CHAPTER III

RESEARCH METHOD

This chapter will discuss about the methodology of the study that used by the researcher. It includes research design, the variables, subject of the study, and location of the research, instrument, and data collection method and data analysis.

A. Research Design

Based on the problem of the study, the researcher uses quasi experimental. A quasi-experiment is a study that includes a manipulated independent variable but lacks important controls (e.g., random assignment), or a study that lacks a manipulated independent variable but includes important controls. So a quasi-experiment has some features of a well conducted experiment but not others.

Experimental and control attempts to predict events that will occur in the experimental setting by neutralizing the effects of other factors. In this study, the researcher tries to find the differences between the implementation of teaching using SQ3R technique and teaching using conventional method of the school. The researcher uses two groups in conducting this study. They are experimental group and control group. The experimental group is the sample of research that is treated by giving SQ3R technique as the treatment. Control group is the sample of research that does not use the technique in their reading. They read and study as usual in the school.

This experimental design can be shown as following:[9]

TABLE 3.1
EXPERIMENTAL AND CONTROL GROUPS DESIGN

Group	Pre-Test	Treatment	Post-Test
Experimental Group	Yes	Yes	Yes
Control Group	Yes	No	Yes

B. Variable of Research

The independent variable are the condition or characteristic that experimenter manipulate in the experiment. The dependent variables are condition or characteristic that appears, disappears or change as the experimenter introduced, removes or change independent variable. In this research, the independent variable is using constructive approach as the strategy in teaching reading. On the sother hand, the dependent variable is the students' reading skill.Extraneous variable are undesirable variables that influence therelationship between the variables that a researcher is examined. These variablesare undesirable because they add error to aresearch or experiment. Extraneous variable may bear any effect on the behavior of the subject being studied. There are two types of extraneous variable as follows:

1. Situational variables; these are aspects of the environment that might affect the participant's behavior e.g.; noise, temperature, lighting conditions etc.

[9]Sumardi Suryabata, Methodologi Penelitian (Jakarta: PT. Raja Grafindo Persada, 1998), 43

2. Participant/ personal variable; this refers to the ways in which each participant varies from other, how this could affect theresult e.g.; mood, intelligence, anxiety, nerves, concentration etc.

C. Population and Sample

To know about population sample in this research is very important. Making mistake to determine the population will affect the sample. Inthis section, the researcher will explain about the population and sample of the research.

1. Population

Population is the larger group which the generalization is made. Population is aset of all elements which the characteristic will be observed. It is important for the research easier. The researcher chooses the eight grade of MTsN Puncu Kediri in the academic year 2013-2014 as the population. There are eight classes; 8 Exxelent, 8 A, 8 B, 8 C, 8 D, 8 E, 8 F and 8G. the the subject of this study is the students at eight grade of MTs N Puncu Every class almost consists of 34 students. Except, class 8 Exxelent is only consits of 20 students.

2. Sample

Sample is the larger group about the generalization is made. The researcher choose the D and F class. The reason why the researcher chose both class is that their ability is in average level by their teacher. It can be seen from their report result. The both class was chose by the teacher before. So, the researcher used class D as as experimental group that

would be taught by using SQ3R technique then the researcher use class f as control group that would be taught conventional technique.

D. Instrument of Research

Instrument is a tool of research to get the data in order to make the researcher's duty to be easy in analyzing them. In this study, the researcher uses a test as instrument of the resaearch

1. Test

Test is a set of stimuli presented to an individual in order to elicit responses on the basic of which on numerical score can be assigned this score. The test is used to get data about the students' reading skill. There are two kinds of test in this research, they are pre-test that used to measure the students' reading skill before treatment, post test that conducted in order to measure the students' reading skill after the treatment and to know the progression on both experimental and control group.

