CHAPTER III

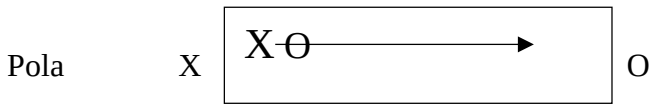
RESEARCH METHODS

3.1 Research Method and Design

In this study, the research method used is Pre Experimental Design Method. This research was conducted in one group that is the experimental group that get the teaching using comic in Small Group Discussion Strategy. Research is basically a search effort in various ways. Of course a study requires a method that is appropriate for the achievement of a goal of research. The method used in this research is *Pre Experimental Design* method with research design *One Group Pre-test Post-test*. Due to the implementation of control class research is very difficult, then only one class is done that is experiment class.

3.1.1 Experimental Design

The design used is the *One Group Pre-test Post-test* that is the design of the observation done twice before the experiment and after the experiment. Observations made before the experiment is called pre- test, and post-test experiments after the experiment. The chart can be described as follows



Picture 3.1 Pre – test Post - test

Information:

X is the result of observation before treatment.

O is the result of post-treatment observation. (Arikunto, 2010: 124)

3.1.2 Description of The Research

The research design is a detailed description of the research process that will be done by the researcher to be able to solve a problem (Sukardi, 2003: 68). The procedure of this research design as follows.

a. Determining the subject of research that will be made as research subjects.
b. On the subject of the research that has been specified, the researchers conducted learning process on the material of narrative text.
c. In the learning process of small group discussion researcher and researching student activities during the learning process takes place.
d. After the learning process, researchers give an evaluation to determine how big the reading skills of students and learning outcomes in solving narrative text. The evaluation used is a written description test.
e. Problem test that is given in accordance with the provisions grating and criteria that have been made previously by investigators.
f. Then the researchers gave a questionnaire of student responses used to measure how much students respond in the learning process.

3.2 Data and Source Data

3.2.1 Data

The data used in this research is:

1. Student Activity

   Student activity data obtained by using student activity observation sheet.
2. Student learning outcomes

Student learning result data obtained by giving test to student.

3. Student Response

Student response data obtained by giving a questionnaire of student responses.

3.2.2 Sources of data

Sources of data were obtained from students conducted at the research site. Categorized as research subject and research location as follows.

1. Research subject

Subjects in this study were students of eight grade, D class SMPN 2 MENGANTI 2016/ 2017 academic year which amounted to 34 students consisting of 18 male and 16 female.

2. Research sites

The location of this research was conducted in SMPN 2 MENGANTI Gresik regency.

3.3 Data Collection Technique

Data collection is the way used by researchers in collecting research data. The research instrument is a tool or facility in collecting data. Instrument research helps researchers in collecting data so that researchers can be more thorough, complete, and systematic so much easier to process data. Data collection in this research use three kinds of method, that is:

3.3.1 Observation Method

Observation method is an observation activity conducted at the time of learning took place to know the student activities. According to Hadi (in

Sugiono, 2011: 145) observation is a complex process, a process composed of various biological and psychological processes. In this study researchers will observe the activities of student activities in the learning process.

3.3.2 Test Method

The test method is a method or tool for conducting research using other questions, questions or tasks where the questions or questions have been carefully selected. The test used in this study is in the form of a test description of 5 questions to determine student learning outcomes.

3.3.3 Questionnaire Method

Questionnaire is a data collection technique that is done by giving a set of questions or written statement to the respondent to be answered (Sugiono, 2011: 142). Questionnaire used in this research is a closed questionnaire, which is a questionnaire presented in such a way that the respondent live marks on the appropriate place or column or in other words the respondents just choose the answer that has been prepared (Arikunto, 2006: 152).

Questionnaire is prepared by using a likert scale or rating-scale as a measure of the attitude of respondents to the statement given. The answer category consists of 4 alternative answers, for quantitative analysis, the alternatives of the answers are scored from 1 to 4, with the following details.

4 : Strongly Agree or Very High

3 : Agree or high

2 : Disagree or low

1 : Strongly Disagree or Very Low (Arikunto, 2006: 152).

