# CHAPTER III

# RESEARCH METHODOLOGY

In this chapter, the researcher presents research design, subject of the study, location of the study, instrument of the study, data collection, and data analysis.

## A. Research Design

This research used quantitative approach because based on the aims and needs of the research. Ary et al (2010:22) states that the quantitative research uses objective measurement and statistical analysis of numeric data to understand and explain phenomena. The data were collected to get information about some phenomena.

The design of this research is descrptive quantitative study. According to Creswell survey research provides a quantitative description of trends, attitudes, or opinions of a population by studying a sample of that population. The purpose of the survey research is to explain the opinion of a population. In essence, this design is applied because the researcher wants to investigate the students' perceptions toward the use of Google Classroom as an alternative media for English learning.

## B. Population and Sample

Population is the whole subject of the research which has certain quality and characteristics. According to Ary et al (2010:148) population defines as all members of any well-defined class of people, events, or subjects. As a description above, the researcher took conclusion that the

population is a whole research subject used by the researcher. So, population is important part in a research. In this research, the population is eleventh grade student at SMAN 6 Kediri that have ever used Google Classroom in learning English process.

The sample is a part or representative of the population to be studied (Arikunto, 2010). This study used a simple random sampling technique to determine the research sample. Simple random sampling is a technique for taking sample members from the population that is done randomly without heed the strata in the study population (Sugiyono, 2015). The reason the selection of this technique in this study is related to the research objective, namely to find out students' perceptions toward the use of Google Classroom as media for English learning at SMAN 6 Kediri.

In measuring the number of sample in this study, the researcher used Arikuntos' formula. According to Arikunto (2010), if the subject is less than 100 people, all of them should be taken, if the subject is large or more than 100 people can be taken 10-15% or 20-25% or more.

This research took class XI majoring in IPA and IPS. The total number of students in class XI is 280 students. Class XI students are divided into 8 classes. From this population, 30% of the population was taken so that the sample size is 30% x 280 students = 84 students. The reason researchers use 30% in determining the sample size is because:

a. It is impossible for 280 students to be sampled.

b. All classes are represented as a sample

**Table 3.1**
**List of Research Samples**

| No. | Class | Population | Percentage | Sample |
|-----|-------|-----------|------------|--------|
| 1 | XI IPA 1 | 35 | 30% | 11 |
| 2 | XI IPA 2 | 35 | 30% | 11 |
| 3 | XI IPA 3 | 35 | 30% | 11 |
| 4 | XI IPA 4 | 35 | 30% | 11 |
| 5 | XI IPS 1 | 35 | 30% | 10 |
| 6 | XI IPS 2 | 35 | 30% | 10 |
| 7 | XI IPS 3 | 35 | 30% | 10 |
| 8 | XI IPS 4 | 35 | 30% | 10 |
| | **Total** | **280** | | **84** |

Figure table of 3.1 List of Research Sample

C. **Location of The Study**

Researchers conduct the study to obtain data in SMAN 6 Kediri. It is located at Jl. Ngasinan No.52, Rejomulyo, Kec. Kota Kediri, Kota Kediri, Jawa Timur 64129

D. **Instrument of The Study**

Instrument is a tool used by researcher to collect data with the aim of making it easier for researchers and providing better results, in a more accurate, complete, and systematic sense so that easier to process later after all data is collected (Arikunto, 2013). The instrument used in this study included a questionnaire. Questionnaire is a list of questions that must be filled in by people who will be measured in research (Arikunto, 2013). The questionnaire has many advantages including: (a) can be made and duplicated

at a fairly low cost (b) can be used quickly and practically (c) can reach large numbers of participants (d) can reach the implementation area of the program or project to be evaluated (Sukardi & Hutari, 2015).

In this study, the researcher used a questionnaire to collect information about the students' perceptions toward the use of Google Classroom as a media for English learning at SMAN 6 Kediri. The used of questionnaires to obtain accurate data requires data collection tools that can be accounted for by being tested for validity and reliability. Validity is a measurement which shows the level of validity of an instrument (Arikunto, 2010). An instrument will be valid if the result of the test matches the criteria, while reliability shows the level of reliability of data. The measuring tool can be told to be reliable if the measuring instrument is able to provide a fixed result even though to be used anymore by the deferent researcher. Test reliability instrument is intended for reliability so that the instrument is trusted or reliable (Arikunto, 2010).