The forms of pre-test and post-test taken are almost same. All of them are covered in written test where the test is multiple choices. The topic used as test is about *Narrative text*. After giving the tests, the resercher found the final score from tests. Scoring system of reading tests gotten from the scoring correct answer of the questions is from 0 as lower score and maximum score is 100 points. The following were some information about the test item in this research:

a) Format of the Test

The format of the test in this research was multiple-choice

TABLE 3.2
TABLE OF SPESIFICATION

Object of the test	**Specific objective**	**Proportion**	**Test format**
Reading comprehension	To evaluate the students' skill in: 1. Understanding explicitly stated information 2. Understanding implicitly stated information of the text	60% 40%	Multiple Choice

a) Test item

multiple-choice 50 items with five optional option.

2. Try out

The try out was held on . The test items were tried out to students of VIIIE MTsN Puncu Kediri. There were 34 students and all of them took part in the try out. The researcher choose this class because the students of this class has same level as students of VIIID and VIIIF that became the sample in this research. The question of try out were 50 items.

To know the test was good or not, the researcher check it through reliability, validity, item difficulty, and item discrimination. The following were explanation about reliability, validity, item difficulty, and item descrimination.

a. Validity

Validity is degree of correctness of the assessment result in representing the skill being assessed. A test must appropriate with the objectives. Content validity is concerned with what goes into the text, thus the degree of content validity in classroom test relates to how well the test measure the subject matter content studied to know the validity the researcher will use The standart of Competency, only the valid questions will be used.

TABLE 3.3.
THE VALIDITY

No	SK	KD	Valid/Invalid
1-50	Memahami makna teks fungsional pendek dan esai sederhana berbentuk: *narrative.* dalam konteks kehidupan sehari-hari untuk mengakses ilmu pengetahuan	Merespon makna dalam langkah-langkah retorika dalam esai sederhana secara akurat lancar dan berterima dalam konteks kehidupan sehari-hari dan untuk mengakses ilmu pengetahuan dan dalam teks yang berbentuk:, *narrative*	Valid

b. Reliability

Reliability can be defined as the extent to which a test produce consistent result when administrated under similar condition.[10]

It means the stability of test scores. There are some formulas to measure the reliability of the test, to know the reliability the

[10]Evelyn hatch &Hossein Farhady, *Research Design and Statistics for Applied Linguistics*(London: Rowley Massachusetts, 1982), 244.

researcher will uses SPSS, if the cronbach alpha > 0,7 the questions are reliable, and only the reliable questions will be used.

c. The level of difficulty

The level of difficulty or facility value of items simply shows how easy or difficult the particular items proved in the test. The index of difficulty (P) is generally expressing the fraction or the percentage of the students who answer the items correctly. It is calculated by using the following formula:[11]

$$P = \frac{n}{N}$$

P= the facility value (index of difficulty)

n= the number of correct answer

N= the number of the students taking the test

TABLE 3.4.
THE CLASSIFICATION OF DIFFICULTY

Scale	Criteria	Status
0-0,30	Difficult	Deleted
0,31-0,70	Fair	Used
0,71-1	Easy	Deleted

Only the fair question will be used.

d. Discrimination Power

The index of discrimination power of the test item is the difference between the correct and incorrect number of high and low student. To estimate item discrimination power is done by comparing the

[11]M SoenardiDjiwandono, *TesBahasadalamPengajaran* (Bandung: Penerbit ITB, 1996), 140

number of students in upper and lower group answering the item correctly.

The formula used to know the discrimination power is as follow:

$$D = \frac{U - L}{N}$$

D= index of discrimination

U= the number of correct answer for upper class

L= the number of correct answer for lower class

N= the number of the students taking the test

TABLE 3.5.
THE CLASSIFICATION OF DIFFICULTY

Scale	Criteria	Status
0-0,20	Poor	Deleted
0,21-0,40	Fair	Used
0,41-0,70	Good	Used
0,71-1	Excelent	Used

E. The Procedure of Experiment

This study uses the quasi-experimental that uses experimental and control group, pre-test and post-test design. The activities of the of the treatment in this research were:

a. Treatment

Giving treatment for experimental group but not control group it was done for knowing the differences result of the experimental given new method that the researcher would like to apply and control group that was not given new method.

