CHAPTER III

METHODODOLGY OF THE RESEARCH

A. Place and Time of Research

This research will be conducted at MA Daarul-UlumPanyaungan. It is located at Jl. Raya Bayah-Malingping Kp. Panyaungan, Kec. Cihara, Kab. Lebak-Banten. The writer will conduct this research on March 2017 until this research is finished.

B. The Method of Research

Method is a way to conduct something in order to get the purpose or the goal as expected. The method of this research is experimental research. Experimental research is a research method that test the hypothesis which has the form of cause and effect relations between variables. Experiments are carried out in order to explore the strength of relationship between variables[1]. It means the experimental research conducted to know the cause and effect relationship between independent variable and dependent variable.

According to Mujis that "Experimental research is a test under controlled conditions that is made to demonstrate a known

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

truth or examine the validity of a hypothesis."[2]Nunan stated that "Experiment is a procedure for testing thehypothesis by setting up a situation in which the strength of the relationship between variable can be tested."[3] It means that experimental is a research method that test the hypothesis.

The writer will conduct the research by applying quasi experiment. It is compare the results of two groups between experimental class and control class. In this research the writer gives pre-test and post-test experimental. The pre-test is conducted in order to diagnose students' current ability in introducing someone else before the treatment applied. Meanwhile, post-test is used to measure the effectiveness of study after applying the treatment.

In applying this research, the writer teaches about lexical knowledge of collocation on students' reading comprehension as experimental class, and writer do not teaches lexical knowledge of collocation towards students' reading comprehension as control Class.

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[2]Daniel Muijs, *Doing Quantitative Research in Education* (Britain: Athenaeum Press Ltd), 13.

[3]David Nunan, *Research Method In Language Learning*, 230.

C. Population and Sample

1. Population

According to David Nunan, "Population is all case situation, or individuals who share one or more characteristics".[4]Its mean population is a research subject. The population of this research is the whole students of the second grade of MA Darul-UlumPanyaungan-Lebak that consists of two classes and each class generally consists of 30 students. So, the total numbers of populations are about 60 students.

2. Sample

Sample is important because in almost cases, it is not practical to study all the members of population. Nunan state that "Sample is subset of individuals or cases from within population"[5]. Based on that statement, the writer uses two classes which have 60 students. The first is as Experimental Class and second is as Control Class. The writer choose class XI A which consists of 30 students as experimental class and class XIB which consist of 30 studentsas control class.

[4]David Nunan, *Research Method In Language Learning*, 231.
[5]David Nunan, *Research Method In Language Learning*, 232.

D. The Research Instrument

Research instrument is a facility that used by researcher in collecting data. Researcher used it to know students' reading comprehension. In this research, the writer will take two items of test, those are multiple-choice and essay. It aims are to measure person's comprehension or knowledge are given.

To get data of students' reading comprehension, the researcher gives pre-test before treatment and post-test after treatment. Pre-test is question to evaluate the subject that using theconventional method in teaching to both of classes. Post-test is question to evaluate the subject that applying lexical collocation towards students' reading comprehension in experiment class and conventional method in control class.

E. The Technique Data Collecting

In this research, the writer used two kinds of instruments in gathering data. Those are test and observation.

1. Interview

The writer does the interview directly to the principle english teacher to get the complete data about the students' achievement in learning English.

2. Test

Tests are the series of questions or exercises and other tools which are used to measure skills, knowledge of intelligence, ability or talent which is owned by individual or groups.[6]In this research, the writer used two tests. It consists of pre-test and post-test.

There are two kinds of test based on response. They are subjective and objective test.

a. Subjective Test

Subjective test is a test which the learners' ability performances are judged by examiners' opinion and judgment. The example of subjective test is using essay or short answer.

b. Objective Test

Objective test is a test in which learners' ability or performances are measured using specific set of answer, means there are two possible answer, right and wrong. In other word, the score is according to right answer. Type of objective test includes multiple choice test, true or false test, matching and problem based question.

In this research the writer only takes the objective test as an instrument. According to Sugiyono, "questions of instrument is not long, until respondent feel bored to fill up it. The total of the

[6]Subana, MoersetyoRahadi&Suderajat, *StatistikPendidikan*(Bandung: CV PustakaSetia, 2000), 28

questions is suggested among 20 until 30 questions."[7] The writer takes the forms of lexical collocation pre-test and post-test are divided into two sub materials in 20 questions. It was multiple choice and complete the sentence to measure the students' ability before and after learning. The questions consist of main idea, general information/ overview, comprehending, grammar and vocabulary.

3. Technique of Analyzing Data

After collecting the data, the writer qualifies it based on its kind. To analyze data, the writer uses two approaches. Those are logical approach for qualitative data and statistical approach for quantitative data. To compare the result of research between experimental class and control class, the writer uses step as follow:

1. Determine interval class
2. Make frequency of distribution of each variable.
3. Determine mean, median, and modus by formula:

$$\text{Mean} = \frac{\sum fx}{N}$$

4. Determine deviation standard

$$\text{SD} = \sqrt[1]{\frac{\sum fx^2}{N} - \left(\frac{\sum fx}{N}\right)^2}$$

[7]Sugiyono, *MetodePenelitianPendidikanPendekatanKuantitatif, R&D,* (Bandung, penerbitalfabeta Bandung, 2010), 144

5. Determine error standard

   $SE_{x2} = \frac{SD_{x2}}{\sqrt{N-1}}$
6. Make the polygon graphic
7. Determine average score

   $M = M_2 - M_1$
8. Determine how big the percentage of the score

   $\% = \frac{M}{M_2 - M_1} x\, 100\%$
9. Determine difference of error standard

   $SE_{Mx} - SE_{My} = \sqrt{SE_x^2 + SE_y^e}$
10. The last is determine t_o (t observation)[8]

    $to = \frac{Mx - My}{SE_{Mx} - SE_{My}}$

    Note:

    Mx : Mean of variable x

    My : Mean of variable y

    SE : Standard Error

    SD : Standard Deviation

    M : The average score

    N : The number of respondent

[8] Anas Sudijono, *Pengantar Statistik Pendidikan*, (Jakarta: PT. Raja Grafindo Persada, Ed. 1., 2008), p. 346-348