

### **CHAPTER III**

## RESEARCH METHOD

# A. Research Design

This research was a quantitative research. It used correlational method. According to Hartono (2008) correlation is a relationship between two or more variables. In terms of variable number. There are two types of correlation. They are bivariate correlation which means correlation between two variables and multivariate correlation which means correlation that involves more than two variables. Gay et al. (2011) stated that correlational research is done by collecting data in order to find if, and to what degree, an existence of relation occurs between two or more variables. In short, correlational research is to study correlations among variables in which it usually involves the possibility of cause and effect.

This research involved two variables, the first was students' self-esteem symbolized by "X" in which it was the independent variable and the second was their reading ability in understanding recount text symbolized by "Y" in which it was the dependent variable.

### B. Location and Time of the Research

The location of the research was in State Islamic Junior High School Andalan Pekanbaru. This research was conducted on February 2017.

## C. Subject and Object of the Research

The subject of this research was the eighth grade students of State Islamic Junior High School Andalan Pekanbaru, and the object of this research was the students' self-esteem and their reading ability in understanding recount text.

# D. Population and Sample

Singh (2006) has stated that population refers to the entire mass of observation, that is the parent group from which a sample it to be formed. The population of this research was all the eighth grade students of State Islamic Junior High School Andalan Pekanbaru. There were 8 classes which consisted of 270 students.

In order to take the sample, the writer used simple random sampling due to homogenous population. Gay et al. (2011) stated that simple random sampling is used by selecting a sample in which each individual in the population has an equal and independent chance to be selected as the sample. Then, to simplify the process of determining the sample size, the writer used Krejcie and Morgan table. So, the writer took 159 students from the total number of population as the sample by putting all the little rolled-up papers that contained all of the students' names into a box and picking them up one by one until getting 159 students' names.

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Table III.1
The Total Population of the Eighth Grade Students at Islamic Junior High School
Andalan Pekanbaru

Classes	Gender		Total	
Classes	Male	Female	Total	
VIII 1	18	16	34	
VIII 2	22	12	34	
VIII 3	19	14	33	
VIII 4	13	20	33	
VIII 5	17	17	34	
VIII 6	18	16	34	
VIII 7	21	14	35	
VIII 8	16	17	33	
Total Population	144	126	270	

# E. Technique of Data Collection

In order to collect data in this research, the writer used the following techniques:

## 1. Questionnaire

Singh (2006, p.200) believed that "questionnaire is a form of interview on paper". Besides, Siregar (2013) pointed out that questionnaire is used to know attitude and behavior.

It was applied to find out students' self esteem at the eighth grade of State Islamic Junior High School Andalan Pekanbaru. The writer made 30 items based on the indicator of self-esteem by providing options based on Likert Scale. As pointed out by Gay et al. (2011, p.157):

"A Likert Scale requires an individual to respond to a series of statements by indicating whether he or she strongly agrees (SA), agrees (A), is undecided (U), disagrees (D), or strongly disagrees (SD). Each response is assigned a point value, and an individual's score is determined by adding the point values of all the statements. For example, the following point values are typically assigned to positive statements: SA= 5, A= 4, U= 3, D= 2, SD= 1".



Table III.2 **Blue Print of Self-Esteem** 

Item **Indicators** No. **Sub Indicators** Number Self-knowledge The students recognize who they truly are 1,16 2,17 The students know that they can behave in a different way based on situation they are in Self and others The students are able to cooperate with people 3,18 The students maintain their own identity as a 4,19 separate person when involved in natural interdependence of relationship with others The students know appropriate way to express 5,20 their emotions. 3 Self-acceptance The students feel ok about their physical body 6,21 The students accept that making mistakes is a 7,22 natural part in life Self-reliance The students recognize the way to take care of 8,23 their selves emotionally and physically 9,24 The students believe that they master their life by being independent Self-expression The students know others more successfully 10,25 11,26 The students are creative in expressing their selves Self-confidence The students recognize that either their thoughts 12,27 or actions have right to be expressed. The students are ready to accept challenges by 13,28 making choices. The students realize that they have choices on Self-awareness 14,29 how they develop their selves. 15,30 The students are self-aware.

#### 2. **Test**

Brown (2003) stated that a test refers to a method to measure one's ability, knowledge, intelligence, or performance in a supplied area. This technique was to find out how the students' reading ability in understanding recount text was. The writer gave the students 20 questions by using multiple-choice because it is easy to administer and can be scored quickly.

