

CHAPTER III

METHODOLOGY

3.1 Research Design

Based on the purpose of this study, the researcher chooses experimental design to implement Drama Performance toward the reading narrative text of the students who study English at first grade of MAN 2 Gresik. The kinds of experimental design that is used is quasi. Quasi-experimental design is a design that uses all subjects in the study group (intact group) to be treated and not with subjects drawn randomly.

There are many situations in educational research in which is not possible to conduct a true experiment such as the number of students in each class and study time determined by the school cannot be changed in accordance with the wishes of researcher so, in this study, the kind of experimental design that is used is quasi (pretest-posttest control group design). Both of groups (control group and experimental group) are given pre-test. Pre-test is done to guarantee that both of group have similar ability in reading.

After given pre-test, experimental group will be treated using drama performance strategy, and control group will be treated using cooperative learning strategy. The treatment will held on four meetings, each meeting has different topic of narrative. After fourth treatment both of group are given post-test.

3.2 Population and Sample

Because the kind of this study is experiment, the researcher uses sampling population to take the population and the sample.

3.2.1 Population

The population of this research is all the first year students of MAN 2 Gresik in academic year of 2016/2017 (333 students).

3.2.2 Sample

In this study, the researcher uses total sampling technique in which the students of class X-IPA 1 (32 students) and X-IPA 2 (32 students) will be taken as sample. Based on the explanation of the English teacher of MAN 2 Gresik and the result of pre-test, the students of class X-IPA 1 and the students of class X-IPA 2 at MAN 2 Gresik have similar ability in reading skill. So, in this study the researcher will take the students from both of classes (students of class X-IPA 1 and students of class X-IPA 2) to be the sample.

3.3 Data Collection

3.3.1 Instrument of Research

The instrument that is used in this research is test (pre-test and post-test), namely objective test, which consist of 20 items that arranged in multiple choices. In this test, the students will get a passage about reading comprehension that followed by 20 items. The researcher takes the passage from the internet.

3.3.2 Validity and Reliability

Validity refers to how well a test measures what it is purported to measure. Reliability is the degree to which an assessment tool produces stable and consistent results. To check the validity and the reliability of the test, the researcher will use SPSS 16.0 program.

3.3.3 Procedures of Collecting Data

In this study, the researcher distributes the test by herself. English teacher recommended that in this research the students of class X-IPA1 to be experimental group and the students of class X-IPA 2 to be the control group.

3.3.3.1 The Procedures of Collecting Data from the Control Group

The procedure of collecting data from the control group is divided into three steps. They are pre-test, treatment, and post-test.

1. *Pre-test*

The researcher gives pre-test to see the students' prior knowledge on reading narrative text. In this test the students will do 20 items of multiple choices.

The procedures are:

- a) The researcher distributes the test to the students by herself
- b) The researcher explains to the students how to do the test
- c) The students do the test in 60 minutes
- d) The researcher collects the test.

2. *Treatment*

The students receive the treatment of reading material by using cooperative learning strategy.

The procedures are:

- a) The teacher asks the students about the topic
- b) The teacher explains to the students about the purpose of the study and the generic structure of narrative text
- c) The teacher asks the students to mention the kinds of narrative
- d) The teacher asks the students to mention the title of narrative
- e) The teacher shows narrative text and asks about the content of the text
- f) The students make some groups
- g) The teacher gives the task, then the students do it in group
- h) The students present the result of their work in front of class
- i) The teacher reviews about the lesson and ask the students' difficulty (if any).

3. *Post-test*

After fourth treatment, the researcher will give the second test, namely post-test. Here, the total items are same with the total items in pre-test that is 20 items multiple choices. This test is done to find out whether there is any significant difference on the students' knowledge before and after giving treatment.

The procedures are:

- a) The researcher distributes the test to the students by herself

- b) The researcher explains to the students how to do the test
- c) The students do the test in 60 minutes
- d) The researcher collects the test.

3.3.3.2 The Procedure of Collecting Data from the Experimental Group

The procedure of collecting data from the experimental group is divided into three steps. They are pre-test, treatment, and post-test.

