CHAPTER III

RESEARCH METHOD

This chapter presents the research method. It focused on research design, population and sample, formulation hypothesis, research instrument, data collecting method, and data analysis.

A. Research Design

In conducting this research the researcher need a plan and steps that the researcher will take. Before conducting research the researcher should identified what the kind of the research, and need to make planning how the research will be conducted. Because of that, the researcher needs to decide the research design.

This study used pre-experimental research design. According to Ary et al. (2010:303-305), there are two kinds of pre-experimental design, they are one-group pretest-posttest design and static group comparison. In this research, the researcher uses one-group pretest-posttest design because of the feasibility to conduct the research in two classes. The design is illustrated as follow:

Table 3.1 The design One-Group Pretest–Posttest Design adapted from Ary et al. (2010).

Pretest	Treatment (Independent variable)	Posttest
Y_1	X	Y_2

Notes:

Y1 :students' achievement on writing procedure text before being taught by using demonstration method.

X :demonstration method treatment

Y2 :students' achievement on writing procedure text after being taught by using demonstration method.

This study classified as pre-experimental research design because no control group. This design involves only one group as subject and it involves three steps; pretest, treatments, and posttest. Firstly, the group was given pretest before the experimental treatment. After the treatment was finished, the post test was administered. The effectiveness of the instructional treatment is measured by comparing the average score of the pretest and posttest.

The procedures of pre-experimental research are:

1. Administering a pretest with a purpose of measuring writing procedure text ability of the second grade students at MTs Negeri 8 Tulungagung before given treatment.
2. Applying the experimental treatment of teaching writing procedure text by using demonstration method of the second grade students at MTs Negeri 8 Tulungagung
3. Administering a posttest with a purpose of measuring writing procedure text ability of the second grade students at MTs Negeri 8 Tulungagung after given treatment.

B. Population, Sample and Sampling

1. Population

Population is a group of individuals who have the same characteristics. (John W, 2003:21) For a research that requires a large population for the source of the data, the first step is to define the target population. The target population of this study is all second grade students of MTsN 8 Tulungagung which consist of five classes.

Table 3.2 Population of the Research

No.	Class	Number of students
1.	VIII A	26
2.	VIII B	25
3.	VIII C	26
4.	VIII D	27
5.	VIII Excellen	32
	Total	136

2. Sample

Sample is part of the total number and characteristic belong to population. John, W. (2003:21) states, sample is a subgroup of the target population that the researcher plans to study for the purpose of making generalization about the target population is called sample.

The sample of this research take a group as experimental group. The researcher took VIII Excellen class that consist 32 students.

3. Sampling

According to Yount (2006: 73) sampling is the process of selecting a large group from the all group for a study. Sampling technique is needed as representative sample of the whole population. In this research, the researcher uses purposive sampling. In purposive sampling, sample has been chosen for a specific purpose (Cohen et al, 2005:103).

In purposive sampling, the researcher uses expert judgement to take some representatives or typical cases from populatuion. According to the English teacher, VIII Exellen has similar characteristics, their mastery is average which means not too good and not too bad. The class also cooperative enough and and demonstration method has never been used in teaching writing. Based on this condition, the researcher chooses VIII B as sample of the research.

C. Formulation of Hypothesis

The hypothesis of this research is:

a. Null Hypothesis (Ho)

There is no significant different on the students' writing procedure text achievement by using Demonstration method and without using Demonstration method.

b. Alternative Hypothesis (Ha)

There is significant different on the students' writing procedure text achievement by using Demonstration method and without using Demonstration method

D. Research Instrument

Researcher used test in order to measure the student achievement. In this research researcher used writing procedure text individually to know the score of this research. Student should be doing by themselves in a test. After researcher give a test student should be carryout the test. Student writes a drafting, revising and editing the test to get the test completely.

The test was conducted twice. Pretest was given before giving the treatment and posttest was given after giving the treatment. The format and level difficulty of pretest and posttest was same but it contains of different topic. In assessing students' speaking skill the researcher used scoring rubric.

E. Validity and Reliability Testing

A test is said to be good if it is valid and reliable. To ensure that the test is already good both its validity and reliability should be established.

1. Validity

According to Harrison (1983: 140) the validity of the test means the test measures what is intended to measure; whether it is achievement of the skill of language or attitude towards a language.

There are three types of validity, namely: content validity, criterion related validity and construct validity. This study used content validity. Content validity refers to whether or not the content of the manifest variables (e.g. items of a test or questions of a questionnaire) is right to measure (Muijs, 2004:66). It is concerned with how well the test measures the subject matter and learning outcomes covered during the instruction period. The content validity of the test may show that a test represents all materials objectives to be obtained by students.

