CHAPTER III

RESEARCH METHOD

This chapter discusses research method in conducting the research, consist of research design, variables, population and sample, treatment procedure, research instrument, data collection and data analysis.

A. Research Design

Research design is strategy to arrange the setting of the research in order to get valid data based on the research problem in order to be able to explain more comprehensively. This study used quantitative method. According Cresswell (2003:21), quantitative research predicts the answer to the research problem based on theory and the goal of quantitative research is to verify the theoretical hypothesis based on the empirical data. This aims to see the effectiveness of clustering method in writing ability. In this research, the researcher used experimental quantitative research. Because the researcher could not manipulate the group using random, so the researcher used quasi-experimental design. This design was used to investigate whether teaching writing using clustering technique is more effective than teaching writing using picture media method.

In this study the researcher selected two classes from the seventh grades of Junior High School. The students of two classes as the sample in this research divided into two groups, namely experimental group and control group. The experimental group was taught by clustering technique while the control group was taught by using conventional method. The researcher

applied the treatment, giving two kinds of test to the students in each group, namely pre-test and post-test. It was aimed to know the effectiveness of clustering technique before and after the treatment . The result of the test was analyzed statistically.

Table 3.1.The design of this study

Group	Pre-Test	Treatment	Post-Test
Experimental Group	Pre-Test	Clustering Technique	Post-Test
Control Group	Pre-Test	Picture Media	Post-Test

B. Variables

According to Sudaryanto (2003: 72), variables are traits or characteristicsof individuals that are in a group or communityA variable can be determined as an individual's property or item that "varies" from people to people or from object to object. To asses the variable in a resarch, we need to recognize each as indicated by the sort os relationship we expect to investigate. A variable otherwise called as a characteristic that may take on various qualities. Research variable is a trait, characteristic, and estimation of individual, object or the variety of activity which has been dictated by the researcher to investigate and take finding (Arikunto, 2006:118).

The most generallyusedclustering of classifications of variables include independent variable, dependent variable, moderate variables, intervening, and control variables. These variables are used in experimental research.

1. Independent Variable

   Independent variable have been additionally ordered by different author as indicated by the stretch out to which they are manipuable by the analyst. Independent variable is a significant variable in research that had been select, control and measure by the researcher. Researcher chosen some special guidance technique, control the measure of the guidance and manipulate the guidance to know the meaning of instructional strategy well. Thus, the Independent variable in this research was the use clustering strategy as an educating method..

2. Dependent Variable

   Dependent Variable is the variable which researcher observe and measure t determine the impact of the independent variable well (Hatch and Farhady, 1982). The dependent variable in this research is the students' writing skill. In experimental research, the researcher had responsibility to control the variable because it can give impact the consequence of the research. Researcher need to control both experimental and control group by setting up the best circumstance in writing activity.

3. Extraneous Variables

   Extraneous variables are the factors in an research situation which may impacted in the choice of members, the methodology, the statistics or the plan likely influence the result and give an elective clarifications to our outcomes than what we expected. All experiments have some random error that you can not control, however you can attempt to control

extraneous variables however much as could reasonably be expected (Creswell 2012, p. 297). Beside of the explanation before, the extraneous variables are the members' interest or motivation to learn English it made great environment in the sclassroom and a portion of the members were join an english course so their writing skill were showing better before the researcher conduct this research.

C. Population and Sample

Population is the group of important to the research, the group to which she or he might want the result of the research to generalize. (Gay, 1987 in Thesis of Afifah, 2017). Population is the arrangement all things considered, which the characteristic will be observed. It is significant for the researcher area teasier. Sample is the smallest group of population in research. The sample in this research is two class of Senior High School students which divided in two group. Those are an experimental group and control group. The population of this research is the seventh grade students of MTsN 6, Nganjuk. The total number of students of the seventh grade students of MTsN 6 Nganjuk are 296 students with nine classes. Those class are VII-A, VII-B, VII-C, VII-D, VII-E, VII-F, VII-G, VII-H, VII-I. The table below is the distribution of seventh grade of MTsN 6 Nganjuk(appendix).

The sample of this study are class VII-H and VII-I. The researcherused VII-H with 30 students as the experimental groupand for the VII-I with 30 students as the control group. Researcher takes the class of VII-H as the

experimental group and for the VII-I as the control group because the students has the same population.