The researcher used closed-ended questions which contain questions relating to the problem of the study. The questionnaire adapted from Anis Eka Rosita (2020). The researcher modifies from English to Indonesian in order to the students can understand easily. It can be seen in the appendices sheet **Appendix I.**

**Table 3.2**
**Blueprint of Questionnaire**

| No | Aspect | Indicator | Item Number | | Total |
|---|---|---|---|---|---|
| | | | **Positive** | **Negative** | |
| 1 | Students' experience toward Google Classroom in Learning English | Students' perception on the use of Google Classroom in learning English | 1,2,3,4,5, 7,8,9,10, 12,14,15 | 6,11,13,1 7,25 | 17 |
| 2 | Students' perception toward the benefit of Google Classroom in Learning English | Students' perception on the use of Google Classroom according to the benefit | 16,18,19, 20,21,22, 23,24,26, 27,30,32, 35 | 28,29,31, 33,34 | 18 |
| 3 | Students' perception toward Google Classroom as media in Learning English | Students' perception on the use of Google Classroom in Learning English | 36, 37, 38,39 | 40 | 5 |
| | | **Total** | | | **40** |

Figure table of 3.2 Blueprint of Questionnaire

To know whether the questionnaire was valid and reliable, the researcher checked by trying out the questionnaire in a class. The researcher used Pearson Product Moment in SPSS 23 with r-table 0,329. r-value and r-table were compared to find the validity of each item. If r-value $\geq$ r-table, so the item is valid and vice versa.

**Table 3.3**
**Validity of Questionnaire**

| | r-value | r-table | |
|---|---|---|---|
| Q1 | 0.595 | 0.329 | VALID |
| Q2 | 0.581 | 0.329 | VALID |
| Q3 | 0.566 | 0.329 | VALID |
| Q4 | 0.592 | 0.329 | VALID |
| Q5 | 0.675 | 0.329 | VALID |
| Q6 | 0.436 | 0.329 | VALID |
| Q7 | 0.395 | 0.329 | VALID |
| Q8 | 0.593 | 0.329 | VALID |
| Q9 | 0.592 | 0.329 | VALID |
| Q10 | 0.695 | 0.329 | VALID |
| Q11 | 0.461 | 0.329 | VALID |

| | | | |
|---|---|---|---|
| Q12 | 0.591 | 0.329 | VALID |
| Q13 | 0.658 | 0.329 | VALID |
| Q14 | 0.719 | 0.329 | VALID |
| Q15 | 0.746 | 0.329 | VALID |
| Q16 | 0.598 | 0.329 | VALID |
| Q17 | 0.724 | 0.329 | VALID |
| Q18 | 0.441 | 0.329 | VALID |
| Q19 | 0.586 | 0.329 | VALID |
| Q20 | 0.499 | 0.329 | VALID |
| Q21 | 0.366 | 0.329 | VALID |
| Q22 | 0.532 | 0.329 | VALID |
| Q23 | 0.708 | 0.329 | VALID |
| Q24 | 0.714 | 0.329 | VALID |
| Q25 | 0.728 | 0.329 | VALID |
| Q26 | 0.494 | 0.329 | VALID |
| Q27 | 0.428 | 0.329 | VALID |
| Q28 | 0.342 | 0.329 | VALID |
| Q29 | 0.714 | 0.329 | VALID |
| Q30 | 0.637 | 0.329 | VALID |
| Q31 | 0.338 | 0.329 | VALID |
| Q32 | 0.719 | 0.329 | VALID |
| Q33 | 0.467 | 0.329 | VALID |
| Q34 | 0.540 | 0.329 | VALID |
| Q35 | 0.473 | 0.329 | VALID |

Figure table of 3.3 Validity of Questionnaire

According to the result of the validity test and analysis of the items, all items from the questionnaire are valid. To measure the reliability of questionnaire, the researcher used Cronbach Alpha in SPSS 23. The coefficient of formulate test in this research is 0.6. If Cronbach Alpha >0.6 means reliable. Meanwhile, if Cronbach Alpha is <0.6 means not reliable. The result of reliability testing can be seen in table below:

**Table 3.4**
**Reliability of Questionnaire**
**Case Processing Summary**

| | | N | % |
|---|---|---|---|
| Cases | Valid | 36 | 100.0 |
| | Excluded[a] | 0 | .0 |
| | Total | 36 | 100.0 |

a. Listwise deletion based on all variables in the procedure.

| Reliability Statistics | |
|---|---|
| Cronbach's Alpha | N of Items |
| .931 | 35 |

Figure table of 3.4 Reliability of Questionnaire

According to the reliability statistic table, it can be seen that the correlation is 0.931. The correlation score is greater than the means reliable. It can be stated that the questionnaire is reliable.

