

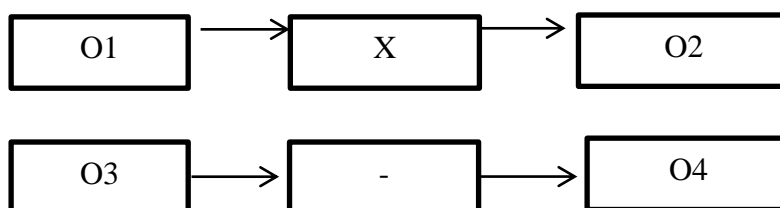
CHAPTER III

METHODOLOGY OF RESEARCH

A. Research Method

The researcher used quasi-experimental research to conduct the study. A quasi-experiment is a design, which is widely used in educational setting, in which there is no random assignment of subjects because randomly assigning subjects or students to the groups would disrupt classroom learning.¹ In the control class, the researcher employed conventional teaching in which the class was taught in the same way as it is usually taught.

The design of this study is as the following figures² :



¹John W. Creswell, *Educational Research: Planning, Conducting, and Evaluating Quantitative and Qualitative Research 3rd Edition*, (Boston: Pearson Education, Inc., 2008), p.313.

² Sugiyono, *Metode Penelitian Kuantitatif, Kualitatif, dan R&D*, (Bandung: Alfabeta, 2017), p.79

Figure 3.1: The process of experimental class and controlled class.

Notes :

O1 : Pre-test in experimental class

X : Treatment

O2 : Post-test in experimental class

O3 : Pre-test in control class

O4 : Post-test in control class

- : Without treatment of using correlation method

B. The place and the time of study

This study was conducted at MA Miftahul Huda Tigaraksa, Tangeang Regency, Banten Province. Because the researcher had ever taught for teaching service program since the researcher was alumnus from MA Miftahul Huda Tigaraksa. The researcher received permission from the English teacher and Principal of Ponpes MA Miftahul Huda Tigaraksa to conduct research related to quasi experiment method.

The time that researcher spent for this research in order to develop scientific papers was begun from preliminary

observation, it was from August 2019 to September 2019, and then proceed with the next stage of writing the proposal, the proposal seminar, then arrange chapter I, chapter II, chapter III, chapter IV and V

C. Population and sample

In this research, the population was taken from all students at the second grade of MA Miftahul Huda Tigaraksa, in academic year 2018/2019 that consisted 60 students. The sample consisted of two classes; Class X mipa consisted of 30 students as experimental class and class X mipa 2 consisted of 30 students as a controlled class.

D. The Technique of Data Collecting

For collecting the data, the researcher used classroom test (pre-test and post-test). In this research, the population was taken from all students at the Tenth Grade of MA Miftahul Huda, in academic year 2019/2020 that consisted 60 students. the sample consisted of two classes; class x mipa consisted of 30 students as experimental class and class x ips consisted of 30 students as a controlled class.

1. Observation

The researcher conducted observation directly to the place where the research will going on. The reason was to analyze students' condition in the class and also to know their problems and difficulties in learning English. The purpose of this observation was to get information about students capability in English subject especially in vocabulary mastery.

2. Pre-test

After getting data from classroom observation, the researcher conducted the pre-test both experimental and control classes. This step was conducted to know the students' vocabulary before conducting the research and as measurement between two classes. The writer gave students equal text related to subject matter based on the syllabus and lesson plan for the student of first grade. The researcher instructed them to do an exercises on paper given which was related to improving student's vocabulary.

3. Treatment

During treatment process was used lesson plan. The purpose was to make systematical learning process. This lesson plan was attached. Based on the lesson plan the control class only received the traditional teaching reading while the experimental class received treatment of Watching English movie for improving vocabulary mastery.

4. Post-test

Both experimental and control classes faced the post-test. The aim of conducting the posttest was to know the students' vocabulary mastery between experimental and control classes with different treatment. The test instruction was same as the pretest but has different content. After scoring the test both two classes were analyzed and calculated.

In other word, The researcher gave instrument to 20 students to measure their pre-test and post-test. The students' vocabulary mastery from pre-test and post-test were scored or assessed by their scores in multiple choice. The multiple choices will be 20 items. The score in each item is 5 for correct answer.

E. The technique of data analyzing

The technique of analysis data in this research uses t-test. According to Gay and Peter Airasian, t-test is one of the statistics tests used to determine whether two means are significantly different at a selected probability level.³ Because the quasi experiment use pre-test and post-test then the researcher uses this test to measure the final test between experiment class and control class.

The steps for statistic analyze that are :

³ L.R. Gay, Peter Airasian. *Educational Research, sixth edition*, (London: Prentice- Hall), 512

1. Determining mean of variable X1 with formula :

$$M_1 = \frac{\sum x_1}{N_1}$$

2. Determining mean of variable x2 with formula :

$$M_2 = \frac{\sum x_2}{N_2}$$

3. Determining derivation score variable x1 with formula :

$$x_1 = X_1 - M_1$$

4. Determining derivation score variable x2 with formula :

$$x_2 = X_2 - M_2$$

5. The researcher analyzed pre-test and post-test by using t-test formula with significance degree 5% and 1%. The formula is as follow :

$$t = \frac{M_1 - M_2}{\sqrt{\left(\frac{\sum x_1^2 + \sum x_2^2}{N_1 + N_2 - 2}\right) \left(\frac{N_1 + N_2}{N_1 \cdot N_2}\right)}}$$

Notes :

M_1	= Mean score of the experiment class
M_2	= Mean score of the control class
$\sum x_1^2$	= Sum of square deviation score in experiment class
$\sum x_2^2$	= Sum of square deviation score in control class
N_1	= Number of students of experiment class
N_2	= Number of students of control class
2	= Constant number
df	= Degree of Freedom (df = $N_1 + N_2 - 2$)