

CHAPTER III

METHOD AND PROCEDURE

This chapter present: (1) research design; (2) research variables; (3) operational definitions; (4) population and sample; (5) data collection; (6) research teaching schedule; (7) data analysis; (8) hypothesis testing.

3.1. Research Design

In this study, I used quantitative research design based on experimental methods. According to Fraenkel, Wallen and Hyun (2012), experimental research is one of the most powerful research methodology that researcher can use. The research took by *quasi experimental research design* or the design that manipulate the independent variable to observe the effect on dependent variable and the type that used by the researcher was *pretest - posttest non-equivalent group design*. There are two groups; they were experimental and control group which both gave pre-test and post-test. The experimental group given treatments by using RAP strategy, but the control group was not.

Cohen, Manion and Morrison (2007) formulates the figure of Pretest-Posttest Non-equivalent Groups Design as follows

O ₁	X	O ₂	Experimental Group

O ₃		O ₄	Control Group

Where:

O₁ = Pretest for experimental group design

- O₃ = Pretest for Control group design
- X = Treatments (RAP strategy)
- O₂ = Posttest for experimental group design
- O₄ = Posttest for Control group design
- = Dashed line (Non random)

3.2 Research Variables

In this case study, there are two kinds of variables. There are independent and dependent variables. Creswell (2012) explains that “Independent variable is an attribute or characteristic that influences or affects an outcome or dependent variable. Dependent variable is an attribute or characteristic that is dependent on or influenced by the independent variable” (p. 115). In this study, independent variable is RAP strategy and the dependent variable is student’ Narrative reading comprehension.

3.3 Operational Definition

The title of this researchers “Improving Reading Comprehension in Narrative Text By Using R.A.P (Read-Ask-Put) Strategy to the grade students of MA YPGS Gunung Batu”. To avoid misunderstanding and misinterpretation, two terms will be specified. They are: First, Read-Ask-Put (RAP) is a strategy that will help students in improving their reading comprehension. Even, this strategy can activate students’ background knowledge which is important in reading process. In this study, RAP strategy will be applied by the researcher at MA YPGS Gunung Batu.

Second, Narrative text is one of the texts which tell an imaginative story in the past for example legend, fables, folktales, fairy tales, etc. The purpose of narrative is to entertain the readers of listeners. In this study, narrative text will be done by the students of MA YPGS Gunung Batu.

3.4 The Population and Sample

3.4.1 Population

Population is whole number of the research object which are going to be investigated in research study. Creswell (2012) said that a sample in a research study is the group on which information is obtained. The population of this study is the tenth grade students of MA YPGS Gunung Batu consisting of three classes they are 90 students. The distribution of whole population of the study can be seen below.

Table 1
The population of the study

No	Class	Number of student
1	X IPS 1	30
2	X IPS 2	30
3	X IPS 3	20
Total		80

(source : MA YPGS Gunung Batu Academic Year 2018/2019)

3.4.2 Sample

Sample is a group of subject on which information is obtain. According to Fraenkel (2012) states that “sample is the selection of the groups who participates in the study”(p. 91). The selected number of sample is divided into two group sample. They are control and experimental group. Samples are

assigned to either the group that receive the treatment, known as the experimental group or treatment group, or to the group which does not receive the treatment referred to as the control group. In this study, purposive sampling was used. According to Cohen (2007), “purposive sampling is different from convenience sampling in that researchers do not simply study whoever is available but rather use judgement to select a sample that they believe, based on prior information, will provide the data they need” (p. 100). Therefore, two classes X.1 and X.2 were chosen as a sample to collect the data that both had similarities. First, two classes has been taught by the same teacher of English. Second, the average scores were similar. Third, after talking to the teacher both classes were having difficulties in reading narrative text. The last, the classes have the same number of students. Finally, the classes were divided into two groups, one class as the control group and the other class as the experimental group. They are shown in table 2 below:

