CHAPTER III

RESEARCH METHODOLOGY

In this chapter, the writer explained the method of the research, the variable of the research, the operational definition, the population and sample, the technique for collecting data, and the technique for analyzing data.

A. Methodology of the Research

In this study, the writer used quantitative research with a correlational design. A correlation was a statistical test to determine the tendency or pattern for two (or more) variables or two sets of data to vary consistently (Creswell, 2012). In addition, Ibrahim et al. (2018), state that correlation is the technique of data analysis in quantitative research used to find out the correlation between two variables or more. The correlation is indicated by a correlation coefficient represented with numbers from 0 to 1 showing the degree of relationship, and the direction of the correlation indicated with (-) showing a negative correlation and (+) showing a positive correlation.

So, from some of the definitions of correlation above, the writer can conclude that correlation was a research design to measure whether or not there is a correlation between two or more variables. In this study, the writer used this method to measure whether or not there was a correlation between students' mindsets and students' speaking abilities.

B. Variable of the Research

According to Sugiyono (2016), the meaning of research variables was as follow: "A research variable is an attribute or trait or value of a person, object or activity that has certain variations determined by the researcher to study and then draw conclusions". Based on the correlation between one variable and other variables in this study, it consists of independent variables (independent variables) and dependent variables (dependent variables). The explanation was as follows :

1. Independent Variable

According to Sugiyono (2016), the independent variables (independent variables) are as follows: "Independent variables are variables that affect or cause changes or the emergence of the dependent (dependent) variable". In this study the independent variable or independent variable (X). According to the writer, students' mindset can be defined as the main component that can affect students' speaking ability in English.

2. Dependent Variable

According to Sugiyono (2016), the meaning of the dependent variable (dependent variable) is as follows: "The variable that is affected or becomes the result, because of the independent variable. The dependent variable or dependent variable (Y) is the student's ability to speak English.

C. Operational Definition

There are three main terms that need to be operationally defined for the research in question, namely:

a. Correlation was a method used to determine the level of correlation between two or more variables.

b. Mindset was a set of attitudes or beliefs that we hold. This mindset was influence our perception and how we live in the world.

c. Speaking was the capability which was expressing the main what we want to extend. It means that how the people were able to acquit in expressing their ideas.

D. Population and Sample

1. Population of the Study

Rashid et al. (2018) state that a population or a universe or an aggregate is any group of individuals (which may mean individual persons or individual objects) that has one or more characteristics in common that are of interest to the writer. So, the writer concludes that a population was a group of individuals or items that have some characteristics from which data can be gathered and analyzed. This study was conducted in the II, IV, VI, and VII semesters of the English Education Study Program of Baturaja University. The data of the subject in this study was shown in the following table.

Table 1. The population of the Study

No	Semester	Number of Students
1	II	22
2	IV	16
3	VI	30
4	VIII	26
Total		**94**

Source of data: English Education Study Program of Baturaja University in Academic Year 2022/2023

2. Sample of the Study

According to Rashid et al. (2018), A sample was a sub-set of objects/things/units taken from the population complete set) for observation and study. In this study, the writer used convenience sampling. Creswell (2018) states that in convenience sampling the writer selects participants or respondents that are chosen based on their convenience and availability. So, the number of samples in this study was 38 students consisting of 22 semester 2 students and 16 semesters 4 students who were willing to be sampled. I only used those 2 semesters because semesters 6 and 8 don't learn to speak.

Table 2. Sample of the Study

No	Semester	Number of Students
1	II	22
2	IV	16
Total		**38**

Source of data: English Education Study Program of Baturaja University in Academic Year 2022/2023

E. Technique for Collecting Data

In quantitative data collection, the writer used an instrument to measure the variables in the study. An instrument was a tool for measuring, observing, or documenting quantitative data. It contains specific questions and response possibilities that you establish or develop in advance of the study (Creswell, 2018). In this study, the writer used questionnaires and tests as instruments.

1. Questionnaire

   The questionnaire was a set of questions used to collect data. The questionnaire was administered face-to-face by the interviewer with self-filling. Ragab and Arisha (2018) state that, a questionnaire was a general title that includes a method in which everyone is asked to answer a series of identical questions in a predetermined order at a certain point in time. In this study, to collect data, the writer used closed questions, which limited the answers of the respondents who became the author's survey. There are several options for answering the closed questionnaire with a rating scale including Strongly Agree (SA), Agree (A), Neutral (N) Disagree (D), and Strongly Disagree (SD).

2. Test

   The test is a set of questions that require answers, or a set of questions that must be responded to with the intention of measuring the ability of the person subjected to the questions. According to Arikunto (2013), "a test is a tool or procedure used to find out or measure something in a

predetermined way and rules." So the authors use tests to test and measure the research process.

a) Validity of the Instrument

According to Sugiyono (2016) To test the validity of the construction, opinions from experts can be used (judgment experts). In this case, after the instrument is constructed the aspects to be measured on the basis of a particular theory, are then consulted with experts. Experts were asked for their opinion about the instruments that have been compiled. Maybe experts were given a decision: the instrument can be used without improvement, there is an improvement, and maybe a complete overhaul. The minimum number of experts used was three people and generally, those who have a doctorate in accordance with the scope studied. In this study, the aspects that were measured were questionnaires and tests.

According to Sugiyono (2016), a questionnaire was a data collection technique that is carried out by presenting and answering a series of written questions to respondents. Questionnaires were defined as documents that contain statements and other types of elements used to collect information suitable for analysis. The writer was collected by distributing questionnaires which was carried out directly. The writer used the following scale categories as answer choices from the questionnaire in the form of strongly agree, agree, neutral, disagree, and strongly disagree.

