BAB III

RESEARCH METHODOLOGY

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 figures[2] :

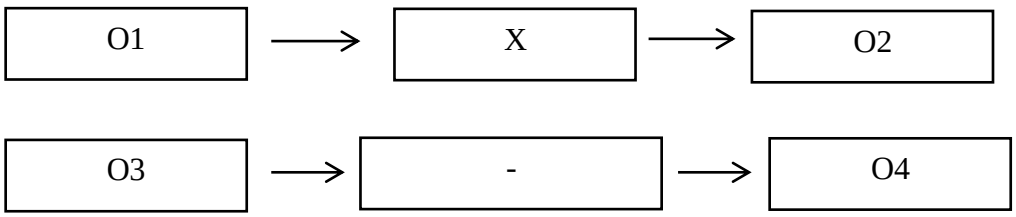

Figure 3.1: The process of experimental class and controlled class

Notes :

O1 : Pre-test in experimental class

X : Treatment using suggestopedia method

O2 : Post-test in experimental class

O3 : Pre-test in control class

O4 : Post-test in control class

[1]John W. Creswell, *Educational Research: Planning, Conducting, and EvaluatingQuantitative 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

- : Without treatment of using suggestopedia method

B. The place and the time of study

This study was conducted at Ponpes MA Kulni in Cikande. Because the researcher had ever taught for teaching service program since the researcher was alumnus from Ponpes MA Kulni in Cikande. The researcher received permission from the English teacher and Principal of Ponpes MA Kulni in Cikande to conduct research related to Suggestopedia method.

The time that researcher spent for this research in order to develop scientific papers was begun from preliminary observation, it was from February 2019 to May 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.

Table 3.1.

Research Timeline

No.	Activities	Time
1.	Preliminary observation, proposal of study and arrange paper	1st – 20th April 2019
2.	Collecting data	23rd – 30th April 2019
3.	Analyzing data	1st – 2nd May 2019

C. Population and sample

In this research, the population was taken from all students at the second grade of MA Ponpes Kulni Cikande, in academic year 2018/2019 that consisted 60 students. The sample consisted of two classes; Class XI B consisted of 30 students as experimental class and Class XI A consisted of 30 students as a controlled class.

D. The technique of data collecting

For collecting the data, the researcher used classroom observation, test (pre-test and post-test) and interviews.

a. 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 reading comprehension.

b. 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' reading comprehension 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 students' reading comprehension.

c. 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 suggestopedia method in improving students' reading comprehension.

d. Post-test

Both experimental and control classes faced the posttest. The aim of conducting the posttest was to know the students' reading comprehension 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 25 students to measure their pre-test and post-test. The students' reading comprehension from pre-test and post-test were scored or assessed by their scores in multiple choice. The multiple choices will be 25 items. The score in each item is 4 for correct answer.

e. Interviews

This technique was used to gather detailed information from the students and the teacher about the implementation of suggestopedia in classroom. The researcher used informal interview to obtain data and information from representatives of XI class students of MA Ponpes Kulni and English subject teachers regarding the advantages and obstacles of English reading learning through Suggestopedia method.

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-

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

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 :

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. Next, the researcher used normality test to know whether the data have a normal distribution or not. The normality test used Kolmogorov-Smirnov**.** It is used to decide if a sample comes from a population with a completely specified continuous distribution.[4] It is used to decide if a sample comes from a population with a specific distribution. It tries to determine if two datasets differ significantly. The Kolmogorov-Smirnov formula is as follows:

No.	X_i	$Z = \frac{Xi - X}{SD}$	F_T	F_S	$\lvert F_T - F_S \rvert$
1.					
2.					

[4] Zvi Drezner *et al*, *A Modified Kolmogorov-Smirnov Test for Normality,* (California: California State University Press, 2008), 2

Etc.					

Notes :

X_i = numbers on data

Z = transformation from number to notation in normal distribution

F_T = normal cumulative probability

F_S = empirical cumulative probability.

6. After the data was distributed normally, the researcher analyzed pre-test and post-test by using t-test formula with significance degree 5% and 1%. The formula is as follow :

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

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 = $N_1 + N_2 - 2$)

F. Research Procedures

In general, the procedure of this research can be described as follows:

1. Observation the English teaching activity.
2. Provide pre-test of the experimental class and control class.
3. Provide treatment to the experimental class using suggestopedia method and control class without time token technique as follow :
   - **a. Experimental Class**
     1) Preparation
        a) Preparing the lesson plan
        b) Preparing the material
        c) Preparing Suggestopedia for students' reading comprehension
     2) Implementation
        a) Teacher explain the material
        b) Teacher gives the example
        c) Teacher guides students in individual or group discussion about reading text
        d) Teacher guides students to conclude about reading text
   - **b. Controlled Class**
     1) Preparation
        a) Preparing the lesson plan
        b) Preparing the material
     2) Implementation
        a) Teacher explain the material
        b) Teacher gives the example
        c) Teacher guides students to conclude about reading text
4. Provide post-test of the experimental class and control class.

5. Analyzing the data from pre-test and post-test
6. Drawing the interpretation based on the result of test and making conclusion.