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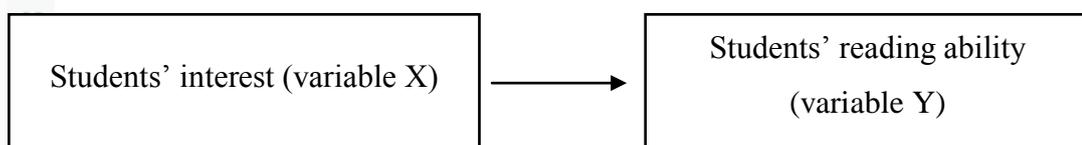
CHAPTER III

THE RESEARCH METHOD

A. The Research Design

This research is designed as correlational research as one of quantitative research. Creswell (2005, p.325) defines that correlational research is statistical test to determine the tendency or pattern for two (or more) variables or two sets of data to vary consistently. It means that the researcher used the correlation statistical test to describe and measure the degree of relationship between two variable of this research. In correlational research there are two parts of design, that are explanatory design and prediction design. But, in this research the researcher used explanatory design because he explains the two variable of this research. Creswell (2005, p.327) defines that explanatory research design is a correlational research design in which the researcher is interested in the extent to which two variables (or more) co-vary, that is, where changes in one variable are reflected in changes in the other.

There are two variables in this research. Firstly, the students' interest as the independent variable (symbolized by X) and the students' reading comprehension as the dependent variable (symbolized by Y). The design of this research can be drawn as follows:





B. The Location and Time of the Research

This research was conducted on May 2018 at SMA Muhammadiyah 1 Pekanbaru. It is located at KH. Ahmad Dahlan Street, Sukajadi, Pekanbaru.

C. The Subject and the Object of The Research

1. The Subject

The subject of this research was the second grade students of SMA Muhammadiyah 1 Pekanbaru.

2. The object

The object of this research was the correlation between the students' interest in learning English and their reading comprehension.

D. The Population and the Sample of the Research

1. The Population of the Research

Population or universe means, the entire mass of observations, which is the parent group from which a sample is to be formed (Singh, 2006, p. 91). According to Arikunto (2010, p.173) "Population is all research objects". The term of population has different meaning from the definition in general. In research methodology population means the characteristics of a specific group. For example age group, gender; boys and girls personality, scholastic aptitude, academic motivation etc.

Population is the entire mass of observation or the huge group of people, while sample is the specific part of population and it's also can be seen as a part of population.

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Thus, the population of this research is all the students at second grade of SMA Muhammadiyah 1 Pekanbaru. The total of population at the Eleventh grade of students is 117 students from 4 classes. The following is number of population:

Table III.1
The Population of The Research

No	Class	Total
1	XI IPA 1	32 Students
2	XI IPA 2	31 Students
3	XI IPS 1	32 Students
4	XI IPS 2	22 Students
	Total	117 Students

2. Sample of the Research

The sampling is technique to take sample. According to Ari, sampling is indispensable to the researcher (1972, 138). According to Gay (1992, 123), sampling is the process of selecting a number of individual for a study in such as a way that the individuals represent the large group from which they were selected. Since the population is relatively large, the simple random sampling technique is used to define the participants as sample of this research. Arikunto (2002, p.131) states “if the subject less than 100, it is better taken all so its research constitutes population. Hereafter if total subject outgrow, therefore get among been taken 10-25% or 20-25% or more”.

In this study the researcher took the eleventh grade of SMA Muhammadiyah 1 Pekanbaru in academic year 2017/2018 as sample. In this class contains of 117 students. But not all of students can be the

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participant of my research. There are only 32 students which follow the test that the writer distributed.

Table III. 2
The Total Sample at Second-Grade
SMA Muhammadiyah 1 Pekanbaru

No.	Class	Total Sample	
		Male	Female
1.	XI IPA 1	4	4
2.	XI IPA 2	3	5
3.	XI IPS 1	5	3
4.	XI IPS 2	3	5
	Total	15	17
		32	

E. The Technique Collecting Data

In order to collect data from sample on this research, the researcher used two techniques, they are questionnaire and test.

1. Questionnaire

Cohen (2007, p.317) says that the questionnaire is a widely used and useful instrument for collecting survey information, providing structured, often numeric data, being able to be administered without the presence of the researcher, and often being comparatively straightforward to analyze. The questioner was given based on the indicator of the students' interest. The surveys or questionnaires usually consist of a statement followed by a response continuum such as strongly agree, agree, neutral, disagree and strongly disagreed. The subject selected the response that best describes his reaction to the statement. The blueprint of the questionnaire can be seen in the table below:

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Table III. 3
The Blueprint of Questionnaire

No	Indicators	Item number	Total
1	Attention	6, 10, 13	3
2	Willingness	1, 7, 14	3
3	Needs	2, 12, 15	3
4	Pleasure	3, 8, 18	3
5	Teachers	4, 11, 16	3
6	Participation	5, 9, 17	3
Total			18

Then, the scoring category of students' interest in learning English is as follows:

Table III. 4
Scoring Category of Students' Interest in Learning English

No.	Interval Score	Category
1	85-100	Strongly Interested
2	69-84	Interested
3	52-68	Moderate
4	36-51	Uninterested
5	20-35	Strongly Uninterested

(Sugiyono, 2008)

2. Test

To collect the data on students' ability in reading comprehension, the researcher uses reading test. The writer asks the students to answer the question about reading text. The questions consist of 25 where it made based on the indicator of reading ability. The blueprint of reading comprehension test can be seen in the following table:

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Table III. 5
The Blueprint of Test

