

CHAPTER III

RESEARCH METHOD

In this chapter, there are seven parts that discussed in this research. They are research design, population and sample, variable of the research, instrument of the research, validity and Reliability, the method of data collection, and the method of data analysis.

3.1 Research Design

In this research, the researcher used quantitative research. This research refers to a quantitative research approach. As stated by Sugiyono (2008:13), quantitative research is a research method used to seek the effect of certain treatments on others under controlled conditions. The researcher will use experimental research to observe this problem. Mubarok (2015:88) states that experimental research is a research method that used to find a specific treatment effect against to the other in uncontrolled condition. It means that experimental research is a research that needs a treatment to find out the significance difference of the research. Sugiyono (2016:107) states that experimental research design is a research design that used to find out the significance influence of the treatment in group.

Quasi experimental design of nonequivalent control group design was not chosen randomly. In this design, both the experimental and control group are compared, although the group was selected and placed without random. Two groups that existed were given pretest, treatment and posttest (Mubarok, 2015, p. 91). It meant both of experimental group and control group were compared and

chosen depended on the researcher. After that, both groups will be given pretest, treatment and posttest.

In this research, the researcher give pretest-posttest to each group. Pretest and posttest will give to each group for checking their ability. Pretest will give before treatment and posttest was given after treatment. From pretest, the researcher know initial condition in control group and experiment group. Then from the Post test, the researcher know the students' achievement after giving treatment in control group and experiment group. Here is the design of nonequivalent control group design as follow:

$$\frac{O_1 \times O_2}{O_3 O_4}$$

(Sugiyono, 2011, p. 79)

Note		
O_1	:	Pretest for experimental group
O_2	:	Posttest for experimental group
X	:	Treatment for experimental group
-		Without treatment
O_3	:	Pretest for control group
O_4	:	Posttest for control group

3.2 Population and Sample

1. Population

Population is a generalization area consisting of objects/ subjects that have certain qualities and characteristics determined by researchers to be studied and then drawn conclusion (Sugiyono, 2008:117). It means that population has a very important role to help researchers in getting desired result. The population will be chosen in this research are all of the students in the Tenth grade of SMA N 1 KEMBANG JEPARA in the academic year of 2020/2021. The total number of the population in this research are 288 students from nine classes.

Table 3. 1 Population of the Research

No	Kelas	Jumlah peserta didik
1	X MIPA 1	32
2	X MIPA 2	32
3	X MIPA 3	32
4	X MIPA 4	30
5	X MIPS 1	32
6	X MIPS 2	33
7	X MIPS 3	33
8	X MIPS 4	32

9	X BAHASA	32
	Jumlah	288

2. Sample

Sample is part of the number and characteristic possessed by the population (Sugiyono, 2008:118). Sample can also said that the sample is a small part take from a populations' member based on a predetermined procedures so that, it can be used to represent the population. Samples are taken because the population is too much and it is very difficult if researchers study all of them. Considering about the big number of the population, the researcher will use Purposive random sampling. The sampling of this research was Purposive random sampling is technique in which researcher relies on his or her own judgment when choosing members of population to participate in the study. The samples of the research were X IPA 1 and X IPA 2. The experimental group was X IPA 1 and the control group was X IPA 2. Experimental class was 15 students and control class was 15 students also.

3.3 Research Variables

Research variable is an attribute, value, character from people, object or activities that have certain variation (Sugiyono, 2011, p. 38). There were 2 variables in this research, those are independent variable and dependent variable. Independent variable is variable that influences the dependent variable (Sugiyono, 2011, p. 39). In this study, the independent variable is Round Robin Technique

through Realia. Dependent variable is a variable influenced by others variables (Sugiyono, 2011, p. 39) . In this study, the dependent variable is students' writing skills in Descriptive Text.

3.4 Instrument of the Study

Instrument is a tool used to measure the natural and phenomena that observed (Sugiyono, 2008:148). In other word, instruments are designed tool that aid the collection of data for the purpose of analysis. According to Widoyoko (2016:113) said that by measuring the objective data will be obtained that is needed to assess student learning outcomes. In order to get some data needed to support this research, the writer applied the technique.

The writer uses writing test in form of essay because by essay test form the students could write freely which could explore their writing ability in term of idea, vocabularies, and arranging sentence. However, the writer gives instructions before the students write to guide the students in order to ease the students including kind of text they should write, the amount of paragraph, the topic, time, vocabulary and the aspects which will be scored. Students' writing will be scored by scoring rubric which score several aspects of syllabus target such as the organization of the text, ideas, vocabulary, grammar, and mechanics.

