# CHAPTER III

METHOD OF RESEARCH

This chapter describes, (1) research design, (2) research variables, (3) operation definition, (4) subject of the study, (5) reading comprehension test, (6) translation test,(7) research instrument analysis, reliability of translation test,(7) techniques for analyzing the data, (8) pre-requisite analysis (9) hypothesis testing, (10) regression analysis

3.1 Research Design

In this study, the researcher used the correlational research in terms of explanatory and prediction research design to found out the correlation among variables and explain and interpret the results that may appear. In this study, the researcher carried out to examine the relationship between translation ability and reading comprehension. Johnson and Christensen (2012) state that in correlational research, the researcher studies the relationship between one or more quantitative independent variables and one or more quantitative dependent variables. The research design is as follows:

$$X \longrightarrow Y$$
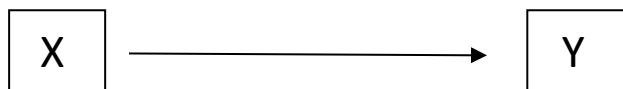
3.2   Research Variables

Variable means the research object or the point of the research. According to Fraenkel et al. (2012), a common and useful way to think about variables is to classify them as *independent* or *dependent.* Independent variable is what the researcher chooses to study in order to assess their possible effect(s) on one or more other variables. The variable that the independent variable is presumed to affect is called a dependent variable. In commonsense terms, the dependent variable depends on what the independent variable does to it, how it affects it. It is possible to investigate more than one independent (and also more than one dependent) variable in a study. In this study, the independent variable is the senior high school students' translation ability at YPI Tunas Bangsa Palembang, while the dependent variables are their reading comprehension and narrative text.

3.3   Operation Definition

The researcher presented the operational definitions to enable readers understanding the title of this study as written below:

1.   Translation Ability

Translation is the huge effect of students in understanding text and it the ability of students in changing the meaning and form of the source text into the target text. To measure translation ability test the researcher was measure by using translation test.

2.   Reading Comprehension

Reading comprehension is the measurement of assessment of students' understanding to the specific information from the text they read. To measure reading test the researcher was measure by using reading test.

3.4 Subject of the Study

3.4.1. Population

Population is the whole number of people or inhabitants in a country or region. According to Creswell (2005), population is a group of individuals who have the same characteristic. The population of this study the researcher took all the eleventh grade students' at State Senior High School YPI Tunas Bangsa Palembang in the academic year 2019-2020. In the classes as the population of this study. The distribution of population was shown in table as follows:

Table 2

Distribution of Population

	CLASS	MALE	FEMALE	NUMBER
1	X1 IPA 1	18	20	38
2	X1 IPA 2	14	24	38
3	X1 IPS 1	18	20	38
4	X1 IPS 2	11	25	36
	TOTAL	61	89	150

Source: *State Senior High School YPI Tunas Bangsa in the academic year*

2019/2020

3.4.2. Sample

Sample is the act, process, or technique of selecting a representative part of a population for the purpose of determining parameters or characteristics of the whole population. Creswell (2012) supports that in multistage cluster sampling, the researcher chooses a sample in two or more stages because either the researchers cannot easily identify the population or the population is extremely large. If this is the case, it can be difficult to obtain a complete list of the members of the population. However, (Vogt, 2005) showed getting a complete list of groups or clusters in the population might be possible For example, the population of all at-risk students in the United States may be difficult to identify, but a researcher can obtain a list of the at-risk kids in select school districts. Using multistage cluster sampling, the researcher randomly selects school districts in the United States and obtains a list of the at-risk students in each of those school districts. Then the researcher randomly samples within each district. Breaking down the process like this makes it easier to identify groups and locate lists.

In this study, the ability of student translations and their text to be correlated. The researcher was taken half of the class from all the population in the eleventh grade students that was considered as sample in the category value above standard of minimum completeness of mastery learning (KKM) which determined by their school.

Table 3

Distribution of sample

No	Class	Number	Sample
1	X1 IPA 1	38	19
2	X1 IPA 2	38	19
3	X1 IPS 1	38	19
4	X1 IPS 2	36	18
Total		**150**	75

Source: *State Senior High School YPI Tunas Bangsa in the academic year 2019/2020*

3.5.   Data Collection

There were two kinds of instruments used to collect the data; multiple choice, and translation test.