Table 3.3 Content Validity of Test

Competence Indicators	Test Items	
	Pre-test	Post-test
	Writing test	Writing test

2. Reliability

Reliability is a necessary characteristic of any good test: for it to be valid at all, a test must first be reliable as a measuring instrument. If the test is administrated to the same candidates on different occasions and

produces differing results, it might be unreliable. According to Aruan (2002), the reliability of the test can be categorized as follows:

1. 0,00 - 0,20 = very low reliability
2. 0,21 – 0,40 = low reliability
3. 0,41 – 0, 60 = fair reliability
4. 0,61 – 0, 80 = high reliability
5. 0, 81 – 1,00 = very high reliability

To know how far the reliability of the instrument, the researcher made test to be tried out to students before giving pretest and posttest. In this research, the writer uses inter rater reliability where the result of the test was scored by two scorers or two raters to get reliability coefficient. Then, the two sets of scores gotten from the two raters are calculated to get the correlation coefficient. (see on appendix).

F. Normality and Homogeneity Testing

1. Normality

Normality test uses to know whether that the data is in normal distribution or not. The main reason of conducting normality testing in a research is to know that the population or data involved in the research is in normal distribution. The normality test can be found by using *One-Sample Kolmogorov-Smirnov* formula and computed using SPSS 25.0.

2. Homogeneity

Homogeneity testing is conducted to know whether the sample data has a homogeneous variance or not. The computation of homogeneity testing by using SPSS Statistics 25.00.

G. Data Collecting Method

The data collecting methods and instrument are needed to obtain the research data. The method of collecting data used in this research was administering test. In this research, the researcher used writing procedure text test to know the students score of writing procedure text. The tests were constructed by the researcher herself by using some source. The researcher used :

1. Pre-test

As the first meeting, the researcher gave a pre-test to the students. It was conducted to know the students score in writing procedure text before being taught the treatment. This test is given in order to know how far the students ability in writing procedure text.

2. Post-test

The post-test is given to the students after conducting the treatment of using Demonstration method to improve the students' writing procedure text.

H. Treatment

After administering pre-test, the researcher gave the treatment to the students. The treatment was done in 4 times exactly on February 15th until 18h 2018. The researcher applied the treatment by using demonstration nmethod writing proceduretext. Firstly, the researcher introduced about demonstartion method and how to apply it on the writing project as the task. Then, the students do the task. Here the steps of the treatment.

Table 3.4 Steps the Treatment of Demonstration method

First treatment

Aspect	Teachers' activity	Students' activity
Pre-activity	• Greeting • Check the attendance • Give the stimulation for students with the questions	• Give response of greeting • Answer the questions
Whilst-activity	• Give the example and explain of procedure text, generic structure, language feature of procedure text to the students. • Introduce demonstration method and give the example of demonstration. • Explain the topic of procedure text.. • Give explanation and ask students to write a draft of proceduretext about that topic.	• The students discuss together about the generic structure, grammar, and language fearture of procedure text. • Pay attention and give the response of the explanation. • Agree with the project. • Start to write a procedure text text about their best

		moment.
Post-activity	• Give the conclusion about the lesson. • Closing.	• Conluded the lesson. • Give response of closing.

Second treatment

Aspect	Teachers' activity	Students' activity
Pre-activity	• Greeting • Check the attendance • Ask students to prepare the materials and tools that use to do the project	• Give response of greeting • Prepare all the materials and tools.
Whilst-activity	• Give explanation about revising a draft of procedure text. • Ask student to revise a draft text.	• Students understanding materials. • Student revising a text.
Post-activity	• Ask the students to submit their project and give feedback. • Inform and explain the next project. • Closing.	• Submit the project. • Listen the explanation.

Third treatment

Aspect	Teachers' activity	Students' activity
Pre-activity	• Greeting • Check the attendance • Question and answer about the previous project	• Give response of greeting • Answer the questions
Whilst-activity	• Ask the students to identify the generic structure of procedure text. • Guide the students to editing a text of procedure text. • Ask student to submit	• The students identify the generic structure of procedure text that showed by teacher. • Editing and write a text of procedure text.

	their finish project about procedure text.	• Submit their text of procedure text.
Post-activity	• Give the feedback of text and conclusion about the lesson. • Closing.	• Conluded the lesson. • Give response of closing.

I. Data Analysis

In this research, the researcher used a quantitative data analysis technique to know the students achievement before and after being taught by Demonstration method. The quantitative data was analyzed by using statistical method. Here, the researcher conducted test to the students before and after taught by applying Demonstration method. The result of the test was compared to know whether there is significant different of the students' writing score. Therefore, the researcher used paired sample T test at SPSS to analyze the data. The researcher used Paired sample T test because the data was gotten from one scorer but produce two kinds of scores; the score of pretest and posttest.