CHAPTER III

RESEARCH METHOD

This chapter present research design, research variable, population and sample, research instrument, treatment procedure, data collection, and data analysis.

A. Research Design

Research design is a strategy to arrange the settings of the research to obtain valid data based on the research problems. In this study, the researcher applied quantitative research as research design to investigate whether employing flipped learning is effective in teaching through pre-test and post-test to get the scores and to have numerical data. According to Creswell (2018) quantitative research is an approach to test objective theories by investigating the relationship between independent and dependent variable.

The researcher used a quasi-experimental research design because the researcher does not assign subjects to experimental treatments for a study randomly. The researcher apply pre-test and post-test in two different groups (experimental group and control group), but they have different treatment. For the experimental group, students are given a treatment by using flipped learning in teaching writing to know the effect of using it on student' writing skill, while for the control group, students are taught in teaching writing by using direct learning. The design of this research is summarized in table 3.1.

Table 3.1 Research Design

Group	Pre-Test	Treatment	Post-Test
Experimental Group	Pre-test	Flipped Learning	Post-Test
Control Group	Pre-test	Direct Learning	Post-Test

B. Research Variable

In this research, there are two variables. They are independent and dependent variable. Variable is object of study that became important points in the study. Dependent variable is a variable which the value can affect other variable (independent variable) and independent variable is a variable which the value is affected by dependent variable (Creswell, 2018). The independent variable of this study for the experimental group is flipped learning, then for the control group is using direct learning that may influence dependent variable. And the dependent variable is teaching writing.

C. Population and Sample

Population is the total of students that will be selected. In this research, the population was students of seventh grade of MTsN 1 Kota Blitar in academic year 2020/2021. Meanwhile, the sample is the total of students who is taken from population and will be observed. The researcher took 7F and 7G as sample of the lresearch. The researcher decided 7F as experimental group and 7E as the control group. The sample was chosen based on consideration from the school.

D. Research Instruments

Instrument as one of the significant steps in conducting a research has important function in the research. It is a tool used by researcher to collect data of subject and measure the variable that was observed in order to get better results in the research (Arikunto, 1997). Therefore, in collecting data, the researcher chooses test as the research instrument in this research.

The test is divided into two parts; pre-test and post-test to get the accurate data. 1) The pre-test was given in the first meeting for all student of 7F as the experiment group and all student of 7E as control group to know the student condition before getting the treatment. Student will be asked to write descriptive text consisting of two paragraphs; identification and description. The topic is about family and the student will be given 45 minutes to finish their work. 2) and the post-test also was given for student in 7F and 7E to know whether applying flipped learning is effective or not after students get the treatment. Post-test was conducted in the last meeting. The researcher gave a written test for students to make descriptive text based on the topic given by the researcher. The topic is about tourism place and the student will be given 45 minutes to finish their writing test.

In this research, the researcher used score rubric to evaluate the student writing skill. The researcher used analytic scoring from Brown (2003, 246) that can be seen in appendix . There are five aspects that will be a specific purpose in the scoring.

E. Treatment Procedure

In this research, the researcher used three steps of research in the control group and experimental group. They are pre-test, treatment, post-test. Pre-test was given to both of experimental group and control group to know how far the students writing ability in descriptive text before giving the treatment (It can be seen in appendix. The second is giving treatment or teaching activity for two meetings. In this part, flipped learning was employed in the experimental group, while direct learning method was applied in the control group. The last step is post-test. The researcher gave post-test to both of experimental group and control group to measure their writing ability in descriptive text after getting treatment (It can be seen in appendix. The following is the treatment procedure for experimental group and control group:

Table 3.2 Treatment Procedure

Experimental Group	Control Group
Opening	Opening
The teacher greets the students and checks attendance list.	The teacher greets the students and checks attendance list.
The teacher explains about using flipped learning in teaching writing of descriptive text. • Teacher make a group discussion for interact with students. • The researcher asked topic and discuss together the difficult point in the video learning that has given outside of the classroom. • The students are asked to write a descriptive text individually.	The teacher explains about using direct learning in teaching writing of descriptive text. • Teacher explains the material. • The teacher gives example of descriptive text. • The students are asked to write a descriptive text individually.
The teacher reviews the material of descriptive text and gives a feedback.	The teacher reviews the material of descriptive text and gives a feedback.
Closing.	Closing

F. Data Collection

Data collection is used to collect the data required in the research. In this study, the researcher employed quantitative data taken from students' score in doing the test. They are gained from pre-test and post-test.

The first data is gained from pre-test. Both of experimental group and control group are given same instructions in conducting the test to know the level of students writing skill. After that, the researcher gave treatments to the experimental group by using flipped learning in teaching writing. The second data is gained from post-test. Post-test is conducted to know the significant difference on the students' descriptive writing achievement taught by flipped

learning and the students who are taught by using direct learning in teaching writing.

G. Data Analysis

After the researcher collects the data from pre-test and post-test score. The researcher analysed the data and compare them. The researcher applied statistical method to get generalization or conclusion from the result. Therefore, the researcher used ANCOVA because ANCOVA is an appropriate statistical test for quasi-experimental design to measure the ratio of means from two groups (Liou & Peng, 2006). Significant value of criterion of accepted or rejected are: 1). If the Sig. < 0.05, then H0 (null hypothesis) is rejected. This means that the mean scores of the experimental group are higher than the mean scores of the control group indicating that flipped learning is effective to teach writing descriptive text. 2). If the Sig. > 0.05, then H0 (null hypothesis) is accepted. This means that the mean scores of the experimental group are the same or lower than the mean scores of the control group indicating that flipped learning is not effective to teach writing descriptive text.