CHAPTER III
RESEARCH METHODOLOGY

This chapter provides the research methodology employed in this study. The elaborations of the approach utilized in this study are divided into four main sections, which are research design, data collection, data analysis and data presentation. The first section presents the design, method and theoretical framework used in this study. The second section provides the steps of collecting the data. The third section provides the process of the analysis. In the last section of this chapter, the details of the data are explained.

3.1 Research Design

The study employs descriptive qualitative with the use of quantitative data. It uses this method with the use of quantitative data in order to achieve conclusion (Hesse & Biber, 2010). Since this study mainly focuses on analyzing, describing, and interpreting the data collection; thus, the descriptive qualitative is the most suitable method to employ in this study. As suggested by Hancock et al. (2009), qualitative study tends to be more concerned in how people or group of people own the different perspectives of viewing reality; furthermore, Cooper and Schindler (2003, p. 149) point out that the descriptive study concentrates on discovering who, what, where, when or how much of the research. The two above explanations are in line with the purposes of the present study which attempts to explore the individual differences of students in English department in terms of grammatical sensitivity; comprehension, and determines the factor affecting comprehension. Additionally, it determines the significant differences on comprehending English active and passive (agent and agentless) sentences among the students.
3.2 Data Collection

This sub-chapter presents the explanation of data collection including data source, participants, data collection instrument, and the data collection procedure of the present study.

3.2.1 Data Sources

The data for this study are obtained from two main sources:

1. Test results of students’ performance on English active and passive (agent and agentless) sentences
2. Data of students’ information that cover the necessary variables such as grammar score, first language and setting of learning opportunities

3.2.2 Participants

The participants of this study are 26 university students from English department of Indonesian University of Education, 2A class. Moreover, the participants for this present study come from grammar class, the class is chosen because it is relevant to this present study. Since this study attempts to investigate how Indonesian students comprehend English active and passive sentences that focus on the agent and agentless notion; hence, Indonesian native students who learn English are required. The numbers of participants are limited to 26 students due to several reasons:

First, this study considers the time constraint. Second reason is the students who attend a class are 25 students in common; thus, this study will focus on one class, include students available in the class which are 26 as a whole, because it will enable effective time and make the process of collecting the data easier. Participants are all in the same year which is 2015; the same batch is required in order to achieve the fair result of this study. The 2015 participants are chosen by considering the participants’ experience in learning English. The participants allowed to participate in this study are those who have taken the grammar class and obtained the score from
the mentioned subject; since the study would like to investigate grammatical sensitivity, thus the score of grammar becomes the requirement.

3.2.3 Data Collection Instruments

The material used in this study is one page short-story entitled “Ignorant Man” taken from the site of English for student. This short story is selected because the dictions used in the text are easy to understand; moreover, this short story has an interesting and simple content, and also has few characters. Hence, these aspects are important to consider because they determine whether the participants will be confronted with the difficulty during understanding questions that are made of short story or not, and the text provided is to make participants easy to understand. Moreover, this one page short story is selected because it enables effective time as it has been considered with the number of participants.

The individual questions are used for collecting the data in this study. By employing the test of individual questions, this study is able to fill the measurement questions that are necessary to obtain the data in this study. Cooper and Schindler (2003, p. 357) suggest that measurement questions are utilized to gather the needed information. Furthermore, the questions for the part I are formulated based on the short story entitled Ignorant man, the questions for the second and the third parts are taken from the active and passive voice exercise site that is published on the site (faculty.mu.edu, englishforeveryone.org, www.monmouth.edu), the sites which compile grammar exercises.

The second research instrument administered in this study is Administrative questions, these questions identify the personal information of the participants that also include the classification question; the questions that provide the answers can be grouped, the patterns are revealed and can be studied (Cooper & Schindler, 2003, p.361-362).

Moreover, employing variety of research instruments instead of solely a single instrument is either helpful or useful to solve problems, and findings are more valid (Cooper & Schindler, 2003). Referring to those theories, the present study use
the following instruments: Short story, Administrative questions, and Individual test (see appendix A, pp. 59-66).

3.2.4 Data Collection Procedure

The study adapts data procedure of Second language Learning suggested by Wray and Bloomer (2012, p. 65-70), which is listed as follows:

1. “Ask the participants to fill the form of personal information, from top to bottom grades in language class”.
   In this present study, the participants are encouraged to fill grades of Grammar courses that they have taken and TOFEL test.
2. “Give a test of individual questions regarding certain topic”.
   In this study, participants are given a written test in the agent and agentless types of English active and passive sentences. The time is limited to only 90 minutes to answer the test entirely.

3.3 Data Analysis

The data analysis procedures of the present study include identifying, classifying, calculating, interpreting. They are elaborated in the following sub-chapters, as follows:

3.3.1 Identifying and Classifying the Result of Individual Test

The data analysis of this study relies on the obtained data; the data that have been obtained are analyzed by following steps.

