

CHAPTER III

RESEARCH METHOD

A. Research Design

In this research, the researcher uses quantitative method is basically experimental research, because the data in the form number and analyzed statistically of study included in the quantitative research.

Fraenkel and Wallen (2006, p. 267) stated that “experimental research is the most powerful research methodologies that researcher can use. The many types of research that might be used, experimental is the best way to establish cause-and-effect relationships among variables”. Experimental research is the research which is the researcher decides the nature of treatment; (that is, what is going to happen to the subject of the study), to whom it is to be applied, and to what extent.

The researcher carries out with two classes are control class and experiment class with pre test and post test as research tools. The pre-test and post-test to be same for experiment and control class. And the goal is to solve the actual problem that faced recently and collecting data to design, explain, and analyze the effectiveness of the effectiveness of pairs check technique in teaching reading comprehension at the eighth grade students of MTs Ni'matul Aziz Jelapat 1 Barito Kuala Regency.

B. Research setting

The location of the research is at MTs Ni'matul Aziz Jelapat 1. The researcher chooses this place because the students have assumption that English is difficult and not interesting. The researcher found that many students have problem in reading especially in comprehending reading text or passage. In other words, we can say they often find that it is difficult to understand the reading texts or passages. This research is done on August until September 2017.

C. Subject and Object of the Research

The researcher takes place the eighth grade students of MTs Ni'matul Aziz as her subject of the research.

1. Subject of The Research

The subjects of the research are students class VIII of MTs Ni'matul Aziz Jelapat 1 in the academic year 2017/2018. It is presented in the following table.

Table 3.1. the subject of the research

No	Classes		Total
	Experiment class	Controll class	
1	VIII A		30
2		VIII B	30
Total students			60

In this research, the researcher chooses the subject of the research based on the result of pre-test that was done to students class VIII. After the researcher knows the result of pre-test and hopefully that the result of the students ability of the test almost same. Then, it will be decided which one of the two classess will be as the experimental class and one class will be as the control class.

As stated before, the researcher chooses the eighth grade students of MTs Ni'matul Aziz as her population of her research. It is based on the following consideration:

- a. The eighth grade students of MTs Ni'matul Aziz have gotten English learning and teaching process since the seventh grade. So, they are able to read the text clearly.
- b. Generally, the eighth grade students of MTs Ni'matul Aziz will do the national examination. The Writer aims to achieve their ability in reading comprehension. One of the reasons the students need the pass the national examination due approximately 50% of the questions are reading comprehension question and it is considered as an essential skill to learn a foreign language successfully.

2. Object of the Research

The object of this research is the students' ability in teaching reading comprehension by using pairs – check technique in experiment class and the

students' ability in teaching reading comprehension without giving pairs – check technique in control class.

D. Research Instruments

The researcher gave pre-test and post-test. Based on Arikunto's theory, the researcher uses the test as follows:

Pre-test : The test given before the treatment

Post-test : The test given after the treatment

The instrument for this research is an objective test, and the researcher used one of kind objective test, that is multiple choices. In the research the test consists of 25 items and each question has scores 4 points. So after counting up all, will be gotten the highest score is 100 points and the lowest score is 0. The students' scores are interpreted as their mastery in reading.

The researcher distributed the post-test to the sample to find out their progress during the research. So the researcher applied the achievement test. A pre-test which was given to the students before the researcher taught the students. A post-test which was given to the students after the researcher taught the students.

a) Pre-test

In pre-test, all of students class VIII at MTs Ni'matul Aziz Jelapat 1 answer 25 questions. It means the researcher wants to know their ability and knowledge about material before giving treatment.

b) Post-test

In post-test, all of students class VIII at MTs Ni'matul Aziz Jelapat 1 answered the same level questions with pre-test. It means the researcher wants to know the students' ability after giving treatment.

The researcher uses instrument of students' ability suggested by guideline from *Dinas Pendidikan Provinsi Kalimantan Selatan* (2004, p. 27) in classifying the score, as follow:

Table3.2. Interpretation of Students' Ability.

No	Score	Category
1	95 – 100	Excellent
2	80 - < 95	Very good
3	65 - < 80	Good
4	55 - < 65	Fair
5	40 - < 55	Low
6	0 - < 40	Very low

(Source: *Dinas Pendidikan Provinsi Kalsel, 2004*)

To know the students learning English reading comprehension by Pairs - check technique, the researcher uses score of mean gotten by formula bellow:

$$M = \frac{\Sigma X}{N}$$

M = Mean Score

ΣX = Accumulative Score

N = Number of Respondents

E. Techniques of Data Collecting

1. The procedure and technique of collection data

To collect data in this research, the researcher uses some techniques which consist of:

a. Observation

In the research, the researcher visits the classes that would be researched and search about the application of pairs check technique.

b. Test (Pre-test and post-test)

Margono said that “that test is a tool is given for someone to get answer as fundamental given score” (2007, p.170). In the research, data analyze by using t-test, if the test percentage of t test more high than the test percentage of t table is effective. It means that H_0 (zero hypotheses) is rejected and H_a (alternative hypotheses) is accepted. Furthermore, if test percentage of t table more high than test percentage of t test is not effective. It means that H_0 (zero hypotheses) is accepted and H_a (alternative hypothesis) is rejected. Moreover, if the test percentage of t test same with the test percentage of t table is not effective too. It means that H_0 (zero hypotheses) is accepted and H_a (alternative hypotheses) is rejected too.

