

## **CHAPTER III**

### **RESEARCH METHOD**

This chapter discusses the research method used in this study. It covers the discussion of the research design, data and data sources, data collecting method, research instrument, data analysis, and technique of data verification.

#### **A Research Design**

This research used a descriptive quantitative approach with survey design. Creswell (2013:18) stated a descriptive survey is a research design that intends to describe quantitatively the tendency, behavior, opinion of a certain population by taking some samples as the representation. Surveys permit the researcher to summarize the characteristics of different groups or to measure their attitude and opinion toward some issues (Ary et al., 2010: 372). In the educational research, the issues can be included school improvement or any classroom instructional. Then, the researcher used survey design in this research because it fits with the purpose of the study that is to describe students' perception on the use of Google Form in English online quizzes at MA At-Thohiriyah Ngantru Tulungagung.

Therefore, related to the purpose of the survey research design, this research was conducted to investigate the students' perception on the use of Google Form in English online quizzes at MA At-Thohiriyah Ngantru Tulungagung.

## **B Population, Sampling, and Sample of the Study**

### **1. Population**

The population is all subjects being studied. Ary et al. (2010: 647) stated that population is the larger group to which a researcher wishes to generalize; it includes all members of a defined class of people, events, or objects. According to Creswell (2008: 151) population is defined as a group of individuals who have the same characteristic. The population is the general area consists of objects and subjects with a certain quantity and characteristics which is determined by the researcher to study and conclude.

Moreover, the population of this study was all of the tenth-grade students of MA At-Thohiriyah Ngantru Tulungagung in the academic year of 2019/2020, which all consist of 37 students divided into two classes those are X-MIA and X-IIS.

### **2. Sampling**

Sampling is the technique in taking the sample. According to Burns & Grove (2003: 31) sampling is a process of selecting a group of people, events, or behavior with which to conduct a study. In this study, a purposive sampling technique was used in which the researcher took the sample based on a certain purpose. According to Perry (2005: 57), purposive sampling strategy is used to indicate that the sample is chosen to answer the research question as relevant as possible.

This study used a purposive sampling technique because the researcher chose the sample based on the purpose of the study that is to describe the

students' perception on the use of Google Form in English online quizzes at MA At-Thohiriyah Ngantru Tulungagung. In this study, students of X-MIA class at MA At-Thohiriyah Ngantru Tulungagung tend to be suitable as the sample where the researcher could gather the data about students' perceptions on the use of Google Form in English online quizzes at MA At-Thohiriyah Ngantru Tulungagung. The consideration of choosing this class focuses on the character of students based on the major, and those who are familiar with Google Form.

### **3. Sample**

A sample is part of the population that is being studied. The sample of this study is taken from the population that is the tenth-grade students of MA At-Thohiriyah Ngantru Tulungagung. Therefore, the sample of this study was students of X-MIA class which consist of 17 students. They all consisted of 7 male students, and 10 female students. The researcher took this class because they fit to be the subject of this research in which they are familiar in using Google Form for doing English online quizzes rather than other class.

### **C Research Instrument**

A research instrument is the tool used to gather data. According to Fraenkel and Wallen (2013:111), an instrument is a device such as a pencil-and-paper test, a questionnaire, or rating a scale that the researcher uses to collect the data. In survey research, a questionnaire is used as the basic tool in collecting

data. Therefore, the researcher used a questionnaire as the instrument to gather data in this research.

In this research, a questionnaire was used to investigate students' perception on the use of Google Form in English online quizzes at MA At-Thohiriyah Ngantru Tulungagung. The researcher provided 20 statements into a spreadsheet on Google Form shared to the students. In this case, the students can directly supply their own answers to the set of statements.

The researcher used a structured questionnaire in closed form by using a Likert scale. A structured questionnaire in closed form means the questionnaire provided close-ended questions made in structured manner. Close-ended questions are question types that ask respondents to choose from a distinct set of pre-defined responses, such as "yes/no" or among set multiple-choice questions. In a typical scenario, closed-ended questions are used to gather quantitative data from respondents. Furthermore, according to Adams (2008:21), Likert scale is the most common scale used for attitude or opinion. The Likert scale provides five choices of response to answer the questionnaire. Those kinds of responses are; strongly agree, agree, neutral, disagree, and strongly disagree. The Likert scale was chosen in this research because this study was intended to measure the students' perception. The score for each rating scales are shown in table 3.1 as follows:

**Table 3.1 Score for each Likert Scales**

| No | Scale | Score |
|----|-------|-------|
|----|-------|-------|

|    |                   |   |
|----|-------------------|---|
| 1. | Strongly Agree    | 5 |
| 2. | Agree             | 4 |
| 3. | Neutral           | 3 |
| 4. | Disagree          | 2 |
| 5. | Strongly Disagree | 1 |

The questionnaire was in the form of statements drawn based on the theory. It consisted of twenty statements divided into six aspects, those were aspect of quiz administration, practicality, obstacles, motivation, benefits, and feedback. The aspect of quiz administration consisted of one statement. Then there were four statements on the aspect of practicality, two statements on the aspect of obstacles, two statements on the aspect of motivation, six statements on the aspect of benefits, and the last five statements on the aspect of feedback.

