CHAPTER III
RESEARCH METHODOLOGY

3.1 Research Method

This research was a quantitative descriptive study that aimed to describe a situation that is in accordance with the actual facts by using a survey method conducted directlyin schools,these facts were a process and analysis to describe a variable. This research was conducted based on the type of research that is descriptive quantitative. This was because in conducting this study the researcher described the students' problems by using correlational analysis to determine and measure the relationship between two variables which included independent (reading habits) and dependent(writing ability)

3.2 Population, Sample and Sampling Technique

3.2.1 The Population

The population of the research was tenth social science grade students of senior high school of SMAN 1 Abung Selatan academic year of 2021/2022, included 42 students from 2 classes which were X1 IPS1 and X1 IPS2. From the population, 42students were chosen as the participants of the researcher.

TABLE2
POPULATION OF CLASS X IPS 1 AND X IPS 2 STUDENTS AT SMAN 1 ABUNG SELATAN

No	Population	Number of Students
1	Class X1 IPS 1	20
2	Class X1IPS 2	22
Total		42

3.2.2 The Sample

The research took sample with using Slovin formula as below:

$$n = \frac{N}{1+(N\ X\ e^2)}$$

Description:

n : total of sample

N : total of population

e : error level

$$n = \frac{42}{1+(42\ x\ o.1^2)}$$

$$n = \frac{42}{1+(42\ x\ 0.01)}$$

$$n = \frac{42}{1+(0.42)}$$

$$n = \frac{42}{1.42} = 29{,}57$$

TABLE 3
THE SAMPLE OF THE RESEARCH

No	Class	Number of students	Number of Sample
1	XI IPS 1	20	14
2	XI IPS 2	22	16
Total		42	30

Based on the table above, after the table took the sample by using simple random sampling, this study takes all students of class XI IPS 1 and XI IPS 2. The number of students was sample are 30 students.

3.2.3 Sampling Technique

Sampling technique is a way of taking samples in a study. The technique sampling used by researcher was simple random sampling. Simple random sampling is technique sampling done randomly without regard to exiting strata. Random sampling a sample consisting of a number of elements chose at random, where each element of member of the population has an equal chance of being selected as a sample.Sugiyono (2010, p. 82)states that simple random sampling is taking sample members from the population that is carried out randomly without pay attention to the same in the population. In this study using a simple random sampling technique. Where the research sample only took two calss of active students majoring in social studies (IPS). IPS 1 class have 2o students and IPS 2 has 22 students.

3.3 Research Instrument

Research instrument is fundamental thing in a research. It is used to collect the data. Instruments as a data collection tool play a very important role. In that case, it will determine the results of the research. According to Arikunto (2011, p. 150),data collection instrument is a tool that is selected and use by researchers in collecting activities for activities to be systematically watered down by it. There are various kinds of instrument that can be used in a research. Because there was two variables that the research wants to observe, namely the mastery of students reading habit and students writing ability in descriptive text, the instruments usedwere in the form of a linear scale and test essay. Likert scale is used to measure students reading habit and a test for students writing ability in descriptive text. In instruments as data collection technique, the research give descriptive text questionairy to students. The from of the test is an essay.

3.3.1 Kinds of Instruments

3.3.1.1 Instruments of Students Reading Habit

The instrument in this study used a collecting a questionnaire. A student reading habit questionnaire was created using a likert scale which gave choices for each item to be selected. The statements made were 50 statements and 35 statements were chosen. Instruments options are: Strongly Agree, Agree, Neutral, Disagree, Strongly Disagree.

a. Conceptual Definition of Students Reading Habit

Reading provides great benefits for readers knowledge, by reading books often and having good reading habits, readers are able to analyze others people ideas, which makes one think more critically. Reading habits determine the academic achievement of students to great extent. Both reading and academic achievement are interrelated and dependent on each other.

b. Operational Definition of the Students Reading Habit

Operational students reading habit are scores obtained from students reading habit in the from of a questionnaire statements consisting of 35 statement of students reading habit. Students must choose one statement that fits their reading habits. Therefore, in this study the researcher made a questionnaire to determine the students reading habit with a total of 35 statements. In determining appropriate reading habit for students, there are two scoring system, namely positive and negative statements which have numerical values as follow:

