CHAPTER 3
RESEARCH PROCEDURES

This chapter presents the methodology employed in this study in order to conduct the study. It describes seven parts of research procedures, namely research method, variables of the research, research design, population and sample, data collection technique, research instruments, data analysis technique, steps of the research, time and place of the research.

3.1 Research Method

The method used in this research was correlation research, because this study aims to investigate the relationship between students' self-efficacy and students' English learning achievement at one of junior high schools in Tasikmalaya. According to Creswell (2012), correlational research are quantitative designs in which investigators use a correlation statistical technique to describe and measure the degree relationship between two or more variables.

3.2 Variables of the Research

This research consisted of two variables, variable X and Y. Variable X refers to the students' self-efficacy as an independent variable, while variable Y refers to the students' English learning achievement as a dependent variable.

3.3 Population and Sample

3.3.1 Population

Population is the totality of the subject in the research. According to Sugiyono (2012) population is a generalization of the area including objects and subjects that has certain qualities and characteristics that are decided by the researcher. The population of this research was the 8th-grade students at one of the junior high schools in Tasikmalaya. It consists of five classes with a total population of 140 students. The total population and average student test scores obtained from the English teacher's documentation can be seen in table 3.1 as follows:

Table 3.1 Total Population and Average Student Test Score

No	Class	Number of students	Average student test score
1	VIII-A	26	81,34
2	VIII-B	27	81,76
3	VIII-C	31	80,58
4	VIII-D	29	81,63
5	VIII-E	27	80,21
	Total	140	

3.3.2 Sample

Sample is the smaller group having the same characteristics which are the owned population (Sugiyono, 2012). In this research, the researcher used cluster random sampling because each class has the same chance to be chosen as their average test score is relatively the same. The selection of sample classes was done randomly using the spinning wheel application. The class selected as the sample was class VIII-C with a total of 31 students.

3.4 Data Collection Technique

3.4.1 Distributing Questionnaire

The data of variable X (Self-efficacy) gained by using questionnaires. The questionnaires are written in Indonesian to make it easier for respondents to understand and answer the questions. There are several steps in collecting the data of Self-efficacy. First, the researcher distributed the questionnaire to the respondent. Second, the respondents fill out the answers to the questionnaire based on their choice. Third, the researcher took back the data which the respondents filled. Fourth, the researcher checked the respondents' answers and got the data of self-efficacy.

3.4.2 Gathering the data of English achievement.

The data of variable Y (English learning achievement) gained by using documentation. Data of students' English achievement was gathered from the English teacher document in the form of the final test scores in the first semester.

3.5 Research Instruments

The instruments of this research are a self-efficacy questionnaire and an English learning achievement document. The English learning achievement document was taken from the final test scores collected from the English teacher. The self-efficacy questionnaires adapted from the Academic Self-Efficacy (ASE) by Gafoor and Ashraf (2006). It consists of many items of statements involving the efficacy of the students in each of the dimensions of academic self-efficacy. However, the researcher only takes 15 items that are suitable for this study and modify the questionnaires based on the English learning context and then translate them into the Indonesian language. The blueprint of the self-efficacy questionnaire is as follows:

Table 3.2 The Blueprint of Questionnaire

Variable	Indicator	Item
Self-Efficacy	The level of difficulty of the tasks.	1,2,3,4,5
	The strength of belief in one's ability to achieve goals.	6,7,8,9,10
	The broad field of tasks or behaviours.	11,12,13,14,15

The questionnaire uses a 4-Likert scale. The Likert scale modification is intended to eliminate the weaknesses contained by the five-level scale, the Likert scale modification eliminates the middle answer category based on three reasons, namely: (1) the category has a double meaning, usually interpreted as not being able to decide or give an answer, it can mean neutral, agree not, disagree not, or even hesitate. (2) the availability of the middle answer causes a

tendency to answer to the middle. (3) the purpose of the Strongly Agree (SS)-Agree (S)-Disagree (TS)-Strongly Disagree (STS) category is mainly to see the tendency of respondents' opinions, towards agreeing or disagreeing. Each answer choice has score based on Likert Scale Rating below:

Table 3.3 Rating Scale

Answer Choices	Score
Strongly Agree	4
Agree	3
Disagree	2
Strongly disagree	1

The questionnaire has been tested for validity and reliability previously by researchers using SPSS. The purpose of the instrument validity test is to determine the feasibility of the item as a research instrument, the items are tested for validity and reliability. The following are the results of the validity and reliability tests of the student self-efficacy questionnaire:

1) Validity Test

The questionnaire has been validated previously by the researcher using SPSS. In analyzing the validity of the self-efficacy instrument, the researcher tested the instrument on 30 students outside the sample. The r table value for N = 30 is 0.361 at the 5% significance level. Items are said to be valid if r value is higher than r table at the 5% significance level and are considered invalid if the r value is smaller than r table at the 5% significance level. The validity test results show that all statement items are valid. The following are the results of the self-efficacy questionnaire validity test:

Table 3.4 Validity Test Results

No	Indicator	Item Number	r value	r table	Criteria
1	The level of difficulty of the tasks.	1	0.590	0.361	Valid
		2	0.533	0.361	Valid
		3	0.385	0.361	Valid
		4	0.574	0.361	Valid
		5	0.660	0.361	Valid
2	The strength of belief in one's ability to achieve goals.	6	0.421	0.361	Valid
		7	0.418	0.361	Valid
		8	0.604	0.361	Valid
		9	0.522	0.361	Valid
		10	0.488	0.361	Valid
3	The broad field of tasks or behaviours.	11	0.431	0.361	Valid
		12	0.372	0.361	Valid
		13	0.516	0.361	Valid
		14	0.441	0.361	Valid
		15	0.373	0.361	Valid

Based on the table 3.4 above, it can be seen that the calculated r value is greater than r table at the 5% significance level, which means that the questionnaire can be used to collect student self-efficacy data.

