CHAPTER III
METHODOLOGY OF RESEARCH

A. Place and Times of Research

The subject of this research is the second grade of SMAN 1 Baros. It is Located at Jl. Raya Serang- Pandeglang Km. 14 Baros, Serang-Banten. She uses a different way in teaching reading through Collaborative Strategic Reading (CSR) Strategy. She Chooses this school because she want to knows how well the English Language of the students in that school especially in reading comprehension on report text.

The research in this school on May in Academic year 2016-2017 by the title The Effectiveness of Collaborative Strategic Reading Toward Students' Reading comprehension.

B. Research Method

The researcher determined the quantitave research, it means that the writer collects data from the field, and must go to the place of research. Quantitative research uses objective measurement to gather numeric data that are used to answers questions or test predetermined hyphotheses.[1] Quantitative reserach grouped into experiment and non-experiment. So the writer chooses experiment to take the data. Experimental research involves a study of the effect of the systematic manipulation of one variable(s) on another

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[1] Donald Ary, Lusy Cheser, Chris sorensen, Asghar Razavieh, et al.,*Introduction to Research Education* (Belmont : Wadswoth, 2010), 22.

variable.[2] There are three kinds of experiment research, such as pre-experiment, true experiment and Quasi experiment.

In this research the researcher conducts quasi-experimental method. Quasi experiment has both pre and post test, experimental and control groups, but no random assignment. We can not do random assignments in Quasi Experimental research. There are numerous real-life situation in language learning where random assignment is impossible.[3] The aim of the method is to find the effectiveness of the method. So there are two classes which are equal in their ability. Sample decision is conducted do not have randomly and the result is decided from pre-test and post-test from both control and experimental.

The researcher takes two classes. The students were given pretest to know the effectiveness in understanding of report text Before applying Collaborative Strategic Reading (CSR). Then post-test was given to know the students achievement in understanding of report text after applying Collaborative Strategic Reading (CSR).

C. Population and sample

1. Population

Population is the generalization that consist of the object/subject that has certain qualities and characteristics use determined by the investigator to be studied and possible

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[2] Donald Ary, Lusy Cheser, Chris sorensen, Asghar Razavieh, et al., *Introduction to Research Education* (Belmont : Wadswoth, 2010), 26

[3] Aek Phakiti, *Experimental Research Methods in Language Learning* (London : Bloomsbury, 2014), 72.

conclusions drawn. A populaton is a set or collection of all elements possessing one or more attribute of interest. According to Ary, Lucy, Chris and Asghar A population is defined as all members of any well-defined class of people, events or objects. The larger group about which the generalization is made caled a population.[4]

The population of this research is the second grade students of SMAN 1 Baros in academic year 2016-2017.

2. Sample

In experimental research, the researcher usually collects data on a smaller group is called sample. A sample is a portion of population.[5] In this research the researcher uses clustering sample because the sample chosen is not an individual but, rather, a group of individuals who are naturally together.

The researcher takes two classes as sample from second grade consist of 60 students. One group are called controll class and other group are called experimental class. In each group consists of 30 students are taken from class XI IPA 2 as an experimental class and 30 students are taken from class XI IPA 3 as a control class.

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[4] Donald Ary, Lusy Cheser, Chris sorensen, Asghar Razavieh, et al*., Introduction to Research Education* (Belmont : Wadswoth, 2010), 148.
[5] Ary, *Introduction to Research Education,* 148

D. Technique of Data collecting

In this research the writer uses some technique to collect of data as follows :

1. Observation

   Observation is a method of collecting data through direct observation or review carefully and directly in the field or research sites. Observation is the researcher directly to know the place or location of study in order to get the data about the objective condition in the school. And than, she also get some informations about the background of students in the school directly from their English teacher.

2. Test

   Test is consist of some questions that related to the material, to get the data from the students, also diagnostic test can be used expose learner difficulties, gaps in their knowledge, and skill deficiencies.

   Test was divided into pre-test and post test It used to measure students' achievement before and after they study the variable, which was applied and to know the Effect of Collaborative Strategic Reading (CSR) Toward Students' Reading Comprehension on Report Text.

   a. Pre-test is a test given before learning has occured or is supposed to have occured. Pre-test is a test that given to students before treatment. This test given to know the students's ability before treatment. Pre-test

was carried out for the initial equivalence of the experimental and control class. In this case, the pre-test is followed by 30 questions of multiple choice. The test was given to the two classes both of control and experimental class at different time.

b. Post- test is a test given after learning has occured or is supposed to have occured. Post test is a test that given to students after treatment. This test given to know the student's ability after treatment. In this test the writer would know the result of this research by give 30 questions of Multiple choice of post test.

E. Technique of Data Analyzing

After the data is collected, the researcher uses methodology in analyzing the data.To analyze the data, the researcher uses quantitative technique.First, the researcher get analysis the data for students' reading comprehension both experimental and control class by pre-test and post test. Then to find out how significant the effectiveness of CSR using graphic organizers in teaching reading comprehension. Then the research analyze the data by using t-test.

To find out the effectiveness of Collaborative Strategic Reading (CSR) strategy in teaching reading report text, the researcher uses statistically of t-test to determine the final calculation (t-observation). The t-test is kinds of statistics calculation use to examine the true of the false of null hypothesis.

It is usefull to describe and to find of the influence trough CSR strategy on students' reading comprehension.

After collecting data, the researcher wants to compare result of the research between experimental class and control class students. She takes steps as follow :

1. The result of the post test in experimental class is named variable (X).

2. The result of the post test in control class is named variable (Y).

3. Qualification of data : multiple choices, the pretest and post-test consist of thirty questions.

4. The steps for statistical anlyses are investigates students worksheets gives and describes score in table with formula :

Students' final score = Students' raw score   X 100

Ideal maximum score

Table 3.1 The Levels Group and Students Score[6]

Letter	Value	Description
A	90-100	Extremely good
B	80-89	Good
C	70-79	Fair
D	60-69	Low
E	50-59	Very low

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[6] H. Douglas Brown, *Language Assessment Principle and Classroom Practice* (San Francisco State University : Longman, 2004), 62.

5. Determine mean of variable X with formula $M_1 = \dfrac{\sum X}{N_1}$

6. Detrmine of variable Y with formula $M_2 = \dfrac{\sum Y}{N}$

7. Determination derivation score variable X_1 with formula $X = (X_2 - X_1)$

8. Determination derivation score variable Y_1 with formula $Y = (Y_2 - Y_1)$

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

$$t0 = \frac{\mu 1 - \mu 2}{\sqrt{\left\{\dfrac{\sum x^2 + \sum y^2}{N_x + N_y - 2}\right\}\left\{\dfrac{1}{N_x} + \dfrac{1}{N_y}\right\}}}$$

Note :

M_1 = The average score of experimental class (mean X)

M_2 = The average score of control class (mean Y)

$\sum X^2$ = Sum of the squared deviation score of experimental class

$\sum Y^2$ = Sum of the squared deviation score of control class

N_1 = The number of students of experimental class

N_2 = The number of students of control class

df = Degree of freedom

df = $N_1 + N_2 - 2$