TABLE4
SCORING SYSTEM OF QUESTIONNAIRE

No.	Scale	Score

1	Strongly Agree	5
2	Agree	4
3	Neutral	3
4	Disagree	2
5	Strongly Disagree	1

Source, Sugiyono (2012)

The scoring system is indicated by a likert scale type. Where respondents show their opinion by choosing one of the scale the best represents or relates to their reading habit. The questionnaire indicators and score use five alternative answers based on the likert scale type. Negative statements are on a large scale of 1-5, and positive statements are on a scale of 5-1.

c. Specification Instrument of StudentsReading Habit

The instruments used to measure students reading habit is a questionnaire directly in class. The questionnaire contains statements about students reading habit that are commonly used in the learning process. The students reading habit instruments that the researcher will use is 35 statements. At the stage of testing the instrument, the researcher made 35 statements which are explained as follow:

TABLE 5
SPECIFICATION OF QUESTIONNAIRE STUDENTS READING HABIT INSTRUMENTS

Variabel	Aspect	Indicator	Number of item	
			Positive	Negative
Reading habit	Reading frequency	students' reading frequency in their spare time.	1, 3, 5, 6	2, 4
	Book read	students have read in the last three months was included in the questionnaires.	7, 9, 10	8, 11
	Time spent on academic reading	students devote their time to read academic book especially for their specialist subject.	12, 15, 16	13, 14

	Time spent on non-academic reading	students used to read non-academic book, magazine, such as novel, fiction, romance, horror, etc.	17, 19, 22, 23	18, 20, 21
	Motivation in the family environment	Students the recommended book that purchased by the family based on the interest of the family.	25, 27, 28	22, 24, 26
	Motivation in the academic environment	Students reading literature in their academic environment.	31, 33, 34	30, 32, 35
Total			20	15

Source, Gaona (2011)

3.3.1.2 Instruments of Students Writing Ability in Descriptive Text

a. Conceptual Definition of Writing Ability in Descriptive Text

Descriptive text is a text that says what someone or something looks like. The purpose of this text is to describe and remember certain people, place or thins based on their characteristics. Students ability in descriptive text is the ability of students to be able to make descriptive paragraphs to descriptive something something specifically and its characteristics according to the order of writing in a text.

b. Operational Definition of the Writing Ability in Descriptive Text

The ability to write descriptive text is the score that students get from the essay test which is measured from aspects, content, organization, vocabulary, grammar, and mechanism. Students are asked to write about describing something with a given theme (descriptive text). The highest score based on the five aspects is 25 and the lowest is 2.

c. Specification Instrument of Students Ability in Descriptive Text

Based on the conceptual and operational definition above, the specification of students ability in descriptive text can be seen as follows:

TABLE6
SPECIFICATION INSTRUMENT OF SCORING ASPECT IN WRITING ABILITY

Research variable	Aspect	Competence	Score	Indicators
Writing ability	Content	United of the ideas	13-30	• The tudents understand the content • Students are able to create clear content • Student are able to express all ideas • Students do not understand of the content
	Organization	Coherence	7-20	• Students understand ideas and topics • Students are able to express ideas and topics • Students do not understand the idea / content of the organization
	Vocabulary	Diction and Mechanics	7-20	• The students understand the correct diction and spelling • The students do not understand the correct diction and spelling
	Grammar	Present tense	5-25	• The students master the correct grammar • The students can make present tense sentence correct • The students do not understand the correct grammar
	Mechanic	Graphic convention	2-5	• The students understand the mechanics of writing • The students can make sentences correctly • The students do not understand the mechanics of writing

Source, Heaton (1998)

3.3.2 Validity and Reliability of Writing Ability in Descriptive Text

3.3.2.1 Validity of Writing Ability in Descriptive Text

Validity is need in research to find out whether the instrument use in the study are suitable or not with these measuring instruments. A test is said will be valid if the test measures the object to be measure, other than that it must comply with the criteria. According to Setiyadi (2006, p. 21), validity is related to the use of measurement in a study and is related to measurement reliability.

