

## **CHAPTER III**

### **RESEARCH METHOD**

#### **A. Research Design**

This research was a quantitative and it used correlational method in which the variables were correlated each other (Creswell, 2008, p.358). The first was to find out the relationship between Students' Reading Interest of English Short Story (X1) and Students' Reading Comprehension (Y) variables, the second was to find out the relationship between Students' Vocabulary Mastery (X2) and Students' Reading Comprehension (Y) variables and the last was to find out the relationship between Students' Reading Interest of English Short Story (X1) and Students' Vocabulary Mastery (X2) variables together with Students' Reading Comprehension (Y) variables.

#### **B. Research Setting**

This research takes place at SMPN 2 Kertak Hanyar. This is located at A. Yani km 8,200 Manarap Tengah, South Kalimantan.

#### **C. Subject**

The subject of this research is the eight grade students of SMPN 2 Kertak Hanyar in the school year 2017/2018.

#### D. Object

The object of this research is correlation between reading interest of English short story, vocabulary mastery and their reading comprehension.

#### E. Population and Sample

The population of this research was all of the eight grade students of SMPN 2 Kertak Hanyar, Academic Year 2017-2018. The total number of Eight grade students from SMPN 2 Kertak Hanyar was students of four classes. The eight grade students were chosen because they were in the transition from Seventh grade and considered that they had already recognize the whole of Junior high school subjects and their thinking did not seem as when they were in elementary school.

**Table 3.1. Population and Sample**

No	Class	The Number Of Students	Sample
1	Class VIII A	21 Students	10
2	Class VIII B	21 Students	10
3	Class VIII C	21 Students	10
4	Class VIII D	21 Students	10
	Total	84 Students	40 Students

The population in this research was the second year students of SMPN 2 Kertak Hanyar, it involved four classes or around 84 students that consisted of four classes, Class VIII A, Class VIII B, Class VIII C , Class VIII D. The writer used random sampling techniques according James (2007 pp.65-66).

The technique of choosing the sample was by writing every name of students on piece of paper and then put them in the glass. Then the

glass was shook withdraw a paper one by one. So there would be possibility for every student to be chosen.

## F. Research Instrument

### 1. Questionnaire

The study used questionnaires to measure the students' reading interest. All participants responded to 20 statements. They rated on scale 5-1, in which 5 indicated that they always do such kind of reading activities and 1 indicated that they never do such kind of reading activity. This kind of technique is commonly known as Likert scale. According Sudijono (2006, pp.175-176). For more details, the scale of reading interest questionnaires is presented in the following table:

**Table 3.2. Table of Likert Scale Types**

Likert's scale types	Score
Always ( <i>selalu</i> )	5
Often ( <i>sering</i> )	4
Sometimes ( <i>kadang-kadang</i> )	3
Seldom ( <i>jarang</i> )	2
Never ( <i>tidak pernah</i> )	1

The reading interest questionnaires were given in Indonesian. It was aimed to avoid misunderstanding and to ease the participants in answering them. Moreover, to ease arranging the questionnaires, the indicators were made based on theory of interest. In this case, among the whole aspects of interest, types of interest (situational and individual interest) were chosen to arrange the indicators. It is because types of interest can be a representative to

measure students reading interest including some factors in it. The following table presented the indicators of interest in reading.

**Table 3.3.The Indicators of Reading Interest of Short Story**

The Measured Aspect	Indicators	Number item
The Frequency of situation Interest	Spending the spare time by reading of English shor story.	7,9,18, 20
	Borrow of English short story at library	11
	Reading of English short story for fun during a trip.	2
	Reading of English short story every day.	1
	Reading some topics of English short story.	6
	Reading of English short story for information.	4,10.12,
	Reading of English short story give a task by teacher	13,15 16
The frequency of individual interest	Feeling a positif attitude to do reading of English short story.	3,5,14,15,19
	Feeling a lost when didn't do reading of English short story.	8

## 2. Test

The test used to mesure the students' vocabulary mastery and students' reading comprehension on English short story focused Narrative text. Test consisted of 20 multiple choice items for vocabulary mastery and 20 multiple choice for reading comprehension and every item had four choices.

