

CHAPTER III

METHODOLOGY OF THE RESEARCH

A. The Method of Research

In this research, the writer used experimental research to find out whether there is the effectiveness of Reading Connections on students' reading comprehension or not. According to Nunan that experiment are carried out in order to explore the strength of relationship between variable, a variable as the term itself suggests, is anything which does not remain constant.¹ It means experimental research is a method of research that can used to find out the effectiveness of particular treatment toward other under controlled conditions.

Experimental research is a procedure for testing a hypothesis by setting up a situation in which the strength of the relationship between variable can be tested.² Moreover, the

¹ David Nunan, *Research Methods in Language Learning* (Cambridge: Cambridge University Press, 1992), P.24-25

² Ahyani and Yuyu Heryatun, "The Influence of Jigsaw Technique on Understanding Simple Past Tense", *Loquen English Studies Journal*, Vol. VI, No. 1, (January-June, 2013), P.39

researcher uses quasi experimental design, in which the research given certain treatment to experimental class to find whether or not there are significant of difference of students' reading comprehension by using reading connections.

B. The Setting of The Research

In this research the writer take place in SMAN 3 Pandeglang located in Jl. Perintis Kemerdekaan Labuan Banten. The main reason choose this participants because the writer ever taught them when conducting teacher practicum or (PPLK). So the writer are very familiar with their personalities and language competencies especially in English.

C. Population and Sample

Population is all cases, situations, or individuals who share one or more characteristics who share one or more characteristics.³ the writer take respondents from students of tenth grade of SMAN 3 Pandeglang of 2018/2019 as a population which consists of 245 students.

³ David Nunan, *Research Method in Language Learning*, P.231

Sample is a subject of individuals or cases from within a population. ⁴ the writer will be taken the samples is 73 students. The samples from X MIA 1 as experiment class that consist of 35 students and X MIA 2 as a control class that consist of 35 students.

D. The Research Instrument

Research instrument is facilitating that use by the researcher for collecting data. The researcher uses test questions items. This test is designed for students' pre-test and post-test activities. Pre-test was given before the treatment applied and the post-test was given after treatment applied. So the researcher know whether there are differences before and after treatment or not.

E. The Technique of Data Collection

The writer uses several techniques of collecting data in this research, the writer does:

⁴ David Nunan, *Research Method in Language Learning*, P.232

a. Test

The test is tool to measure students' skill in education. In collecting the data, the research instruments used by the researcher:

1. Pre-test

A pre-test is conducted in the beginning of the lesson before the treatments are given. The purpose of the pre-test is to know how the students' ability reading comprehension. In this pre-test the researcher use the test from the internet adapted from <http://englishadmin.com/2018/12/50-contoh-soal-recount-text-biography.html>

2. Post-test

A post-test is the test that the teacher gives after the treatments. The purpose of the post-test is to know how the students' reading comprehension after treatment using reading connections. The post-test also from the internet adapted from <http://englishadmin.com/2018/12/50-contoh-soal-recount-text-biography.html>

F. Technique of Data Analyzing

In this research, the writer uses formula to find out how the students can improve their reading comprehension. To analyze data, the writer uses statistical approach quantitative data.

- a. Determining mean of variabe X (variable I) with formula :

$$M_1 = \frac{\sum X}{N_1}$$

- b. Determining mean of variable Y (variable II) with formula:

$$M_2 = \frac{\sum Y}{N_2}$$

- c. Determining deviation standard of variable I with formula:

$$SD_X = \sqrt{\frac{\sum x^2}{N_1}}$$

- d. Determining deviation standard of variable of II with formula:

$$SD_y = \sqrt{\frac{\sum x^2}{N_2}}$$

- e. Determining standard error of mean variable I with formula:

$$SE_{M_x} = \frac{SD_1}{\sqrt{N_1 - 1}}$$

- f. Determining standard error of mean variable II with formula:

$$SE_{M_y} = \frac{SD_2}{\sqrt{N_2 - 1}}$$

- g. Determining standard error of mean difference variable I and variable II with formula:

$$SE_{M_1 - M_2} = \sqrt{SE_{M_1}^2 + SE_{M_2}^2}$$

- h. Analyzing the result by using calculation of the t-test as follow:

$$t_o = \frac{M_1 - M_2}{SE_{M_1 - M_2}}$$

- i. Determining degrees of freedom (df) with formula:

$$df = (N_1 + N_2) - 2$$

Note :

t_o = t-test

M_x = Mean of The Experimental Class (X)

M_y = Mean of The Control Class (Y)

$SE_{M_1-M_2}$ = Standard Error of Variable X and Y

df = Degree of Freedom