CHAPTER III
RESEARCH METHODOLOGY

A. Research Design

1. Research Design

The suitable method should be used to reach the main purpose of this research, in order to fulfill the requirements of a research the researcher used a descriptive study to describe the analyzing factors causing problems faced by students in writing. In hence, the researcher used the quantitative descriptive.

Based on Mishra and Alok (2011: 3), they explained quantitative research is based on the aspect of quantity or extent. It is related to object that can be expressed in terms of quantity or something that can be counted. This type of research involves systematic experimental analysis of observable phenomenon via statistical, mathematical or computational techniques in numerical form such as statistics, percentages, etc. Related to Kabir (2016: 203), quantitative data is numerical in nature and can be mathematically computed. Quantitative data measure uses different scales, which can be classified as nominal scale, ordinal scale, interval scale and ratio scale. Often (not always), such data includes measurements of something.

Quantitative research methods emphasize the statistical and objective measurements, mathematical, or numerical analysis of data collected through questionnaires, polls, and surveys. Quantitative research focuses on gathering numerical data and generalizing it across groups of people or to explain a particular phenomenon. The statements before supported by Creswell (2012: 19) who stated, in quantitative research, the investigator relies on statistical analysis (mathematical analysis) of the data, which is typically in numeric form. The final written report has a set structure consisting of introduction, literature and theory, methods, results, and

discussion. Quantitative research deals in numbers, logic, and an objective stance.

Based on the explanations, it can be summarized that the descriptive study is kind of research design which focus on explaining or analyzing the situation happening that the researcher has no control over the variable. Whereas, quantitative research is related to statistical or mathematic analysis.

B. Population and Sample

1. Population

Population is all of individuals or object in a certain group. Based on Ary et al (2014: 161) a population is defined as all members of any well-defined class of people, events, or objects. Based on explanation before, the population of this research involved a number of people. Thus, the population of this research was fifth semester students of English Education Study Program in IKIP PGRI Pontianak.

C. Sample

Sample is a small group of population. Sample is a part of the population (Ary et al, 2014: 161). The researcher has chosen 34 students of English Education Study Program in fifth semester who have taken course academic writing for the subject of this research. Hence, the researcher used purposive sample that related to Ary et al. (2014: 169) purposive sample referred to elements to be typical or representative which are chosen from the population. By following the theory above, the researcher used purposive sample and the participants of this research was the students that has passed academic writing subject.

D. Technique of Data Collection

In order to obtain the data, the researcher should have a strong and reliable techniques in collecting the data. The questionnaire technique was used

to collected the data. The technique was suitable for the researcher to get some information from the subjects. In order to received more information and acceptable data the researcher was used indirect communication with the college students in IKIP PGRI Pontianak.

1. **Questionnaire**

    The questionnaire was constructed through google form. The researcher applied some steps in collected the data by asked permission from the English education chair, the lecturer, and the class that would be research or the respondents. The researcher was distributed the questionnaire to each respondent and collected the questionnaire. A questionnaire enables quantitative data to be collected in a standardized way so that the data would internally consistent and coherent for analysis.

    Questionnaires should always have a definite purpose that would be related to the objectives of the research, and it needs to be clear from the outset how the findings would be used. The researcher used questionnaire to collect the data from the students such as the score of students' academic writing and including students' problems in academic writing. According to Simister (2019: 105) stated that a questionnaire is a form containing questions. It might be a printed form or one designed to be filled in online. Supported by Roopa and Rani (2017: 273) stated that a questionnaire is simply a list of mimeographed or printed questions that is completed by or for a respondent to give his opinion. Questionnaires might administer in many different ways. A survey, by contrast, is normally a large, formal exercise. It typically consists of three different aspects: an approved sampling method designed to ensure the survey is representative of a wider population; a standard questionnaire that ensures information is collected and recorded consistently; and a set of analysis methods that allow results and findings to be generated.

E. Tool of Data Collection

In collecting data, the researcher used the instrument to get the information needed that related to the research. Instrument was tool developed by researcher to achieved their stated objectives when carried out a research study. The used of research instrument was leading the researcher in gathered the information or data needed that related to this research. In this research, the researcher was used instrument to completed the data.

1. Close-Ended Questionnaire

The researcher used questionnaire form as the instrument to collected the data such as students personal data, and the score of academic writing subject to figured out their writing proficiency. A questionnaire is a research instrumen consisting of a series of questions and other prompts for the purpose of gathering information from respondents, Kabir (2016: 208). There are two types of questionnaires, they are Open-ended and Close-ended question. Open-ended question allows the respondent answer the questions using their own sentences. In the other hand, Close-ended question is directly the respondent can choose the appropriate answer.

