

CHAPTER III

RESEARCH METHOD

3.1. Type of Research

In this research, the researcher uses a quantitative research. While the design of the study is ex-post facto design. Ex-post facto design is a study which examine the relation of cause-and-effect that is not manipulated to not give treatment by the researcher (Sappaile, 2010). The design was called correlation study.

The researcher design of ex-post facto correlational study as follows:

X	Y
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In which: X: Reading Interest

Y: Reading Comprehension

3.2. Variable of The Research

Hadi (1989:224) stated that variable is some indications that indicate variation, in the kind or in level. In order to assess the relationship between variables, they must be identified. In this study there are three variables identified; one dependent variable and one independent variable.

1. Independent Variable

Mubarok stated that independent variable is something that chooses by the researcher to assess the possible effects on one or more variables (Mubarok, 2015:89). In this research, the independent variable is students' reading interest (X).

2. Dependent Variable

Mubarok stated that dependent variable is a variable that presumed to affect the independent variable (Mubarok, 2015:89). The dependent variable investigated in this research was students' reading comprehension (Y).

3.3. Unit of Analysis

The unit of analysis is a particular unit that counts as the subject research. Based on the understanding and in accordance with the research variables which has been established, then the unit of analysis is all of students in XI APHP 3 class. In this class there are 25 students as the subject of the research.

3.4. Source of Data

1. Primary Data

Primary data is a data that collected individually (Purwanto, 2008:217).

The primary data of this research are questionnaire and test.

2. Secondary Data

Secondary data is a data that collected from other people or institution (Purwanto, 2008:217). The secondary data of this research are books, e-books, journals, and articles, and reports.

3.5. Population, Sample and Sampling Technique

Population is the whole number of people or inhabitants in a country or region. Mubarok (2015:38) stated that population is a unit of the object or subject that has certain qualities and characteristics which are studied by the

researchers then be deduced. The population in this research is the eleventh grade students of SMKN 1 Jepara in academic year 2018-2019.

Sample is a part of population that reputed as population in a research. Mubarok (2015:39) stated that the sample is part of the quality of a characteristic of the population. The samples taken must be representative, because the conclusions drawn from this sample will be summed up to the population. The sample of this research is one of class eleventh grade students of SMKN 1 Jepara in academic year 2018-2019. The sample of this research is class XI APHP 3 which consists of 25 students.

Sampling is a method used to determine sample in the research. In this research will be used simple random sampling. Mubarok (2015) stated that, it is a simple sampling technique from the existing population. In this research choose one class as the sample of this research from eleventh grade students of SMKN 1 Jepara.

3.6. Technique of Data Collection

This research used test and questionnaire as the method of data collection. The test is used to collect the data of student's reading comprehension, while the questionnaire is used to collect the data of student's reading interest

1. Questionnaire

Mubarok (2007) stated questionnaire is some of written question that used to get some information from respondents. It means that questionnaire is a list of question to get opinion from the respondent.

Questionnaire can be contained a question concern of all about the respondent, such as their experience, habit, and others.

The researcher choose close questionnaire which is the researcher arrange a questionnaire consist of questions or statements and then give the answers to be chosen by the respondents and they cannot to determine their own answers except in the questionnaire.

In determining the students' interest score, the researcher takes sample of questionnaire from Dian Probo Astomo's thesis that was modified. The indicators of the Blue Print, the researcher used reading interest indicator theory by Hidi and Baird in Dian Probo Astomo's thesis. The researcher will use the Likert Scale as the rating scale of the questionnaire. The questionnaire consists of 20 items and each item has five options with the scale of scoring from 1 to 5. The students' ask to choose one of those choices that they think and feel matched with their condition. The questionnaire has five options, those are: Strongly Agree / *Sangat Setuju* (SS), Agree / *Setuju* (S), Hesitate / *Ragu* (R), Disagree / *Tidak Setuju* (TS), Strongly Disagree / *Sangat Tidak Setuju* (STS). The way to score the questionnaire as follows:

Positive	Score	Negative	Score
Strongly Agree (SS)	5	Strongly Agree (SS)	1
Agree (S)	4	Agree (S)	2
Hesitate (R)	3	Hesitate (R)	3
Disagree (TS)	2	Disagree (TS)	4
Strongly Disagree (STS)	1	Strongly Disagree (STS)	5

Table 3. 1 Likert Scale of Reading Interest Questionnaire

The result of variable tendency computation by using Mardapi formula in Basyari's thesis, the category of students' reading interest can be defined as follows.

Interval	Category
> 64,66	Very High
59 – 64,66	High
53,34 – 59	Low
< 53,34	Very Low

Table 3. 2 Reading Interest Categories

Based on the table above, the students' reading interest can be known by their questionnaire score. Very High interest for the score more than or same as 64,66. High interest for the score more than 59 until less than 64,66. Low interest for the score more than or same as 53,34 until less than 59. Very Low interest for the score less than 53,34.

