CHAPTER III

RESEARCH METHOD

A. Research Design

Sugiyono(2010) stated that, there are several forms of designexperiments are: pre-experimental design, true experimental design, and quasi experimental design. The researcher will use a true experimental design that can be used to know the effect of a treatment method. The randomized pretest-posttest control group design inolves two groups, both of which are formed by random assigment. One group receives the experimental treatment while the other does not, and then both groups are posttested on the dependent variabel.

Table 3.1 Pre-test and Post-test Design Time

Class	Pretest	Treatment	Posttest
Experiment Class	O_1	X (RoundtableTechnique)	O_2
Control Class	O_1	- (Jigsaw method)	O_2

Nonequivalent Control Group Design

The writer divided students into two classes they are experimental and control class. The writer involved one test that was given before treatment (pre-test) and given the test after treatment (post-test). Furthermore, experimental class in the teaching processused roundtable technique and control class used jigsaw method.

B. Operational Definition of Variable

1. Independent Variable

The independent variable (Y) is the experimental development to know the purpose of a text that is write. The researcher will use a Roundtable Technique are considered usable in practice.

2. Dependent Variabel

The dependent variable (X) is the factor that is observe and preliminary to measure the level of a student write. It is the variable that is influenced or as effect, because there is independent variable. Dependent variable in this research is influence writing ability the student eight grade at SMP N 4 Pringsewu.

C. Population, Sample, Data collecting technique

Sugiyono (2010) state that population isgeneralization region consists of: objects / subjects that have certain qualities and characteristics are determined by investigators to be studied and then drawn conclusions. So the population is not only people but also objects and natural objects to another. Population is also not just the amount present in the object / subject studied, but includescharacteristics / properties owned by the subject or the object.

The population of this study will the students in eight grade of SMP N 4Pringsewu.

CLASS	POPULATION
VIII.A	32
VIII.B	30
VIII.C	30
TOTAL	**92**

1. Sample

Within this target population, the writer selected a sample for study. According to Creswell (2012: 381), sample is the group of participant in a study selected from the target population from which the writer generalized to the target population. The sample of the research is two classes. There are class VIII.1 and VIII.2students of SMP N 4 Pringsewu in the academic years 2018/2019.

2. Data collecting technique

1. Observation

In this activity, researcher beable to observe the students learn in the classroom especially in writing class, accompanied by an English teacher who is teaching. From the observation of researcher are learning writing in the classroom students learn well enough, they listen to what the teacher to say, but there are some students who are not serious in following english lessons. When they do productive skill or writing students are confused to write what they will write. Especially in the vocabulary that they have is not enough to make a perfect sentence. This requires the guidance of students in writing. The process of writing has an organized stage to make it easier for students to develop ideas and what students

want to write. So, theresearcher want to try to apply ofroundtable technique to know influence to writing class.

2. Documentation

To support the accurate data researcher with a photo or video documentation of activities of students in the process of learning in English class of make evidence of such documentation as evidence of research. Such data will complement the information obtained, the data is declared valid .Documentation taken using a photo.

3. Writing test

In this study, the writer used written test. The test is divided into two, they are pre-test and post-test. Pre-test hold in the beginning of the research and post-test hold in end of the research, after six meeting of treatment to find out the achievement of the students after conducting the treatments. The goal of this test is to measure the students' writing ability in descriptive text. In the test, the students wrote a descriptive text that given by the writer.

The writer foundthe validity,the levelofdifficultyand discrimination power ofthe test.Itbein order to knowthe items beforebeing given forpre-test and post-testitems had agood qualityornot.In addition, to know the students' writing ability the writer needed an assessment. Based on Brown and Bailey (1984: 257), analytic scoring may be more appropriately called

analytic assessment in order tocapture its closer association with classroom language instruction than with formaltesting designed annalytical scoring scale that specified five major categories andadescription of five different levels in each category, ranging fromunacceptableto excellent.