The questionnaire was administered by using Bahasa Indonesia in order to make the respondents fully comprehend the whole statements. The researcher distributed the questionnaire on 09 July 2020. The form of the questionnaire could be seen in appendix 2.

#### **D. Validity and Reliability Testing**

In conducting a study, the instruments used must be confirmed as valid and reliable before being used to gather data. The questionnaire in this study was created based on the theory of students' perception, online quizzes, and about

Google Form. Therefore, to ensure that the instrument that was questionnaire used in this research was valid and reliable, the researcher did validity and reliability testing as follows:

### **1. Validity**

Validity is measuring what it is designed to be measured. In terms of research, validity is defined as the extent to which an instrument measured what it claimed to measure (Ary, 2010:225). There are three kinds of validity as follows:

#### **a. Construct validity**

According to James Dean (2000), a construct, or psychological construct as it is also called, is an attribute, proficiency, ability, or skill that happens in the human brain and is defined by established theories. In addition, the test items developer should provide evidence that the scores reflect the construct, by reviewing the theory and the previous studies (Ary et al., 2010:231). So, it should be measured to prove that the items in the instrument measure the construct that was designed to measure and not some other theoretically unrelated construct.

In this research, the construct of the instrument was provided in the Blueprint. The blueprint was used to create the formation of the instrument. In this research, a questionnaire tend to has high validity if it contained statements investigating the students' perception on the use of Google Form in English online quizzes. Therefore, the form of Blueprint could be seen in appendix 1.

b. Face validity

Face validity refers to the degree to which a test looks right and appears to measure the knowledge or abilities it claims to measure based on subjective judgment or the examinees who take it (Brown, 2004:26). Because this research was a survey on students' perception, so questionnaire was used to investigate the students' perception on the use of Google Form in English online quizzes. Therefore, the researcher provided statements asked about students' perception on the use of Google Form in English online quizzes on the questionnaire.

c. Content validity

Content validity requires the test takers to perform the behavior that is being measured (Brown, 2004:22). The purpose of this research was to investigate the students' perception on the use of Google Form in English online quizzes at the tenth-grade students of MA At-Thohiriyah Ngantru Tulungagung. Then, the statements in the questionnaire of this research were related to the purpose of the study that was asking about students' perception on the use of Google Form in English online quizzes.

Furthermore, before being used as an instrument of research, the researcher distributed the questionnaire as the trial to students of X-A at MA At-Thohiriyah Ngantru Tulungagung. The trial was done on 7<sup>th</sup> July 2020. The

researcher provided 20 items of the questionnaire. From the trial, the researcher got students' scores for each question and then calculated the validity of each item by using pearson product moment in SPSS 16.0. Each item is considered to be valid if the value of  $r_{\text{obtained}}$  was more than the  $r_{\text{table}}$  ( $r_{\text{obtained}} > r_{\text{table}}$ ). From 17 samples ( $N=17$ ) with significance level 5%, the  $r_{\text{table}}$  was 0,482. The result of validity instrument for each item was summarized in table 3.4 as follows.

**Table 3.2 The Result of Validity Testing of each Item of the Questionnaire**

|        | r-obtained | r-table<br>(N = 17, a = 5%) | Notes |
|--------|------------|-----------------------------|-------|
| ITEM 1 | 0,528      | 0,482                       | Valid |
| ITEM 2 | 0,703      | 0,482                       | Valid |
| ITEM 3 | 0,598      | 0,482                       | Valid |
| ITEM 4 | 0,560      | 0,482                       | Valid |
| ITEM 5 | 0,520      | 0,482                       | Valid |
| ITEM 6 | 0,489      | 0,482                       | Valid |
| ITEM 7 | 0,504      | 0,482                       | Valid |
| ITEM 8 | 0,522      | 0,482                       | Valid |



