

CHAPTER III

RESEARCH METHOD

This chapter presents research design, variables of the research, population and sample, instrument of the research, the treatment, data collection and data analysis.

A. Research Design

Research design is the arrangement of conditions for collection and analysis of the data in a manner that is aimed to combine relevance to the research purpose. It is really important for the researcher to make sure about what kind of the research design that will be used for doing the research.

This research used quantitative approach. Quantitative is a means for testing objective theories by examining the relationship among variables (Cresswel, 2009). The researcher used experimental research method with quasi-experimental as the research design. This design is used for analyzing the relation among the variables that have been chosen by the researcher. The reason why the researcher uses quasi-experimental design is because of the participants of the research are not randomly assigned.

The researcher intends to apply PQ4R strategy as the treatment for the experimental group. By applying this teaching method to the experimental group after doing pre-test to the both of the groups, the researcher observes through classroom observation and test (pre-test and post-test). The pre-test and post-test are given to take the score of student's achievement in order to know whether it

has significance difference between using PQ4R and scanning strategy in reading narrative text.

Table 3.1
Experimental and Control Group Design

Group	Pre-test	Treatment	Post-test
Experimental	Pre-test	PQ4R	Post-test
Control	Pre-test	Scanning	Post-test

B. Variables Of The Research

Variable is an attribute or characteristic stated in a specific, applied way (Cresswell, 2012). This research that use PQ4R strategy in teaching students' reading comprehension has two variables, those variable are:

1. Independent variable (X)

Cresswell (2012, 117) defines the independent variable is a measure variable indicating math ability scores assessed by results on an ability test. The independent variable of this research is reading strategy.

2. Dependent variable (Y)

A dependent variable is an attribute or characteristic that is dependent on or influenced by the independent variable (Cresswell, 2012). The dependent variable of this research is students' reading comprehension skill on narrative text.

C. Population And Sample

1. Population

According to Cresswel, population is a group of individuals who have the same characteristic (2012: 142). The population of this research is the tenth-grade of MAN 2 Nganjuk. There are about 252 students of the tenth-grade.

2. Sample

A sample is a subgroup of the target population that the researcher plans to study for generalizing about the target population (Cresswel, 2012). The sample is chosen by the researcher based on consideration given by the school. The two classes both experimental and control group is from X MIPA 1 and X IPS 1. Class X MIPA 1 for experimental group, while class X IPS 1 for control group. These classes are indicated that they are same for their capability and their level.

D. Instrument of the Research

Instruments of the research are tools that researcher uses to measure participants. This is used to get primary data and support data. The types of use of research instruments must be adapted to the research problem. In this research, the researcher uses pre-test and post-test as instruments. The researcher uses try out before considering the pre-test and post test.

Before items were given to the students, the researcher gave tryout test for tryout class on 30th January 2020 to analyze validity and reliability of each item. The researcher prepared 50 items as the instrument of the test.

1. Try Out

Try out is used to measure the instrument (test). This stage aims to arrange good item test. It is reasonable for searching the data needed. All questions are in the form of multiple choices. A good test is a test which is not very easy and not very difficult. In this test also there are 50 items.

2. Pre-test

Pre-test is a test which is given before the researcher gives treatment to the students. As stated in Cresswel (2012: 297), a pre-test provides a measure on some attribute or characteristic that the researcher assesses for participants in an experiment before they receive a treatment. This test is given to both experimental and control group in the first meeting. It consists of 25 questions in the form of multiple choices in A, B, C, D, and E, but it should be tried-out first. (*See Appendix 1*)

Table 3.2
Blueprint of the pre-test

Object of the Test	Level	Indicators	Number of Question	Test Format	Item
		1. The students are able to identify specific information of narrative text.	7,8,9,12,13, 14,16,19	Multiple Choice	8
		2. The students are able to identify the generic structure of narrative text.	2,10,20	Multiple Choice	3
		3. The students are able to identify communicative purpose of narrative text.	3,4,6,17,18	Multiple Choice	5
		4. The students are able to identify the moral value of the narrative text.	11,15	Multiple Choice	2
		5. The students are able to identify the main idea of the text	1,5	Multiple Choice	2
Total					20

3. Post-test

Post-test will be given to all of the experimental and control group. Post-test is a measure on some attribute or characteristic that is assessed for participants in an experiment after a treatment (Cresswel, 2012). The material of post-test is based on the material that given in the treatment but in different topic and question. The test aimed to know about the progressive of both experimental and control group after getting treatment. This test is given to both experimental and control group in the first meeting. It consists of 25 questions in the form of multiple choices in A, B, C, D, and E, but it should be tried-out first. (*See Appendix 2*)

Table 3.3
Blue print of the post-test

Object of the Test	Level	Indicators	Number of Question	Test Format	Item
		1. The students are able to identify specific information of narrative text.	1, 2, 3, 6,7,9,10,11,12,8,16, 17,19,20	Multiple Choice	14
		2. The students are able to identify the meaning of the word of narrative text.	4,5,13,15	Multiple Choice	4
		3. The students are able to identify communicative purpose of narrative text.	-	Multiple Choice	
		4. The students are able to identify the moral value of the narrative text.	14,18	Multiple Choice	2
		5. The students are able to identify the main idea of the text	-	Multiple Choice	
Total					20

E. Criteria of good test

One of the ways to know that the test is good test enough is by measuring validity and reliability.