**E. Data Collection**

Data collection is a systematic and standard way to obtain the data needed to support research (Nazir, 2009). Sugiono (2015) said research cannot be continued if you do not carry out the step of data collection because the main purpose of the research is to obtain the data. The technique of data collection in survey and descriptive research can be conducted by doing an interview, a sharing the questionnaire, or combination of both. In this research, the data were collected from questionnaire. This research administered questionnaires to 84 Eleventh Graders of SMAN 6 Kediri. It was for finding out their perception on the use of Google Classroom for learning English.

There were several procedures performed by the researcher during this research. The procedures were:

1.  The researcher prepared the instrument for collecting data.

2. The researcher adapted questionnaire. The questions were about the students' perceptions toward the use of Google Classroom as a media for English learning at SMAN 6 Kota Kediri.

3. The researcher tried to get the validity and reliability of the instrument.

4. The researcher distributes the questionnaire to the participants by using Google form because it was still in Covid-19 pandemic condition.

5. After collecting the data, the researcher analyzed it by using SPSS and explained it descriptively.

Make a conclusion as the result of the research.

## F. Data Analysis

The data analysis technique used descriptive statistical analysis to analyze the data, namely by describing and interpreting data from each aspect (Nazir, 2005). The data from this research are in the form of survey responses. It used formula and conducted by using SPSS in analyzed the result of the questionnaire. Then, the researcher explained the result from questionnaire descriptively. Thus, the researcher used following steps to analyzed the data as follows:

### 1. Checking

After the questionnaire was filled in and returned to the researcher, the researcher checked the questionnaires one by one. Researchers try to examine as much detail as possible the questionnaire that has been distributed. This is done so that errors do not occur and it is hoped that the results obtained are correct and valid.

2. **Tabulation**

Tabulation is entering data in certain tables and organizes the numbers and count them. Based on data that has been collected after being given a score, the data is entered in the table, because this activity is carried out to make it easier to interpret data.

In tabulation, the researcher gives a score in all statements with the weighted value of each answer as follows using a Likert scale. According to Sugiono (2015), Likert scale is to measure the extent of subjects' agreement with each item from participants. The weight value of each answer as follows:

**Table 3.5**
**Likert Scale Scoring Criteria**

| No. | Answer | Scale |
|-----|--------|-------|
| 1. | Strongly Agree | 4 |
| 2. | Agree | 3 |
| 3. | Disagree | 2 |
| 4. | Strongly Disagree | 1 |

Figure of table 3.5 Likert Scale Scoring Criteria

1. **Analysiszed**

The next process is analysiszed. After the data gives score in each item, the data analyzed by using a formula based on Nazir (2005) as follows:

1) The researcher determines the ideal scale with the following formula:

Criterion score = scale value X number of respondents

**Table 3.6**
**Criteria Score**

| Formula | Scale |
|---------|-------|
| 4x84=336 | Strongly Agree (SA) |
| 3x84=252 | Agree (A) |
| 2x84=168 | Disagree (D) |
| 1x84=84 | Strongly Disagree (SD) |

Figure of table 3.6 Criteria Score

2) The researcher determines interval, rating value and the perception category according to the table above.

**Table 3.7**
**Answer Value**

A. Positive statements

| Answer Value | Scale | Category |
|--------------|-------|----------|
| 253-336 | SA | Very Positive |
| 169-252 | A | Positive |
| 84-168 | D | Negative |
| 0-84 | SD | Very Negative |

B. Negative Statements

| Answer Value | Scale | Category |
|--------------|-------|----------|
| 253-336 | SA | Very Negative |
| 169-252 | A | Negative |
| 84-168 | D | Positive |
| 0-84 | SD | Very Positive |

Figure of table 3.7 Answer Value

Then the researcher calculated the scores per item. For example, for item number 1 there were 56 people who answered strongly agree, 30 people answered agree, 0 people answered disagree and 0 people answered strongly disagree.

| Scale | Answer Scale*Scale Value | Result |
|---|---|---|
| SD | 0X1 | 0 |
| D | 0X2 | 0 |
| A | 30X3 | 90 |
| SA | 56X4 | 224 |
| | **Total Score** | **314** |

Finally, the researcher calculated the percentage of the score above using the formula: **p = f/n x 100%**. ( p=percentage, f= frequency of each questionnaire answer, n= ideal number of scores). For example, **p = 314/344 x 100% = 91,2%,** the researcher does the same for each item in the questionnaire.

Then, the researcher calculated the average (Mean) and the total score of the data for each aspect.

## 2. Interpretation

After analyzing the result of the data, the researcher has to interpret data, give the meaning to information, evaluating, concluding, responding appropriately, identification, and evaluation. (Sudijono, 2014)