discussed in this study, the researchers used a type quasy experiment because, in this study a control group that used not really be used as a control.

The writer applied an experimental and control class designed by Arikunto for conducting the result, as followed:

Control group, pre-test, post-test design

E	O_1 $_x$ O_2
K	O_3 O_4

Where:

E : Experiment Class

K : Control Class

$O_{1 \& } O_3$: Pre-Test

X : Treatment

$O_{2 \& } O_4$: Post-Test

C. Population and Sample

1. Population

Population is the generalization region consisting of: objects / subjects that have certain qualities and characteristics defined by the researchers to

learn and then give a conclusion. [3] Population is totally percentage that have been collected through quality or quantity from certain characteristic.[4]The population of this study is the whole of grade X IPS with total 80 students.

2. Sample

The sample is part of the number and characteristics possessed by population.[5] For techique sampling, writer uses purposive sampling because there is the purpose of the research that need two classes for control class and treatment class.

The writer takes two classes as sample are class X IPS A as a class experiment with a number of 20 students and class X IPS B as the control class with the number of 20 students. Then, it can be seen that this sample amounted to 40 students.

D. The Technique of Data Collection

The technique of data collection is a tool used to measure the natural and social phenomena are observed. The technique of Data collection use by the writer in this study include:

1. Observation

Observation is another instrument that is often found in educational research. Data collection techniques with observation used if, the research about regard to human behavior, work processes, the phenomena of nature and if the respondent observed is not too large.[6]

In this study writer uses direct observation of the study site in class X, situation of students, and the infrastructure study in MA Jam'iyatul Quro Mekar Baru Kronjo.

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[3] Sugiyono, *Metode Penelitian,* 2016 (Bandung, Alfabeta), p.80
[4] Abdul Halim Hanafi, *Metodologi Penelitian Bahasa*, 2011 (Jakarta, Diadit Media), p.99
[5] Hanafi, *Metodologi Penelitian Bahasa*, p.81
[6] Hanafi, *Metodologi Penelitian Bahasa,* p.145

2. T-test

T-test is a method of measuring person's ability or knowledge in a given domain. The writer conducts a test to collect and to know how far students' ability. In collecting the data, the research do pre-test and post-test.

1. Pre-test

Pre-test consist of 20 multiple choices. For multiple choice, the correct answer is given score 1 (one) and incorrect answer is given score 0 (zero).

Before giving treatment, the writer gives the pre-test to the both classes as sample to know the students' ability in reading comprehension. In this test, there are five type of text and each of them consists of four questions related to the reading comprehension aspects which have indicator such as: determining general overview of the text, determining specific details of the text, determining stated details of the text, determining implied information of the text, determining the meaning of words, phrase, sentence and reference.

a) Question number 1, 5, 9 and 13 related to determining general overview of the text.

b) Question number 2 and 3 related to determining specific details of the text.

c) Question number 4, 10, 12, 17, 18, 19 and 20 related to determining stated details of the text.

d) Question number 6 and 14 related to determining implied information of the text.

e) Question number 7, 11, 15 and 16 related to determining the meaning of words, phrase and sentence.

f) Question number 8 related to determining reference.

2. Post-test

Post-test consist of 20 multiple choices. For multiple choice, the correct answer is given score 1 (one) and incorrect answer is given score 0 (zero).

The test administered after the students are given treatment either by using flipchart media to find out the result of the different treatment used. Similar with the pre-test, in the post-test there are five type of text and each of them consists of four questions related to the reading comprehension aspects.

a) Question number 5, 6, 10, 13 and 17 related to determining general overview of the text.

b) Question number 1, 3, 4, 9, 14 and 18 related to determining specific details of the text.

c) Question number 2, 12, 15 and 16 related to determining stated details of the text.

d) Question number 19 related to determining implied information of the text.

e) Question number 7, 8, 11, 15 and 20 related to determining the meaning of words, phrase and sentence.

3. Scoring system

$$\frac{\text{Correct answer} \times 100}{\text{N (the total of question)}}$$

3. Data Analysis

Data analyzed in this study are data from pre-test and post-test. The result of pre-test and post-test will be analyzed and calculated by using statistical calculation of t-test formula with the level significance 5% and 1% to find out the differences of students' score between both classes. The formula of t-test stated by Suharsimi Arikunto is as follow:

1) Determine mean of score experiment class (MX), with formula:

$$MX = \frac{\Sigma x}{N}$$

2) Determine mean of score control class (MY), with formula:

$$MY = \frac{\Sigma Y}{N}$$

3) Determine the total square of error of experiment class (X) with formula:

$$\Sigma x^2 = \Sigma x^2 - \frac{(\Sigma x)^2}{N}$$

4) Determine the total square of error of control class (Y), with formula:

$$\Sigma y^2 = \Sigma y^2 - \frac{(\Sigma y)^2}{N}$$

5) Calculation T-Test

$$t = \frac{Mx - My}{\sqrt{\left(\frac{\Sigma X^2 + \Sigma Y^2}{Nx + Ny - 2}\right)\left(\frac{1}{Nx} + \frac{1}{Ny}\right)}}$$

6) Determine the degree of freedom, with formula:

Df = Nx + Ny − 2

Notes:

MX	= mean of experiment class
MY	= Mean of control class
ΣX^2	= the total score of error in experiment class
ΣY^2	= The total square of error in contol class
N	= The numbers of subject
Df	= Degree of freedom