The test for examining the students' vocabulary mastery consisted of the following category :

**Table 3.4. The category of Vocabulary Mastery**

No	Category of Vocabulary Mastery	Item number
1	The students are able to recognize synonym of the underline word	5,6,7,8,17,20
2	The students are able to recognize antonym of the underline word	1,3,4,11,13,14,18,19
3	The students are able to find the other meaning of underline word	2,9,10,12,15,16

Meanwhile, the test to measure the students' reading comprehension of English short story ( Narrative Text ) consists of the category as follows :

**Table 3.5. The Category of Reading Comprehension**

No	Category of the test	Item number
1	The students are able to recognize the topic of reading text	21
2	The students are able to recognize the main idea of reading text	22
3	The students are able to find the information of written text	23,24,26,27,20,21, 22,23,24,25,26,27, 29,40
4	The students are able to recognize the resolution and complication of the text	18,19
5	The students are able to find the other meaning of underline word	38,35

### G. Data Collecting Procedure

- a. Preparation, before conducting the test. Firstly, the writer consulted to the headmaster of SMPN 2 Kertak Hanyar and asked the permission to conduct the text on the selected students of eight grade.

- b. The implementation the test of instrument test was conducted by the help of other teacher to get data.
- c. Before the test, the respondents were give the instruction and explanation related with test.
- d. To test the validity of reading interest, vocabulary mastery and reading comprehension instruments uses SPSS version 23.

#### H. Technique of Data Analysis

After collecting data, the researcher takes some step to analyze data. The analysis step will as follow:

1. The correlation between students' reading interest of English short story and reading comprehension.

The researcher categorized the score resulted of questionnaire data or also called independent variable (X1) into the following criteria. If a student chooses *Always (selalu)*, the student will get score 5.

After calculating all the result in the questionnaires, the researcher determinains the students' reading interest of English short story.

According Sudijono (2006, pp.175-176).

**Table 3.6. Frequency of Variable X1**

No	Score	Category
1	Higest score	Good
2	Midle score	Fair
3	Lowest score	Bad

The formula in interpreting the score is:

- a. Finding the mean

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

- b. Finding the standard deviation

$$SD_x = \sqrt{\frac{\sum fx^2}{N}}$$

After that, the researcher then determines the Classifying the scores into three categories bad, fair, and good by applying this formula

- c. Classifying the scores into three categories

- Highest of reading interest of English short story score =  $M_x + 1$

$$SD_x$$

- Lowest of reading interest of English short story score =  $M_x - 1$

$$SD_x$$

Explanation:

$M_x$  = mean of students' reading interest of English short story

$SD_x$  = Standard deviation of students' reading interest of English short story

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

$N$  = Total Number of the respondents

The students' reading comprehension is also called dependent variable (Y). If the answer is correct, they will get score 5. So, the total score of 20 items test is  $20 \times 5 = 100$ . In Classifying the score, the researcher uses the categories which is submitted by David P. Harris

( 1969 p.134) as follows :

**Table 3.7. The Category of Score Reading Comprehension**

<b>N</b>	<b>Score</b>	<b>Category</b>
1	0-49	Poor
2	50-59	Low
3	60-69	Fair
4	70-79	Good
5	80-100	Excellent

After that, the researcher determines the students' reading comprehension test generally by applying this formula :

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

After the data of between students' reading interest of English short story and reading comprehension. The researcher examines research hypothesis by calculating and correlate the data of X1 and Y variables. The examination uses Product Moment.

The equation for Pearson (r) is as follow:

$$r_{xy} = \frac{N \cdot \sum x \cdot y - (\sum X)(\sum Y)}{\sqrt{[N \cdot \sum X^2 - (\sum X)^2] [N \cdot \sum Y^2 - (\sum Y)^2]}}$$

$$r_{xy} = \frac{\sum x \cdot y}{\sqrt{(\sum x^2)(\sum y^2)}}$$

$r_{xy}$  = correlation coefficient between variable X and Y.

$\sum x$  = the values for the X variable.

$\sum y$  = the values for the Y variable.

$\sum x \cdot y$  = the values for the XY variable.

However, before using the formula, the researcher does normality



test and linearity test because these tests are prerequisite in using Pearson product moment formula. Normality test is done to determine normal distribution and linearity test is used to know the relation between dependent and independent variable. In doing normality test and linearity, the researcher uses SPSS version 23.

The criteria in determining normal distribution of the data are as follows:

- a. A normal distribution of data, if the value of significance  $> 0,05$
- b. An abnormal distribution of data, if the value of significance  $< 0,05$

The criteria in determining the linearity of the variables are as follows:

- a. If the value of significance  $> 0,05$ . It means that the variables are linear
- b. If the value of significance  $< 0,05$ . It means that the variables are linear

Then, the researcher will interpret the value of  $r_{xy}$  by comparing it with  $r_t$  with, significant value 0,05. The result of correlation between X and Y variables will be compared with the value ( $r_{table}$ ). The table value is 5 % or 1 %. If  $r_{xy} > r_{table}$  is significant or there is a correlation between reading interest of english short story and their reading comprehension. If  $r_{xy} < r_{table}$  is not significant. It means that there is no correlation between students' reading interest of English short story and their reading

comprehension. A positive correlation indicates that the score move together either increasing or decreasing. A negative correlation indicates that the scores on one variable rise and scores on other decrease. Correlation does not imply caution means two events are in some ways correlated does not mean that on necessarily cause the other.

