

CHAPTER III

METHOD OF RESEARCH

In this chapter, the researcher discusses the design of the research, population and sample, technique of data collection, and the technique of analyzing data.

3.1 Research Design

Design of the study is quantitative design. Research method in this study is correlation. Correlation study is to determine the relationship and the level of relationship between two or more variables without any effort to influence these variables. There are two variables in this study, namely reading interest on short story and translation ability. The researcher uses bivariate correlation analysis as a research design because this study aims to find the relationship between two variables. Researchers also use descriptive statistics to describe the data obtained into clearer and more detailed information. Then, a simple linear regression analysis is used to find the contribution of the significance of reading interest on short stories to the translation ability and Pearson's product moment correlation is used to analyze the relationship between two variables, namely; students' interest on short stories (X) and students' translation ability (Y). To make it easier to calculate data, researchers used statistical software, the IBM SPSS Statistics program, which is used to solve business and research problems.

3.2 Population and Sample

3.2.1 Population of the Research

Population is a group of several individuals who have the same characteristics (Creswell, 2012). The target population of this study is eighth grade students at SMPIT Al-Ibrah. There are 5 classes consisting of 105 students.

3.2.2 Sample of the Research

Before the researcher took the research sample, the researcher had to sort out students from the population who had an interest in reading short stories, because not all 8th grade students of SMPIT Al-Ibrah read short stories and had an interest in reading short stories. Therefore, the researcher distributed an open-questionnaire to all 8th grade students of SMPIT Al-Ibrah to find out who had an interest in reading short stories.

The researcher hand-out open-questionnaire consisting of six questions through google form to all 8th grade students of SMPIT Al-Ibrah. The results of open-questionnaire found 56 students who had an interest in reading short stories. From the distribution data, the researcher found the themes most favored by 8th grade students of SMPIT Al-Ibrah, namely fables and fairy tales theme. And the short story titles that are favored by students, namely the hare and the tortoise, mouse deer and crocodile, and snow white.

After that, the next step is to determine the sampling technique. In this study, researcher used a probability sample that is simple random sampling. Regarding the number of students, there are several arguments from several experts including Creswell (2012) arguing that there are at least 30 participants in a correlational method for building relationships. Frankeal et al (2012) also argue that the minimum number of participants that can be accepted in a correlational study is 30 participants. So, based on the two arguments of the experts above, researchers choose 30 students randomly from the population as a sample of this study.

In the sample selection technique, the researcher writes the student's name on a piece of paper and then puts it into the glass. Then shake the glass which containing the names of the students and pick the students name one by one randomly until 30 students name is chosen. The names of selected students will be the research sample. The following is a research sample:

Table 3.1 Sample of 8th grade students SMPIT AL Ibrah

Class	Number of Students
A	5
B	4
C	11
D	5
E	5
Total	30

3.3 Technique of Data Collection

Data collection in this study was collected using questionnaires and tests. (1) Students' Reading Interest on Short Story Questionnaire and (2) Multiple Choice Items (MCITs) Translation Test.

3.3.1 Students' Reading Interest on Short Story Questionnaire

Questionnaire is an instrument of research consisting of a collection of questions asked to respondents to be answered (Syafii, 2017). Students' Reading interest on short story questionnaire was adaptation from Chrysos (2017) to collect data on students' reading interest on short story. This questionnaire employing a Likert scale containing five different answers, particularly. "strongly agree (*sangat setuju*), agree (*setuju*), neutral (*netral*), disagree (*tidak setuju*), strongly disagree (*sangat tidak setuju*). For "strongly agree" items are given a score of five, "agree" is given a score of four, "neutral" is given a score of three, "disagree" is given a score of two, and "strongly disagree" is given a score of one. For more details, the Likert scale is presented in the following table:

Table 3.2 Likert's Scale Types

Likert's Scale Types	Score
Strongly Agree (<i>sangat setuju</i>)	5
Agree (<i>setuju</i>)	4
Neutral (<i>netral</i>)	3
Disagree (<i>tidak setuju</i>)	2
Strongly Disagree (<i>sangat tidak setuju</i>)	1