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Table III.3

Blue Print of Reading Ability in Understanding Recount Text

Indicators

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No.	Indicators	Item
		Number
1	The students' ability to recognize unfamaliar word of the recount text.	1,6,11,16
2	The students' ability to recognize various information of recount text.	2,7,12,17
3	The students' ability to recognize referential word.	3,8,13,18
4	The students' ability to recognize main idea.	4,9,14,19
5	The students' ability to recognize language features of recount text.	5,10,15,20

# F. Validity and Reliability of Instrument

# 1. Validity

# a. Validity of the Questionnaire

When we distribute questionnaire we have a purpose to be achieved. To gain our purpose, we should ensure that our measurement tools can measure what they are supposed to measure. In accordance with the statement above, Gay et al. (2011) stated that validity refers to the degree in which a test measures what it is supposed to measure and permits interpretation of scores that are appropriate consequently.

To know whether the data are valid or not, the writer used construct validity and the data obtained were calculated by SPSS 17.0 windows program. The writer examined and noted the differences between  $r_{observed}$  and  $r_{table}$ . Siregar (2013) stated that the item of questionnaire is valid if the value of  $r_{observed}$  is higher than  $r_{table}$  at significance level of 5%.

The result of questionnaire (try out) acquired from 30 items with 5 alternatives indicated that 27 items were valid. It can be seen as follows:

Table III.4 The Analysis of Students' Self-Esteem Ouestionnaire Validity

he Analysis of Students' Self-Esteem Questionnaire Validity					
Item	r <sub>observed</sub>	r <sub>table</sub>	Status	Information	
1	0.75	0.361	Valid	Used	
2	0.420	0.361	Valid	Used	
3	0.601	0.361	Valid	Used	
4	0.464	0.361	Valid	Used	
5	0.750	0.361	Valid	Used	
6	-0.05	0.361	Invalid	Not used	
7	0.876	0.361	Valid	Used	
8	0.807	0.361	Valid	Used	
9	0.677	0.361	Valid	Used	
10	0.700	0.361	Valid	Used	
11	0.853	0.361	Valid	Used	
12	0.487	0.361	Valid	Used	
13	0.602	0.361	Valid	Used	
14	0.555	0.361	Valid	Used	
15	0.542	0.361	Valid	Used	
16	0.654	0.361	Valid	Used	
17	0.750	0.361	Valid	Used	
18	-0.126	0.361	Invalid	Not used	
19	0.592	0.361	Valid	Used	
20	0.566	0.361	Valid	Used	
21	0.506	0.361	Valid	Used	
22	0.613	0.361	Valid	Used	
23	-0.015	0.361	Invalid	Not used	
24	0.821	0.361	Valid	Used	
25	0.503	0.361	Valid	Used	
26	0.668	0.361	Valid	Used	
27	0.621	0.361	Valid	Used	
28	0.708	0.361	Valid	Used	
29	0.365	0.361	Valid	Used	
30	0.750	0.361	Valid	Used	

The data above ware consulted with  $r_{table}$  at significant level of 5% ( $\alpha = alpha = 0.05$ ). There were 30 students; meaning that N=30 with df = N - 2 = 30 - 2 = 28. The writer took df 28, so  $r_{table}$ acquired was 0.361. It could be concluded that 27 items with lower r<sub>table</sub>were chosen and 3 items with higher r<sub>table</sub> were not used. It



means 27 items of self-esteem questionnaire were utilized in this research.

Due to obtaining 27 valid items, the writer remaked the blue print of self-esteem in the following table.

Table III.5
Remaked Blue Print of Self-Esteem

			Item
No.	Indicators	Sub Indicators	Number
1	Self-knowledge	The students recognize who they truly are	1,15
		The students know that they can behave in a	2,16
		different way based on situation they are in	
2	Self and others	The students are able to cooperate with people	3
		The students maintain their own identity as a	4,17
		separate person when involved in natural	
		interdependence of relationship with others	
		The students know appropriate way to express	5,18
		their emotions.	
3	Self-acceptance	The students feel ok about their physical body	19
		The students accept that making mistakes is a	6,20
		natural part in life	
4	Self-reliance	The students recognize the way to take care of	7
		their selves emotionally and physically	
		The students believe that they master their life	8,21
		by being independent	
5	Self-expression	The students know others more successfully	9,22
		The students are creative in expressing their	10,23
		selves	
6	Self-confidence	The students recognize that either their	11,24
		thoughts or actions have right to be expressed.	
		The students are ready to accept challenges by	12,25
		making choices.	
7	Self-awareness	The students realize that they have choices on	13,26
		how they develop their selves.	
		The students are self-aware.	14,27