Questionnaires used in this study is a questionnaire of student responses used to determine the response of students.

3.4 Research Instrument

The research instrument is a tool used to collect quantitative information about the variable under investigation.

There are several types of instruments used in this research, namely:

3.4.1 Observation

Observation is a technique that is done by making a careful observation and recording systematically (Arikunto, 2012: 45).

There are special instructions for scoring and assessment in observation of Student Reading Activity:

Charging this format is done by checking the box under the descriptor statement. Scoring is done by counting the number of indicators displayed by students during the learning, namely:

Score (1) is given, if the student display indicator not good/ not display.

Score (2) is given, if the student less display indicator.

Score (3) is given, if the student enough display indicator.

A score (4) is given, if the student good display indicator.

A score (5) is given, if the student very good display indicator.

The number of scores on one indicator is written in the number column, the total score of the overall indicator is calculated average. To determine its meaning (assessment process), the score is transformed into the following classified distribution:

78 - 90: very positive

63 - 77: positive

48 - 62: quite positive

33 - 47: negative

18 - 32: very negative, Ayinosa (2009)

The following is an indicator in the observation of student reading activities, namely:

a. Running the tasks that are his responsibility

b. Stay in the group during group work

c. Giving trust to friends to complete the task

d. Working in groups and willing to help friends in completing tasks

e. Ask friends or teachers about how it works.

f. Ask for help from friends or guidance to teachers if you have difficulty.

g. Pay attention to information / explanations / opinions submitted by a group friend or teacher

h. Listen to friends' opinions

i. Provide input for group success

j. Respond to what friends say, including positive criticism

k. Pay attention to what friends do (listen)

l. Provide questions or answer questions relevant to the theme being discussed. Suaidin (2012).

In this study that was observed by researchers only 7 study groups.

3.4.2 Test

The test is a series of questions or exercises or other tools used to measure the skills, measurements, intelligence, abilities or talents possessed by individuals or groups. There are pre-test and post-test.

3.4.3 Questionnaire

Questionnaire is a number of written questions that are used to obtain information from respondents in the sense of a report about his personality, or things that are known. Here are the questions in the questionnaire:

a. The teacher gives apperception (question) before classroom learning begins.
b. In solving the problem teachers are always open-minded.
c. The material explained by the teacher is quickly understood by the students.
d. In explaining, the teacher gives a concrete example of a problem described to help understand the material given.
e. In solving a problem, teachers easily combine information related to the problem.
f. The teacher is passionate about delivering every lesson.
g. Teachers inform effective, creative ways in class or home to students.
h. At the time of delivering the material, the teacher can bring the class atmosphere so that students pay attention to the material delivered.
i. The teacher gives the students the opportunity to consult the difficulties that are experienced outside of the lesson.

j. The teacher enjoys listening to interesting or important stories through various sources that are then passed on to the students.
k. Teachers use varied methods of learning.
l. The teacher uses images in the teaching and learning process.
m. The teacher draws the attention of the students in the learning process so that it can generate student enthusiasm.
n. The teacher gives the final assignment about the material.

Arikunto (2006).

3.5 Research Procedure

The research procedure is an ordinance used by a researcher to search and collect data by using sequential ways, so that the results obtained research is good and correct.

The procedures used in this study are as follows:

3.5.1 Stage of Preparation

a. Researchers prepare a research report.
b. Researchers determine the place of research that is in class VIII SMPN 2 Menganti
c. Researchers requested a research permit to conduct research at the school.
d. Researchers make learning tools.
e. The researcher makes the test grille on the Narrative text material.
f. The researcher made the test questions in the form of written descriptions based on the grid that has been made.

g. The researcher made the answer keys and scoring rubric of test questions made based on the test grille.

h. The researcher made an observation sheet of teacher activities, students and questionnaires.

3.5.2 Stage of Implementation

After the stage of preparation is completed, the researcher conducts the learning by small group discussion method on the narrative text material in class VIII SMPN 2 Menganti which is the subject of research.

