CHAPTER III

RESEARACH METHODOLOGY

3.1 Research Design

This research was categorized as quantitative experimental research. According to Sugiyono (2011: 13) quantitative research methods can be interpreted as methods based on the philosophy of positivism, used for research on certain random populations or samples whose research data is statistical. The design used pre-test and post-test that involves a group students who belong to the control group and there are who belong to the control group. The experimental class received the treatment and the control didn't. According to the research title, this case study is to analyze the effect of one variable and the other. There are two variables, namely independent and dependent. The independent variable was Presentation, Practice, Production (PPP) as learning model and the dependent variable was students' reading ability. In this research, the writer was determined the effect of PPP learning model on students' reading ability.

Table 3.1 Experimental Research Design

Experimental group	01	X	02
Control group	01	-	02

Note:

01: Pre-Test

02: Post-Test

X: Treatment

3.2 Population and Sample

In a study, it cannot be separated from the population and sample. These two elements are very influential on the results of a study because in the absence of such a population and sample the research data cannot be trusted.

3.2.1 Population

Population is a part of big data that concerns us within a scope that we have previously determined, not only a group of people but even objects that are referred to as objects in research. Population can be said to be the whole of the object that we will examine. We can take the object that we will select according to the data and the desired results. According to Sugiyono (2011: 117) Population is a generalization area consisting of: objects or subjects that have certain qualities and characteristics that are determined by the researcher to be studied and then draw conclusions. The population of this research was the eleventh grade students of SMK BM Sinar Husni 1 Medan.

Table 3.2 Population of the Study

No	Class	Population
1	XI AKL 1	35
2	XI AKL 2	30
3	XI OTKP 1	35
4	XI OTKP 2	30
5	XI RPL 1	35
6	XI RPL 2	35
7	XI Tataboga	35
	Total	235

3.2.2 Sample

After determining the population, the researcher determines which sample will be studied. If the population is too much, it will take up a lot of time. Then a sample can be selected to represent the data. There are several techniques in sampling. To determine the sample of this study, researchers used simple random sampling. According to Sugiono (2011: 120) this simple random sample technique is carried out randomly without classification. There are two classes that used as sample, one as the experimental class and the other one as the control class. They are XI OTKP (Otomatisasi Tata Kelola Perkantoran) 2 consist of

30students, while XI AKL (Akutansi dan Keuangan Lembaga) 2 consist of 30 students. The following table shows the specification of the population of the research.

Table 3.3The Samples of the Study

No	Class	Sample	Group
1	XI OTKP 2	30	Control
2	XI AKL 2	30	Experimental
The number of students are 60			

3.3 Treatment

There are differences in treatment between the experimental class and the control class. Experimental class learning uses presentation, practice, production (PPP). This learning model has 3 stages and is specially designed for the presentation, practice and production stages. Researcher was provided instructions, contextual reading exercises, generate new language and observation that make students more motivated. Meanwhile, the control class was taught in a conventional way. Researcher was provided explanations similar to the lecture method and they were asked to answer practice questions without producing a new language. So, the teacher only gives lessons textually.

Table 3.4The Treatment In The Experimental Class

First Meeting	• Opening	- The researcher introduced and greeted students. - The researcher asked students to introduce themselves.
	• Main activity	**Stimulation** - The researcher asked students about what reading they like. - The students told the researcher about the reading they like. **Problem Statement** - The students had difficulty knowing the purpose of reading. **Data Collection** - The students were asked to recognize the type of reading in English.
	• Closing	- The researcher asked students if they had difficulty learning English especially in reading. - The researcher ended the first meeting.

Second Meeting	• Opening	- The researcher greeted students.
	• Main activity	**Data Processing** - The researcher gave the explanation about material in reading. It was reading text with a picture related to passage. - The students were asked to read a reading text. **Verification** - The researcher gave directions about the information of reading text such us topic, vocabulary, pronunciation etc. **Generalization** - The students gave opinions or ideas about the topic, vocabulary, pronunciation.
	• Closing	- The researcher ended the second meeting.
Third Meeting	• Opening	- The researcher greeted students.
	• Main activity	- The researcher was check students have completed the task about their understanding in reading text. Start from the topic, structure, vocabulary that they have learned before. If they have mistake,

		it was corrected. - The researcher provided an explanation about reading text overall. - The students were asked to tell one thing about the experience related to passage.
	• Closing	- The researcher ended third meeting.
Fourth Meeting	• Opening	- The researcher greeted students.
	• Main activity	**Creating** - The students were asked to answer the question sheets given by the researcher. **Share** - The students wrote their answer related to passage.
	• Closing	- The researcher ended the lesson.

