

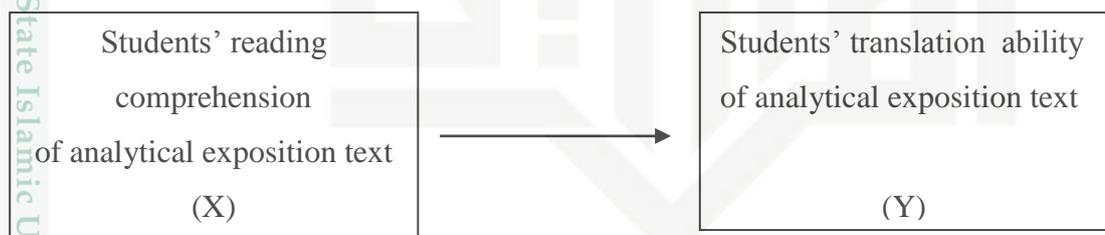
CHAPTER III

RESEARCH METHOD

A. The Research Design

The design of this research is a correlational research. Pallant (2010, p. 121) states, “Correlation analysis is used to describe the strength and direction of the linear relationship between two variables”. In correlational research designs, Creswell (2012, p. 338) states that investigators use the correlation statistical test to describe and measure the degree of association (or relationship) between two or more variables or sets of scores.

This research consists of two variables. The first is students’ reading comprehension of analytical exposition text as the independent variable (X) and the second is students’ translation ability as the dependent variable (Y). The design of the research is pictured the following diagram:



According to Fraenkel and Wallen (2009, p. 39), a variable is a concept a noun that stands for variation within a class of objects. The first variable is independent variable which is a stimulus variable or input operates either within environment to affect his behavior. It is the factor which is measured, manipulated, or selected by the researcher to determine its relationship to the observed phenomena (Singh, 2006, p. 63). The second variable is dependent

variable which means response variable or output. It is an observed aspect of the behavior of an organism that has been stimulated (Singh, 2006, p. 63). It is considered dependent because its value depends upon the value of the independent variable.

B. The Location and Time of the Research

The location of the research is MA Ummatan Washatan Pesantren Teknologi Riau. Maximally, this research was conducted on July, 2017.

C. The Subject and Object of the Research

The subject of this research is the eleventh grade students of MA Ummatan Wasathan Pesantren Teknologi Riau. Furthermore, the object of the research is the correlation between students' reading comprehension and students' translation ability of analytical exposition text.

D. The Population and the Sample of the Research

1. Population

The population of this research is the students at the eleventh grade of MA Ummatan Washatan Pesantren Teknologi Riau in 2017-2018 academic years. The total of the population are 46 students which are divided into two classes. There are one science class and one social class.

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Table III.1
The Total Population of the Eleventh Grade Students
of MA Ummatan Wasathan Pesantren Teknologi Riau

No.	Classes	Population
1.	XI Science	24
2.	XI Social	22
Total		46

2.Sample

According to Fraenkel and Wallen, (2009, p. 102), for correlational studies, a sample of at least 40 is deemed necessary to establish the existence of a relationship. Because the population is less than 100 students, the researcher decided to take all students as the sample. When the researcher did the research, all students were in the school. Therefore, the sample of this research is 46.

E. The Technique of Collecting Data

The researcher collected the data by using test. Ary et al (2010, p. 201) says that, "A test is a set of stimuli presented to an individual in order to elicit responses on the basis of which a numerical score can be assigned." Moreover, Brown (2001, p. 384) gives the definition of test as a method of measuring a person's ability or knowledge in a given domain. In this research, the data was collected by applied two tests, they are:

1. Test of Reading Comprehension

To collect the data of students' reading comprehension of analytical exposition text, the researcher did a test as an instrument. The researcher used objective test which the researcher made multiple choices

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(a,b,c,d,e) to get the students' reading comprehension score of analytical exposition text. It was consisted of 25 items. The multiple choices showed the ability of the students' reading comprehension of MA Ummatan Washatan Pesantren Teknologi Riau.

