CHAPTER III
RESEARCH METHODOLOGY

A. Research Design

Research design is a design of the researcher's plan for data collected and then analyzed according to the type of research conducted. the design of the research is categorized into 2 types; qualitative and quantitative (Caldas, 2003). Qualitative research is a more pointed or descriptive study because the results of descriptive research contain a quote from the data to describe a study, while quantitative research is more likely to use objective measurement and statistical analysis of data or numbers as numerical analysis with the aim of understanding and describing phenomena.

For research approaches in this study used quantitative research approaches, according to Sugiyono (2017) that quantitative research methods are defined as research methods based on the results of the philosophy of positivism, which is intended to analyze a particular population or sample, data collection is done using research instruments and data analysis in the form of numbers or quantitative / statistics. Also, in this study, quantitative research is characterized by purpose, deals with understanding some common ways and generating numbers as data for analysis. This study is where the researcher found out the effect of self-efficacy on students' speaking ability.

B. Population and Sample

1. Population

A research population is generally a large collection of individuals or objects that is the main focus of a scientific query. It is for the benefit of the population that research are done. According to Sudjana (2010), Population is the totality of all possible values, results that compute or as measurement, quantitative as well as qualitative regarding certain

characteristics of all members of a complete and clear set who wish to study their properties.

The population is usually an oversize assortment of people or objects that area unit the most focus of a scientific question. Supported the statements on top of, researcher selected students of SMA N 1 Pemangkat, Sambas district because the population of this study. This faculty has twenty-one categories, every from grades one to three has seven categories. The quantity of scholars within the faculty is 650 students. They are divided into three grade levels. There are a unit 210 students in first grade, 213 students in second grade, and 227 students in third grade

2. Sample

A sample is a smaller part of the population that is the primary data source in a study, or can also be called a representative of the population to be examined (Arikunto, 2016: 131). In this study, researcher selected one of the class in second grade and involving 25 students in this class. Researcher decided to use purposive sampling as a data collection technique because English teachers certainly have their own opinions about the effort, which they use to determine the effect of self-efficacy on students' speaking ability. Purposive sampling is a technique used in research to select subjects based on determining certain criteria. (Sugiyono, 2008). The research was conducted on students of grade 11 sciences 3 of SMAN 1 PEMANGKAT. The researcher took data from instruments. First, researcher used questionnaire sheets to find out students' self-efficacy. This questionnaire sheet was modified from the Alavi Q, S., Sadighi, F., & Samani, S. (2004). Researcher modified this questionnaire based on the input of the accompanying teacher in taking samples with the aim that students easily understand what the contents of the questionnaire are.

The questionnaire sheets are then manually distributed one by one to the students. Through questionnaires, researcher wanted to find out how

self-efficacy students have. Second, researcher used a speaking test. This test is used to determine the student's ability to speak. In addition to questionnaires and tests, researcher also used documentation to take pictures while retrieving data. The instruments used by researcher in data retrieval are based on aspects related to the research title and are structured with sentences that are easy for students to understand. This has been validated the Lecturers of English IKIP PGRI Pontianak and a companion teacher at SMA N 1 Pemangkat.

C. Technique of Data Collection

In this study, researcher used direct and indirect techniques as data collection techniques. For techniques used in questionnaire is an indirect data collection technique. Indirect communication techniques are a way of collecting data that uses print media or leaflets given to respondents to obtain data in the form of print media. In this technique, researcher do not need to face directly to respondents who will be examined, but only use media that have been previously provided based on research objectives (Nurhadi &Kurniawan, 2017).

The next researcher used direct communication techniques in this study. Direct communication is a data collection technique that requires researcher to take data directly or face to face to respondents in oral or face-to-face form, created in situations that are intentionally based on a specific goal (Kabir, 2016). That is, in direct communication, researcher must take data directly that has previously been agreed by respondents and researcher. In this study, researcher used direct communication techniques in the form of tests as data collection techniques.

D. Research Instruments

1. Questionaire

Questionnaire are one of the instruments in indirect communication techniques that researcher use in retrieving data for specific purposes. Questionnaire is a tool in a study that serves to obtain data from respondents conducted by giving questions that have been made by

researcher where the question must be answered by respondents (Sugiyono, 2013).

In this section, researcher used questionnaires as a tool to answer questions about how self-efficacy students are. Researcher used questionnaire leaflets that would later be distributed to the prescription to obtain data from students. In this study, the type of questionnaire used was a closed questionnaire. A closed questionnaire is a questionnaire that requires respondents to answer statements that have been made by researcher and answered based on the instructions given (Azwar, 2009: 91). Researcher used the Student self-efficacy Questionnaire from Alavi, S., Sadighi, F., &Samani, S. (2004). Researcher modified this questionnaire based on input from the accompanying teacher so that the questionnaire was easily understood by students. The questionnaire used by researcher in data retrieval are based on aspects related to the research title and are structured with sentences that are easy for students to understand. This has been validated by one of the Lecturers of English IKIP PGRI Pontianak and a companion teacher at SMA N 1 Pemangkat.