Table 2
The Sample of the study

No	Class	Number of student
1	X IPS 1	30
2	X IPS 2	30
Total		60

3.5 Data Collection

3.5.1 Test

Test is one of the ways to know how to get the score by the students in the form of assignment. According to Brown (2000), “A test is an instrument or procedure designed to elicit performance from learners with the purpose of measuring their attainment of specified criteria” (p.401). In collecting the data, the

writer used reading comprehension test in form multiple choice questions. The total numbers of question is sixty questions from each consist of five options namely (a, b, c, d, and e). The point of each question items is 2.5, so the total score that the students got if they answer all questions correctly is 100 points. The questions is about narrative texts. The purpose of the test is to know the result in teaching reading by using RAP strategy. They are two kinds of test to give the student, pretest and posttest. The test items in the pretest are same as those of posttest, because the purpose of giving them is to know the progress of students' narrative reading comprehension scores before and after treatments. The test is explained as follows:

a. Pre-test

It was administered to assess students' reading comprehension achievement before treatment in experimental group and in control group without treatment. The purpose of giving pretest to the students is to know the students' ability in reading comprehension before implementing RAP.

b. Post-test

It was administered to control group and experimental group after pre-test and treatment. This test aims to measure students' reading comprehension after treatment. The result of this test will be compared with the result of pre-test in order to know the effect of RAP in teaching reading.

3.6 Research Instrument Analysis

There are three kinds of test will be use in this part, they are validity test, reliability test and readability test.

3.6.1 Validity Test

Validity is an important key to effective research. According to Fraenkel and Wallen, (2009), “Validity is the most important idea to consider when the preparing or selecting an instrument that is used. Validity test is carried out to measure whether the instruments for pretest or post-test activities are valid or not” (p.147). There are two kinds of validity to be used. They are as follows:

3.6.1.1 Content validity

Validity test is the test to determine the instrument is valid or not by the validators. According to Creswell (2005),“content validity is extent to which the question on the instrument and the score from these questions are representative of all the possible questions that a writer could ask about the content or skills” (p. 164). A content validity is very important, since it is an accurate measure of what it is supposed to measure. In order to judge the test whether or not a test has content validity, the researcher will check the syllabus from school and then match them into test specification. Then, the result of analysis in constructing the content validity will be presented in the test specification table including, objectives of the test, materials, test indicators, total of test, types of test, and answer key.

Table 3
Table of Test Specification

Objective	Test Material	Indicators	Item Number	Total Item Number	Types of Test	Answer Key
11.2 Responding the meaning and rhetorical steps in essay functional accurately, fluently and acceptable in the context of daily life and access knowledge in the text from: narrative, descriptive, and news item	Nabi adam	The students are able: -To identify main idea	21,32,34,58,59,60	6	Multiple choice	b,c,b,b,d,c
	The ant and the dove	-To fine the meaning of word	6,12,13,23,7,3,56,57	8		a,c,b,d,b,d,a,d
	The donkey and the wolf	-To fine meaning of sentence	5,10,29,31,30,19,40	7		c,d,b,a,a,a,b
	The lion and the hare	-To fine a character	1,2,4,18,22,27,53,54,55	9		c,a,c,c,a,d
	The wind and sun	-To fine kind of text	14,16,28,33	4		c,d,c,a
	The lion and the mosquito	-To fine some event in the text	9,20,24,26,36,41,46,47	8		a,b,c,d,c,b,b,c
	Calon arang	-To identify the rhetorical step in narrative	8,15,25,39,42,43,44,45	8		b,a,b,a,a,b,c,b
	The fly and the bull	-To identify the communicative purpose of the text	11,17,38,35,48,49,50,51,52	9		c,c,a,c,d,a,a,c,a

3.6.1.2 Construct Validity

Construct validity is to determine the instrument can be used or not by validator judge. Fraenkel, Wallen, and Hyun (2012) state that “the construct validity refers to the nature of psychological construct or characteristic being measured” (p. 148). The validators checked all instruments of this research whether they were all valid. In this part, the construct validity of the research

instruments involved two types. They were question items for pretest and posttest activities, and lesson plans for experimental group.