This is the scheme that will the researcher use for the students' test:

Indicator	Material	Question Indicator	Kind of Question	Number of question
The students be able to get an idea easily and make a good Descriptive Text.	Descriptive Text	Disajikan sebuah benda, peserta didik diminta untuk meulis teks Descriptive	Essay	1 question

3.5 Validity of The Instrument

The writer uses validity content and construct to provide students with valid instrument evidence. The writer uses the school English syllabus as the main achievement. In terms of content, organization, vocabulary, grammar, mechanic, there are 5 points to be measured. The writer will consult to the English teacher on the validity of the tool in which the students would be given the test. According to Brink & Wood (2008:272), content validity is the judgment/qualification stage, which involves selecting experts to evaluate the content validity of each item and of the total scale. It means that the quality of the content is dependent on the material and that the information is consistent with the learning objectives. In other hand, the content validity is based on syllabus. The experts will be given a structural procedure for evaluating the validity of the instrument's content. The

selected experts must have specific criteria for deciding whether the content is relevant to the concept. It will be done to make sure that the instrument is valid.

While the construct validity is concerned with the extent to which an instrument measures the concept or construct it was designed to measure (Brink & Wood, 2008:274). It means that construct validity focuses on the type of test that is concept-based and theoretical, which can measure the ability to write in particular. A writing test is conducted by the researcher that it can assess the writing skill of the participants, where the scoring included five criteria. These are made up of: content, organization, vocabulary, grammar, mechanic. The writer will consult the instrument to the English teacher of SMA N 1 KEMBANG to ensure that the instrument is accurate or not.

To find out the validity of the instrument, the writer will consult and also test validity the instrument to the experts. In this case, the writer will conduct it to the expert. The form of expert validation (See Appendix).

3.6 Technique of Collecting the Data

In collecting data, the researcher will give pre-test to the students before giving treatment and post-test to the students after giving treatment. There are as follows:

1. Pre-test

Pre-test will be given to the students before conducting treatments. It will be given to both experimental class and controlled class. The function of pre-test is to get the information about the student's ability in writing before the treatment.

2. Treatment

Treatment will be given to the students in experimental class during teaching learning process. The treatment will be given to the students after giving the pre-test. Treatment means the researcher will apply the technique that will use in a learning process. In this research, the researcher will divide the class into two groups which is for the experimental group and control group. Experimental group is a group that the researcher will give the treatment by using Round Robin through Realia. Control group is a group that the researcher will be given the treatment by conventional method. The treatment for both group will be done in three meetings include the post-test.

Table 3.2`
The Schedule of Implementing the Research

No	Date	Activities
1	July 27, 2020	Asking permission for conducting the research
2	August 03, 2020	Checking validity test
3	August 08, 2020	Giving pre-test in experimental class and control class (online)
4	August 15, 2020	First meeting in experimental class and control class
5	August 22,2020	Second meeting in experimental class andcontrol class Giving post test in in experimental class and control class

Table 3.3
Treatment procedure of Experimental Class and Control Class

<p>Experimental Group</p>	<p>Meeting 1:</p> <p>Observation :</p> <ul style="list-style-type: none"> - The researcher explain the material about Descriptive Text using power point. - The students observe the explanation from the researcher. <p>Asking</p> <ul style="list-style-type: none"> - The students are given a chance to ask about the material <p>Association</p> <ul style="list-style-type: none"> - The researcher recheck students' understanding about the material - The researcher devides the students into some groups and Use Round Robin Technique to discuss - The researcher ask the students to make a descriptive text through Realia in a group <p>Communication</p> <ul style="list-style-type: none"> - Every group have to presents the result after they discuss using Round Robin technique - The researcher give a feedback from the students writing result of Descriptive Text <p>Meeting 2:</p> <p>Observation</p>
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	<ul style="list-style-type: none"> - The students observe the video given by the researcher about Descriptive Text - The students analyze about the generic structure of the text <p>Asking</p> <ul style="list-style-type: none"> - The students are given a chance to ask about the material <p>Exploration</p> <ul style="list-style-type: none"> - The students read and analyze the Descriptive Text <p>Association</p> <ul style="list-style-type: none"> - The researcher recheck students' understanding about the material - The researcher give the students assignment - The researcher ask the students to write a Descriptive Text through Realia individually <p>Communication</p> <ul style="list-style-type: none"> - The researcher ask the students to submit their Descriptive Text - The researcher ask some of the students to read and analyze the Descriptive Text in front of class.
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Control group	<p>Meeting 1:</p> <ul style="list-style-type: none"> • The students understand the material by themselves by through their own book and teacher's guiding • The teacher gives explanation and example of Descriptive Text to the students • The students analyze about the generic structure of the text • The students make a descriptive text in a group <p>Meeting 2:</p> <ul style="list-style-type: none"> • The students continue the material • The researcher give the students assignment • The researcher ask the students to write a Descriptive Text individually • The students make a Descriptive Text • The students present their descriptive text in front of the class.
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3. Post-test

Post-test will be given by the teacher to the students after having a class. Post-test aims to check the students' improvement related to the topic that will be learned in the learning process. It means to give the evaluation.