Table III.2 The Blue Print of Reading Comprehension Test

NO	Indicators	Number of Items
1.	The students are able to identify main idea of analytical exposition text	1,5,10,17,19
2.	The students are able to identify arguments of analytical exposition text	6,9,16,20,21
3.	The students are able to understand word meaning of analytical exposition text	3,7,12,15,23
4.	The students are able to identify the generic structure of analytical exposition text	4,8,18,22,24
5.	The students are able to find communicative purpose from reading text of analytical exposition text	2,6,11,13,25

After the test, the researcher took the total score from the result of reading comprehension test. According to Arikunto (2013:281), the classification of student's reading comprehension can be seen below:

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Tabel III.3
The Classification of Students' Score

Score	Categories
80-100	Very good
66-79	Good
56-65	Enough
40-55	Less
30-39	Fail

2. Test of Students' Translation ability

The test that used in translation ability is subjective test. Subjective test is designed to measure students' translation ability. The translation ability test is a standardized test is taken from the exercise of the students' text book the title is **"Developing English Competencies"** for eleventh grade about analytical exposition text. The students are asked to translate as much as 4 paragraph of analytical exposition text. The researcher chose this because it was appropriate to the syllabus.

The students' ability in translation of analytical exposition text can be measured by using Translation Assessment Criteria which the researcher got it from the book of "Testing and Assessment in Translation and Interpreting Studies (2009)" that written by Claudia V. Angelelli and Holly E. Jacobson.

Tabel III.4
Translation Assessment Criteria

ASPECT	SCORE	EXPLANATION
FLUENCY	5	Very fluent and clear plot of story
	4	Fluent enough and clear plot of story
	3	Less fluent and not clear plot of story
	2	Not fluent, unstructured and difficult to understand
STRUCTURE OF LANGUAGE	5	Correct and appropriate
	4	Sometimes not appropriate but it doesn't influence with the meaning
	3	Appropriate enough and influence the Meaning
	2	Difficult to understand
COMPREHENSION OF THE MEANING	5	Very clear and effective
	4	Clear enough and effective
	3	Clear but not effective
	2	Not too clear
CHOICE OF WORDS	5	Very appropriate
	4	Appropriate
	3	Less appropriate
	2	Not appropriate

F. The Techniques of Data Analysis

In order to find out whether there is a significant correlation between students' reading comprehension and their translation ability, the data was analyzed by SPSS 17.00 program on Pearson Product Moment formulate. Pallant (2010:129) states that if the significance 2-tailed value is bigger than 0.05 ($p >$

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0.05) this indicates that there is no violation of the assumption of equality of variance and that equal variances are assumed for variable concerned.

To determine the level of correlation between two variables, the researcher used the following categories from Hartono (2008:80)

Table III.5
The Interpretation of Correlation Coefficient

No	Coefficient Interval	Level of Correlation
1	0.00-0.200	Very Low
2	0.200-0.400	Low
3	0.400-0.700	Medium
4	0.700-0.900	Strong
5	0.900-1.000	Very Strong

G. The Validity and Reliability of The Test

To see the validity and reliability of the test, the researcher did the pilot study by doing a try out to the eleventh grade of MA Ummatan Wasathan Pesantren Teknologi Riau. After doing the pilot study, the researcher analyzed the validity and reliability of the test by using SPSS Version 17.0. To see the validity of the test, the researcher used Pearson Product Moment Correlation (r_{value}). Moreover, to see the reliability of the test, the researcher used Cornbach's Alpha.

1. Validity of Students' Reading Comprehension

In this research, the researcher used content validity which is composed into two kinds of validity (sampling validity and item validity). Item validity is concerned about examining each individual item to determine if it measures the content area taught (Lodico, 2006, p. 93). In other words, the test items measure the content or objectives for the course

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or unit being taught. The test measured the subject which was taught by the teacher to the eleventh grade students at school, they were about reading comprehension of analytical exposition text. To find out the validity of the test item, the researcher used SPSS Version 17.0 by comparing the r_{value} to r_{table} . If $r_{\text{value}} > r_{\text{table}}$, the test item is considered as a valid item. However, if $r_{\text{value}} < r_{\text{table}}$, the test item is considered invalid. The sample of the pilot study was 23 students. Thus the degree of freedom ($df = N - 2$) at the significance level of 5% is 0.4132. The validity result of students' reading comprehension of analytical exposition text can be seen below:

Table III.6
The Validity of Students' Reading Comprehension of Analytical Exposition Text

Item	r_{value}	r_{table}	Category
1	0.5000	0.4132	Valid
2	0.416	0.4132	Valid
3	0.447	0.4132	Valid
4	0.435	0.4132	Valid
5	0.441	0.4132	Valid
6	0.431	0.4132	Valid
7	0.548	0.4132	Valid
8	0.634	0.4132	Valid
9	0.467	0.4132	Valid
10	0.466	0.4132	Valid
11	0.432	0.4132	Valid
12	0.487	0.4132	Valid
13	0.487	0.4132	Valid
14	0.492	0.4132	Valid
15	0.424	0.4132	Valid
16	0.474	0.4132	Valid
17	0.430	0.4132	Valid
18	0.447	0.4132	Valid
19	0.448	0.4132	Valid
20	0.467	0.4132	Valid
21	0.424	0.4132	Valid
22	0.558	0.4132	Valid
23	0.430	0.4132	Valid

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The table above shows the validity of students' reading comprehension of the try out test. Based on the table, all questions are valid because $r_{\text{value}} > r_{\text{table}}$. Because all items are valid, the researcher used all the items to be tested to the sample.