First step, the first table made is filled with the personal information of participants; the table that consists of administrative questions such as participants, year in college/batch, the score(s) of Grammar subject(s), TOEFL (the TOEFL score is optional), settings where they use English, the language(s) they speak, and the students’ reasons of selecting English as their major.
Second step, the second table shows the results of the test which includes the score of Part I, Part II and Part III. In part I, participants are asked to identify the sentences given; participants have to choose the type that best describes the sentence. In part II, participants are encouraged to fill the gap by selecting one of the three choices provided. Moreover, in part III, participants are asked to change passive voice into active and vice versa. These three columns are filled by participants’ scores in each the test given.

The third step, the columns of selected personal information such as: grammar score, TOEFL score and the settings the participants use English are juxtaposed with the scores of each part of the tests. These steps are implemented in order to easily discover the correlation among those mentioned variables. Since this study is aimed to investigate how the second language learners comprehend agent and agentless types of English active and passive voice, those aforementioned scores are required in order to see whether or not an aptitude (grammatical sensitivity) of individuals influences learning second language. Furthermore, the column of where they using English, it indicates learning opportunities (settings of learning).

<table>
<thead>
<tr>
<th>Students</th>
<th>Language(s) you speak</th>
<th>Where do you use English</th>
<th>Toefl score</th>
<th>Grammar score</th>
<th>Part 1/2</th>
<th>Part 2/2</th>
<th>Part 3/2</th>
<th>Mean score (%)</th>
<th>Mean score</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Ind, Sunda, Eng</td>
<td>1</td>
<td>457</td>
<td>C</td>
<td>22</td>
<td>9</td>
<td>11</td>
<td>65</td>
<td>14</td>
</tr>
<tr>
<td>2</td>
<td>Ind, Sunda, Eng</td>
<td>1</td>
<td>490</td>
<td>A-</td>
<td>21</td>
<td>17</td>
<td>17</td>
<td>85</td>
<td>18.33</td>
</tr>
<tr>
<td>3</td>
<td>Ind</td>
<td>1</td>
<td>A-</td>
<td>19</td>
<td>20</td>
<td>8</td>
<td>72</td>
<td>15</td>
<td>15</td>
</tr>
</tbody>
</table>
| 4 | Ind, Sunda, Eng | 1 | C | 20 | 14 | 14 | 74% | 67%
| 5 | Ind, Eng | 1 | 1 | 1 | B+ | 17 | 16 | 7 | 62% | 13.33%
| 6 | Ind, Sunda | 1 | | | | 483 | C | 16 | 16 | 5 | 55% | 12.33%
| 7 | Ind, Sunda | 1 | | | | C+ | 13 | 16 | 4 | 51% | 11%
| 8 | Ind, Sunda | 1 | | | | B | 13 | 15 | 7 | 54% | 11.33%
| 9 | Ind, Sunda | 1 | | | | 507 | B | 20 | 16 | 14 | 77% | 16%
| 10 | Ind, Sunda | 1 | | | | C | 17 | 12 | 7 | 55% | 12%
| 11 | Ind, Sunda | 1 | | | | 577 | A | 25 | 20 | 16 | 94% | 20.33%
| 12 | Ind, Sunda | 1 | | | | C | 11 | 13 | 1 | 39% | 8.3%
| 13 | Ind | 1 | 553 | A- | 20 | 20 | 9 | 75% | 16.33%
| 14 | Ind, Eng | 1 | 1 | 1 | 597 | B | 11 | 20 | 11 | 65% | 14%
| 15 | Melayu, Ind | 1 | 1 | | | B+ | 20 | 17 | 17 | 83% | 18%
| 16 | Ind | 1 | 1 | 450 | C | 20 | 19 | 4 | 66% | 14.33%
| 17 | Ind, | 1 | | | | A- | 14 | 19 | 7 | 62% | 13.33%
3.3.2 Marking of the Test

Latu (1994) views that marking the test during data analysis is important; he states that a test has to be marked not only to evaluate the ability of subjects but also to calculate the outcome before inputting the data into the computer for the analysis. The assessment of these three parts is more objective in nature; thus, it needs only to agree on the correct answers of each question (Latu, 1994).
Answers are marked right or wrong, and scores are given accordingly. The marking of the individual information (participant’s information) is directly put on the computer along with the accumulation of the entire results of the test.

3.3.3 Calculating the Data

In calculating the data, this study employs a simple statistical formula to discover the average of the score. This study utilizes the formula by Kranzler and Moursund (1999), the formula applied in this study is the mean score; according to Kranzler and Moursund (1999), the mean is the most used formula to measure the central tendency.

\[ M_x = \frac{\sum X}{N} \]

The mean is obtained by adding up all the scores and dividing by the number of scores (Kranzler & Moursund, 1999). The formula above explains that the mean of variable X, which is symbolized by Mx, equals the sum of the X scores; it is symbolized by \( \sum X \) and divided by the number of scores, N. Moreover, the analysis aimed to reveal the highest and the lowest number by using the excel formula.

3.3.4 Interpreting the Data and Representing the Findings

After the data being calculated, the interpretation is attempted. This study discovers the above mentioned aspects that affect SLL by analyzing the results of collected data, and individual outcome. When the analyses have been completed, the data are interpreted according to analytical assessment.