2) Reliability Test

After the validity test, then the reliability test was carried out to determine the consistency of the instrument to be used. For the reliability of self-efficacy statement items in this study using the Cronbach Alpha formula and calculated by using SPSS. An instrument is declared reliable if the Cronbach Alpha value is more than 0.60. The instrument reliability criteria are listed in the following table:

Table 3.5 Reliability Criteria

Reliability Coefficient	Criteria
$0.80 \leq r$	High Reliability
$0.40 \leq r \leq 0.80$	Intermediate Reliability
$r < 0.40$	Low Reliability

Source: Ratumanan & Laurnes (2011)

The results of the self-efficacy instrument reliability test are as follows:

Table 3.6 Reliability Test Results

N of item	Cronbach's Alpha	Description
15	0.776	Intermediate Reliability

Based on the results of the reliability of the self-efficacy instrument, a value of 0.776 was obtained. This means that the research instrument has intermediate reliability and can be used for research data collection.

3.6 Data Analysis Technique

To find out the correlation between students' self-efficacy and students' English learning achievement, the researcher used the Pearson Product Moment correlation formula and analyzed it by using SPSS. The requirements that must be met when using the Pearson correlation formula are that the data is normally distributed and the data to be tested is linear.

To analyze the questionnaire data, researchers used a Likert scale. There are 15 questions with 4 options; the choice of Strongly Agree is scored 4, Agree is scored 3, Disagree is scored 2, Strongly Disagree is scored 1.

After fulfilling the above requirements, the researcher took steps to analyze it. The data was analyzed with the following procedure:

1. Data verification, data verification is carried out to check the completeness of the number of questionnaires collected and the completeness of the questionnaires filled out by the sample.
2. Tabulation, tabulation is a step in which the researcher recapitulates all the data obtained and then calculates using the assistance of Microsoft Excel and SPSS software.
3. Correlating, the researcher correlates both variables by using the Pearson product-moment correlation formula to analyze the data.

$$r_{xy} = \frac{n\sum X_i Y_i - (\sum X_i)(\sum Y_i)}{\sqrt{(n\Sigma X_i^2 - (\sum X_i)^2)(n\Sigma Y_i^2 - (\sum Y_i)^2)}}$$

r_{xy} = Coefficient of correlation between X variable and Y variable

N = Number of Class

X = Distribution of students‟ motivation score

Y = Distribution of students‟ speaking score

$\sum X$ = Sum of score in X distribution

$\sum Y$ = Sum of score in Y distribution

$\sum XY$= Sum of multiplication of X and Y

X^2 = Sum of X quadrate

Y^2 = Sum of Y quadrate

Significant critical value = 0.05 and 0.01

3.7 Steps of the Research

Table 3.7 Steps of the Research

Steps	Description
Identifying the problem	Some students have doubts about their learning achievement, they feel less confident in their abilities and feel less competent in facing challenges that arise in the learning process. They have experienced a decrease in grades that they consider difficult, they also complain because English lessons are too difficult, and cannot do the assignments. So, they are not confident in every study or exam. However, they are still not sure about their learning, their attitude is quiet and shy when the teacher asks them questions, and their English grades have decreased and are still less than the minimum criteria standardization. Meanwhile, some other students have high confidence in their abilities and learning achievement so far with scores above the minimum completion criteria of 80.

Literature Review	The researcher reviews several kinds of literature that are related to the study such as books, journals, and articles to support this research.
Identifying Hypothesis	H_a: There is a correlation between students' self-efficacy and English learning achievement in junior high school. H_o: There is no correlation between students' self-efficacy and students' English learning achievement in junior high school.
Collecting the Data	Data was collected through questionnaires and documentation.
Analyzing the Data	In analyzing the data, the prerequisite analysis tests used in this research are the normality test and linearity test. Furthermore, the hypothesis testing used is the correlation test with the Pearson product-moment formula by using SPSS 26.
Conclusion	The researcher interprets and gives the conclusion of the research.

3.8 Time and Place of the Research

This research was conducted from November to January 2024 at one of the junior high schools in Tasikmalaya.

Table 3.8 Research schedule

No	Description	Jun 2023	Jul 2023	Aug 2023	Sept 2023	Oct 2023	Nov 2023	Dec 2023	Jan 2024	Feb 2024	Mar 2024	Apr 2024	May 2024
1	Research Proposal writing												
2	Research Proposal Examination												
3	Data Collection												
4	Data Analysis												
5	Report/ Comprehensive Examination												
6	Thesis Examination												