3.5.3 Stage of Data Analysis

After the test is done, the next step is to analyze the answers of students who have been collected, whether it is in accordance with the criteria of scoring guidelines and reading scoring guidelines that have been made to determine students' reading ability. Then the researcher also process data of student activity and student response questionnaire.

3.5.4 Writing Reports

After the data collected and processed, the researchers do report writing.

3.6 Data Analysis Technique

According to Sugiyono (2011: 244) data analysis is the process of searching and compile systematically data obtained from interviews, field notes, and documentation by organizing data into categories, describe into units, synthesize, arrange into the pattern, choose what is important and what

will be learned, and make conclusions so easily understood by yourself and others.

3.6.1 Student Activity

Student activity data in the learning process is obtained from activity observation sheet observed by the observer during the learning process. The data is processed by finding the percentage of each activity by using the formula:

$$P = \frac{F}{N} \times 100\%$$

F = Frequency in minutes

N = Total number of activities in minutes

P = Number of values in percent (relative value)

Student activities are categorized as active if the students from the beginning to the end of the learning process follow well, the percentage of activities of the students that are relevant to the learning activities are higher than those that are not relevant to the learning activities.

3.6.2 Student Reading Ability

Before performing hypothesis test the researcher performs classical assumption test, that is validity test, reliability test, andnormality test as follows:

3.6.2.1 Validity Test

Validity Test is done to determine the level of validity of the instrument. Instruments are said to be valid if able to measure what is desired or can reveal data from the variables studied appropriately. Validity and

reliability testing is required in scientific research which is the basis for believing that the instrument is really worthy of use in research.

The analysis used in the validity test in this research is to use the product moment correlation according to the opinion of the person on each item of measuring instrument with the total score which is the number of each grain score and then assisted with SPSS version 20 for data grouping. the formula used is:

$$rxy = \frac{N \sum XY - (\sum X)(\sum Y)}{\sqrt{[N \sum X^2 - (\sum X)^2][N \sum Y^2 - (\sum Y)^2]}}$$

Description:

r x y = The index number correlation "r" product moment

N = Number of cases

ΣXY = Number of research results between X and Y score

ΣX = Total number of scores X

ΣY = Total number of Y score

3.6.2.2 Reliability Test

The reliability test is performed to determine the extent to which the results of a measurement can be trusted. Good research instruments will not be tendentious in directing respondents to select specific answers. Reliable instruments will produce reliable data as well. Instruments are said to be reliable if an instrument is reliable enough to be used as a data collection tool because the instrument is good. The formulas used in measuring reliability are:

$$rH = \left(\frac{k}{k-1}\right)\left(1-\sum\frac{\pm_b^2}{\pm_1^2}\right)$$

Description:

*r*H = Instrument Reliability

k = Number of question items or number of questions

Σ σ 2b = Number of variance items

σ 21 = Total Variance

3.6.2.3 Normality test

Normality Test to know whether the data in question is normal or not. The method used for normality test in this research is chi squared test, by using formula as which by Suharsimi Arikunto (2002: 29).

$$x^2 = \sum\left(\frac{fo - fh)}{fh}\right)$$

Description:

X2 = Chi squared

fo = Frequency obtained

fh = Expected frequency.

3.6.2.4 Hypothesis test

To know the effect of small group discussion strategy on students' reading ability. So the researcher uses hypothesis test that is T-test test by using SPSS IBM Version 20 calculation tool. Here is T-test test formula:

$$t = \frac{r\sqrt{n-2}}{\sqrt{1-r^2}}$$

Information:

T = Hypothesis test

R = Correlation coefficient

N = Number of samples / data

Hypothesis test criteria:

a. Ho is rejected: if test t> 0.05, means Ha accepted.

b. Ho accepted: if test t <0.05, Ha means rejected.

3.6.3 Student Response

To obtain student response data, the observer gave a questionnaire of student responses filled by students after following the learning process. Then the data is analyzed by using the formula:

$$P = \frac{A}{B} \times 100\%$$

Information:

P = Percentage of student responses

A = Many of the same student choices

B = Total number of students

Student responses are categorized as positive if the average score of students chooses yes ≥ 70%. And students' responses are categorized as negative if the average score of students choosing an answer is not <70%.