Questionnaire illustrates several statements for respondents to find out how students' reading interest on short stories in eighth graders at SMPIT Al-Ibrah. The reading interest on short story questionnaire is given in Indonesian. To make it easier for students to answer the questionnaire and avoid misunderstandings. Consists of 20 items in the questionnaire, divided into four factors. The first factor refers to the empirical manifestation of the intrinsic motivation to read literature, while the other three factors correspond to the innate needs of the individual as a reader. According to self-determination theory (Ryan & Deci, 2000), this satisfaction of needs serves as a

predictor in the self-regulated reading behavior of individual readers. The following table presents a factor of reading interest on short story:

Table 3.3 Factors of Reading Interest on Short Story

Factors	Number of items
Enjoyment/Involvement	2, 5, 7, 9, 13, 15, 17
Perceived Competence	1, 3, 10, 16, 20
Perceived Autonomy	4, 8, 12, 18
Perceived Relatedness	6, 11, 14, 19

*See on the appendix

What is meant by the factor "Enjoyment/Involvement", namely the subjective experience of students 'lived through' the pleasure and involvement of students when they read short stories. Meanwhile, what is meant by the "Perceived Competence" factor is to capture the general perception of students regarding their ability to read short stories. The "Perceived Autonomy" factor describes the feelings of students that they are free to choose their own actions to process short stories, control how to read short stories and are willing to take responsibility for their behavior in reading short stories. And what is meant by the "Perceived Relatedness" factor, which reflects the feelings of students that they will experience acceptance of friends and people in their environment when reading short stories Chrysos (2017).

Instrument development is pursued in several ways, namely, (1) translating instruments by linguists; (2) instrument testing; and (3) testing the validity and reliability of the instrument.

Before the questionnaire is used for research, the questionnaire is tested first on students to be tested for its validity and reliability. If the indicators are valid and reliable, they can be used for research. Furthermore, the questionnaire was distributed to respondents in this case were eighth grade students in the first semester of the 2020/2021 school year at SMPIT Al-Ibrah. Questionnaires were distributed by researchers via google form. The results of the questionnaires were then tabulated using a Likert scale. The next stage, the answers of the questionnaire are calculated using the formula from Anas (2006), then discussed and interpreted according to the analysis. At the end, the research findings are summarized and suggested by the researcher.

3.3.2 Multiple Choice Items Translation Test

Multiple choice items (MCITs) translation tests given by researchers were used to collect data on students' translation ability. The researcher distributes Multiple Choice Items (MCITs) translation tests to students from English short stories into Indonesian. Multiple Choice Items (MCITs) translation test was modified from Jahangard, Moieenzadeh, & Tavakoli (2010) according to research needs. The researcher replaced the short stories in the test with the stories that are favored by students, namely The Hare and The Tortoise with a percentage (97%) of students liked this story, Mouse Deer and Crocodile with a percentage (90%) of students liked this story, and Snow White with a percentage (83%) of students liked this story. And the researcher added 2 item questions, which previously had 23 questions to 25 questions in the translation test to anticipate if many items were invalid after being tested. Multiple Choice Items (MCITs) translation test is distributed to students via google form which consists of a, b, c, or d answer. To avoid cheating and dishonesty of students when doing the test, the researcher gives 90 minutes of timer on the google form, so students will not have time to seek help via google or others, when the time is up then the test form will automatically stop and log out from the google form. The following table is the title of short stories used by researchers based on short stories whose favoured by students:

Table 3.4 The Title of Students' Favourite Short Story

Title	Number of Item
The Hare and The Tortoise	1, 2, 3, 4, 5, 6, 7, 8
Snow White	9, 10, 11, 12, 13, 14, 15, 16, 17
Mouse Deer and Crocodile	18, 19, 20, 21, 22, 23, 24, 25

*See on the appendix

Before the test is used for research, the test is tested on students to test its validity and reliability. If the indicators are valid and reliable, they can be used for research. Furthermore, the test was distributed to respondents, in this case the eighth-grade students in the first semester of the 2020/2021 school year at SMPIT Al-Ibrah who were selected as the research sample. The next stage, the answers to the test are calculated and then discussed and interpreted according to the analysis. At the end, the research findings are summarized and suggested by the researcher.

3.4 Procedure in Collecting Data

The procedures for collecting data, the researcher asking for permission to SMPIT Al-Ibrah to distribute an open questionnaire to students to select samples who have an interest in reading short stories. Open questionnaires are distributed via google form, which is assisted by the teacher in distributing them through their class groups. The total of all 8th grade students is 105 students. And found 56 students who have an interest in reading short stories. After that, the researcher took 30 students from 56 students who had an interest in reading short stories randomly to be the research sample. In this study, researchers used 2 instruments, namely questionnaires and tests. The first is using the Students' Reading Interest on Short Story Questionnaires and the second is the Multiple Choice Items (MCITs) translation tests.

