**CHAPTER III**

**RESEARCH METHODOLOGY**

This chapter presents several main parts of the investigation that will be used in this study, there are research methodology, research design, research site and participant, research instrument, data collection, data analysis, and research procedure. The methodology of the research procedure was used in an attempt to obtain the answers to the research questions formulated in the first chapter. The research questions of this study are to find out the mobile applications used by EFL students to support vocabulary mastery outside the classroom and to know the challenges that occurred when EFL students use mobile applications to support vocabulary mastery outside the classroom.

1. **Research Methodology**

To obtain data in order to answer the research questions above, interviews were carried out with students, so that a qualitative method was chosen as the research method since it is considered to be employed in this study. The reason for selecting this method because it is used to discover and learn about a social phenomenon. As a result, the employment of the qualitative method was optimal in light of the following description and explanation. According to Creswell (2012), a qualitative research approach is a tool for investigating and interpreting the meaning that particular individuals or groups of people consider about social or humanitarian situations. Thus, by using the qualitative research method, the researcher wanted to find out EFL students' voices on the use of mobile applications in supporting vocabulary mastery outside the classroom.

1. **Research Design**

The design of this study was a descriptive qualitative design. Because this study examined events, conditions, or situations of phenomena from a subjective standpoint, it employs a descriptive qualitative design. It was supported by Lambert & Lambert (2013), that a descriptive study was a complete description of specific events experienced by individuals or groups of individuals in an everyday term. The descriptive qualitative design of this study was focused on students' voices on acquiring vocabulary through mobile applications outside the classroom, with the goal of investigating the applications they use as well as the challenges that occur.

According to Creswell the steps for the qualitative descriptive study were; (1) Choosing the Topic, (2) Identifying a Research Problem, (3) Reviewing the Literature, (4) Research Instrument, (5) Conducting Qualitative Research, (6) Collecting Data, (7) Analyzing and Interpreting Data, (8) Reporting the Result of Research. Figure 3.1 showed a visual representation of the steps of the research.

**Figure 3.1 Steps of the Research**

2. Identifying a Research Problem

1. Choosing the Topic

3. Reviewing the Literature

4. Research Instrument

6. Collecting Data

5. Conducting Qualitative Research

8. Reporting the Result of Research

7. Analyzing and Interpreting Data

(Source: Creswell, 2012)

Based on Figure 3.1, according to Creswell (2012), this study presented eight steps of the research process. The first step was to choose the topic. This study has chosen the topic of “Mobile Assisted Language Learning: EFL Students' Voice on The Use of Mobile Applications in Supporting Vocabulary Mastery” because integrating a mobile application in learning might make it easier for students in this location to learn English vocabulary because in this university there is no vocabulary course.

The second step was to define a research problem. The research problems occurred because practically all students employed tools to improve their vocabulary mastery, such as mobile applications. Therefore, this study wanted to find out the EFL students’ opinions that focused on the applications students used, as well as the challenges that occurred when using mobile applications to support vocabulary mastery outside the classroom.

The third step was reviewing the literature. This literature review was intended to provide an overview of sources that have been investigated. This study used books, journals, articles, and other sources that are relevant to an issue being investigated.

The fourth step was the research instrument. This study used the interview as a research instrument for collecting the data. The interview was conducted to find out the EFL students’ voices that focused on the applications students used, as well as the challenges that occurred when using mobile applications to support vocabulary mastery.

The fifth phase was conducting qualitative research. To complete the essential study, the qualitative research method was used to gather data and obtain a deeper understanding of the data without statistical analysis.

The sixth step was collecting data. The interview was taken to get the data about the applications used and the challenges that occur by EFL students in supporting learning vocabulary outside the classroom. In conducting the interview, this study used semi-structured interviews.

The seventh step was data analysis, which was divided into three important steps by Miles et al. (2014), there are data reduction, data display, and conclusion. First, after collecting the data from the interview, the researcher reduces the data obtained from interviews by focusing on the important things. Second, displaying the data in the form of brief descriptions, charts, relationships between categories, and so on. Finally, the general conclusions were drawn.

The last step was reporting the result. After collecting and analyzing data, the study's findings were reported. In reporting, the outcome entails describing the data by arranging the report in the form of brief explanations that are suitable to the reader.

1. **Research Site and Participants**

In this study, one of the institutions in Garut was chosen as a research site. The reason for choosing this institute was because there was no vocabulary course at this institute, so that, most students use mobile devices, particularly mobile applications to study vocabulary outside of the classroom.

Moreover, for this study, six students from English majors were chosen as participants for a specific purpose. These students were chosen as participants because it serves a specific aim, which is to provide more objective opinions from students who used mobile applications to support vocabulary mastery. According to Creswell (2012), purposive sampling approaches are typically employed in qualitative research and can be characterized as a selection unit such as individuals, groups of individuals, or institutions. Hence, the participants were selected because they were using a mobile application in learning vocabulary outside the classroom.