Table 3.3: the Analytic Scale for Rating Composition

Score	Level	Criteria	Comments
Content	30-27	Excellent To Very Good	Knowledgeable, substantive, through, development of thesis, relevant to assigned topic.
	26-22	Good To Average	Some knowledge of subject, adequate range, limited development of thesis, mostly relevant to topic but lack detail.
	2I-I7	Fair To Poor	Limited knowledge of subject, little substance, inadequate development of topic.
	I6-I3	Very Poor	Does not show knowledge of subject, non-substantive, not pertinent, or not enough to evaluate.
Organization	20-I8	Excellent To Very Good	Fluent expression, ideas clearly stated/supported, succinct, well-organized, logical sequencing, cohesive.
	I7-I4	Good To Average	Somewhat choppy, loosely organized but main ideas stand out, limited support, logical but incomplete sequencing.
	I3-I0	Fair To Poor	Non-fluent, ideas confused or disconnected, lack logical sequencing and development.
	9-7	Very Poor	Does not communicate, no organization, or not enough to evaluate.
Vocabulary	20-I8	Excellent To Very Good	Sophisticated range, effective word/idiom choice and usage, word form mastery, appropriate register.
	I7-I4	Good To Average	Adequate range, occasional errors of words/idiom form, choice, usage but

			meaning not obscure.
	I3-I0	Fair To Poor	Limited range, frequent errors of idioms/words form, choice, usage, meaning confused or obscured
	9-7	Very Poor	Essentially translation, little knowledge of English vocabulary, idiom, words form, or not enough to evaluate.
	9-7	Very Poor	Essentially translation, little knowledge of English vocabulary, idiom, words form, or not enough to evaluate.
Language Use	25-22	Excellent To Very Good	Effective complex construction, few error agreement, tense, number, words order/function, articles, pronouns, prepositions.
	2I-I8	Good To Average	Effective but simple construction, minor problem in complex construction, several errors of agreement, tense, number, words order/function, articles, pronoun, preposition, but meaning seldom obscured.
	I7-11	Fair To Poor	Major problem in simple or complex constructions, frequent error of negations, agreement, tense, number, word order/function, articles, pronouns, preposition and /fragment, run-ons deletions, meaning confuse or obscured.
	I0-5	Very Poor	Virtually no mastery of sentence construction rules, dominated by errors, does not communicative, or not enough to evaluate.
Mechanics	5	Excellent To Very Good	Demonstrates mastery of conventions, few errors of spelling, punctuation, capitalization, paragraphing.
	4	Good To Average	Occasional error of spelling, punctuation, capitalization, paragraphing but meaning not obscured.
	3	Fair To Poor	Frequent error of spelling, punctuation, capitalization, paragraphing, poor handwriting, meaning confuse or obscured.
	2	Very Poor	No mastery of conventions, dominated by errors of spelling, punctuation, capitalizations, paragraphing, hand writing illegible, not enough to evaluate.

4. Source: *Brown & Bailey (1984: 257) in the Language Assessment: Principles and* Based on the table above, the writer concluded that writing ability needed assessment to know how far the students' writing ability. This assessment in this research has a function to measure students' writing ability.

D. Validity and Reliability

1. Validity

a. Construct validity

According to Fraenkel, et. al (2012: 148), the construct validity refers to the nature of the psychological construct or characteristic being measured. Construct validity refers to examines whetherthetest isactuallyinline with the theoryof what it means to know certain languageskill(Shohamy, 1985:74).It means that the test item should reallytest thestudents or thetestitems should reallymeasure the students' abilityinwriting descriptive text. In addition, a construct is any theory, hypothesis, or model that attempts to explain observed phenomena in our universe of perception. The items of the test discusses with the English teacher of eight grade of SMP N 4 Pringsewu.

b. Content Validity

According to Fraenkel, et. al (2012: 148), content validityrefers to the content and format of the instrumental. In order to judge whether or not a test has content validity, a specification of the skills or structures should make based on the

curriculum and syllabus. In other words,the test is based on materials in the English curriculum, so that it can besaid thatthe test has content validitysincethe test is good representation of material studies in the class.

2.Reliability

a. Reliability of test

Gronlund and Linn (1995), reliability refers to the consistency of measurementthat is, how consistent test scores or other evaluation results are from one measurement to other. It means that, reliability is consistency, dependence or trust. So in measurement reliability is the consistency with which a test fields the same result in measuring whatever it does measure.

In this study, the writer used inter-rater reliability with the English teacher to measure the students' score. Therefore, it may be said that the teacher should seek a standardized test whose reliability is as high as possible.

b. Readability of Instrument

Readability is the measurement of how to make some texts easy to be read and comprehend than other. According to George Klare in Muhammad Basit(2014:27), readability as the ease of understanding or comprehension due to style of writing.

Based on the result of readability test of the instrument that writer give to students on seventh grade of SMP N 4 Pringsewu, when the writer conducted the research in there, the writer concluded that students did

not find the difficulties in understanding all of the test before the students due the task. It means that the instrument is readability or can be used.