2. Tes

Tes are techniques for collecting data commonly used in quantitative research to obtain data from respondents using certain tools. A test is a data collection technique performed by assigning a series of questions or tasks and other tools to subjects whose data is required (Sugiyono, 2013). Data collection using testing techniques can be called measurement. This kind of technique is widely used in quantitative research. To measure a student's speaking ability, researcher will put a tick on the rubric of the student's speaking skills assessment.

In this study students will do oral tests and those who do this test there are 25 people. at the time of the test in dividing into 3 parts, the first part in this test will conduct self-introduction with a span of 1

minute, the second part of the per individual length appearance with a range of 1-3 minutes in which in this section students will be given a small paper containing questions that have been prepared by researcher and students answer using English, The third part which is the closing, students are given 1 minute to close using English with the aim of completing the test.

3. Documentation

Documentation is an activity that aims to capture certain moments in the form of images or videos. Documentation refers to related topics that are prepared in order for specific materials that can be communicated (such as text, objectives, and presented as a unit) in the form of video, narration, images, audio, and specific text (see: Wietse, 2018).

E. Techniques of Data Analysis

In this study, researcher conducted a simple statistical quantitative data analysis. Simple statistical analysis is used on assessment data from self-efficacy as well as speaking ability. Here is the technical analysis of quantitative data used in this study:

1. Rubric Assessment

Rubrics are a very authentic assessment tool and are most useful in assessing a criterion that is so complex and subjective (Nancy, & Dodge, 2009). Data on the results of filling out questionnaires and tests will be analyzed by doing a total calculation of score on each item in the evaluation instrument with the following formula:

$$\text{Final score} = \frac{score\ of\ students}{maximal\ score} \text{x } 100$$

After calculated the data from the student questionnaire on self-efficacy, then the results will be grouped using the self-efficacy table. According to Bandura (2006) Self-efficacy has levels of low, medium, and high. This can be determined based on the results of self-efficacy owned

by students. Here are the categories of self-efficacy groupings owned by students.

Table 3.1

Table Categories of Self-efficacy

Categories of Self-Efficacy	Score range of self-efficacy
High	71-100
Medium	41-70
Low	1-40

Source : Bandura (2006)

2. Correlation assessment

      To answer the formulation of the problem of the relationship between self-efficacy and speaking ability, researcher used Pearson's product moment coefficient of correlation (Sugiyono, 2017):
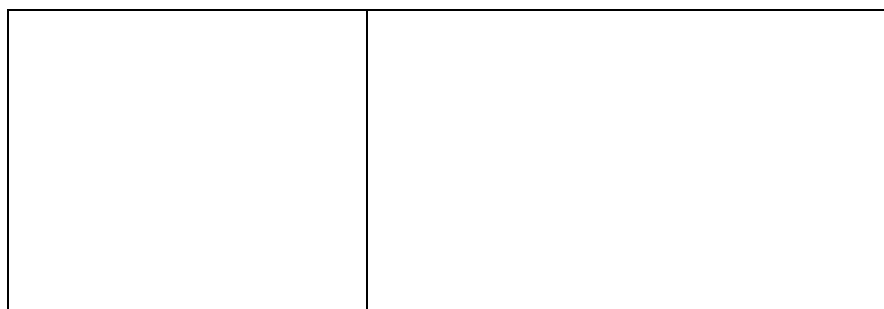
$$\frac{N \Sigma XY - (\Sigma X)(\Sigma Y)}{\sqrt{[N\sum X^2 - (\sum X)^2][N\sum Y^2 - (\Sigma Y)^2)]}}$$

      The researcher determined the interpretation table of product moment scale that will describe the correlation between both variables as follow:

Table 3.2

Table Interpretation of Correlation

Correlation value(r)	Interpretation
0,000-0,200	Very low correlation
0,200-0,400	Low
0,400-0,600	Moderate
0,600-0,800	High
0,800-1,000	High correlation

Source : Sugiyono (2017)

F. Research Procedure

In order to achieve the objectives of this study, researcher need to follow several procedures which are divided into four (Watt & Berg, 2015):

1. Planning

In the research plan, the researcher created a design plan, background, and formulates several questions. Next, researcher build a theoretical foundation, and prepare participants or targets for study. Data collection instruments include question leaflets that participants must fill out.

2. Data Processing

In processing the data, researcher used questionnaires and conducted tests on respondents consisting of 25 people. Researcher distribute questionnaire sheets to these students and they must fill them out according to the instructions that have been given, for those who have completed the questionnaire given, then students come forward to do a speech ability test, they do a speaking ability test according to the instructions that have been given by the researcher And finally, the researcher collects documentation related to the data needed in the study in the form of photos during activities ongoing research.

3. Data Reporting

In data reporting, researcher conveyed data results that are in accordance with what is obtained in the field. and the data obtained through questionnaires and tests are analyzed using rubric assessment and correlation assessment, the data obtained are original data from the field and are not manipulated. after the results of all the data are calculated, it will then be explained in chapter 4. Then the researcher will describe the report in the discussion and conclusion