CHAPTER III

RESEARCH METHODOLOGY

This chapter presents the methodology used in this research, including Design of study, The subject of study, Technique for collecting data, and Technique for analyzing data.

1.1 Design of Study

In this research,descriptive methods adopted. While Rangarajan and Shields elaborates that descriptive research is a tool to describe data and characteristics of the population or phenomenon being studied (2013: p.109-158). The researcher used survey as research design to obtain information about the students'English communication needs to learn mathematics in bilingual class. (Burns: 2000) said that survey is the most commonly used descriptive method in educational research and gather the data a particular point of time. According to (Cresswell: 2008) survey research is the procedure in research that can describe attitudes, opinions, behaviours or the characteristics of population.

1.2 The Subject of Study

The subjects of this study was the students grade XI of SMA Budi Luhur in involving bilingual class as the population. The research also use sample that is a selection which is taken from the population (Wilkinson: 2000). The sample focuses on students ininvolving bilingual class. There was only one class of grade XI MIA as bilingual class.

1.3 Data and DataSource

    1.3.1   Data

        The data are the answers to the questions in the questionnaire by respondents and the

        teacher's and students' answers toward the interview conducted by the writer.

    1.3.2   Data Source

        The data sources of this study are people: a Mathematics teacher and her students.

1.4 DataCollecting Procedures

    Information about objective needs can be gathered by questionnaires, and interview.

    1.4.1   **Questionnaire**

        The writer also involved participants required to answer all the questions from the
questionnaire. The answers of the questionnaire have been categorized based on ordinal
data. This study utilized a set questionnaire as the data collection instrument which was
adopted fromGravatt, Richards, and Lewis's in (Richards: 2001) questionnaires
designing.The adopted questionnaire for the purpose of this study contained two parts.
Part A included questions on the respond consist of questions which addressed students'
English communication needs in learning mathematics of bilingual class. Part B consist of
questions using Indonesia language.The respondents were expected to reflect on
theirneeds in learning mathematics in bilingual class.

    1.4.2 **Interview**

        The writer conducted interview in this study to validate and support the information
related to the topic of the study gained from questionnaires, it was also designed to find
out students' English communication needs when they learn mathematics in bilingual

class. The interview was administered to a mathematics teacher and two students in bilingual class as representative from population.

1.5 DataAnalysis

The data of the questionnaire were analysedqualitatively or quantitatively in order, "tostress the unique strengths of the genre for research that is exploratory or descriptive" (Marshall &Rossman: 2006: p.60). The collected data of the questionnaire were sorted out. Thequestionnaires were tabulated to record the responses from each participant for eachoption of the questions. Typically, throughout the data analysis processes, according toCreswell, the researchers "*seek to identify and describe patterns and themes from theperspective of the participant(s), then attempt to understand and explain these patternsand themes*" (Creswell: 2003: p. 203).

Steps in analyzing the data:

1. Identifying which language skills that are wanted by students from thequestionnaire.

2. Calculating the frequencies of language skillsthat have been chosen bystudents.

3. Determining which skills are really wanted and needed to be learnt bystudents.

4. Classifying the data from the questionnaire into thesimilar part.

5. Drawing the finding into the chart.

6. The result of the questionnaire was being compared with transcribing the interview.

7. Drawing the conclusion from the analysis of the data.