This reliability test is to see the level of agreement (agreement) between experts or rater in assessing each indicator on the instrument. Inter-Rater reliability (IRR) will provide a score of the extent to which the level of agreement given by the expert or rater.

This study involved two experts or rater as assessors, so that in this study using the coefficient of agreement Cohen Kappa.

The Cohen Kappa coefficient used by the formula:

$$K = \frac{\mathrm{Pa} - \mathrm{Pc}}{1 - \mathrm{Pc}}$$

Information:

K = Cohen Kappa coefficient.

Pa = proportion of agreements observed.

Pc = Proportion of expectation agreement.

1 = Constants.

1. Readability of Instrument

Arikunto stated that (2010:221) stated that readibility is the instrument that use as the tool to collecting data because the instrument has be good.The success is the extent to which they understand it, read it at an optimal speed,

and find it interesting. It means that readability refers to the optimal result that will be gotten by the readers towards that printed material.According to George Klare (in William, 1963:3) Readability is the ease of understanding or comprehension to style of writing. This definition focuses on writing style as separate from issues such as content, coherence, and organization. It means that the participant can understand the material that was present for them.

To know the instrument of writing text is redable or not, the writer did the readability test to the students. The readability test contains of instructions and also questionare. The writer asked the students to give the cross mark "X" at their answer. The questions were as "Do you understand toward the instruction number 1?" In eachquestions, there were two choices, were "Yes" and "No". If the students choose "Yes", it means that the students understood the instruction but if the students choose "No", it means that the students did not understood of the instruction, so the students must gave the reason of it. After the readability test done at eight grade, especially at VIII.A and VIII.B classes the result are "

The result of readability test at VIII.A

a. There were 3 student who did not understand at the instruction number 4.
b. There were 6 students who did not understand at the instruction number 5.
c. There were 1 student who did not understand at the instruction number 6.

The result of readability test at VIII.B class is :

a. There were 5 student who did not understand at the instruction number 5.

b. There were 3 students who did not understand at the instruction number 6.

From the result above, we can concluded that the instructions can be understood by the students or the instructions are readable. It means that , the instrument of writing test can be used to pre-test before treatment and post-test after treatment done.

2. Data Analysis

In this study, the writer used the inferential statistic to test the hypothesis whether there is significant difference of score between students who are taught by used roundtable technique teaching and those who are taught by used conventional way. The statistics used in this computation are the test of normality, and the test of homogeneity.

1. The Data Normality Test

   Before executing the hypothesis to know whether the test result homogenous or not. So, the writer used test the normality test by using the formula, as follow:

$$\boldsymbol{x^2 = \frac{(fo-fh)^2}{fh}}$$

   Notes :

   fo = the observed frequency

   fh =the expected frequency

   (Sugiyono, 2010: 107)

The Hypothesis formula:

H_o : The data do not have normal distribution

H_a : The data have normal disribution criteria

H_o is accepted if $x^2 \geq x_t^2$, it means that the data do not have normal distribution. H_a is a accepted if $x^2 < x_t^2$, it means that the data have normal distribution.

2. Test of Homogeneity

It is use to know whether the data are homogeneous or not. The formula of homogeneity test as follow :

$$F = \frac{S^2(TheHighestVariance)}{S^2(TheLowestVariance)}$$

Notes:

F = The homogeneity of variance

S = Standard deviation

(Sugiyono, 2010: 140)

Hypothesis Formula

H_o : the variance of the data is not homogeneous

H_a : the variance of the data is homogeneous

H_o is accepted if $f_{observed} > f_{critical}$. H_a is accepted if $f_{observed} < f_{critical}$, it means that the data is homogeneous.

3. The Hypothesis Test

To know whether using process genre approach has influence towards students writing ability in descriptive text or not, so the hypothesis is needed. In order to test the hypothesis, the t-test was used. The formula ia as follows:

$$t = \frac{x^1 - x_2}{\sqrt{\frac{(n^1-1)s_1{}^2+(n^2-1)s_2{}^2}{n_1+n_2-2}\left(\frac{1}{n_1}+\frac{1}{n_2}\right)}}$$

Notes :

x_1 = The average score of experimental class

x_2 = The average score of control class

n_1 = The total of students of experimental class

n_2 = The total of students of control class

S_1^2 = The deviation score of experimental class

S_2^2 = The deviation score of control class

(Sugiyono, 2010: 138)

Completeness criteria if the learning achievement of the experimental students is greater than the control students so H_a is accepted, otherwise if the experimental class learning achievement is lower than the control class then H_a is rejected.