|         |       |       |       |
|---------|-------|-------|-------|
| ITEM 9  | 0,801 | 0,482 | Valid |
| ITEM 10 | 0,500 | 0,482 | Valid |
| ITEM 11 | 0,640 | 0,482 | Valid |
| ITEM 12 | 0,545 | 0,482 | Valid |
| ITEM 13 | 0,503 | 0,482 | Valid |
| ITEM 14 | 0,602 | 0,482 | Valid |
| ITEM 15 | 0,739 | 0,482 | Valid |
| ITEM 16 | 0,602 | 0,482 | Valid |
| ITEM 17 | 0,536 | 0,482 | Valid |
| ITEM 18 | 0,665 | 0,482 | Valid |
| ITEM 19 | 0,602 | 0,482 | Valid |
| ITEM 20 | 0,509 | 0,482 | Valid |

Based on the table above, all of the items of the questionnaire was considered as valid. It was because the  $r_{\text{obtained}}$  of those 20 items were more than the  $r_{\text{table}}$  ( $r_{\text{obtained}} > r_{\text{table}}$ ). Therefore, those 20 items of the questionnaire could be used to gather data in this research.

## 2. Reliability

Reliability refers to the consistency of the score obtained. According to Fraenkel and Wallen (2013:97) reliability refers to the consistency of the score obtained how consistent they are for each individual from one administration of an instrument to another and from one set of items to another. Therefore, after calculating the validity of the instrument, the researcher also calculated the reliability of the instrument by using Cronbach's Alpha in SPSS 16.0. The result of the reliability testing of the questionnaire could be seen as follow.

**Table 3.3 The Result of Reliability Testing of the Questionnaire**

**Reliability Statistics**

| Cronbach's Alpha | N of Items |
|------------------|------------|
| .864             | 20         |

Based on the table, the result of reliability testing for the questionnaire was found very reliable based on the value of Cronbach's Alpha that is 0,864. According to Ridwan (2004:118), the criteria of reliability instrument can be divided into 5 classes as follows:

1. If the *alpha Cronbach* score 0.00-0.20: less reliable
2. If the *alpha Cronbach* score 0.21-0.40: rather reliable
3. If the *alpha Cronbach* score 0.41-0.60: enough reliable
4. If the *alpha Cronbach* score 0.61-0.80: reliable
5. If the *alpha Cronbach* score 0.81-1.00: very reliable

Because of the score of Cronbach's alpha was 0,864, it could be concluded that the instrument was very reliable. Therefore, the items of the questionnaire could be used to gather data.

### **E. Data Collecting Method**

The data collecting method is the way of the researcher in collecting data. In this research, the researcher collected data by distributing the questionnaire. The researcher distributed the questionnaire to students of X-A which consist of 17 students on 9<sup>th</sup> July 2020.

The researcher distributed the questionnaire to the students via online by using Google Form. On the first page of Google Form, the researcher stated the purpose of the questionnaire and the instruction on how to fill the questionnaire. Then, at the bellow of the instruction, the researcher asked students to fill their name and class as the identity of the respondent. Then, they were able to click continue to the next page which contains twenty statements of the questionnaire. Students could fill it based on their own perception toward the use of Google Form in English online quizzes.

### **F. Data Analysis Technique**

After collecting data from the students, then the researcher analyzed the data. In applying the descriptive quantitative techniques in this research, the researcher analyzed the data from the questionnaire by using SPSS 16.0 to find out the descriptive statistic. The descriptive statistics such as frequency,

percentage, and the mean score were used to find out the students' perception on the use of Google Form in English online quizzes at MA At-Thohiriyah Ngantru Tulungagung.

There were some steps in analyzing the data. Firstly, the researcher collected the questionnaires from the students. Then, the results from the questionnaires were tabulated in Microsoft Excel program. After that, the researcher looked for frequency, percentage, and the mean score of the questionnaire by using SPSS 16.0 to find out students' perception. Then the mean scores were compared with the table interpretation of mean score that could be seen in table 3.6. The next, based on the table interpretation of the mean score, it could be determined kind of the responses of the students and finally, the conclusion was drawn.

**Table 3.4 The Interpretation of Mean Score (Merleau-Ponty, 2002)**

| Mean Score | Name | Predicate         | Interpretation |
|------------|------|-------------------|----------------|
| 4,1 - 5,0  | SA   | Strongly Agree    | Positive       |
| 3,1 - 4,0  | A    | Agree             | Positive       |
| 2,1 - 3,0  | N    | Neutral           | Neutral        |
| 1,1 - 2,0  | DA   | Disagree          | Negative       |
| 0,0 - 1,0  | SDA  | Strongly Disagree | Negative       |