In this study, the research chose the construct validity. In this validity, researchers can use Expert Judgment. In this case the research asked for consideration from lecturers at the faculty teacher training and education in the English education study program at the University of Muhammadiyah Kotabumi, namely Mrs, Rulik Setiani, S.S., M.Pd.andMrs. Dewi Sri Kuning, S.Pd., M.Pd.

3.3.3 Reliability of writing ability in Descrptive Text

Reliability is a measure that refers to the extent to which a test is consistent in its score, and gives us an indication of how accurate the test score. Acording to Setiyadi (2016, p. 16)states that reliability is consistency of measurement or how far the measurement can measure the same subject in different times but show the similar result. Based on that statement, it can be concluded that reliability is yhat something can be reliable enough if the instrument can be use as a tool to collect the data in different place and time and still show the similar result. Ghozali (2011, p. 133) states that if the Cronbach's alpha > 0.06 then the research instruments is reliable. If the value of cronbach's alpha< 0.06 then the research instrument is not reliable.

Based on the Cronbach's Alpha value, it can be seen the level of reliability of an instrument that will be used in the study. The more reliable an instrument is the better the instrument is used by researchers in their research. The researchers

will give a try out to the students of class XI SMAN 1 Abung Selatan. For the reliability test, the researchers used IBM SPSS 25 application.

3.3.4 Validity and Reliability of Students Reading Habit

3.3.4.1 Validity of Students Reading Habit

Validity means how far the accuracy of a test instruments in measuring what will be measured. Arikunto (2010, p. 213) says that validity is a measurement that indicate the level of instrument. It means that the instrument which is valid has high validity. Arikunto (2010, p. 213) states that the research used prodact moment correlation formula to measure the validity of writing ability instruments formula as bellow :

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

Description:

r_{xy} = Correlation coefficient of varabel X and Y

Σxy = the sum of the products of X and Y

ΣX = The sum of X scores

ΣY = The sum of Y scores

ΣX^2 = The sum of square of X score

$\Sigma^2 Y$ = The sum of square of Y score

(ΣX^2) = The sum of square of X score

(ΣY^2) = The sum of square of Y score

N = Total of respondent

The testing criteria are if $r_{observed} \geq r_{table}$ it clear that (H_o) is rejected and (H_a) is accepted. The criteria of the validity of the anxiety test are:

a. H_o is accepted if $r_{observed} \leq r_{table}$ (the data are valid)

b. H_a is rejected if $r_{observed} \geq r_{table}$ (the data are not valid)

3.3.4.2 Reliability of Students Reading Habit

After measuring the validity, the research measured the reliability of the instruments. Reliability is consistency of measuring instruments how far the instruments could be measure the same subject at different times but show relatively similar result.Arikunto (2010, p. 221) state that reliability refers to a description that an instrument can be convinced to be used as a tool to collect the data because that instruments is good enough. The research will give the try out to students in the eleventh grade of SMAN 01 Abung Selatan. In order to get the reliable questionnaire, the research used Cronbach's Alpha Formula Arikunto (2010, p. 239):

$$r_{11} = \left[\frac{k}{(k-1)}\right]\left[1 - \frac{\sum \sigma^2 b}{\sigma^2 t}\right]$$

Description:

r_{11} = coefficient of reliability

k = number of items or number of questions

$\Sigma\, \sigma b^2$ = number of items variance

σt^2 = total variance

After knowing the result of calculatng r_{11} above, the research compared with $r_{count} \geq r_{table}$ it is said reliable, and if $r_{count} < r_{table}$ it is unreliable.

3.4 Data Collecting Technique

The data which is collected in this research enable the researcher to get more accurate data, so that the more accurate conclusion can be drawn. The data collection technique use in this researchers is a questionnaire. According to Pujihastuti (2010, p. 44), a questionnaire is a primary data collection tool with a survey method to obtain respondents opinions. Questionnaire can be use to obtain personal information such as attitudes, opinions, expectations and desires of respondents.

Therefore, in this study to collect data on the relationship between reading habit and students ability to write descriptive text in students learning in the classroom, questionnaires and test essay are use.