In data collection through questionnaires and tests, students worked individually (not in groups) which was carried out in their respective homes because of the pandemic. In filling out the questionnaire form according to the student's own personal choice. Also, in the test the researcher also gave the google form 90 minutes so that students did not have the opportunity to find answers through a dictionary or google because when the time was up the google form would automatically log out. It will make a maximum effort from students in order to keep originality in data collection. To determine the relationship between students' reading interest on short stories and students' translation ability of 8th grade at SMPIT Al-Ibrah, the researcher tried to do the following procedure in collecting the data needed to support data analysis. The following are details of the data collection procedures:

- Researcher asked permission from interested parties to conduct correlation research between students' reading interest on short story and students' translation ability in grade 8th at SMPIT Al-Ibrah.
- Researcher met the 8th grade English teacher to ask permission to distribute open questionnaires. And English teacher suggested giving the link of the open questionnaire to be given to grade 8th students t their class groups.
- After the open questionnaire was filled in by 105 students, the researcher separate students who had an interest in reading short stories and found 56 students who had an interest in reading short stories.
- Then the researcher chose 30 research samples randomly from 56 students using simple random sampling technique.

- The researcher met the 8th grade English teacher again to notify the students who were selected as the research sample and asked permission to distribute the students' reading interest on short story questionnaire and multiple choice items (MCITs) translation test to students, and the teacher suggested providing link instruments for given to 8th grade students through their class groups.
- After the questionnaires and tests are collected, the researcher recapitulates the results of the questionnaires and tests in Excel
- Then the researcher input the questionnaire and test data to be analyzed with descriptive statistics, test the normality of the data, then test the hypothesis using simple linear regression and Pearson's product moment correlation using SPSS.

3.5 Validity

3.5.1 Validity of Questionnaire

Researcher must test the validity of the questionnaire first before using it in research because it is to find out whether the questionnaire is valid or not. In the validity test, researcher used 15 students as the sample population. Researcher use a population sample that is equivalent to the study population. To calculate validity, researcher used Bivariate Correlation in SPSS17. The results show that 20 items were declared valid. The following table will explain the validity of the questionnaire:

Table 3.5 Validity Result of Questionnaire

Item	r hitung	r table $\alpha=0.05; n=0.482$	Description
1.	0.556	0.482	Valid
2.	0.637	0.482	Valid
3.	0.523	0.482	Valid
4.	0.802	0.482	Valid
5.	0.846	0.482	Valid
6.	0.648	0.482	Valid
7.	0.730	0.482	Valid
8.	0.580	0.482	Valid
9.	0.503	0.482	Valid
10.	0.706	0.482	Valid
11.	0.582	0.482	Valid
12.	0.599	0.482	Valid
13.	0.590	0.482	Valid
14.	0.554	0.482	Valid

15.	0.647	0.482	Valid
16.	0.497	0.482	Valid
17.	0.649	0.482	Valid
18.	0.516	0.482	Valid
19.	0.519	0.482	Valid
20.	0.527	0.482	Valid

3.5.2 Validity of Test

Before the researcher uses the test for research, the researcher also tests the validity first to find out whether the test is valid or not. In the validity test, researcher used 15 students as the sample population. Researcher use a population sample that is equivalent to the study population. To calculate validity, researcher used Bivariate Correlation in SPSS17. The results show that 25 items were declared valid. The following table will explain the validity of the test:

Table 3.6 Validity Result of Test

Item	r hitung	r table $\alpha=0.05; n=0.482$	Description
1.	0.524	0.482	Valid
2.	0.552	0.482	Valid
3.	0.524	0.482	Valid
4.	0.649	0.482	Valid
5.	0.524	0.482	Valid
6.	0.483	0.482	Valid
7.	0.507	0.482	Valid
8.	0.524	0.482	Valid
9.	0.524	0.482	Valid
10.	0.576	0.482	Valid
11.	0.524	0.482	Valid
12.	0.649	0.482	Valid
13.	0.524	0.482	Valid
14.	0.600	0.482	Valid
15.	0.495	0.482	Valid
16.	0.552	0.482	Valid
17.	0.552	0.482	Valid
18.	0.674	0.482	Valid
19.	0.649	0.482	Valid
20.	0.552	0.482	Valid
21.	0.581	0.482	Valid
22.	0.493	0.482	Valid

