

CHAPTER III

RESEARCH METHODOLOGY

1. Research Design

In this research, the researcher applied a quantitative research method. Quantitative research is the method of employing numerical values derived from observations to explain and describe the phenomena that the observations can reflect on them. This method employs both empirical statements, as descriptive statements about the meaning of the cases in real words not about the ought of the cases, and methods. It also applies the empirical evaluations intending to determine to which degree a norm or standard is fulfilled in a particular policy or program. Finally, the collected numerical data is analyzed using mathematical methods (Taherdoost, 2022).

Besides, both qualitative and quantitative research approaches are designed to describe a topic; however, the last part of the definition is the difference which concentrates on different types of analysis methods which is mathematical using statistics in quantitative research. Gathering all these points together, quantitative research aims to define a particular phenomenon by collecting numerical data to address specific questions such as how many and what percentage in different fields including education, psychology, physics, biology, natural sciences, etc. In other words, quantitative methods are the ways of determining social reality and employing specific questions to achieve numerical data for these specific purposes (Taherdoost, 2022).

The researcher uses descriptive analysis as a method. Descriptive research is one of the most commonly used types of research in social sciences. Descriptive research aims to describe phenomena in the ways it represents for example, social systems or relationships between events (Baha, 2016). The method is purposed to analyze the problem or case that happened at present.

2. The subject of research

The research subjects of this study are eleven-grade students at one of the vocational high schools in Pontianak. This research was conducted in SMK Mandiri Pontianak Academic Year of 2022/2023. This research uses Cluster Sampling. The researcher chooses SMK Mandiri Pontianak due to the researcher's experience and observation during an internship. The researcher found that many students need help to write a good text and still need to gain vocabulary knowledge and grammar abilities. The researcher already tried to test the students with different texts, and their scores were below average.

Meanwhile, the researcher chose eleventh grade and only one class because, during the internship, the researcher only observed in eleventh grade and already measured them with the task. The researcher wants to find out why the students are hard to write a text according to the measurement that the researcher already did. And why only choose one class? The reason is that the classroom the researcher chose has acquired the average score other than class, so the researcher wants to know how that class can implement lexical resources.

So why the researcher chooses SMK Mandiri to know if students can implement lexical resources and write a good text in personal text, which is recount text.

3. Technique of Data Collection

The process of data collection involves more than simply gathering information. The data collection process involves more than just gathering information. Techniques in data collection are divided into two, namely direct and indirect assessment. The researcher uses direct assessment techniques as data collection techniques. Direct assessment methods are most familiar to faculty. Direct assessments examine or observe student knowledge or skills against measurable learning outcomes (Rogers, 2020).

And to validate the data, the researcher uses inter-rater to validate the data research. Interrater reliability refers to the extent to which two or more individuals agree. Suppose two individuals were sent to a clinic to observe

waiting times, the appearance of the waiting and examination rooms, and the general atmosphere. If the observers agreed perfectly on all items, then interrater reliability would be perfect. Interrater reliability is enhanced by training data collectors, providing them with a guide for recording their observations, monitoring the quality of the data collection over time to see that people are not burning out, and offering a chance to discuss difficult issues or problems.

4. Tools of Data Collection

In this research, the data collection tools use a writing test paper. A writing test is any examination modelled to sample and gauge writing abilities that include the motor function of writing, grammar, content, and spelling.

That paper has a direction to write a recount text that provides a theme. This writing test paper has a theme about an unforgettable moment during the students' last holiday. Also, it has to write on the generic structure of recount text: orientation, events, and reorientation.

As the measurement tools, this research uses scoring rubric by Brown (2007). A rubric is an assessment guide that describes the criteria used by teachers in assessing students' work outcomes (Eshun et al., 2013).

5. The Techniques of Data Analysis

The researchers were describing, correct, classify, and calculate the lexical resources on the first statement. There are some types to analyze the lexical resources; the first step is for the researcher to focus on identifying conjunction, parts of speech, and subject verb agreement that students made by analyzing the students' writing tests.

Second, the writer describes, corrects, and classifies the lexical resources and then scores them. Then, the researcher was interpreting the data about students' lexical resource knowledge based on the recount text that they write. The last is that the researcher concluded the research.

The researcher used quantitative research in this study in which the method is conveyed in a descriptive analysis way to describe and interpret

the result of quantitative data. The main aim is to achieve explanations and predictions which can be generalized to other people, events, and places. This process is initiated by stating the problem and involving the specific hypothesis according to the aim of the study (Taherdoost, 2022). First, the researcher will score the data collection using the scoring rubric by Brown 2007 .by table scoring, which conducts Content, Organization, Grammar, Vocabulary, and Mechanics from a scale of 1-5. Then, the researchers will analyze and describe the data collection results at the data analysis stage. The researcher will cooperate with the teacher in SMK Mandiri when the researcher wants to calculate the students' writing scores. Then the researcher will interpret the data about students' lexical resource knowledge. The last is that the researcher concluded the research. To get the result, the data will be calculated and drawn up in the table which the formula as follows:

$$\sum x : \frac{X}{N} \times 100$$

$\sum x$ = Students' score
 x = Obtained score
 n = Maximum score
 100 = Constant number

Adapted from Cohen et al. (2007:423)

This formula calculates the types of individual bands and sources students make in writing recount texts into mean scores. Before using this formula, the writer must classify student lexical resources into five categories. In the end, the total lexical resource is calculated using a formula. The researcher draws the numerical results in terms of mean and interprets them descriptively.

Mean Formula:

$$X = \frac{\sum \text{Overall Score}}{\sum \text{Total students}}$$

X = Mean Score

$$\frac{\sum \text{Overall Score}}{\sum \text{Total Siswa}} = \frac{\text{Overall Students Score}}{\text{Total students}}$$

To determine the value of each category based on the rubric that researchers use in this study. This study uses an assessment method, namely holistic scoring. *Holistic scoring* defines as a method that classifies the research results into categories. Based on this study, the rubric is used as a reference for data analysis. The rubric is used as a reference so that each assessment point can be categorized according to the method of grouping student scores.

Table 3.1. Interval criteria table

No	Point	Standard Score	Category
1.	1-2	0-40	Poor
2.	3	60	Fair
3.	4-5	80-100	Good

The data grouping is based on shared values to measure the calculated value of the participants. The standard value is obtained from the average value of all participants. After that, the participants' values will be regrouped based on these common values. The value of participants who are below the standard value will be grouped into poor scores, while those who are above the value will be categorized as good. Likewise, each research point that is part of the lexical resource assessment will also be categorized into three sections which are adjusted into the assessment rubric; namely, a value of 3 is categorized as sufficient and is used as an expected value; for a value below three it will be categorized as low, and above three it will be categorized as high. Research based on the research rubric. Based on the language assessment book, it is said that in written assessment, it is required to look thoroughly at each aspect being assessed so that an assessment or analysis cannot be carried out based on each assessment item alone so that the value becomes complex (Brown. 2007).