3.5.1   Test

In the collecting the data, the researcher used test. According to Brown (2000), a test in plain words is a method of measuring person's ability or knowledge and a given domain. In this case there were two kinds of tests used. The first text in reading comprehension test and the second in translation test.

3.5.1.1   Reading Comprehension Test

The first test in reading comprehension was test. It was used to see the students'

reading comprehension . The test is multiple choice type. It is consisted of 42 item

with four alternative (a,b,c, and d). It is allocated in 75 minutes of answering the

test. From each text, the questions include main idea, inferences, antonym,

synonyms and 5 text adjusts to the test participant's educational level.

3.5.1.2   Translation Test

The second test is translation test. It was used see the students' translation

ability. The translation test is from English text into Bahasa Indonesia in allocated

session total 40 minutes. For each text, giving allowed 20 minutes which

corresponds to about 524 words to complete text the questions include the text

adjusts to the test participant's educational level.

3.6   Research Instrument Analysis.

3.6.1.   Validity of Reading Test

It was important for researcher to use valid instruments, for the conclusions

the researcher drew based on the information to obtained using these instrument.

Fraenkel, et al (2012) add that validity in research refers to the appropriateness,

meaningfulness, correct-ness, and usefulness of any inferences. the researcher

drew based on the data obtained the use of an instrument. Suparyanto (2010),

stated that to see the validity of each item, the item was analyzed by correlating

the total corrected- total items. In conducting this study, the researcher used three kinds of validity, those are:

3.6.1.1   Construct Validity

Construct validity is used to determine how well a test measures what it is supposed to measure. According to Fraenkel, et. al. (2012,), construct validity refers to the nature of the psychological construct of characteristic being measure be instrument. The validator check reading comprehension test.

After constructing the instruments related to some aspect measured, then it was consulted to achieve some expert judgments from at least two validators to evaluate whether the components of the instrument are valid or not to be applied in research activities. There were some characteristics of validators, such as 1) English educational background, 2) Lecturer of English, and 3) Minimum 550 TOEFL score.

3.6.1.2   Content Validity

Content validity refers to the extent to which a measure represents all facets of a given construct. Fraenkel, et.al. (2012) argues that content validity is refers to the content and format of the instrument. A content validity is very important since it is an accurate measure of what it is supposed to measure. In order to judge whether or not a test has content validity, a specification of the skills or structures should be make based on the curriculum and syllabus.

3.6.2 Validity of Translation Test

It was important for researcher to use valid instruments, for the conclusions the researcher drew based on the information to obtained using these instrument. Fraenkel, et al (2012) add that validity in research refers to the appropriate ness, meaningfulness, correctness, and usefulness of any inferences. The researcher drew based on the data obtained the use of an instrument. In this case, I estimated the content validity of the test. content validity refers to the content and format of the instrument. The test of the students translation ability are taken from the educational books for the eleventh grade students that relate to the English syllabus in that school. The test specification for translation ability will be present in the table below:

Table 5

Test Specification for Translation Ability

Objective of Test	Indicators	Item Number	Type
To know test Students' ability In transkation text from English into Bahasa Indonesia	The students are able to traanslate the English text into Bahasa Indonesia	1	Translation

3.7. Reliability of Translation Test

In testing the reliability of the translation instrument, the researcher used inter-rater reliability. Richard and Schmidt (2010) add that rater is a person who assigns a score or rating to a test taker's oral or written performance on the basis of a set rating criteria. Inter-rater reliability is the degree to which difference examiners or judge making difference subjective ratings of rating ability agree in their evaluation of that ability (Richard and Schmidt, 2010). There were two raters in scoring the students' translation test in this study, the first researcher was taken raters from a lecturer English at UIN Raden Fatah Palembang with teaching experiences in that university and the second a teacher of English at UIN Raden Fatah Palembang. The rank order coefficient correlation formula by Spearman was also used in checking the inter-rater reliability. Arikunto (2014) explains that rank order coefficient correlation formula is used to measure the degree accuracy between two variables (raters).