23.	0.524	0.482	Valid
24.	0.524	0.482	Valid
25.	0.524	0.482	Valid

3.6 Reliability

3.6.1 Reliability of Questionnaire

After calculating the validity of the questionnaire and the results show valid, then reliability also needs to be calculated. Researcher also use SPSS 17 to calculate reliability. Researcher used 15 students as a sample population which is equivalent to the study population and consists of 20 items in the questionnaire. The researcher calculated with Cronbach's Alpha Coefficient between 0 and 1. The results show that the alpha is 0.909 ($\alpha > 0.5$) which means very strong or reliable (see Table 3.7). So, researcher can use this questionnaire in research.

Table 3.7 Reliability Result of Questionnaire

Cronbach's Alpha	N of Items
.909	20

3.6.2 Reliability of Test

After calculating the validity of the test and the results show valid, then reliability also needs to be calculated. Researcher also use SPSS 17 to calculate reliability. Researcher used 15 students as a sample population which is equivalent to the study population and consists of 25 items on the test. The researcher calculated with Cronbach's Alpha Coefficient between 0 and 1. The results show that the alpha is 0.905 ($\alpha > 0.5$) which means very strong or reliable (see Table 3.8). So, researcher can use this test in research.

Table 3.8 Reliability Result of Test

Cronbach's Alpha	N of Items
.905	25

3.7 Technique of analyzing data

After collecting data from two instrument, namely questionnaire and test, the researcher analysed the data using several steps to find answers to the research hypothesis that is to find out whether there is a significant positive correlation between students' reading interest on short story and students' translation ability.

3.7.1 Steps of Data Analysis

First, researcher will correct the data that has been collected. Second, researcher place the data from the results of students' answers into SPSS program use descriptive and Pearson's product moment correlation for doing statistical analysis. The following steps place the data analysis:

- Before input data students' reading interest on short story into SPSS, researcher calculating the results of the questionnaire on Microsoft Excel.
- Input the scores questionnaires into SPSS descriptive statistic based on the fourth categories of students' reading interest on short story.
- Describe the result of descriptive statistic based on the fourth categories of students' reading interest on short story.
- Then, describe the average score from the fourth categories of students' reading interest on short story to determine the categories that influence in reading interest on short story.
- After descriptive statistic were done, the researcher measuring the level of students' reading interest on short story. The following is a formula for interpreting scores taken from Anas (2006, pp. 175-176):

- a. Finding the Mean (M)

$$M = \frac{\sum fX}{N}$$

In which:

M = Mean

N = total number of respondents

$\sum fX$ = Total score of students' reading interest

- b. Finding the Standard Deviation (SD)

$$SD_x = \sqrt{\frac{\sum f(X - M)^2}{N}}$$

In which;

SD_x = Standard deviation of students' reading interest

N = total number of respondents

c. Classifying the score into three categories

The researcher classifies the score into three categories: high, moderate, and low by using formula below:

No	Formula	Category
1	$X \geq M + 1 SD$	High
2	$M - 1 SD \leq X \leq M + 1SD$	Moderate
3	$X \leq M + 1SD$	Low

- Then, measuring the level of students' ability to translate English short story into Indonesian. In this study, researchers have prepared Multiple Choice Items (MCITs) translation test, students are provided with 25 questions containing sentences from short story pieces, students are given four multiple choices consisting of a, b, c, or d and students must choose a translation answer from English to Indonesian exactly according to the sentence from the short story listed in the question. The formula to score students' translation ability is shown below:

$$\text{Students' score} = \frac{\text{Student's correct answer} \times 100}{\text{Total items}}$$

To see the average score of students' abilities to translate English short stories into Indonesian, the researcher applies the following formula:

$$M = \frac{\Sigma x}{N}$$

In which,

M : Mean

Σx : Sum of scores

N : Total number of respondents

After calculating the average student test results by applying the formula above, the researcher determined the level of students' ability to translate English short story into Indonesian with categories from David P. Harris as quoted by Fitriah (2017, p.57). The following are the categories:

Table 3.9 Categories of Students' English Translation Ability

Score	Category
80 – 100	Excellent
70 - < 80	Good
60 - < 70	Fair
50 - < 60	Low
0 - < 50	Very low

- Then, the researcher measuring the correlation between students' reading interest on short stories (X) and students' translation ability (Y). Researcher used the Pearson product moment formula to analyze the correlation between the two variables. There are several steps that must be taken before using the Pearson product moment, including:

a. Pre-requirement Test

In the following steps, the pre-requisite testing will be analyzed with a normality test.

