

## CHAPTER III

### METHOD OF THE STUDY

#### 3.1. Research Approach

Quantitative method is used in this study. Burns and Grove (cited in Cormark 1991) explain that quantitative research method is a formal, objective, systematic process in which numerical data are utilized to obtain information about the world. Quantitative designs of research tend to produce results that can be generalized. This method uses data that are structured in the form of numbers or that can be immediately transported into numbers. Therefore, the writer uses this research method because the result of data analysis will be shown in numerical data by using statistical test.

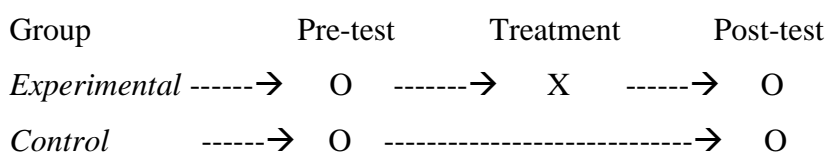
The writer uses experimental design for this quantitative method. According to McMillan (2008), one of the essential characteristics of experimental research is direct control (manipulation) of the independent variable. Direct manipulation of the independent variable means that the researcher determines when the subjects receive the intervention (treatment) and how much of it each subject receives. In the design there are two main of variable types: independent and dependent. The independent variable is the one that we believe may “cause” the results: the dependent variable is the one we measure to see the effects the independent variable has on it (Mackey and Gass, 2005, p. 103). In her

study, the writer applies short stories as the independent variable and the students' scores as the dependent variable.

According to Mackey and Gass (2005), there are two types of experimental designs. Design types can range from true-experimental (with random sampling) and quasi-experimental (without random sampling). Random sampling refers to the selection of participants from the general population that the sample will be represented. Since this study chose two classes of the fourth grade students which have been existed, it means that there is no random sampling. Therefore, the writer uses quasi-experimental design.

Quasi-experimental design is often used when the subjects are available in existing as groups such as classes (McMillan, 2008). Since it closely approximates the most desirable experimental designs, it is commonly used in educational research.

The design uses pretest and posttest for the two groups. McMillan (2008) points out that a pretest is a measure of the dependent variable given before the treatment begins. On the other hand, a posttest is given after the treatment finish. The two groups consist of experimental group and control group. Experimental group means the group with the treatment. Control group means the group without treatment. The design is described as follows:



### **3.2. Population and Sampling**

A population is a group of individuals or items that share one or more characteristics from the data which can be gathered and analyzed. A sample is a subset of data selected from a population (Mackey and Gass, 2005). The population of this study is the fourth grade students in Perak Barat area (consists of four Elementary Schools). The sample is the fourth grade students in SD Ikan Kerapu Surabaya (consists of two classes “IV A and IV B”, each class consists of 31 students).

### **3.3. Technique of Data Collection**

#### **3.3.1. Participants**

In this study, the school's name is SD Ikan Kerapu. It is the school where the writer has become the English teacher since two years ago. The writer became the researcher and also the teacher who gave the treatment to the students. The total number of the students in this school is 350 students. Since it is an elementary school, it means that there are six grades. Each grade consists of two classes and each class consists of twenty five until thirty four students in average.

The participants were the fourth grade students. The number is sixty two. They are students with age range from nine to eleven years old. The sixty two students are separated into two classes (IVA and IVB). Each class consists of thirty one students. IVA consists of twenty girls and eleven boys. On the other

hand, IVB consists of eighteen girls and thirteen boys. Although they are heterogeneous, but girls are more dominant. IVA became the experimental group and IVB was the control group.

Most students live around the school. They come from different social-economic classes. However, it is about 50% students come from intermediate social-economic class and 30% are in low social-economic class. The others are in high social-economic class.

### **3.3.2. Procedures**

At first, the writer gave the same pre-test to both groups (experimental group and control group). The pre-test consists of 20 questions about grammar (preposition and changing positive sentences into negative and interrogative) which were in the form of multiple choices. Multiple choice tests are the strongest predictors of overall student performance compared with other forms of evaluations (Izart, 2005). Then, during six weeks (six meetings) the writer gave different treatment to both groups. The six meetings consist of pre-test, four times treatments, and post-test. The duration of the treatment is 30 minutes.

For the control group, the writer used conventional way; she taught grammar by explaining on the whiteboard and then giving exercise to students. On the other hand, in the experimental group, the writer gave short story text to the students and she taught grammar by using stories. She used four short stories to teach grammar which the topics were about preposition and changing positive

sentences into negative and interrogative. In telling the short story, the writer used her interesting gesture, facial expression, and exaggerated voice. She was also involving the students in “question and answer” discussion. After telling the story, the writer asked the students to do an exercise about grammar which can be found in the following of the short story text given.

At the end of sixth meeting, the writer gave the post-test to both groups. The material of post-test was the same as the material of pre-test. Then, the writer counted and presented the pre-test and post-test scores of the experimental group and the control group. In short, the techniques of data collection are:

1. Conducting the same pre-test to the experimental group and control group
2. Conducting different techniques for four times to both groups
3. Conducting the same post-test to both groups
4. Giving scores
5. Presenting the scores in tables

### **3.4. Technique of Data Analysis**

It was conducted as *a deductive research*, starting from hypothesis that the use of short stories is effective for teaching English grammar to the fourth grade students and theories concerning to the topics followed by evidence to support or to refuse the hypothesis or theories (Nunan, 1992).

The analysis started from the tabulation of data in a form of students' scores (pretest and posttest scores of the two groups). The data then were compared to guide the researcher for further analysis for supporting or refusing the hypothesis that has already made. The statistical test (t-test) by using SPSS 15.0 was also conducted to examine the data and to guarantee the validity of the result. SPSS is one of the major computer packages permitting many types of statistical analysis (including t-test). The t-test can be used when one wants to determine if the means of two groups are significantly different from one another. T-test is used when the groups are independent (Mackey and Gass, 2005, p. 272). In short, the steps in data analysis are:

1. Classifying and presenting the scores
2. Counting statistical test (t-test) by using SPSS 15.0
3. Explaining the result of the statistical test
4. Interpreting the finding
5. Making conclusion