1) Pre-test

Before the start of teaching and learning reading comprehension for the students do pre-test. The researcher wants to know their mastery in reading from the result of pre test. In the pre test, the students completion 25 items of multiple choices.

2) Post-test

After the teacher teaching and learning reading comprehension for the students do post-test. The researcher wants to know their mastery in reading comprehension from the result of post-test. In the pos-test, the students completion 25 items of multiple choices.

c. Documentary

This technique is aimed at looking for all written reports or documents that keep some detailed data.

F. Techniques of Data Processing

In processing the data, the researcher uses some techniques such as:

a) Editing

This technique is used to check back all of the collected data to make sure the writer that they are already complete or not.

b) Coding

The writer classified all the data that have been edited before, in accordance with their kinds and by making certain codes on all collected data.

c) Tabulating

The writer tabulates all the collected data based on requery to compute each certain by using the formula as follows:

$$P = \frac{F}{N} \times 100\%$$

Note

P: percentage

F: the frequency of answer from respondents for each item questions

N: total number of respondents.

G. Design of Measurement

Design of measurement is intended to know effectiveness of using pairs-check technique for teaching reading comprehension of the eighth grade students at MTs Ni'matul Aziz Jelapat 1 Tamban. Researcher used a writing test before and after the research, and also how to assess using a rubric that has been there, based on one type with multiple choice. For completion 25 items, each questions has score 4 points.

So, if all the students can answer all questions correctly the students will be gotten the highest score is 100 points and the lowest score is 0. The students' scores are interpreted as their mastery in reading comprehension.

H. Data analysis

Before all of the collected data have been reported. The researcher analyzes them descriptively and quantitatively. Then, the researcher make the conclusion by using “t” or t-test formula of Anas Sudijono (Anas Sudijono, 1995:297-299) because between the students of control class and experiment class at MTs Ni’matul Aziz Jelapat 1 Tamban do not have sample because which less than 50 so, the researcher uses test “t” for two small sample. The application way to use students “t” or t-test or (t) code formula:

1. Looking for Mean Variable I as follows the formula:

$$M_x \text{ or } M_1 = \frac{\Sigma x}{N_1}$$

M_1 : mean of the control class of MTs Ni’matul Aziz Jelapat 1.

Σx : Accumulative of the total score of the control class of MTs Ni’matul Aziz Jelapat 1.

N_1 : Number of subject of the experiment class of MTs Ni’matul Aziz Jelapat 1.

2. Looking for mean Variable II as follows the formula:

$$M_2 \text{ or } M_2 = \frac{\Sigma y}{N_2}$$

M_2 : Mean of the Experiment class of MTs Ni’matul Aziz Jelapat

Σy : accumulative of the total score of the experiment class of MTs Ni’matul Aziz Jelapat 1.

N_2 : number of subject of the experiment class of MTs Ni’matul Aziz Jelapat 1.

3. Looking for standard Deviation for variable I as follows the formula:

$$SD_x \text{ or } SD_1 = \sqrt{\frac{\Sigma x^2}{(N-1)}}$$

SD_1 : Standard Derivation of the Control class of MTs Ni'matul Aziz Jelapat 1.

Σx^2 : Accumulative of the quadrat of deviation of the Control class of MTs Ni'matul Aziz Jelapat 1.

4. Looking for Standard Deviation for Variable II as follows the formula:

$$SD_x \text{ or } SD_2 = \sqrt{\frac{\Sigma y^2}{(N-1)}}$$

SD_2 : standard Deviation of the experiment class of MTs Ni'matul Aziz Jelapat 1.

Σy^2 : Accumulative of the quadrat of deviation of the Experiment class of MTs Ni'matul Aziz Jelapat 1.

5. Looking for Standard Error of Mean variable I as follows the formula:

$$SE M_1 = \frac{SD_1}{\sqrt{N_1-1}}$$

$SE M_1$: Standard Error of the control Class of MTs Ni'matul Aziz Jelapat 1.

I : Value of constant

6. Looking for Standard Error of Mean variable II as follows the formula:

$$SE M_2 = \frac{SD_2}{\sqrt{N_2-1}}$$

$SE M_2$: Standard Error of the experiment Class of MTs Ni'matul Aziz Jelapat 1.

I : Value of constant

7. Looking for Standard Error for comparative mean variable I and mean variable II as follows the formula:

$$SE_{M1-M2} = \sqrt{SEM_1^2 + SEM_2^2}$$

SE_{M1-M2} : Standard error for comparative mean of the Control Class and Experiment Class of MTs Ni'matul Aziz Jelapat 1.

SEM_1^2 : quadrant result of standard error of mean of the control class of MTs Ni'matul Aziz Jelapat 1.

SEM_2^2 : quadrant result of standard error of mean of the experiment class of MTs Ni'matul Aziz Jelapat 1.

8. Looking for t, as follows the formula:

$$T \text{ test} = \frac{M_1 - M_2}{SE_{m1-m2}}$$

T : value of t observation

9. Giving interpretation for "t" with consulting ("t" table):

$$Df/db = (N_1 + N_2 - 2)$$

Df/db : degree of Freedom

N1: number of subject of the control class of MTs Ni'matul Aziz Jelapat 1.

N2 : number of subject of the experiment class of MTs Ni'matul Aziz Jelapat 1.

2 : value of Degree of Freedom for variables

Consulting score of "df/db" with "t table"

T table : value of critic "t"

In significant degrees t table 5 %

In significant degrees t table 1 %

Making hypothesis interpretation:

H_0 (Zero hypothesis) : there is no significant difference.

H_a alternative hypotheses) : there is no significant difference.