The format question of the questionnaire in this research was used a close-ended form. The questionnaire survey with closed-ended questions is one of the most commonly used tools for user information elicitation (Wang et al., 2016:69). Closed-ended questionnaires prescribed the range of responses from which the respondent might choose. Highly structured, closed questions were useful in that they could generate frequencies of response amenable to statistical treatment and analysis (Cohen et al., 2018:247). The researcher has designed the questionnaire by adopted the experts. The data has described in the form of written questions and the respondents also gave the answers in written form. So, the researcher has provided sufficient space for the responses. The researcher has constructed 18 questions on the questionnaire that would be asked to students with indicators when they were in the process of writing such as word choice, grammatical error, spelling, and confusion used on supporting idea. The

researcher adopted the questionnaire from Bulqiyah et al (2021) and Solikhah (2017), and the table number 3.1. Number illustrates the specification of the questionnaire could be seen in the table below.

Table 3.1
Number Specification of The Questionnaire

No.	Aspect	Number of Statement		Total
		Positive	**Negative**	
1	Affective (students' motivation, anxiety, instruction from the teacher)	2, 3, 4, 5, 6	1, 7, 8	8
2	Cognitive (how the students expressing the idea)	9, 10, 11, 13	12	5
3	Linguistic Feature (the use of appropriate vocabulary, morphology knowledge, syntax, semantic and grammar)	14, 15, 16	17, 18	5
Total				18 Items

Adopted from Bulqiyah, et al (2021), and Solikhah (2017).

F. Technique of Data Analysis

In this research, the data taken by using a close-ended questionnaire only. After the data has been collected, then the researcher analyzed to described the real condition of the students in writing through Microsoft Excel.

1. Questionnaire

Questionnaire was used to support this research aimed to identify students' perception, problem, and their writing proficiency. In this case, the form of questionnaire used closed-ended questions with the alternative answer that choose by the students. By the reason, Likert scale was appropriate scale to this study. The researcher was determined the score of the responses of sample based on the gradation from positive to negative. In the quantitative analysis, the response can be scored from 5 to 1 (Ary et al., 2014). Thus, the researcher has given 5 for answering "strongly agree"

and 1 for selecting "strongly disagree". The specific score of Likert scale in this research described in table 3.1 below:

Table 3.2
Likert-Scale Rating

Option	Score for Positive Statement	Score for Negative Statement
Strongly Agree	5	1
Agree	4	2
Neutral	3	3
Disagree	2	4
Strongly Disagree	1	5

Table 3.1 shows the example of questionnaire with Strongly Agree (SA) with 5 points, Agree (A) with 4 points, Neutral (N) with 3 points, Disagree (D) with 2 points, and the last Strongly Disagree (SD) with 1 point which the participants were choose by giving the checklist mark (√).

Roopa and Rani (2017: 274) stated that Likert scale is a psychometric scale commonly involved in research that employs questionnaires to measure social attitudes. The students were choosing only the best answers that suitable to themselves. Questionnaire contained 18 questions that need to be responded by the students. The questions were provided 5 choices as the frequency of their activity in writing. According to Creswell (2012: 395) the author used different types of closed-ended questions for variety, from checking the appropriate response to an extent of agreement scale (strongly disagree to strongly agree) such as; 5) strongly agree, 4) agree, 3) neutral, 2) disagree, 1) strongly disagree. In order to analyze the questionnaire, the researcher used the following formula mean score such as below:

a. Mean Score

$$\overline{X} = \frac{\sum X}{N}$$

Where:

$\overline{X}$ = Mean score

ΣX = Total Score

N = The number of respondents

Table 3.3
Interpretation of Mean Score

No.	Mean Score	Interpretation
1	1.00 - 2.00	Low
2	2.01 - 3.00	Moderate
3	3.01 - 4.00	High

Source: Wiersma in Mohamad Nizam et al. (2017).

Regarding to the table 3.2, the criteria of the mean score has categorized in three criteria such as – low category mean score from 1.00 to 2.00, from 2.01 to 3.00 categorized as – moderate category mean score and the last category from 3.01 to 4.00 categorized as – high category mean score. If the mean score in high level, it means the aspects give the positive contribution to the students in writing proficiency. But, if the mean score is low, it showed the negative contribution to students in writing proficiency.

b. Standard Deviation

$$s = \sqrt{\frac{\Sigma(X-\overline{X})^2}{n-1}}$$

Where:

Σ = to sum

X = a score in the distribution

$\overline{X}$ = the sample mean

N = the number of cases in the sample

While to found out the answer through a presentation that was using the following formula:

Percentage of Approval:

$$P = \frac{f}{n} \text{ X } 100\%$$

Where:

P   = Percentage

F   = Frequency of each questionnaire answer

N   = Ideal number of scores

100%   = Fixed number

Source: Sugiyono (2012).

The researcher spread the close-ended questionnaire through the google form link which had made by the researcher to the fifth semester students of IKIP PGRI Pontianak. Thus, the questionnaire was consisting of 18 questions about the aspects that influence students' writing proficiency. After the researcher got the data from the students' responses, the researcher tidied up the data by seeing the demographic information. In hence the researcher did a coding in which the analytical result emerged. Furthermore, the result of this study can be seen in finding and discussion (Chapter IV).