# CHAPTER III

# RESEARCH DESIGN

This chapter elucidates about the methodology of the study. It covers research design, population and sample, data collecting technique, data analysis technique.

## 3.1. Research Design

This present study implemented quantitative research in the form of survey study. According to Creswell (2014) a survey study is designing to map or describe current issues by studying a sample of population and the result will be in a form of numeric description. From the result the researher can draw inferences. The nature of survey includes cross-sectional which means data collected at one point in time and longitudinal which means data collected over time.

## 3.2. Population and Sample

### 3.2.1. Population

The writer choose Intermediate English Grammar class which has an active student population about 148 students. This study was conducted in English Language Education Department. This is happened because Intermediate English Grammar class is limited to certain departments.

### 3.2.2. Sample

The sample of this research consists of 119 students in total from three Intermediate English Grammar classes in English Language Education department, 52 students from Intermediate English Grammar A and 23 students

from Intermediate English Grammar B, and 44 students from Intermediate English Grammar C.

This is the table for sampling of respondents based on three Intermediate English Grammar classes.

*Table 3.1 Population and Sample*

| No. | Class | Population | Sample |
|-----|-------|-----------|--------|
| 1. | Intermediate English Grammar A | 58 | 52 |
| 2. | Intermediate English Grammar B | 35 | 23 |
| 3. | Intermediate English Grammar C | 55 | 44 |
| | | 148 | 119 |

Students who will be sample of this study uses 5% of error rate. To calculate the number of sample from the population, this research is using Slovin's formula. The Slovin's formula as below:

$$n = \frac{N}{1 + Ne^2}$$

Explanation:

n      = Number of sample

N     = Population

e      = Error rate (5% = 0.05)

$$n = \frac{148}{1+(148)(0,05^2)}$$

$$n = \frac{148}{1.37}$$

$n$ = 108,029 or 108 students

Thus, the minimum required number for sample is 108,029 respondents. In calculations that produce fractions (there is a comma) should be rounded up, then the sample used based on the above population is 108 students.

### 3.3. Data Collecting Technique

#### 3.3.1 Questionnaire

The original questionnaire used to collect the data is from Oxford (1990), modified by Kemp (2007) and Bayou (2015) to narrow the context to learning grammar. The things that might apply to grammar learning were adapted by Kemp (2007) and Bayou (2015) to prepare this grammar learning strategy survey. Each strategy from the questionnaire was categorized according to the strategy types. The questionnaire used in this study was adapted by the writer from Kemp (2007) and Bayou (2015). There are two parts in the questionnaire. The first part is respondent's background information. The second part is the questionnaire which contains 32 statements regarding strategies that learners can use when learning grammar. The question for the

statement is; "How often do you use this strategy?" The questionnaire used a five point Likert-scale.

The writer expected the respondents to fulfill the 32-item-questionnaire which helps the writer to collect data for this research. Approximate time to answer the questionnaire is 15 minutes. The personal data and answers of the questionnaire will be kept strictly by the writer and used only in this research. Those who participate in this research should be voluntary basis, the questionnaire doesn't contain any indecorous question. The respondents are free to quit any time during finishing the questionnaire if find any uncomfortable question.

### 3.3.2. Validity

According to Widoyoko (2012), there are four kinds of validity; logical validity, content validity, construct validity and predictive validity. Content validity and construct validity were used in this research.Content validityrefers to how accurately a measurement tool taps into the various aspects of the specific statement in the questionnaire. Comparing the domain and theory with the questions/statements is a way to test the content validity of an instrument non-test. Brown (2000) affirmed that construct validity can be defined as tentative demonstration which a test is measuring the construct. The questionnaires from two questionnaires from Kemp (2007) and Bayou (2015) were checked by conducted a pilot study to make sure that the questionnaires were comprehended by the students. The questionnaire used in this present study was checked by the advisors before the data collection process.

### 3.3.3. Reliability

Widoyoko (2012) mentioned that reliability means something that can be trusted. A test is reliable if it is consistent when being used repeatedly. While the questionnaire that was adapted by Kemp (2007) has 0.90 for alpha and the alpha from Bayou (2015) is 0.6. The questionnaire used in the present study has 0.898 for alpha, it means that the questionnaire used is still valid.

## 3.4. Data Analysis Technique

The writer took some appropriate steps in this research.

1. The first step was review of literature about Grammar Learning Strategies.

2. Kemp (2007) and Bayou (2015) Grammar Learning Strategies questionnaire was modified from Oxford (1990) questionnaire as the instrument.

3. Checked one by one item in the questionnaire to make sure that it was easy to understand the meaning.

4. Shared the link of questionnaire to the 148 students at Intermediate English Grammar Class of English Language Education and 119 questionnaires were returned. The researcher assisted for more or less 30 minutes until the students completed the questionnaires to avoid the biases.

5. Used Microsoft Excel to provide the data, then moved the data from Microsoft Excel to SPSS to statistically analyze the data from the questionnaires into statistical package.