1. *Pre-test*

Before giving the treatment, the researcher gives pre-test to see the students' prior knowledge on reading narrative text. In this test the students will do 20 items of multiple choices.

The procedures are:

- a) The researcher distributes the test to the students by herself
- b) The researcher explains to the students how to do the test
- c) The students do the test in 60 minutes
- d) The researcher collects the test.

2. *Treatment*

The students receive the treatment of reading material by using Drama Performance Strategy.

The procedures are:

- a) The teacher asks the students about the topic
- b) The teacher explains to the students about the purpose of the study and the generic structure of narrative text
- c) The teacher asks the students to mention the kinds of narrative
- d) The teacher asks the students to mention the title of narrative

- e) The teacher asks the students to make some groups and sit with their member.
- f) The teacher gives text and ask the students to do the task based on the instruction in group.
- g) To check the students comprehension, the teacher ask the students to perform a part of the drama from the text. There are group perform the beginning, the other groups perform the middle and the ending of the story.

3. *Post-test*

After giving the treatment, the researcher will give the second test, namely post-test. Here, the total items are same with the total items in pre-test that is 20 items in multiple choices. This test is done to find out whether there is any significant difference on the students' knowledge before and after given the treatment through Drama Performance Strategy.

The procedures are:

- a) The researcher distributes the test to the students by herself
- b) The researcher explains to the students how to do the test
- c) The students do the test in 60 minutes
- d) The researcher collects the test.

3.3.4 **Data Analysis**

This section will present the original result of data analysis through the application of SPSS 16.0 program in order to know how the students' performance on doing both pre-test and post-test are. The procedures that

is used is independent sample T-test. The result of both tests will be analyzed in order to examine what is the effect of drama performance strategy on students' reading narrative text.

3.3.4.1 Hypothesis Testing

Independent t-test was used to find out the significant different between experimental and control groups. The steps of t-test calculation are:

The first step the hypothesis of this research. The hypothesis can be formulated as follow:

H_0 : There is no significant effect on the use of Drama Performance

Strategy on students' reading narrative between experimental group and control group

H_1 : There is significant effect on the use of Drama Performance Strategy on students' reading narrative text at between experimental group and control group

The second step is finding t-value using independent t-test formula hypothesis. T-test was calculated to find out the comparison of two means between experimental and control groups, pre-test and post-test. In analyzing the data the researcher used independent t-test formula. The formula used in calculating t-test is:

$$t = \frac{(\bar{x}_1 - \bar{x}_2) - (\mu_1 - \mu_2)}{S_{\bar{x}_1 - \bar{x}_2}}$$

Where:

T is t value

X_1 is average group 1 (experimental groups)

X_2 is average group 2 (control groups)

S is standard error of the two groups

$\mu_1 - \mu_2$ is always defaults to 0

$$s_{\bar{x}_1 - \bar{x}_2} = \sqrt{\frac{S^2_{pooled}}{n_1} + \frac{S^2_{pooled}}{n_2}}$$

Pooled variance: the average of the two sample variances, allowing the larger sample to weight more heavily.

Formula:

$$s^2_{pooled} = \frac{(df_1)s^2_1 + (df_2)s^2_2}{df_1 + df_2} \quad \text{OR} \quad s^2_{pooled} = \frac{SS_1 + SS_2}{df_1 + df_2}$$

df_1 =df for 1st sample; n_1-1

df_2 =df for 2nd sample; n_2-1

Estimated Standard Error of the Difference

$$s_{\bar{x}_1 - \bar{x}_2} = \sqrt{\left(\frac{SS_1 + SS_2}{n_1 + n_2 - 2}\right)\left(\frac{1}{n_1} + \frac{1}{n_2}\right)}$$

In calculating t-test, the researcher uses SPSS version 16.0 program. According to Zawawi (2012:28), the steps in analyzing the data of post-test both of experimental group and control group are follow: first, input the data of post-test in SPSS program between experimental and control group, then click Analyze → Compare Means → Independent Sample T Test, after that in Independent Sample T Test, input the score variable into Test Variable,, and for group variable into Grouping Variable, the click Define Group, choose group 1 (for experimental) and group 2 (for control), then click OK.