The material for treatment is *Narrative text* and activities which was given to control group and experimental group by researcher.

TABLE 3.6.
THE ACTIVITIES

No	Activities	
	Experimental group	**Control group**
1.	Greeting	Greeting
2.	Teacher explains the definition, purpose, and generic structure of the *Narrative text*. Then, he and all students discuss the example of Narrative on the students' worksheet.	Teacher explains the definition, purpose, and generic structure of the *Narrative text*. Then, he and all students discuss the example of *Narrative text* on the students' worksheet.
3	Teacher explain his strategy. He explains what is *SQ3R*, the step of it, and the purpose of using it.	Teacher give a *Narrative text* to every student in the class.
4.	Teacher give paper to the students that contains *Narrative text* for every students, then find the difficult word and discuss the generic stucture.	Teacher ask the students to read the whole text while translate it.
5	Teacher ask to students to make a question based on the text every students make about question without answer	Teacher and students translate together

6.	After make a question teacher asks to the students to collect the paper and put into can	Teacher writes down the question on the blackboard and asks to students to answer it
7	The teacher ask students to take a paper in the can and answer the question which made by their friends	The teacher asks to students to answer the questions one by one
8	Teacher ask to students who make a question give a comment suggestion or addition about their friends answer	Teacher and students discuss the answer
9.	After that, the teacher asks the students to construct their own question to check their understanding to the text that they have read	
10.	And finally the teacher asks to students to collect all the paper	

The activities of treatment began on 29 August 2013 and finished on 5 September 2013. The treatment was done about 3 times. Pre-test was done before treatment and post-test was done after treatment.

F. The Procedure of Collecting Data

In this case, the researcher explained about procedure in collecting data that is use in this research. The data of this research was collected from the test. The students got pre-test and post-test. But, before giving pre-test and post-test to all students of VII-D and VIII-F the test item were tried out first.

a. Giving pre-test

It was use for knowing students' basic competence in reading for all students and to know their earlier knowledge before they got treatment. The researcher gave pre-test at control and experiment groups, experimental and control group. The researcher had aims to know the students' reading skill. The pre-test was done before the experimental group got treatment from the researcher. The test consists of multiple choice where the material was taken from some sources. They are from *Internet and Latihan soal-soal Bahasa Inggris UKK kelas 8.* **Treatment**

Giving treatment for experimental group but not control group it was done for knowing the differences result of the experimental given new method that the researcher would like to apply and control group that was not given new method.

b. Giving post test

It was used for knowing the students' differences competence on narrative text before and after got treatment. So, the effective or not of new method appeared here. Post test was also given to both experimental and control class. It was done knowing the students' ability after giving treatment using *SQ3R technique* to the experimental class and students who were not taught using *SQ3R technique*. By scoring the result of post- test, the researcher knew whether the method was effective or not for the students' reading skill on narrative text.

G. Data analysis

The reasearcher statically adjusted the post-test scores for the pre test differences by using an analysis of covariance (ANCOVA) as recommended by Ary, et all.[12] The researcher uses ANCOVA (Analysis of Covariance) to analyze the data from pre-test and post-test statistically. With nonrandomized designs, the main purpose of ANCOVA is to adjust the posttest means for differences among groups on the pretest, because such differences are likely to occur with intact groups. It is important to note that when pretest scores are not reliable, the treatment effects can be seriously biased in nonrandomized designs. This is true if measurement error is present on any other covariate in case ANCOVA uses more than one (the pre-test) covariate.

The assumptions such as randomization, linier relationship between pretest and posttest scores, and homogeneity of regression slopes underlie ANCOVA. In an attempt to avoid problems that could be created by a violation of these assumptions some researchers use ANCOVA on gain scores without knowing that the same assumptions are required for the analysis of gain scores.

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[12] Donald Ary, *Introduction to Research in Education* 7-thdition, (California: Thomson worth, 2006), 317