2. The correlation between vocabulary mastery and reading comprehension.

The researcher categorized the score resulted of test data or also called independent variable (X2).

After calculating all the result in the test, the researcher determines the students' vocabulary mastery. According Sudijono (2006, pp.175-176).

**Table. 3.8. Frequency of Variable X2**

No	Score	Category
1	Higest score	Good
2	Midle score	Fair
3	Lowest score	Bad

the formula in interpreting the score is:

- a. Finding the mean

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

- b. Finding the standard deviation

$$SD_x = \sqrt{\frac{\sum fx^2}{N}}$$

After that, the researcher then determines the Classifying the scores into three categories bad, fair, and good by applied this formula:

- c. Classifying the scores into three categories

- Highest of vocabulary mastery score =  $M_x + 1 SD_x$
- Lowest of vocabulary mastery score =  $M_x - 1 SD_x$

Explanation:

$M_x$  = mean of students' vocabulary mastery

$SD_x$  = Standard deviation of students' vocabulary mastery

$\sum fX$  = Total score of students' vocabulary mastery

$N$  = Total Number of the respondents

The students' reading comprehension is also called dependent variable (Y). If the answer is correct, they will get score 5. So, the total score of 20 items test is  $20 \times 5 = 100$ . In Classifying the score, the researcher uses the categories which is submitted by David P. Harris

( 1969 p.134) as follows :

**Table 3.9. The Category of Score Reading Comprehension**

<b>N</b>	<b>Score</b>	<b>Category</b>
1	0-49	Poor
2	50-59	Low
3	60-69	Fair
4	70-79	Good
5	80-100	Excellent

After that, the researcher determines the students' reading comprehension test generally by applying this formula :

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

After the data of between students' vocabulary mastery and reading comprehension. The researcher examines research hypothesis by calculating and correlate the data of  $X_2$  and Y variables. The

examination uses Product Moment.

The equation for Pearson (r) is as follow:

$$r_{xy} = \frac{N \cdot \sum x \cdot y - (\sum X)(\sum Y)}{\sqrt{[N \cdot \sum X^2 - (\sum X)^2] [N \cdot \sum Y^2 - (\sum Y)^2]}}$$

$$r_{xy} = \frac{\sum x \cdot y}{\sqrt{(\sum x^2)(\sum y^2)}}$$

$r_{xy}$  = correlation coefficient between variable X and Y.

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However, before using the formula, the researcher does normality test and linearity test because these tests are prerequisite in using Pearson product moment formula. Normality test is done to determine normal distribution and linearity test is used to know the relation between dependent and independent variable. In doing normality test and linearity, the researcher uses SPSS version 23.

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Then, the researcher will interpret the value of  $r_{xy}$  by comparing it with  $r_t$  with significant value 0,05. The result of correlation between X and Y variables will be compared with the value ( $r_{table}$ ). The table value is 5 % or 1 %. If  $r_{xy} > r_{table}$  is significant or there is a correlation between vocabulary mastery and their reading comprehension. If  $r_{xy} < r_{table}$  is not significant. It means that there is no correlation between students' vocabulary mastery and their reading comprehension. A positive correlation indicates that the score move together either increasing or decreasing. A negative correlation indicates that the scores on one variable rise and scores on other decrease. Correlation does not imply caution means two events are in some ways correlated does not mean that on necessarily cause the other.

3. The correlation between students' reading interest of English short story, vocabulary mastery and their reading comprehension

To examine the hypotheses, in this case, the three variables and correlation analysis technique. The formula of multiple correlations was as the following (Sugiyono: 2008 p.191).

$$R_{y.x_1x_2} = \sqrt{\frac{r_{yx_1}^2 + r_{yx_2}^2 - 2r_{yx_1} r_{yx_2} r_{x_1x_2}}{1 - r_{x_1x_2}^2}} \quad \text{Rumus 7.4}$$

Note :

$R_{yx_1x_2}$  = correlation between X1 and X2 variables with Y variable

$r_{yx_1}$  = Product Moment Correlation between X1 and Y

$r_{yx_2}$  = Product Moment Correlation between X2 and Y

$r_{x_1x_2}$  = Product Moment Correlation between X1 and X2