3.8   Techniques for Analyzing the Data

3.8.1   Analyzing the Students' Reading Test

The students' reading test was analyzed by reading comprehension test in from of multiple chooses test which 42 questions. Hatch and Farhady (2007) stated in finding students' individual scores in reading test, I was calculated by using percentage analysis formula (as cited in Anggraini, 2015, p. 33). Every correct item that produced by the students was got 1 point and every incorrect item got 0 point. The formula that use as follows:

$$Is = \frac{R}{N} \times 100$$

Where :

Is : Students' Individual Score

R : Number of Correct Answer

N : Number of Test Analysis

Reading comprehension is the ability of the students to comprehends reading. Reading comprehension refers to the score of obtain from the students' reading test. The test is in the form of comprehension reading test.

Table 6

Category of Reading Comprehension

No	Category	Percentage of the score
1.	Excellent	85-100
2.	Good	71-84
3.	Average	60-70
4.	Poor	41-59
5.	Very poor	0-40

Source: Teacher's assesment book, State Senior High School YPI Tunas Bangsa

Palembang

3.8.2   Analyzing the Students' Translation Test

In this study, the scoring rubric for translation the researcher was used in analyzing and scoring the students' individual translation test. It was presented on   the   table   below

Table 7

The Scoring Rubric for Translation

Category	Scores	Indicators
Nearly perfect translation	86-90 (A)	Sounds like a native language, no grammatical error, no distortion of meaning or meaning ambiguity, no incorrect choice of terms.
Very good translation	7 6-85 (B)	No grammatical error, no distortion of meaning, there is no rigid word for word translation but there is still a very few incorrect choice of terms.
Good Translation	6 1-75 (C)	No distortion of meaning, there is a few of incorrect choice of terms, there is also a rigid word for word translation but is not relatively more than 15% of the whole text so that those not sound of translation, grammatical errors are found but not more than 15% of the whole text.
Fair Translation	4 6-60 (D)	Sounds a translation, there are some rigid word for word translation but they are not more than 25% of the whole text, some incorrect choice of terms and unclear meaning are found

| Poor Translation | 2 | 0-45 (E) | Sounds a pure translation , there are many rigid word for word translation, distortions of meaning and incorrect choice of term are more than 25% of the whole text. |

(Source: Pedoman bagi penerjemah, Machali, 2000, p. 119)

Then, the finding the students' individual scores in translating test, the researcher calculated the scores produced by two raters by using the following formula:

Students' Scores = $\underline{\text{1st Rater's score + 2nd Rater's score}}$

$$2$$

3.9 Pre-requisite Analysis

Pre-required analysis was obtained to know the data normal each variable and linear between variables.

3.9.1 Normality test

A normality test was used to determine whether sample data drew from a normally distributed population or not. (Lofgren, 2013) added conducted due to many parametric statistical methods, including Pearson correlation test and linear regression test, require that the dependent variable is approximately normally distributed Therefore, the researcher applied Kolmogorov-Smirnov test by using SPSS 26. The data is distributed normally if the p-value is greater than 0.05 (p> 0.5).

3.9.2   Linearity test

The linearity test is conducted in order to recognize whether the correlation between the variables is linear or not. Puriyatno (2010) pointed that the test is established as the prerequisite test of linear regression test. Hence, test for linearity by using SPSS 26, the researcher applied the ANOVA linearity test. it was conducted in order to recognize whether the correlation of the variables is linear or not. Therefore, the p- value (linearity) is less than 0.05 (p-value < 0.05), the data correlation is linear.

3.10.   Hypothesis Testing

3.10.1   Correlation Analysis

Correlation analysis is applied after analyzing the data from translation test, and student's reading comprehension test. In order to found out the correlation between the eleventh grade students' translation ability and reading comprehension in narrative text at SMA YPI Tunas Bangsa, the researcher was used Pearson Product Moment Correlation Coefficient. The correlation coefficient if the p-value is less than 0.05, there was a significant correlation. Meanwhile, if the p-value is greater than 0.05, there was no significant correlation.

3.11 Regression Analysis

As there is a probability of correlation, thus, in the study was conducted regression test in relation to seen the influence of students' translation ability of their reading comprehension by using Regression Test. The influence of the

independent variable, translation ability, was gained by looking at the coefficient determination (*R Square*). To know if independent variable, translation ability, influences or gives the contribution to the dependent variable, reading comprehension, it looked from the number in *R Square* coulomb. It determined how much influence of cultural translation ability to the students' reading comprehension. Furthermore, to answer the reasons why the correlation and influence among variables may occur, descriptive analysis was used.