1. Validity

Validity is the degree of the correctness of the assessment result in representing the skill being assessed. A test must appropriate with the objectives. Content validity is concerned whit 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.

2. Reliability

Reliability is a crucial component in a test. Ary et al (2010) define reliability as the degree of consistency with which it measures whatever it is measuring.

F. The Treatment

In this study, the treatment given to the experimental and the control group are different. The experimental group is taught by PQ4R strategy, while the control group is taught by scanning strategy. However, the materials given to both of the groups are the same.

The researcher gave pre-test on 12th February 2020 in experimental group and on 15th February 2020 in control class. The questions consisted of 20 items. After giving pre-test, the writer did the treatment for both class and determined the materials and lesson plans of learning activities.

Table 3.4

The treatment Procedure

Control Group	Experimental Group
Pre-activity	Pre-activity
<ul style="list-style-type: none"> • Opening • Check attendance and presentation about the material 	<ul style="list-style-type: none"> • Opening • Check attendance and presentation about the material
Main Activity	Main Activity
<ul style="list-style-type: none"> • The teacher explains about narrative text • The teacher distribute the text to the students • Asking the students to read the text which has be provided • Asking the students to retell in pair the story got from the text • Asking the students to conclude the story from the text • Asking the students to answer the question based on the text. 	<p>Preview step</p> <ul style="list-style-type: none"> • The teacher distributes the text to the students and asks them to survey the reading assignment by skimming the text for an overview of main ideas. • Asking the students to look at heading and picture to try to identify what they will be reading about. <p>Question step</p> <ul style="list-style-type: none"> • Asking the students to make a list of questions they expect to be answered in the reading. Use heading to ask questions. • Giving time to the students to consider their questions, and let each student have an opportunity to write their question on their books. <p>Read step</p> <ul style="list-style-type: none"> • Asking the students to read the text • Asking the students to look for the answer to the previously formulated questions <p>Reflect step</p> <ul style="list-style-type: none"> • Asking the students to reflect what they have just read • Asking the students to write the unexpected ideas <p>Recite step</p> <ul style="list-style-type: none"> • Asking the students' to think about the material and discuss in pairs with their friends or write down the main points they learned. • Asking the students to explain it aloud or recite their notes aloud to their friends <p>Review</p> <ul style="list-style-type: none"> • Asking the students to reread to verify about their recite answer is correct and make sure they have main points of the text. • Asking the students to answer these questions' to check their understanding of the text

Post-activity	Post-activity
• Closing the meeting	• Closing the meeting

The schedule of the activity done in this study can be seen in Table 3.5.

Table 3.5 The Activity Schedule

Activity	Experimental Class	Control Class
Pre-test	12 th February 2020	15 th February 202
Treatment 1	12 th February 2020	15 th February 202
Treatment 2	19 th February 2020	22 nd February 2020
Post-test	19 th February 2020	22 nd February 2020

G. Data Collection

In conducting this research, the researcher gives pre-test to both experimental group and control group, and then the researcher gives treatment to experimental group by using PQ4R strategy and for the control group use scanning strategy. The last, the researcher gives post-test to both experimental group and control group. The researcher gives post-test which different task from pre-test. The test is multiple choices.

Data collection is used to collect all of the data which is needed in this research. This research uses quantitative data taken from students' reading score. The researcher uses the test to get the data from the students, especially the score of the students in the pre-test and post-test. The researcher gives test to the experimental group and control group. However, the researcher gives post-test which different task from pre-test. The test is multiple choices.

H. Technique of Data Analysis

Data analysis is an important part of research. The researcher must analysis the entire data that comes out to describe, illustrate, and evaluate data. There are some steps in analyzing the data. First, the researcher collects the data. The datas are got from pre-test and post-test of experimental and control group. Then the researcher analyzes and compares the data. The researcher uses ANCOVA (Analysis of Covariance) to analyze the data using SPSS. The researcher uses ANCOVA to control the factors which cannot be rendomize but which can be measure on an interval scale. After analyzing using ANCOVE, the researcher will find out the result of this research whether teaching reading using PQ4R is effective or not, if the result is effective, so the null hypothesis is rejected, and if the result is not effective, so the alternative hyphothesis is rejected.

