CHAPTER III

RESEARCH METHODOLOGY

In this chapter, the researcher discusses methodologies in analyzing research problems, consisting of research designs, population and sample, data, research instruments, data collection, and data analysis.

3.1 Research Design

Williams (2007) said that the research process involves systematically defining goals, managing data, and communicating the findings accordingly. Furthermore, Kothari C (2004) states, research is the scientific and systematic search for pertinent information on a specific topic. Thus, the research process is a step to find goals with a systematic process to find certain information.

In this study, the researcher uses a suitable design, a mixed research design because the researcher combines quantitative and qualitative approaches to collect and analyze the data. The three common approaches to conduct a research are quantitative, qualitative, and mixed methods (Williams, 2007). Then, Creswell (2012) said that mixed methods design is that the combination of both forms of data that provides a better understanding of a research problem than either quantitative or qualitative data by itself. Ary et al. (2010) said that the results obtained from qualitative research are narrative reports. So that readers can understand the social reality experienced by the participants. Therefore, this method describes data and information by developing sentences based on the data. On the other hand, according to Ary et al. (2010), qualitative research focuses on participants’ perspectives in understanding the naturally occurring social phenomena. Hence, this research focuses on phenomena that occur in society or experiences involving several participants and is developed based on participant perspectives supported by theories and previous research.

Kothari C (2004) states that quantitative research also involves data collection that is typically numeric and the researcher tends to use mathematical models as the methodology of data analysis. Furthermore, Lodico G et al. (2006) also said that quantitative research is characterized by answering research questions by producing numerical data that represent various constructs and variables. This
The study provides an overview of the research through numbers based on the facts and information obtained.

Mix method is a study that involves quantitative and qualitative research processes. Although the two are very different, combining the two different forms of data will produce a deeper view of a phenomenon. The mixed-method is to combine the strengths of both qualitative and quantitative research, providing both an in-depth view of the context, process, and appropriate interactions and measurements attitudes and results in Lodico G et al. (2006).

This is related to this research, where researchers discuss students’ perceptions. Based on the explanation above, it can be concluded that qualitative research is a type of research that prioritizes descriptions in the form of words, while quantitative research is a type of research that focuses on managing data in the form of numbers. Thus, the researcher used mixed research design to obtain valid and detailed data about 8th semester students’ perception toward Google Classroom as a media in online learning used in ELED UMM. In addition, researchers also assume that by using this mix method, the results can be maximized because it combines two research methods, namely quantitative and qualitative. Hence, quantitative in this research was used to measure student’s perception toward Google Classroom as a media of online learning. The measurement of student’s perceptions was needed to find the average response of students to the use of Google Classroom as a learning medium. Therefore, this research attempted to find out the average of student perception. Besides, qualitative research was applied to describe the specific answer of three aspects: student’s satisfaction, understanding, and positive effect. Therefore, this mixed-method is used to answer the problem formulation that has been described in Chapter 1, which requires a quantitative approach using a closed-ended questionnaire instrument and then requires a qualitative approach using a structured interview instrument.

### 3.2 Population and Sample

In this research, the populations are the 8th semester students of the English Language Education Department at UMM in the academic year 2017-2018. They are the English students of the 8th semester in the academic year 2017-2018.
Researchers chose that semester as their sample because the researcher assumed that the 8th-semester students had gained a lot of experience in learning activities both online and offline including online learning using Google Classroom.

Then, the researcher used convenience sampling. According to Etikan (2016) convenience sampling is a data collection technique that researchers choose directly from a unit or population. Each individual is fully selected directly, the sample is selected because the sample is at the right place and time.

The reason why the researcher used this technique is that researcher considered the time and the number of students. Moreover, if the subject is less than a hundred, the researcher should take all of them. Then, if the subject is a lot or more than a hundred, it should be taken at least 10% - 15% or 20% - 25% of the population. In this study, the researcher took 40 students (20%) of the 8th semester students of English Language Education Department, University of Muhammadiyah Malang in the 2017 academic year.

Based on the data that the researcher obtained from ELED at UMM, the total of active students in ELED in academic year 2017-2018 were 203 students and are divided into five classes as described below:

<table>
<thead>
<tr>
<th>Class</th>
<th>Students</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>41</td>
</tr>
<tr>
<td>B</td>
<td>41</td>
</tr>
<tr>
<td>C</td>
<td>42</td>
</tr>
<tr>
<td>D</td>
<td>43</td>
</tr>
<tr>
<td>E</td>
<td>36</td>
</tr>
<tr>
<td>TOTAL</td>
<td>203</td>
</tr>
</tbody>
</table>

3.3 Data Collection

Data collection comprises the instrument and procedures employed in the research.
3.3.1 Technique

There are three various instruments used in qualitative such as observation, interviews, and document analysis. First, the researcher used questionnaires and structural interviews. Brinkman P (2014) states that, questionnaires can be part of data collection activities and interviews afterward.