2. Test

Mubarok (2015:68) stated that test is a list of questions that used to know the level of knowledge, intelligence, ability and skills of individuals of group. Test in language education consist of two kind of test, there are written test and spoken test. In this research, test is used to find out the data of students' reading comprehension.

In arrange the test took from internet for the text and for the question the researcher make it by herself. The indicators of the Blue Print, the researcher used reading comprehension indicator theory by Hidi and Baird. The researcher uses written test in the form of multiple-choice type consist of 20 questions with five answer options; a, b, c, d, and e.

The result of variable tendency computation by using Mardapi formula in Basyari's thesis, the category of students' reading comprehension can be defined as follows.

Interval	Category
> 56	Very High
48 – 56	High
40 – 48	Low
< 40	Very Low

Table 3. 3 Reading Comprehension Categories

Based on the table above, the students' reading comprehension can be known by their test score. Very High comprehension for the score more than or same as 56. High comprehension for the score more than or same as 48 until less than 56. Low comprehension for the score more than or same as 40 until less than 48. Very Low comprehension for the score less than 40.

3.7. Reability and Validity of the Instrument

It is necessary to do a try out to make the instrument valid and reliable before it is used. The instruments of this research are the questionnaire of students' interest of reading English text and the test of reading comprehension. The instruments were tried out at the XI TKJ 1 class that consists of 33 students. The way to test the validity and reliability of those instruments (test and questionnaire) are as follow:

1. Reliability

Reliability is a process used to measure consistent or not of respondent's answer in a test (Sarjono and Julianita, 2011:45). A test is reliable if the *Croanbach's Alpha* > r table.

The calculation of reading interest questionnaire reability showed the Croanbach's Alpha is 0,813 and the r table is 0,29 ($0,813 > 0,29$). The Croanbach's Alpha is higher than r table. So, it means that the instrument is **reliable**. While the calculation of reading comprehension test reability showed the Croanbach's Alpha is 0,38 and the r table is 0,29 ($0,38 > 0,29$). Croanbach's Alpha is higher than r table. So, it means that the instrument is also **reliable**. (Appendix 5)

2. Validity

Validity is a process used to measure valid or not a question items (Sarjono and Julianita, 2011:35). To measure the validity of students' reading interest and their reading comprehension, the researcher used Ms Excel 2007 program. A question is said to be "valid" if validity of coefficient (r_{xy}) $>$ r table.

The result of calculation validity of reading interest questionnaire and reading comprehension test show that:

- a. Reading interest questionnaire, from 20 statements, 19 items are valid and 1 item are invalid. The invalid items are the item number 4 that compare with r table 0,29 (Appendix 6)
- b. Reading comprehension test, from 20 questions, 16 items are valid and .4 items are invalid. The invalid items are the item number 4, 7, 8 and 9 that compare with r table 0,29 (Appendix 7)

3.8. Technique of Data Analysis

Data analysis is used to answer the research questions in the problem statement of the research (Mubarak, 2015: 35). In this research examined by using *Pearson Product Moment Correlation*. The formula of *Pearson Product Moment* as follows.

$$r_{xy} = \frac{n\sum xy - (\sum x)(\sum y)}{\sqrt{[n\sum x^2 - (\sum x)^2][n\sum y^2 - (\sum y)^2]}}$$

The data will be statistically computed through the statistical Package for Social Science (SPSS). Before analyzing the data by using *Pearson Product Moment Correlation*, the researcher needs to test the normality and linearity of the data.

1. Normality Testing

Normality test is used to find out the normality of the data distribution (Sarjono and Julianita, 2011:53). In normality test data the researcher use the procedure from Sarjono and Julianti. To find out the normality of the data the researcher used SPSS 20 and Microsoft Excel 2007.

2. Linearity Test

Linearity test is used to know whether the variable is suitable with the linear line or not (Sarjono and Julianita, 2011:53). To test the linearity of two variables, the researcher was assisted by SPSS 20.

3. Hypotheses Testing

This research is going to test the hypotheses using Bivariate Correlation. Sarwono (2006: 82) bivariate correlation is the correlation

between one independent variable and dependent variable. To measure the correlation between two variables, the researcher used *Pearson Product Moment Correlation*. To test the correlation between two variables, the researcher was assisted by SPSS 20.

In this research, there are two kinds of hypothesis, alternative hypothesis (H_a) says that there is significant correlation between students' reading interest (X) and reading comprehension (Y) and null hypothesis (H_o) says that there is no significant correlation between students' reading interest (X) and reading comprehension (Y).