D. Treatment Procedure

Treatment is used to know the influence of clustering technique toward student's writing ability. The experimental group was taught using clustering technique and control group is taught by using conventional method. Both of groups also have similarity in activity teaching in the class. There are three parts, namely pre teaching activity, main teaching activity and post teaching activity. The difference teaching and learningprocess between experimental group and control group are presented below:

Table 3.2.Activities of The Treatment

Activity	Experimental group	Control group
Pre-Activity	➢ Opening and greeting ➢ Check attendance ➢ Encourage students to share their experience when describing person ➢ Introduce the learning objectives ➢ Write a topic of the lesson on the central of whiteboard	➢ Opening and greeting ➢ Check attendance ➢ Encourage students to share their experience when describing person ➢ Introduce the learning objectives ➢ Write a topic of the lesson on the cemtral of whiteboard
	➢ Teacher gives explanation about the descriptive text ➢ Teacher explains more the definition, purpose, generic structure, vocabularies, grammar, and language feature of descriptive text. ➢ Teacher introduces the concept of clustering technique to students and	➢ Teacher gives explanation about the descriptive text ➢ Teacher explains more the definition, purpose, generic structure, vocabularies, grammar, and language feature of descriptive text. ➢ Teacher gives and explains an example based on the learning topic.

Main Activity	gives example of descriptive text by using clustering technique. ➤ Teacher asks students to make some groups and leading student to generate ideas about the topic which is given by the teacher in form clustering technique on a sheet of paper. ➤ Students write the topic in the center of a piece of paper and write down any ideas that come into the mind about the topic and connect these ideas to the sentence word with a line ➤ Teacher asks students to write a paragraph based on the clustering in the form of descriptive text	➤ Teacher asks students to identify the example given and asks some question about the example given. ➤ Teacher gives some pictures and asks students to make descriptive text on the sheet of paper. ➤ Students write descriptive text based on the instruction of teacher
Post-Activity	➤ Teacher checks the result ➤ Conclude the lesson ➤ Give motivation ➤ Close the class	➤ Teacher checks the result ➤ Conclude the lesson ➤ Give motivation ➤ Close the class

Table 3.3. The Schedule of Activities

Meeting	Activities	Experimental Group	Control Group
First	Pre-Test	20th January of2020	21th January of2020
Second	Treatment 1	27th January of2020	28th of March 2020
Third	Treatment 2	03th February of2020	04th February of2020
Fourth	Treatment 2	10th February of2020	11th February of2020
Fiveth	Post-Test	17th February of2020	18th February of2020

E. Research Instrument

According to Arikunto (1997 : 225 – 235) instrument is the tool when the researcher used a method, so that instrument is needed to get the data in a researcher. There are five ways of collecting data in research. Those are observation, test, questionnaire, interview and document.In this study, researcher uses test as instrument, therefore, the researcher applied a set of tests.

Test is a set of questions or other practice or device used to measure the skill, intelligence, ability and talent of an individual or a group. There are two kinds of test used in this research:

1. Pre-test

The researcher gives pre-test both of groups, experimental group and control group. It is given before treatment. It is needed to know the students' writing ability before using clustering technique. The pre-test is given before the experimental group gets treatment from the researcher. In this pre-test, students were asked to write descriptive text about people for bothexperimental and control group. The researcher determined 60 minutes to work the test with 10 sentences. The student should put out the generic structur of descriptive text. They could use their dictionary but they do their it by themselves.

2. Post-test

Post-test is a test which is given after treatment. The experimental group is given particular technique before doing post-test. The control

group also done the post-test without being given technique before. The post-test conducted to measure the students' writing ability after the treatment and to know the progression on both experimental and control group.In this post-test, students were asked to write descriptive text about people but in the different topic for bothexperimental and control group. The instruction of this test was like in pre-test but it was given after treatment.

In this study, the researcher uses the rubric to evaluate the student's writing skill. In this research, the writer used analytic scoring rubric from Brown (2003, 246). There are five aspects that will be a specific purpose in scoring.