1. Normality test

Normality test is a test that serves to detect data distribution. Researchers use the normality test in this study to determine whether the data that has been collected by the researcher will be normally distributed or taken from the normal population. Because before the data is tested, it must be normally distributed. If the level of significance ($p \text{ value} > 0.05$) the data will be normally distributed. Kolmogorov Smirnov will be used by researchers to calculate the normality test. The following are the steps:

Input data - analyze - nonparametric test - delegacy - K-S sample - input test variable list - distribution test - normal - ok.

There are two hypotheses in this test, including:

- Ho: data is normally distributed
- Ha: data is not normally distributed

b. Hypothesis testing

The hypotheses in this study are:

Ho: $\rho = 0$ There is no correlation between students' reading interest on short story and students' translation ability.

H1: $\rho \neq 0$ There is a positive and significant correlation between students' reading interest on short story and students' translation ability.

The researcher uses simple linear regression analysis and Pearson's product moment correlation to test the hypothesis.

1. Simple Linear Regression Analysis

Simple Linear Regression Analysis serves to investigate the form of two or more variables, this analysis can predict the value of one variable (dependent variable) through another variable (independent variable). Researchers used simple linear regression analysis in this study to determine the direction of the relationship between reading interest on short story and translation ability whether it was positively or negatively related, and to predict the value of reading interest on short stories if the translation ability value increased or decreased. Because before the data is tested, the two variables must be linearly related.

Following is the Simple Linear Regression Analysis formula using the IBM SPSS program:

Analyze - Regression - Linear - input Variables - click Method - choose Enter - OK

2. Pearson's Product Moment Correlation

Pearson's product moment correlation serves to analyze the relationship between two variables. Researchers used Pearson's product moment correlation in this study to test the hypothesis whether there was a positive relationship between students' reading interest on short story and translation ability, because the two variables are consisted of an interval scale. Ghazali (2010) argue that the Likert scale can be considered as interval data. Suliyanto (2011) also said that

there have been many studies published in international journals that have the same view, so that previous researchers did not transform data. Because of the requirement to use Pearson's product moment correlation, the data must be scale interval or ratio. If (p value <0.05) there will be a significant correlation. The relationship may be positive or negative. Pearson r coefficients vary between -1 and +1, with +1 indicating a perfect positive relationship and -1 indicating a perfect negative relationship, and 0 = no relationship. Following is the formula of Pearson's product moment correlation using the IBM SPSS program:

Analyze - Correlate - Bivariate - Input Variables - click Pearson correlation - click Two tailed - Option - click Means and Standard Deviation - OK.

- The final step is to interpret the hypothesis from the Pearson's product moment correlation coefficient whether there is a positive and significant correlation or not based on the standard 'r' category in the following table:

Table 3.10 Standard Categories of “r” Pearson Product Moment Value (Suharsimi, 2006)

The value of “r” Pearson Product Moment (r_{xy})	Interpretation
0,810- 1,00	There is very strong correlation between variable X and variable Y
0,610 – 0,800	There is a strong correlation between variable X and variable Y
0,410 – 0,600	There is an average correlation between variable X and variable Y
0,210 – 0,400	There is a weak correlation between variable X and variable Y
0,00 – 0,200	There is no correlation between variable X and variable Y

3.7.2 Display Data

The purpose of display data is to manage research data easily. In displaying the results of the questionnaire, researchers used SPSS17 using descriptive statistics, tables, and graphs. Descriptive statistics were used to measure students' reading interest on short story. From the descriptive statistics, the researcher can determine the mean, standard deviation, maximum and minimum values in each category in reading interest on short story. In addition, tables are also used to display the scores of students' reading interest on short story, and graphs are also used by researcher to display the mean scores of the four categories of reading interest on short story in order to determine which category is the most influential. And to display the results of the test, the researcher used a table to display the scores of the students' translation ability.