Two lecturers of UIN Raden Fatah Palembang will be asked as validators. There are some characteristic for expert judgement or validators, such as: (1) They have English educational background, (2) They are English of lecturers, and (3) They have score TOEFL at least 550; and (4) Their teaching experience is more than 5 years. They measure including such things as the clarity of printing, size of type, adequacy of work space (if needed), appropriateness of language, clarity of directions, and so on regardless of the adequacy of the question in an instrument that must be measured by giving test or tryout to students later on.

3.6.1.3 Validity of Each Question Item

Validity of each question item test is used to indicate whether the test items of each questions are valid or not. In doing this research, the researcher will do the tryout of the instrument firstly to the tenth grade students of MA YPGS Gunung Batu. The result of the test will be analyzed by using Pearson Product Moment Correlation Coefficient in SPSS 23 (Statistical Package for the Social Science) program. To know whether the instruments of each question are valid or not, the score of significance (r -output) should be compared with the score of r -table product moment. According to Basrowi and Soenyono, if the result of the test shows that r_{output} is higher than r_{tabel} , it means that the item is valid (as cited in Herlina & Holandyah, 2015, p. 46).

3.6.2 Reliability Test

Reliability test measures whether research instrument used for pretest and posttest activities is reliable or not. Fraenkel, et. al. (2012) argue that “reliability refers to the consistency of the scores obtained how consistence they are for each individual from one administration of an instrument to another and from one set of items to another” (p. 154). In addition, Fraenkel, et. al. (2012) state that a useful rule of thumb is that reliability should be at least 0.70 and preferably higher.

To know the test used is reliable or not, the writer will give try out firstly with the students and then the score of reliability test will be calculated by SPSS 23 software (Statistical Package for The Social Sciences) using split-half method with spearman-brown formula in internal consistency reliability, because this method is suitable for multiple choice items.

3.6.3 Readability Test

Readability test is done to know whether or not the levels of reading texts are appropriate for students’ class level in comprehending the reading texts. The name of application is Readability Formulas. Readability Formulas test can be measured using online readability test which can be accessed from: <http://www.readabilityformula.com>. the flash-kincaid reading ease score for each level students is presented in the following table:

Table 4
Flesh Reading Ease Score

Score	School level	Notes
100-90	5 th grade	Very easy to read. Easily understood by an average 11-

		year-old Students.
90-80	6 th grade	Easy to read. Conversational English for consumers.
80-70	7 th grade	Fairly easy to read.
70-60	8 th &9 th grade	Plain English. Easily understood by 13-to 15-year-old students.
60-50	10 th to 12 th grade	Fairly difficult to read.
50-30	College	Difficult to read.
30-0,0	College graduate	Very difficult to read. Best understood by university graduates

There were two readability tests in this study, readability test for research treatment and research instrument text. The researcher used some book: the books entitled let's learn English for Senior High School Students X Published by Bumi Aksara, Developing English Competencies for grade X published by Setia Purna Invest, untuk SMA/MA, and internet script. For the result of readability can be seen on the following table:

a. Research Treatment

There are some results got after checking readability test for research treatment texts in Flesh-Kincaid reading ease score, the word statistic of the texts are:

Table 5: Result of Readability Test for Research Treatment

No.	Reading Text Title	Flesh Reading Ease Score	Text Category
1.	Beauty and the Best	50	Fairly difficult to read
2.	The Rats and the Elephants	60	Fairly difficult to read

3.	Cinderella	60	Fairly difficult to read
4.	The White Butterfly	60	Fairly difficult to read
5.	Sangkuriang & Tangkupan Perahu	5,3	Fairly difficult to read
6.	Calon Arang	60	Fairly difficult to read
7.	Snow White	60	Fairly difficult to read

b. Research Instrument

There are some Result got after checking readability test for research instrument texts in Flesh-Kincaid reading ease score, the word statistic of the texts are:

Table 6: Result of Readability Test for Research Instrument

No.	Reading Text Title	Flesh Reading Ease	Text Category
1.	Jaya Baya	60	Fairly difficult to read
2.	Malin Kundang	5,9	Fairly difficult to read
3.	Lake Toba	60	Fairly difficult to read
4.	Nyi Roro Kidul	60	Fairly difficult to read
5.	The Legend of Rice Paddy	53	Fairly difficult to read
7.	Roro Jongrak	53,3	Fairly difficult to read
8.	Charles	5,8	Fairly difficult to read
9.	Blind Listening	50	Fairly difficult to read

3.7 Data Analyses

In analyzing the data, the writer described some techniques as follows:

3.7.1 Data Description

In data description, there are two analyses to be done. They are; (1) distribution of frequency data and (2) descriptive statistic.

3.7.1.1 Distribution of Data Frequency

In distribution of frequency data, the students score, frequency, percentage are achieved. The distribution of frequency data are obtained from; (1) students' pretest and posttest scores in control group, (2) students' pretest and posttest scores in experimental group, (3) students' pretest and posttest scores of poor, average and good categories in control group, (4) students'pretest and posttest scores of poor, average and good categories in experimental group.

3.7.1.2 Descriptive Statistics

In descriptive statistics, number of sample, the score of minimal, maximal, mean, and standard deviation are analyzed. Descriptive statistics are obtained from; (1) students' pretest and posttest scores in control group, (2) students' pretest and posttest scores in experimental group, (3) students' pretest and posttest scores of poor, average and good categories in control group, (4) students'pretest and posttest scores of poor, average and good categories in experimental group.

3.8 Prerequisite Analyses

Before analyzing the data, Prerequisite analysis is done to see whether the data obtained is normal and homogenous. The following is the procedures in pre-requisite analysis.

3.8.1 Normality Test

Normality test is used to measure whether the obtained data (data form pretest and posttest in experiment and control) is normal or not. In measuring normality test, one-sample Kolmogorov Smirnov is used. The data are classified into normal whenever the p-output is higher than 0,05 (Flynn, 2003). To test the normality, the writer used Kolmogorov Smirnov in SPSS program. The normality test is used measure students' pretest and posttest scores in control groups, students' pretest and posttest scores in experimental groups, students' pretest and posttest scores of poor, average and good categories in control group and students' pretest and posttest scores of poor, average and good categories in experimental group.

3.8.1.2 Homogeneity Test

Homogeneity test is used to measure whether the obtained data is homogeny or not. According to Basrowi, "define the score is categorized homogeny when the p-output is higher than mean significant difference at 0.05 levels" (as cited in Amalia, 2015, p. 46). The homogeneity test is used to measure students' pretest and posttest scores in both groups (experimental and control). In measuring homogeneity test, I used Leneve Statistic in SPSS

program software. It is used to measure students' pretest and posttest scores in control groups, students' pretest and posttest scores in experimental groups, students' pretest and posttest scores of poor, average and good categories in control group and students' pretest and posttest scores of poor, average and good categories in experimental group.

3.9 Hypothesis Testing

Hypothesis will be used to infer the result of a hypothesis performed on sample data from larger population. According to Creswell (2012), Hypothesis testing is a procedure for making decision about result by comparing and observed value of a sample with a population value to determine if no difference or relationship exists between the values. In measuring significant difference on students' reading comprehension in narrative text by using RAP strategy. The researcher will be analyze the differences using paired sample t test and independent sample t test in SPSS 23 software application. The explanation as follows:

1. In measuring significant difference, independent sample t-test will be used for testing the students' post-test scores who are taught by using reciprocal teaching strategy and Teacher's Strategy. The significant difference is accepted whenever the p-output is lower than 0.05 and t-obtained is higher than t-table 2.0017 (df = 30).
2. In measuring a significant difference, two-ways ANOVA will be used for testing students' post-test score in average, good, and excellent

categories who are taught by using reciprocal teaching strategy and Teacher's Strategy. The significant is accepted whenever the p-output (0.1) is lower than 0.05.