CHAPTER III

RESEARCH METHODOLOGY

This chapter presents the methodology that is going to be used in this research. It consists of approach and research design, research location, data and source of data, research procedure, data collection technique, research instruments, and data analysis technique.

A. Approach and Research Design

This research is typically designed as quantitative. Kasiram states that quantitative research was a process in a research which the data are in numbers to analyze phenomenon that the researcher wants to know.³⁴ In quantitative research, measurable standard instrument is used by the researcher³⁵, because the data should be formed as numbers.

In this research, the data gained by using observation with the rubric as the assessment tool. In the rubric, there are criteria with the scores to measure pre-service teachers' ability in designing visual instructional media. At the end of the research,

³⁴ Moh Kasiram, *Metodologi Penelitian Kualitatif - Kuantitatif* (Malang: UIN-Maliki Press, 2008). 172.

³⁵ Prof. Dr. Nana Syaodih Sukmadinata, *Metode Penelitian Pendidikan* (Bandung: Remaja Rosda Karya, 2007). 95

the result of this research can be used to answer the research question and also to test the hypotheses.

B. Population and Sample

In this research, the source of data was the sixth semester students of Sunan Ampel State Islamic University who are taking microteaching (PPL 1) class academic year 2014/2015. The data were taken by using simple random sampling, in which every individual in the population had the same chance to be chosen as the research sample.³⁶ The amounts of the data were 16 pre-service teachers spread from class A until class G. The consideration in designing the sample was, the amount of 16 was considered as the representative of the population, because the data came from overall classes.

C. Research Instrument

In case of collecting data the instrument of the research is essential. The research instrument was used to support the collecting data process to get the valid data. Thus, the research instruments used by the researcher to observe the pre-service teachers was observation rubric that provides scores about designing visual instructional media. The rubric was adapted from the *Visual aids checklist* by Stephen E. Lucas.³⁷

³⁶ Ag. Bambang Setiyadi, *Metode Penelitian Untuk Pengajaran Bahasa Asing: Pendekatan Kuantitatif Dan Kualitatif* (Yogyakarta: Graha Ilmu, 2006) 39.

³⁷ Lucas, *The Art of Public Speaking*. (New York: McGraw-Hill, 2009), 276

D. Data Collection Technique

To obtain the data, the technique of conducting observation was used by the researcher. The aim of observation is to explain the real situation we are researching to, the activities happened, involved individuals in an activity and the relation between situation, activities and individuals.³⁸ The observation technique itself was divided into two types, the participatory observation and the non-participatory observation.³⁹ In this study, non-participatory was used by the researcher, because the researcher did not involve in the process of designing instructional media.

The data collection was conducted in May until June 2015. The pre-service teachers' instructional media used for the teaching practice in the microteaching (PPL 1) class were observed by the researcher. In this study, the rubric which provided criteria of designing sound visual instructional media was used by the researcher. The result of the observation was used to describe to explain how the ability of pre-service teachers of English Teacher Education Department of Sunan Ampel State Islamic University was.

E. Data Analysis Technique

After gaining the data, and then the data should be analyzed by the researcher to in order to present the findings. To analyze the data, the researcher used descriptive

³⁸ Setiyadi, *Metode Penelitian Untuk Pengajaran Bahasa Asing: Pendekatan Kuantitatif Dan Kualitatif* (Yogyakarta: Graha Ilmu, 2006), 239

³⁹ Prof. Dr. Nana Syaodih Sukmadinata, *Metode Penelitian Pendidikan* (Bandung: Remaja Rosda Karya, 2007), 220

statistic analyze, because there was only one variable in this study.⁴⁰ "Descriptive statistics indicated the general tendencies in the data (mean, mode and median), the spread of scores (variance, standard deviation and range) or a comparison of how one score related to all others (z scores, percentile rank)".⁴¹

The first process in analyzing the data was tabulating the data in a table. And then, the overall mean or average was counted by using the formula below:

Mean / Average =
$$\frac{\sum FX}{N}$$
 or = $\frac{Total \ of \ students' score}{The \ Number \ of \ Students'}$

Note:

$$\sum FX$$
 = Total of Students' Score

N = Number of Students

The mean or average was useful to count the standard deviation (SD). After knowing the standard deviation (SD) the t-table and t-value were needed to count in testing the hypotheses.

⁴⁰ Setiyadi, *Metode Penelitian Untuk Pengajaran Bahasa Asing: Pendekatan Kuantitatif Dan Kualitatif* (Yogyakarta: Graha Ilmu, 2006), 94

⁴¹ John W. Creswell, *Educational Research: Planning, Conducting and Evaluating Quantitative and Qualitative Research* (USA: Pearson, 2012).