3.7 Technique of scoring test

In scoring the test , the researcher used analytic scale which categorized by some categories. O'Malley and Pierce stated that analytic scale separates the features of a composition into components that are scored separately. This analytic score has five items and each item scores five. So, the maximum score is 25. The items are: First is Grammar, Brown states that grammar is the system of rules

governing the conventional arrangement and relationship of words in a sentence. And the researcher states grammar is the employing grammatical and syntactic form. Second is vocabulary, according to Caroline T. Linse, vocabulary is the collection of words that an individual know Third is mechanic, the mechanic is the use of graphic convention of the language. Mechanic will make students' writing well and reasonable to be read. The examples of mechanic are capital letter, quotation, comma, semicolon, and others. And the last are relevance and fluency (style and ease of communications). Relevance contains reasonable sentences (supporting sentences) that support to the main idea. If students write paragraph without state the main idea, the reader will confuse to decide the main topic of the text, while fluency refers to the sentences that flow easily and not too hard to understand by audiences (readers). If the researcher uses strange vocabulary, the readers will confuse what the purpose of writing. It means the writer uses a simple vocabulary not strange vocabulary.

Table 3.4
The explanation of criterion

Item Analysis	Score criteria
Content	27-30 Excellent: knowledgeable-substantive, etc. 22-26 Good: some knowledge of subject adequate range. 17-21 Fair: limited knowledge of subject – little substance. 13-16 Very poor: does not show knowledge of subject - non substantive.
Organization	18-20 Excellent: fluent expression – ideas clearly stated. 14-17 Good: somewhat choppy – loosely organized but main ideas stand out.

	10-13 Fair: not fluent - ideas confusing or disconnected. 7-9 Very poor: does not communicate – no organization.
Vocabulary	18-20 Excellent: sophisticated range – effective word/idiom choice and usage. 14-17 Good: adequate range-occasional word/idiom, choice, usage, but meaning is not obscure. 10-13 Fair: limited range - frequent errors of word/idiom, choice, usage. 7-9 Very poor: essentially translation-little knowledge of English vocabulary
Grammar	22-25 Excellent: effective complex grammar construction. 18-21 Good: effective but simple construction in grammar. 11 - 17 Fair: a major problem is simple/complex construction in grammar. 5-10 Very poor: virtually no mastery of sentence construction rules
Mechanic	5 Excellent: demonstrates mastery of construction. 4 Good: occasional errors of spelling, punctuation. 3 Fair: frequent errors of spelling, punctuation, capitalization. 2 Very poor: no mastery of conventions, dominated by errors of spelling, punctuation, capitalization, paragraphing
Total of Score	1 -100

Based on Burhan Nurgiyanto's grid, 2001, In giving scoring of the writing test, the writer processes the result of the students' test. The writer gave the score for each element of writing as follows:

- a. Content : The lowest score is 13 and the highest score is 30
- b. Organization : The lowest score is 7 and the highest score is 20
- c. Vocabulary : The lowest score is 7 and the highest score is 20
- d. Grammar : The lowest score is 5 and the highest score is 25
- e. Mechanic : The lowest score is 2 and the highest score is 5

3.8 Normality and Homogeneity

a. Normality

Normality test is used to test whether a variable is normal distribution or not. Sujianto (2009:77) states that normality distribution test is a test to measure whether our data has a normal distribution. Normal here means if the data have a normal distribution. The main reason of conducting normality testing is that it is necessary for the researcher to know whether the population or data involved in the research is in normal distribution. whether the data came from normal distribution or not.

b. Homogeneity

Homogeneity testing is intended to make sure that the collected data in analysis is truly taken from a population which is too different each other. Especially in a study which is predictive, the model which is used must be appropriate with the composition and its distribution (Sujianto, 2009:112). To know the homogeneity testing, the writer will use one way anova at spss 23.0.

3.9 Technique of Analyzing the Data

Data analysis is the process of systematically searching and arranging the interview transcripts, field notes, and other materials that is accumulated to increase people understanding of them and to enable people to present what they have discovered to others (Sugiyono, 2007: 334). The purpose of data analysis was to know the differences of student's improvement of writing skill in Descriptive text through Round Robin Technique and without using Round Robin Technique. In this research, the researcher will use quantitative to analyze

the data. In analyzing the data of post-test, the researcher will use the statistical formulation of t-test formula using SPSS 23.0 T-test will use to find out whether there was significance difference between the score of the students' writing skill in Descriptive text through Round Robin Technique in experimental group and conventional teaching technique in control group.

1. Calculating the mean score of the students' answer by using the following formula:

$$\bar{X} = \frac{\sum X}{N}$$

Where:

\bar{X} : Mean score

$\sum X$: The sum of all Score

N : The total number of subject

(Gay, 2006:230)

2. The formula will be used in finding out the difference between student's score in pre test- and post-test.

Where:

$$t = \frac{X_1 - X_2}{\sqrt{\left(\frac{SS_1 + SS_2}{n_1 + n_2 - 2}\right) \left(\frac{1}{n_1} + \frac{1}{n_2}\right)}}$$

t : Test of significance

X_1 : Mean score of experimental group

X_2 : Mean score of control group

SS_1 : Sum square of experimental group

SS_2 : Sum square of control group

n_1 : Number of students of experimental group

n_2 : Number of students of control group

(Gay, 2006:349)