Table 3.5The Treatment In The Control Class

First Meeting		Researcher activity	Student activity
	• Opening	- The researcher introduced and greeted students.	- The students answer greetings. - The students

		- The researcher asked students to introduce themselves.	introduced themselves.
	• Main activity	- The researcher was explain the Material about reading on the whiteboard.	- The students pay attention to the researcher explanation.
	• Closing	- The researcher ended the lesson and tells the next meeting activity.	
Second Meeting	• Opening	- The researcher greeted students.	- The students answer greetings.
	• Main activity	- The researcher asked students to understand the previous material. - The researcher added material about reading.	- The students answer researcher question. - The students were asked to write in a book about the material that was explained by a researcher.

	• Closing	- The researcher ended the lesson and tell the next meeting activity	
Third Meeting	• Opening	- The researcher greeted students.	- The students answer greetings.
	• Main activity	- The researcher asked about the previous Material. - The researcher asked students about their knowledge based on the previous explanation about reading.	- The students answer researcher question.
	• Closing	- The researcher ended the lesson and tell the next meeting.	
Fourth Meeting	• Opening	- The researcher greeted students.	- The students answer greeting.
	• Main activity	- The researcher gave a reading text. - the researcher asked	- The students understand about the reading text.

		students to answer it	- The students answer.
	• Closing	- The researcher ended the lesson.	

3.4 Research Instrument

In this study, the researcher used a reading test as an instrument to measure students' reading ability by conducting a pre-test before being given treatment and a post-test after giving treatment. A reading test is a test that measures students' reading ability. The aim is to see the extent to which students understand the reading text. In that learning, it is also focused on students to understand the contents of the reading text. In this case, the test used in the form of reading test. The researcher used multiple choice questions from 20 items.

Table 3.6 The Type of Question

Type	Item
Main idea	5
Topic	3
Purpose	4
Detail information	5
Reference	3
Total	20

On the question sheet, there was reading report text that students have to answer questions. The total score the student gets if he answers all the questions

correctly is 100 points, which is 5 points for each question. According to Lestari (2017: 47) these scores will be categorized as follows:

$$\text{Final Scoring} = \frac{\text{Total correct answer}}{\text{Total items}} \text{x}100$$

Table 3.7The Classification of Student's Score

The Range of Score	Category Score	
85-100	Excellent	A
75-84	Good	B
56-74	Fair	C
<55	Poor	D

3.5 Reliability and Validity of Instrument

3.5.1 Reliability

According to Sugiyono (2011:175) Reliability test is a stage to test the consistency of an instrument in measuring what it wants to measure.

The researcher uses KR-20 formula in reliability test by Sugiyono (2011:168) as follows:

$$ri = \frac{\text{k}}{(k-1)} \{\frac{\text{st2} - \Sigma piqi}{st2}\}$$

Where :

k : the number of item in the instrument

pi : proportion of the number of subject who answer item 1

qi : 1-pi

st^2 : the number of variant

The value of reliability coefficient (Guildford, 1956) as he following:

0,80 – 1,00 : the reliability is very good

0,60 – 0,80 : the reliability is good

0,40 – 0,60 : the reliability is significant

0,20 – 0,40 : the reliability is low

-1,00 – 0,20 : the reliability is very low (not reliable)

3.5.2 Validity

According to Sugiyono (2011:172-173) The results of the study are said to be valid if there is a similarity between the data collected and the data that actually occurs on the object under study. A valid instrument means that the measuring instrument used to obtain the data (measure) is valid.

In this study, to test the validity of the instrument, researcher uses Pearson product moment formula as follow:

$$r_{\chi\gamma} = \frac{N\Sigma XY - (\Sigma X)(\Sigma Y)}{\sqrt{\{N\Sigma x^2 - (\Sigma X)^2\}\{N\Sigma Y^2 - (\Sigma Y)^2}}$$

Where:

r_{xy} : the coefficient between X and Y

N : the numbers of the student

X : the score of each item

Y : the score of each item

3.6 Technique of Data Collection

The collect data, this study uses a pre-test and post-test given to the experimental group and the control group.

3.6.1 Pre-test

This experimental and control class will be given a pretest to find out the initial ability or value of the lesson delivered.

3.6.2 Treatment

Treatment is the process of giving the material related to the objective of the research. In this research, the researcher used the Presentation, Practice, Production (PPP) learning models the treatment.

3.6.3 Post-test

Pre-test this experimental and control class will be given a pretest to determine the ability or initial value of the lesson delivered. Post-test will get an idea of the abilities achieved after the end of the delivery of the lesson. The results of this post test are compared with the results of the pre-test that has been carried out so that it will be known to what extent the effect or influence of the learning is.

3.7 Technique of Data Analysis

The data analysis process is very important to do after the researcher concludes the pre-test and post-test results of the experimental group. In analyzing the data that will be obtained, the researcher measures the differences of students'

average score from the experimental group before and after treatment. In this case, to collect data the researcher uses t-test.

The formula is:

$$t = \frac{Ma - Mb}{\left[\frac{da2 + db2}{Na + Nb - 2}\right]\left[\frac{1}{Na} + \frac{1}{Nb}\right]}$$

Where:

t : total score

Ma : the mean of experimental group

Mb : the mean of control group

da : standart of deviation of the experimental group.