Table 3.4. The Scoring Rubric

Aspect	Score	Description
Content	4	The topic is complete and clear and the details are relating to the topic.
	3	The topic is complete and clear but the details are almost relating to the topic.
	2	The topic is complete and clear but the details are not relating to the topic.
	1	The topic is not clear and the details are not relating to the topic.
Organization	4	Identification is complete and descriptions are arranged with proper connection.
	3	Identification is almost complete and description arranged with almost proper connection.
	2	Identificatioon is not complete and descriptions are arranged with misuse of connection.
	1	Identification is not complete and descriptions are arranged with misuse of connectives.
Vocabulary	4	Effective choice of words and word forms, but

		ot change the meaning.
	3	Few misuse of vocabularies, word forms, but not change the meaning.
	2	Limited range confusing words and word forms.
	1	Very poor knowledge of words, word forms, and not understanable.
Grammar	4	Very few grammatical for agreement innacuracies.
	3	Very few grammatical for agreement innacuracies but not effect on meaning.
	2	Numerous grammatical or agreementinnacuracies.
	1	Frequent grammatical agreement innacuracies.
Mechanic	4	It uses corrrect spelling, punctuation, and capitalization.
	3	It has occasional errors ofspelling, punctuation, andcapitalization.
	2	It has frequent errors of spelling, punctuation, and capitalization.
	1	It has dominataed by errors of spelling, punctuation, and capitalization.

F. Data Collection

In this study, test is the important instrument to collect the data. Test is used to know the person ability and knowledge. Pre-test and post-test is taken to collect the data. The first data was pre-test. Pre-test would be given to the experimental and control group with the same test. It was done to measure students' writing ability before getting treatment from the researcher. The researcher conducted the test in both classes in order to know the experimental group and control group having similarity ability or not before the implementation of clustering technique. Pre-test is intended to know the student's ability in writing descriptive text.

The second data is post-test. After giving treatment in experimental group, the researcher gives the post-test to know student's ability result after conducting the treatment. The result of the test scored and calculated.

To know whether the test great or not, the researcher check it through the validity and reliability quality of every things of test.

1. Validity

    An instrument is valid if it is able to measure what is desirable and it canreveal the data of the variables appropriately (Arikunto, 2006: 158). Validity is the most significant thought in developing and evaluating the instruments. Validity is the particular in creating steps and that certifiable logical estimations are the preeminent in the mind of the individuals who are searching for valid result from assessment. There are many kinds of validity for investigating the validity of a test but in this research only used content validity.

    Content validity refers to whether or not the content of the manifest variables is right to measure the latent concept that we are in trying to measure. The content validity of this test is valid, because appropriate with curriculum, syllabus and material from the textbooks which is used in the school.

2. Reliability

    Reliability could be characterized as consistency of measurement across variety of a testing situation, for example, various characteristics or aspects of a testing situation, such as, different prompt and different

raters (Weigle, 2002:49).Johnson and Christensen (2008: 144) state that reliability refers to theconsistency or stability of the test scores. This helps researcher and educators make reliable comparisons. Reliability quality is a significant factor in the assessment, and is introduced as an aspect that adds to validity and does not strife with validity. There are two types of reliability: intra-rater reliability (self-consistency) and inter-rater reliability (agreement between raters).

Marguite (2006:114) argued that inter-rater reliability is the level of consistency or accuracy when two or more individuals are observing and recording information on the equivalent observed situation. Intra-rater reliability is measured by correlating the scores for two different rating.

In this study, researcher used inter-rater reliability to collect the data. There are two score and calculated between them to get a score reliable. The first rater is the English teacher of seventh grade of Junior High School and the second rater is the researcher.

G. Data Analysis

The research is quantitative research, so the analysis was done by quantitatively. It is suggested that numerical measure are used. The data from the test will be analyzed using quantitative data analysis. The researcher applies statistical method to get generalization or conclusion from the result. The researcher used ANCOVA to measure the result. Significant value of criterion of accepted or rejected are: 1) p Value (sig)>ἀ (5% or 0.05), it means that H_0 is accepted and $H_a$isrejected. It means that Clustering

Technique is not effective implementing in teaching writing descriptive text at seventh grade of Junior High School Students. 2) p Value (sig)$\leq \dot\alpha$ (5% or 0.05), H_0 is rejected and H_a is accepted.