# b. Validity of the Test

Brown (2003) said that a valid test of reading ability totally measures reading ability itself in which it does not measure previous knowledge in a subject, and some other variables of questionable relevance. Researchers have discussed four kinds of test validity:

content validity, criterion-related validity, construct validity, and consequential validity and they are all interrelated (Gay et al., 2011). In this research, the writer used content validity. According to Brown (2003), if all test items cover all of learning objectives (indicators) the test is content valid. Content validity was used because the test given were based on materials that the students learned.

The writer tried out the test. The items which were too difficult (<0.30) and too easy (>0.70) would be edited. If the index of facility value/ index of difficulty between 0.30 and 0.70 the test items were accepted. Arikunto (2009) stated the formula of item difficulty as drawn below:

 $\mathbf{P} = \frac{B}{JS}$ Where

P : index of difficulty or facility value : the number of correct answers В

: the number of examinees or students JS

The analysis of test validity can be seen in the following tables:

Table III.6 The students' ability to recognize unfamaliar word of the recount text

Variable	Recognize unfamaliar word of the recount text.			N	
Item	1	6	11	16	
Correct answer	19	18	20	16	30
P	0.63	0.6	0.67	0.53	
Q	0.37	0.4	0.33	0.47	



As mentioned before, If the index of difficulty between 0.30 and 0.70, the test items would be accepted. For recognizing unfamaliar word of the recount text, there were 4 items (1,6,11, and 16). Item 1 gained 19 correct answers and the proportion of correct 0.63, item 6 gained 18 correct answers and the proportion of correct 0.6, item 11 gained 20 correct answers and the proportion of correct 0.67, and item 16 gained 16 correct answers and the proportion of correct 0.53. The descriptions show that there was no item having index of difficulty which was lower than 0.3 and higher than 0.7. It could be said that the items of recognizing unfamiliar word of the recount text were accepted.

Table III.7 The students' ability to recognize various information of recount text

Variable	Recognize various information of recount Text.				N
Item	2	7	12	17	
Correct answer	20	18	19	20	30
P	0.67	0.6	0.63	0.67	
Q	0.33	0.4	0.37	0.33	

By analyzing table III.7, there were 4 items (2,7,12, and 17). Item 2 gained 20 correct answers and the proportion of correct 0.67, item 7 gained 18 correct answers and the proportion of correct 0.6, item 12 gained 19 correct answers and the proportion of correct 0.63, and item 17 gained 20 correct answers and the proportion of correct 0.67. Since there was no item having index of difficulty which was lower than 0.3 and higher than 0.7; meaning



that the items of recognizing various information of recount were valid to be used.

Table III.8 The students' ability to recognize referential word

Variable	Recognize referential word			N	
Item	3	8	13	18	
Correct answer	20	18	19	18	30
P	0.67	0.6	0.63	0.6	
Q	0.33	0.4	0.37	0.4	

Not quite different from previous analysis, the items of recognizing referential word had 4 items in which 4 items had the proportion of correct >0.3 and <0.7. It could be concluded that the items were accepted to be used.

Table III.9 The students' ability to recognize main idea

Variable	Recognize main idea			N	
Item	4	9	14	19	
Correct answer	18	18	20	19	30
P	0.6	0.6	0.67	0.63	
Q	0.4	0.4	0.33	0.37	

By analyzing table III.9 above, the writer found that item 4 had 18 correct answers and the proportion of correct 0.6, item 9 had 18 correct answers and the proportion of correct 0.6, item 14 had 20 correct answers and the proportion of correct 0.67, and item 19 had 19 correct answers and the proportion of correct 0.63. After recognizing the data above, it pointed out that the items of recognizing main idea were accepted.



Table III.10 The students' ability to recognize language features of recount text

Variable	Recogn	Recognize language features of recount text				
Item	5	10	15	20		
Correct answer	19	20	18	18	30	
P	0.63	0.67	0.6	0.6		
Q	0.37	0.33	0.4	0.4		

For the last indicator which is about recognizing language features of recount text, there were also 4 items. Item 5 gained 19 correct answers and the proportion of correct 0.63, item 10 gained 20 correct answers and the proportion of correct 0.67, item 15 gained 18 correct answers and the proportion of correct 0.6, and at last, item 20 gained 18 correct answers and the proportion of correct 0.6. It could be said that the items of recognizing language features of recount text were satisfactory.