In this study, the researcher used a questionnaire with a closed-ended question technique and a structured interview. In this section, the researcher explains the questionnaire and interview separately so that the reader can more easily understand.

3.3.1.1 Questionnaire

The researcher used a questionnaire in the collection method by providing to the respondent some questions or statements. Pandey Prabhat (2015) states that, a questionnaire is a form that is prepared and distributed to get responses to specific questions by filling in a form by the respondents themselves. The question given is a structured questionnaire in which the researcher provided a question or statement with five answer choices that used the Likert scale with Strongly Agree (SA), Agree (A), Undecided (U), Disagree (D), and Strongly Disagree (SD). Then, the score of the Likert scale is typically assigned to positive statements: SA=5, A=4, U=3 D=2, SD=1. The questionnaire instrument is based on the research question, which asked about students' perceptions of using Google Classroom in online classes. This questionnaire consisted of 15 close-ended questions given to 40 students of the English Language Education Department (ELED) 2017 period.

3.3.1.2 Interview

Beside that, the researcher also used interview to get the data and information. Pandey Prabhat (2015) states that, interview is a two-way method that permits exchanging ideas and information. In this study, the researcher used structural interviews, which Modes the researcher has prepared guidelines and asked questions based on the guidelines has prepared. The interview was conducted to get deeper information, especially on research questions about students' perceptions in using Google
Classroom as a tool in online learning. Interview took a small percentage of respondents who had up normality answers determined from the previous questionnaire.

### 3.3.2 Instrument
The instrument used in this study is a mixed-method, namely a questionnaire derived from a quantitative instrument, and the second is an interview. Both instruments are non-test. The first instrument is a questionnaire which is distributed in the form of a google form. The questions given were 15 with the type of close-ended questions that contained students' perceptions of the use of Google Classroom, both from the students satisfied in Google Classroom, students' understanding when learning to use Google Classroom, and positive-negative effect. Questionnaires are made in a google form then distributed through the WhatsApp group of English students in the 8th semester of the 2017-2018 period.

As for the interview, the researcher gave four structured questions using WhatsApp, telephone, or video call, depending on the respondent's agreement. To avoid misunderstanding, the researcher used Bahasa during the interview section. Hence, the researchers got maximum answers from the respondents. The questions given in the interview session were about students' experiences and satisfied in using Google Classroom, about understanding and either positive or negative. The interviewees were selected based on the results of a questionnaire that had extreme answers. In addition, the researcher records the interview process to make it easier to analyze the data. The researcher chose this method because it considered the situation that is still in the pandemic, and it would be better to do it online.

### 3.4 Data Collection Procedure
Data collection through several steps. Based on the research instrument above, there are some procedures to complete this research, they are:

#### 3.4.1 Questionnaire
1. Developing the consent form
2. Developing the questions of questionnaire
3. Collecting the list of respondents
4. Distributing the questionnaire through online form to the participant
5. Collecting the results of the questionnaire from respondents
6. Calculating the questionnaires in Likert scale

3.4.2 Interview
1. Developing the consent form
2. Collecting the list of respondents
3. Making an appointment with the respondents to be interviewed
4. Interviewing, researchers will also conduct interviews with several respondents.
5. Writing field notes and audio recording device to facilitate researchers when analyzing data.
6. Transcribing the result of interview

3.5 Data Analysis
Data analysis is divided into two ways, namely questionnaire and interview.

3.5.1 Questionnaire
There are several steps to analyze the data which is the result of the questionnaire, they are stated as follows:
1. Giving the score of each students’ answer of questionnaire. It was determined 5 for SA (strongly agree), 4 for A (agree), 3 for U (undecided), 2 for SD (strongly disagree), 1 for D (disagree).
2. Calculating the students score based on the topics
3. Calculating the mode score of each student’s answer Mode:
   Mode (Value Appears Most Often)
   Mode is a value that occurs most frequently in a distribution namely group explanation technique based on the values that often appear in the group. This mode is usually denoted by Mo, Sugiyono (2010).
4. Determining the students’ score based on the criteria of assessment as shown below:
   5 = Very Positive
   4 = Positive
   3= Fair
2 = Negative
1 = Very Negative

5. Drawing the conclusion of questionnaire result.

2 Interviews
There are several steps to analyze the data which is the result of the interview, they are stated as follows
1. Transcribing the answer of interview
2. Drawing the conclusion of interview result.
3. Concluding the data that which have been taken.