Table 3. Specification of the Questionnaires Mindset

Objective	Indicator	Aspects	Number of Items	Total
To find out the mindset of students	1. Fixed Mindset	Have the belief that intelligence, talent, and nature are a function of heredity/heredity	2, 9, 17	10
		Avoiding challenges	12, 16	
		Give up easily	1	
		Considering effort is pointless	6, 18	
		Ignoring criticism	4	
		Feeling threatened by the success of others	14	
	2. Growth Mindset	Have the belief that intelligence, talents, and traits are not heredity functions.	3	10
		Accept the challenge and seriously run it	8, 13, 19	
		Stay foresight of failure	7	
		Have a positive outlook	5, 20	
		Learn from criticism	11	
		Find lessons and get inspiration from people's successes and other	10, 15	
Total				**20**

Source by: Adopted from Muttaqin (2022)

b) Reliability of the Instrument

According to Sugiyono (2016) suggests that " Reliable instruments were instruments which, when used several times to measure the same object, produce the same data". An instrument was said to be reliable if it gives constant or consistent results if it is tested many times. Reliability testing in this study involving raters or experts was called the agreement between raters (inter-rater reliability). Inter-rater reliability means that different raters rate performances similarly. The English teacher was the first rater (R1) and the writer was the second Rater two (R2) to find the reliability of the test and to find out the reliability, the writer gave a test to the students. In this study, the writer used oral tests. The test was about the correlation between mindset and students' speaking ability. The writer has prepared a table of speaking test specifications.

Table 4. Table Specification Speaking Test

Object of test	Test taker/ level	Indicator	Topic	Type of test
Students were able to speak English well	The test was followed by students in semesters IV and VI of the English Education Study Program, at Baturaja University	To find out what mistakes and student shortages have in speaking English	The assessment of speaking is seen from several aspects, namely pronunciation, grammar, vocabulary, fluency, and comprehension.	Oral Test

F. Technique for Analyzing Data

According to Creswell (2018), the process of data analysis involves making sense of text and image data. It involves preparing data for analysis conducting different analyses, moving deeper and deeper into understanding the data, representing the data, and making an interpretation of the large meaning of the data. To find the correlation between students' mindset and students' speaking ability in English Education Program at Baturaja University the writer used a questionnaire and test to find the percentage of the questionnaire and test.

1. Questionnaire Data Analysis

The writer collects data from questionnaires. To analyze the questionnaire data, the writer used a qualitative descriptive analysis technique. The writer analyzed the data by calculating the percentage of the correlation questionnaire between students' mindsets and the speaking ability of English Language Education Department students at Baturaja University. The writer used excel to analyze data.

Table 5. Scale to Count the Questionnaire

Response	Value
Strongly Agree	5
Agree	4
Neutral	3
Disagree	2
Strongly Disagree	1

Source by: Adopted From Latifah (2020)

Table 6. The Categories of Students' Mindset

Category	Score
Very Good	80 – 100
Good	70 – 79
Fair	60 – 69
Poor	50 – 59
Very Poor	< 49

Source by: Adopted From Latifah (2020)

2. Speaking Test Analysis

To analyze the speaking test the writer used a speaking assessment rubric to analyze students' speaking ability.

Table 7. Speaking rubric

No	Language component	Description
1	Pronunciation	1. Pronunciation of individual sounds and words 2. Pronunciation of sentences, the right intonation and stress
2	Grammar	Accurate use of structure, or how the learner gets his/her utterance correct
3	Vocabulary	The leaner's ability in choosing appropriate words and how to solve the problems when he/she cannot find suitable words by explaining around the word
4	Fluency	1. The ability to keep the conversation going 2. Read a text smoothly without hesitation, or inappropriate pause, or repeating words/lines
5	Comprehension	The ability to get the meaning across the listener

Source by: Adopted from Puspa (2017)

Table 8. Scoring rubric speaking

Component of Speaking	Score	Level	Description
Pronunciation	0	Very Poor	Many wrong pronunciations
	1	Poor	Frequent incorrect pronunciation
	2	Fair	Occasional errors in pronunciation
	3	Good	Some errors in pronunciation
	4	Very Good	No errors/ minor errors
Grammar	0	Very Poor	No mastery of sentence construction
	1	Poor	Major problems in structure
	2	Fair	Several errors in the structure
	3	Good	Minor problems in the structure
	4	Very Good	Demonstrates mastery of structure (few errors)
Vocabulary	0	Very Poor	Little knowledge of English words
	1	Poor	Frequent errors in word choice
	2	Fair	Occasional errors in word choice
	3	Good	Minor errors in word choice
	4	Very Good	Effective/ appropriate word choice
Fluency	0	Very Poor	Dominated by hesitation
	1	Poor	Frequent hesitation
	2	Fair	Occasional hesitation
	3	Good	Minor hesitation
	4	Very Good	No hesitation
Comprehension	0	Very Poor	Message unclear
	1	Poor	Disconnected idea
	2	Fair	Ideas stand but are loosely organized
	3	Good	Clear and organized ideas
	4	Very Good	Well-organized and clear ideas

Source by: Adopted from Puspa (2017)

The formula for calculating test results, according to Puspa (2017).

The maximal score is 25 points.

Final Score: $\underline{\text{Score Obtained} \times 100}$

Max Score

Final score $= \underline{20 \times 100}$

25

$= \underline{2000}$

25

$= 80$

The writer used the score range and the criteria to describe students' scores. It is shown in the following table :

Table 9. The Score Range Of Criteria

Score Range	Predicate
80 – 100	Very Good
70 – 79	Good
60 – 69	Fair
50 – 59	Poor
<49	Very Poor

Source by: Adopted From Tanasy (2017)

The writer used to analyze the research results to assist the writer in making conclusions about this research. From the results of the previous data analysis, the writer can conclude that there is a correlation or not between students' mindsets on speaking ability.