#### 2. Reliability

## Reliability of the Questionnaire

Brown (2003) said that reliability is a degree in which the result of measurement would be similar as we repeat it to the same students on two different occasions. To sum up, the key of reliability is if an instrument can be interpreted consistently in two different situations. Siregar (2013) stated that reliability test can be done by having external and internal ways. In this research, the writer used internal consistency in which the writer tried out the questionnaire once and analyzed each item by using cronbach alpha technique.



According to Sugiyono (2009), cronbach alpha technique can be used for interval data.

The categories below are the level of internal consistency Cronbach's Alpha (stated in Riadi, 2016, p.239):

Table III.11
A Commonly Accepted Rule of Thumb for Describing
Internal Consistencyby Using Cronbach Alpha

Internal Consistency by Using Cronbach Alpha			
Cronbach Alpha Internal Consistency			
>0.90	Very highly reliable		
0.80-0.90	Highly reliable		
0.70-0.79	Reliable		
0.60-0.69	Marginally/minimally reliable		
< 0.60	Unacceptably low reliability		

The reliability of the questionnaire was processed by SPSS 17.0 program. It can be seen as follows:

Table III.12 Cronbach Alpha Table Reliability Statistics of Students' Self-Esteem Questionnaire

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.931	.940	30

Based on analysis above, the value of Cronbach's Alpha is 0.931 which is higher 0.60. It could be said that the questionnaire is reliable. Due to 0.931>0.90, the level of the reliability was very high.

## **b.** Reliability of the Test

According to Gay et al. (2011), 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 to measure the consistency and the quality of the test score. To know whether the test is reliable or not, the writer calculated the data obtained by using Statistical Product and Service Solution 17 windows program. The test reliability can be analayzed by table below:

Table III.13
Reliability Statistics of Students' Reading Ability in Understanding Recount Text

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.601	.636	20

In terms of good classroom achievement tests, Arikunto (2009) provided level of test reliability which is illustrated in the following table:

TableIII.14
Test Reliability Level

No	Reliability	Level of test reliability
1	0.71-1.0	Excellent
2	0.41-0.70	Good
3	0.21-0.40	Acceptable
4	0.0-0.20	Inadequate

The Cronbach's Alpha value was 0.601 which meant that test reliability level was defined as good level.

# G. Technique of Data Analysis

To analyze the data, the writer used Pearson Product Moment Correlation on SPSS 17.0 program. According to Hartono (2008), product moment correlation technique is used when the two types of the data correlated are interval. Besides, it

is used to find out the correlation between two parametric variables and linear relationship between students' self-esteem and their reading ability in understanding recount text.

In this research, the writer wanted to find positive linear correlation. Singh (2006) also pointed out that correlation between two or more quantifiable variables could be positive or negative. He said that it is positive correlation when an increase (or decrease) of a variable is followed by an increase (or decrease) of the other.

Sudijono (2008) pointed out the formula to analyze the percentage of students' self-esteem as follows:

$$P = \frac{f}{N} \times 100 \%$$

Where:

P = Number of percentage

F = Obtained frequency

N = Number of frequency/sample

Riduwan (2010) indicated the scale to clasify the gained percentage of questionnaire as follows:

- 1. 81% 100% categorized into very high level
- 2. 61% 80% categorized into high level
- 3. 41% 60% categorized into high enough level
- 4. 21% 40% categorized into low level
- 5. 0% 20% categorized into very low level

To know the students' reading ability in understanding recount text, the writer used the idea of Sugiyono (2009) as illustrated below:

Me 
$$=\frac{\Sigma fixi}{\Sigma fi}$$

Where:

fixi

Me = Mean

Σfi = Number of sample

= Multiplication of fi (frequency) and xi (class mark) in each

interval

To know if there is a correlation between students' self-esteem and their reading ability in understanding recount text, the writer used Pearson Product Moment Correlation on SPSS 17 windows program,

Statistically, the hypotheses are (Siregar, 2013, p.350):

 $H_o$  is accepted if sig  $\geq \alpha$  : there is no significant correlation between

students' self-esteem and their reading ability

in understanding recount text.

 $H_a$  is accepted if sig  $< \alpha$ : there is a significant correlation between

students' self-esteem and their reading ability

in understanding recount text.