No	Indicator of items	Number of items
1	Identify main idea	5
2	Locate the meaning of vocabulary in the context	5
3	Identify generic structure	5
4	Finding communicative purpose	5
5	Finding language features	5
Total		25

Then, the scoring category of students' reading comprehension is as follows:

Table III. 6
Scoring Category of Students' Reading Comprehension

No.	Interval Score	Category
1	86-100	Very Good
2	71-85	Good
3	56-70	Fair
4	<55	Poor

(Sujana, 2010)

3. Validity of Instrument

Validity in test is the extent to which inferences made from assessment results are appropriate, meaningful and useful in terms of the purpose of assessment. This research focused on students' interest in learning English and reading comprehension test. There are four kinds of validity for test: content validity, criterion-related validity, construct validity, and consequential validity and they are all interrelated (Gay et al., 2012). In this research, the researcher used content validity. According to Brown (2004), if all test items cover all of learning objectives (indicators) the test is content valid. Content

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validity was used because the test given were based on materials that the students learned.

To find out the validity of instruments, researcher calculated it by using SPSS 23 version. The standard value of validity is $r_{\text{item}} > r_{\text{table}}$. Based on the try out result, it was determined that all of the items were valid. The result of try out for questionnaire is as follows:

Table III. 7
Validity of Questionnaire

Item Number	r-item	r-table	Result
1.	0.29	0.40	Invalid
2.	0.47	0.40	Valid
3.	0.61	0.40	Valid
4.	0.45	0.40	Valid
5.	0.66	0.40	Valid
6.	0.43	0.40	Valid
7.	0.44	0.40	Valid
8.	0.46	0.40	Valid
9.	0.52	0.40	Valid
10.	0.26	0.40	Invalid
11.	0.48	0.40	Valid
12.	0.70	0.40	Valid
13.	0.44	0.40	Valid
14.	0.64	0.40	Valid
15.	0.50	0.40	Valid
16.	0.52	0.40	Valid
17.	0.41	0.40	Valid
18.	0.60	0.40	Valid
19.	0.71	0.40	Valid
20.	0.41	0.40	Valid

Based on the table, there were 2 invalid items. Thus, the researcher only took 18 items for test. Then the result of try out for reading comprehension test was as follows:

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Table III. 8
Validity of Test

Item Number	r-item	r-table	Result
1.	0.43	0.40	Valid
2.	0.51	0.40	Valid
3.	0.57	0.40	Valid
4.	0.53	0.40	Valid
5.	0.46	0.40	Valid
6.	0.49	0.40	Valid
7.	0.43	0.40	Valid
8.	0.56	0.40	Valid
9.	0.52	0.40	Valid
10.	0.42	0.40	Valid
11.	0.40	0.40	Valid
12.	0.42	0.40	Valid
13.	0.62	0.40	Valid
14.	0.53	0.40	Valid
15.	0.46	0.40	Valid
16.	0.44	0.40	Valid
17.	0.45	0.40	Valid
18.	0.42	0.40	Valid
19.	0.45	0.40	Valid
20.	0.53	0.40	Valid
21.	0.50	0.40	Valid
22.	0.42	0.40	Valid
23.	0.60	0.40	Valid
24.	0.43	0.40	Valid
25.	0.53	0.40	Valid

Based on the table above, all items were valid. Thus, the researcher took all items to be tested.

4. Reliability of Instruments

According to Gay et al. (2012), reliability is about consistency of the scores produced. They also pointed out that reliability is very important to judge the suitability of a test. It is clear that reliability is

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to measure the consistency and the quality of the test score. According to Cohen et.al, (2007) the guidelines for reliability is as follows:

Table III.9
Category of Reliability

No	Reliability	Category
1	>0.90	Very highly reliable
2	0.80-0.90	Highly reliable
3	0.70-0.79	Reliable
4	0.60-0.69	Minimally reliable
5	<0.60	Unacceptably low reliability

In this research, the writer used software SPSS 23 version to calculate the reliability of test. Here is the result of reliability for questionnaire:

Reliability Statistics

Cronbach's Alpha	N of Items
.840	20

The table showed that the reliability of vocabulary test was 0.804 which is categorized into highly reliable level. Then, the result of reliability for reading comprehension test can be seen in the following table:

Reliability Statistics

Cronbach's Alpha	N of Items
.858	25

The table showed that the reliability of reading comprehension test was 0.858 which is categorized into highly reliable level.

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F. The Technique of Analyzing Data

The independent variable (X) and dependent variable (Y) are the two variables correlated. In analyzing the data, the researcher chose the product moment correlation as the formula because the data of the two variables above are in interval form because the researcher uses the score of questionnaire of variable X and score of variable Y. According to Hartono, (2007, p.167) if the variables are connected in interval form and the spread of the data is normal distribution, so the suitable formula is product moment correlation. In analyzing the data of students' interest and their reading ability, the researcher analyzes it statistically.

Then, to find out whether there is correlation between students' Interest and their reading ability, the researcher uses the Pearson Product-Moment Correlation Coefficient (r) by using SPSS 23.0 program. According to Creswell (2012) positive relationship occurs when low (or high) scores in one variable relate to low (or high) scores for the second. The statistical hypotheses were as follow:

$$H_a : \text{sig. 2 tailed} \leq 0.05$$

$$H_o : \text{sig. 2 tailed} \geq 0.05$$

H_a : there is significant correlation between students' vocabulary knowledge and their reading comprehension in descriptive text.

H_o : there is no significant correlation between students' vocabulary knowledge and their reading comprehension in descriptive text.