

CHAPTER III

RESEARCH METHODOLOGY

A. Research Design

Researchers are interested in implementing a survey research design. Survey research design is a process within quantitative research in which the researcher administers a survey to a full sample or population of individuals to characterize the attitudes, views, behaviors, or attributes of the population (Creswell, 2012). Researchers use a quantitative approach in this design. The researcher selects a sample of respondents from a population and administers a standard questionnaire for them to use for the population. Creswell (2012) says that in quantitative research, researchers rely on statistical analysis (mathematical analysis) of the data, which is usually in numerical form.

B. Population and Sample of the Research

1. Population

According to Creswell (2012), a population is a group of individuals who have the same characteristics. The population of this study is an eleventh-grade senior high school in the 2020-2021 school year. There is 250 population coming from 8 classes. It can be seen in the table:

Table 3.1

The population of students at SMA Negeri 01 Nanga Pinoh

| No | Classes | Students |
|------------------|---------------------|--------------|
| 1 | Sains I | 30 students |
| 2 | Sains II | 34 students |
| 3 | Sains III | 32 students |
| 4 | Sains IV | 32 students |
| 5 | Social Sciences I | 30 students |
| 6 | Social Sciences II | 30 students |
| 7 | Social Sciences III | 32 students |
| 8 | Social Sciences IV | 30 students |
| Total population | | 250 students |

2. Sampling

The sampling technique is a technique to determine the sample to be used in research. According to Fraenkle, Wallen, & Hyun (1993), purposive sampling is using personal judgment to select a sample. Researchers assume they can use their knowledge of the population to judge whether a particular sample will be representative.

3. Sample

The sample is part of the surveyed population. Researchers use total sampling as technical sampling. Deaariesfitriani & Rahayuapriliaswati (2015) said sampling is a part of the population being studied. It means sampling is choosing individually to be the subject. So in this study, Purposive sampling is classified as a type of non-probability sampling, which means it does not provide equal opportunities for each population. The criteria set in this study that will be used as a sample are classes that have bad enough problems, namely the Social Sciences II class, which has a total of 30 students.

C. Techniques of Data Collection

Data collection systematically collects and analyzes specific information to offer solutions to relevant questions the results. Data collection can be done in various settings, various sources, and various ways Sugiyono (2020). In this study, researchers used indirect communication techniques. Indirect communication is a data collection technique by not communicating directly and using intermediary messages. Arikunto (2006) states that "indirect communication techniques are a way of collecting data that does not establish a direct relationship or intermediary tools, either in the form of tools that are already available, or tools made for this purpose". Indirect communication techniques are conducted by giving questionnaires directly but without communicating or without dialoguing.

And researcher will use the Study of document. Document is a method used to find data regarding variables in the form of notes, relevant books,

activity reports, and photographs. With this documentation, technique researcher can obtain information not from one source but from various other sources. Documentation research is used to obtain data in the form of documents.

D. Tools of Data Collection

The questionnaire is a list of questions that will be given to students or respondents to find out students' speaking problems and the causes of problems in speaking. From the data display, the researcher concludes to answer all research questions in this study. According to Sugiyono (2017), a questionnaire is a data collection technique that is carried out by giving several written questions to respondents. Researchers modified the questionnaire from Brier & lia dwi jayanti (2020) and Ayu Nadila, Fadly Azhar (2021). To collect data from participants, researchers used a questionnaire. A questionnaire is a type of research instrument consisting of a series of questions or other forms of instruction designed to collect data from respondents. According to Creswell (2012), questionnaires are used to identify trends in attitudes, opinions, behaviors, or characteristics of a large group of people (called the population). Questionnaires are classified into two types: open questionnaires and closed questionnaires. The researcher used a closed questionnaire to obtain data on students' difficulties in speaking English for eleventh graders in senior high schools in West Kalimantan. A closed questionnaire implies giving questions along with a choice of each question

E. The Technique of Data Analysis

Based on the method used for data collection, the researcher handled the data by utilizing the calculating approach of the Likert scale in four phases, as follows:

1. Score Determination

The researcher scored the response of the sample based on the gradation from negative to positive. A Likert scale measures attitudes about a topic by delivering a series of statements regarding the issue and asking respondents to indicate whether they always, often, sometimes, seldom, and never (Ary *et al*, 2010:210). For positive statements, the researcher gave a score of 5 for always, 4 for often, 3 for sometimes, 2 for seldom, and 1 for never. However, for negative statements, the researcher gave a score of 1 for always, 2 for often, 3 for sometimes, 4 for seldom, and 5 for never.

Table 1.1
Score of Likert Scale

| Scale | Positive | Negative |
|--------------|-----------------|-----------------|
| Always | 5 | 1 |
| Often | 4 | 2 |
| Sometimes | 3 | 3 |
| Seldom | 2 | 4 |
| Never | 1 | 5 |

Taken from Ary, et al (2014:227)

2. Determination Ideal Score

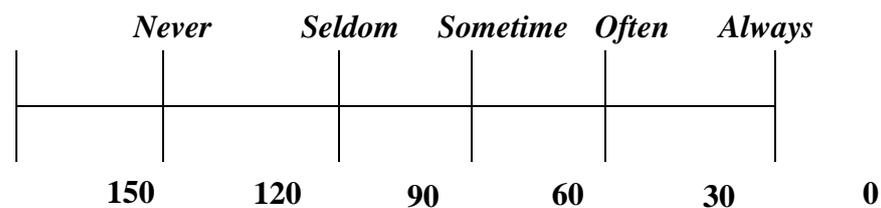
The ideal score was utilized to determine the rating scale and overall response. The researcher calculated the score for each scale to determine the high and low scores for each scale in the overall score. The study requires the following formula to calculate the optimum score for all items:

$$\text{Ideal Score} = \text{Likert Score} \times \text{Number of Respondents}$$

Taken from Ary, et al (2014:227)

3. Rating Scale

A rating scale is required to determine the result area of questionnaire data. Based on the responses of the respondents, the rating scale classified the data into five Likert scales. Consistently, the grading scale for this study aim is given below:



Taken from Sugiyono (2018:13)

4. Measurement the Frequency and Percentage of Questionnaire

To calculate the scale score of every competency specification, the researcher analysed the data into percentages. The formula is adapted from Sugiyono (2018):

$$P = \frac{\text{Total Score}}{Y} \times 100\%$$

Where:

P = percentage

Y = maximum of likert score

The researcher was served the data into a column chart to visualize the data. To assist the researcher calculate the data and manage the table, the researcher ware used descriptive analysis and Ms. Excel 2016.

F. Research Procedures

1. Planning

Firstly, the researcher created instruments to be used as data collection tools. In this research, the researcher used a questionnaire to gather the data from students and teachers.

2. Data Collecting

In collecting the data, the researcher distributed the questionnaire first to the students as participants. The researcher gave 30 minutes for students to answer the questions. Then the researcher collected the questionnaire which was answered by the students. After collecting the data from students, the researcher collected the data from the teacher using an online questionnaire to compare the data from students' perceptions and to get more information. After collecting the data, the researcher analyzes the questionnaire from students and teachers. The last, the researcher compiled research reports based on the results obtained.

3. Data Processing

After the data have been obtained from data sources. Furthermore, the data is processed by taking the following steps:

a. Data Analysis

In this research, the researcher entered the data result from the students and teacher questionnaires into Ms. Excel 2016. After that, the researcher used the Likert scale to analyze the data.

b. Interpretation

In the interpretation, the researcher made a conclusion based on the data analysis.