This researchers distribut questionnaire directly at the school to classXI students majoring in social studies at SMA N 1 Abung Selatan. There are 35 questionnaire items about reading habit and test essay about the ability to write descriptive text that will be answer by students to determine the effectiveness of classroom learning. After all data is collected, the next process is to collect the data, and transfer to computer software called IBM SPSS 25.

3.5 Data Analysis

Since the data is numerical form statistical analysis is applied to find out whether or not there is a correlation between students reading habit and their ability of writing descriptive text. This research used statistic paramentric method. In statistic parametric, there are three prequisites test namely: normality test, homogeneity test and hypothesis test.

3.5.1 Normality Test

Normality test is conducted to know whether the data from the sample are nornal or not. To calculate the normality of a data of tests, is Lilliefor formula is use.

According to Sudjana (2005, p. 446) test for normality with the formula Lilliefor needs the steps as follow :

H_o : the data cumes from a normal population distribution

H_a : the data cumes from aabnormal population distribution

a. Determine the raw number by using the formula

$$Z_i = \frac{xi - \dot{X}}{s}$$

Z_i : number of raw

Xi : the value obtained

$\dot{X}$: average

S : standard deviation

b. Opportunity determines each raw number eith the formula :

$F(Zi) = P(Z \leq Zi)$

c. Determine the proportion by using the formula :

$$S\ Zi = \frac{numbers\ Z1, Z2, \ldots\ldots Zn\ that < Zi}{n}$$

d. Calculating absolute price using the formula : (S Zi) – (S Zi)

e. Determining the largest absolute value which is called Lo and then compare $L_{observed}$ with L table. Normal criteria if $L_{observed} \leq$ L table so the group has normal distribution.

3.5.2 Homogeneity Test

The research conducted homogeneity test. It is done to know whether the sample of the research are homogeneous or not. The research need to calculate the biggest and the lowest variance to know homogeneity. According to Sugiyono (2012, p. 199) the formula to calculate homogeneity is :

$$F_{observed} = \frac{the\ highest\ variance}{the\ lowest\ variance}$$

According to Sugiyono (2012, p. 197) the testing criteria ror the data to be said homogeneity is if $F_{observed} \leq F_{table}$ so the data is homogeny.

3.5.3 Hypothesis Test

To test the hypothesis whether there is a positive correlation between students reading habit and their ability of writing descriptive text, the research used the formula Pearson product moments Arikunto (2010, p. 318) sates that yhe formula can be seen :

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

Explanation:

r_{xy} = Coefficient of correlation between X variable and Y variable

N = Total sample

xy = total x and y

X = independent variabel

Y = dependent variable

XY = Sum of multiplication of X and Y

N = Number of Respondents

X^2 = the sum square of x variable

Y^2 = the sum square of y variabel

TABLE 7
INTERPRETATION OF CORRELATION COEFFICIENT

Value r	**Interpretation**
Between 0,800 until 1,00	High
Between 0,600 until 0,800	Enough
Between 0,400 until 0,600	Medium
Between 0,200 until 1,400	Low
Between 0,000 until 0,200	Very Low (not correlated)

(source Arikunto (2010, p. 319)

The testing criteria are if $r_{observed} \geq r_{table}$ it clear that ($H_{o)}$ is rejected and (H_a) is accepted. It assumed that there is correlation between students reading habit and their ability of writing descriptive text performance. Furthermore, to determine the significance correlation between two variable, the research used t-test by the formula from sugiyono (2012, p. 257) as below :

$$t_{observed} = \frac{rxy\sqrt{n-2}}{\sqrt{1-rxy^2}}$$

Description:

$T_{observed}$: T calculation which is gotten from T table

r_{xy} : the result of correlation between variabel

n : the total of sample

The criteria of significant test is if $t_{observed} \geq t_{table}$, it means that there is significance. If $t_{observed} \leq t_{table,}$ it means that there is no significance. Based on the formula of hypothesis test, the hypothesis in this research will be proven :

H_a : There is significant correlation between students' reading habit and their ability of writing descriptive text at the eleventh grade of SMAN

01 Abung Selatan academic year of 2021/2022.

H_o : There is no significant correlation between students' reading habit and their ability of writing descriptive text at the eleventh grade of SMAN 01 Abung Selatan academic year of 2021/2022