1. **The Research Instrument**

In this study, the instrument used was an interview. The interviews in this study were conducted based on the theory presented in Chapter 2, with the goal of learning about EFL students' voices on mobile applications that are used and the challenges that occur when students use mobile applications to learn vocabulary outside of the classroom. According to Fontana and Frey (2000), as cited in Creswell (2012), interviews are described as one of the most powerful ways in which we attempted to understand our fellow humans. So that, a semi-structured interview is used in this study. The reason for choosing a semi-structured interview is because this study asks the students’ views on the use of mobile applications to support learning vocabulary, which allows new questions to emerge during the information-gathering session for more in-depth answers.

Because this study used interviews, the researchers used interview guidelines as a tool to obtain data from participants. The interview guidelines used in this study are divided into three sections: personal data, EFL students using mobile applications in learning vocabulary, and the challenges of mobile applications in learning vocabulary. Each section of the interview contains a varied number of questions. So that, the total number of questions from each section of the interview was 28 questions.

1. **Data Collection**

To get the data, the researcher used interviews for data collection. First, use a semi-structured interview to prepare the information for the interview. Because this interview was classified as an in-depth interview, so that, a semi-structured interview was used. The semi-structured interview was chosen because this study asks for students' voices on the use of mobile applications to support vocabulary learning outside the classroom, which allows for additional questions to develop during the information-gathering session for more in-depth answers. The interview was conducted in Bahasa Indonesia to allow students to communicate their thoughts, opinions, and feelings. Second, conduct interviews with students to collect data by recording and writing information regarding EFL students' opinions on the use of mobile applications to support vocabulary mastery. This study's opinions were separated into two categories: the applications they utilize when using mobile applications to support vocabulary mastery, and the challenges that occur when using mobile applications to support vocabulary mastery outside the classroom. So that, the interview guidelines used in this study are divided into three sections: personal data, EFL students using mobile applications in learning vocabulary, and the challenges of mobile applications in learning vocabulary. The interview was conducted only once which took approximately 15 – 20 minutes to complete. Also, the interview was performed in two ways: direct (face-to-face) and indirect (via internet chatting). Direct interviews were conducted outside of the classroom, and samples who were unable to meet with the interviewers used internet access via WhatsApp chat. Then, those data were analyzed and interpreted into good sentences.

1. **Data Analysis**

Following the framework of qualitative data analysis developed by Miles et al. (2014), data analysis procedures in this study are separated into three key phases: data reduction, data display, and drawing a conclusion.

1. Data Reduction

The first step in this study's data analysis was data reduction. Data reduction, according to Miles et al. (2014), was the process of selecting, focusing, simplifying, abstracting, and translating data into a written up field note or transcript. In this study, after gathering data from interviews, the researcher reduces some of the data. The researcher used data reduction to eliminate unnecessary data and organize raw data that was irrelevant to the research problem so that final conclusions may be drawn and validated.

1. Data Display

The data was then displayed in the second phase. A data display was a structured, compact collection of information that allows for conclusion drawing and action (Miles et al., 2014). After categorizing the data in this study, the data was displaying with related theory and divided into two parts, there are the application used by students to acquire vocabulary and the challenges in utilizing mobile applications to learn vocabulary outside the classroom. The data was displayed in the form of a description by the researcher.

1. Drawing Conclusion

The last step was drawing a conclusion. While collecting data, researchers had a brief conclusion. The researcher was developing a conclusion regarding this research. The researcher described the EFL students' voices on the use of mobile applications to support vocabulary mastery outside the classroom, with the goal of the applications they use as well as the challenges that occur.

1. **Research Procedures**

In this study, the researcher used several steps and procedures to obtain the research data which are explained in detail. These were the following:

1. Preparing the research procedures.
2. Finding out the problem of the study. This was conducted on 15th March 2022.
3. Finding the literature review related to the problem of the study, conducted on 14th April 2022.
4. Determining the research design appropriately with the study on 14th June 2022.
5. Finding out the research setting and participants to get information about the problem of the study. This study was conducted in one institute in Garut and involved six students from English majors. This was conducted on 14th June 2022.
6. In conducting the instrument, the researcher used semi-structured interviews with several processes to gain the data.
7. Collecting the data interview from the participants from 1th until 9th of July 2022
8. Analyzing the data as the result of the study compare to the theory. So that, this study can find out the mobile applications used by EFL students and know the challenges that occurred when EFL students used mobile applications to support vocabulary mastery. It was conducted on 10th until 18th July 2022.
9. Presenting the final result and conclusion of the study by using words or phrases that can be read by the readers.