Based on the table above, it can be seen that the all items are valid because $r_{\text{value}} > r_{\text{table}}$. So, the researcher used all the items to be tested to the sample.

2. Validity of Students' Translation Ability

The test used to the students' translation ability should be valid and Reliable. The test can be valid if it measures accurately whether the test is appropriate, meaningful, and useful (Hughes, 2003). In this research, the researcher used content validity to know the validity of translation ability test Alderson states that to analyze content validity of the test, we have to compare the test with the test's specification like syllabus, curriculum or domain specification. Thus, the test was given based on material studied by the students. The material of the test was taken from the syllabus of the eleventh grade students at MA Ummatan Wasathan Pesantren Teknologi Riau.

3. The Reliability of Students' Reading Comprehension

Fraenkel and Wallen (2009, p. 154) state that reliability refers to the consistency of the scores obtained—how consistent they are for each

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individual from one administration of an instrument to another and from one set of items to another. A test may be reliable, but it is not valid. However, a valid test will be commonly reliable.

A reliable test is consistent and dependable. The issue of reliability of a test may best be addressed by considering a number of factors that may contribute to the unreliability of a test. The 3 common factors according to Arikunto (2011, p. 87) are:

- a. The things which are related to the test itself such as the length of the test and the questions.
- b. The things which are related to the person of taste.
- c. The things which are related to the test implementation.

In order to see whether the test is reliable or not, the researcher used Cronbach's Alpha by using SPSS Version 17.0. The test is categorized reliable if the Cronbach's Alpha > 0.6 .

In addition, Cohen (2007, p. 506) divides the categories of reliability test as follows:

Table III.7
The Level of Reliability

NO	Reliability	Level of Reliability
	>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

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Bryman and Cramer as cited in Cohen (2007: p. 506) suggest that the reliability level is acceptable at 0.8, although others suggest that it is acceptable if it 0.67 or above.

For X variable (Reading Comprehension), the researcher gave try out to the 25 students. After getting the result, the researcher used *Cronbach's alpha* to find reliability of the test trough SPSS 17.00.

The following table is the reliability test of students' reading comprehension of analytical exposition text:

Table III.8
The Reliability of Students' Reading Comprehension of Analytical Exposition Text

Reliability Statistics

Cronbach's Alpha	N of Items
.851	25

Based on the table above, it can be concluded that the instrument of students' reading comprehension of analytical exposition text is in highly reliable because Cronbach's Alpha (0.851) > 0.6.

Daryanto (2007, p. 180) points out the formula of item difficulty as drawn below:

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

- Description: P : Difficulties index
- B : The number of students who get correct answers
- N : Total sample

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The standard of level difficulties can be seen below (Hamzah and Koni, 2012, p. 175):

Table III.9
Standard Level Difficulty Index

Difficult Index	Category
0,00 – 0,30	Difficult
0.31 – 0.70	Average
0.71 – 1.00	Easy

The researcher referred to the validity and reliability of the reading comprehension instruments. Therefore, the researcher decided to use all items of the instruments to be tested to the students.

4. The Reliability of Students' Translation Ability

In the translation test, the researcher used inter-rater reliability formula because the researcher used two raters in assessing and giving the score of students' ability in translate analytical exposition text. The score given by rater 1 was correlated to the score given by rater 2. The following table describes the correlation between scores given by rater 1 and rater 2 by using Pearson Product Moment through SPSS 17 version:

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Table III.10
The correlation Score Between 2 Raters

Correlations		RATER1	RATER2
RATER1	Pearson Correlation	1	.874**
	Sig. (2-tailed)		.000
	N	46	46
RATER2	Pearson Correlation	.874**	1
	Sig. (2-tailed)	.000	
	N	46	46

** . Correlation is significant at the 0.01 level (2-tailed).

From the table III.10, it was found that the correlation score between rater 1 and rater 2 were 0.874. According to Pallants (2010:21), the formula to find out the effect size of the two variables as follows: Coofecient effect = $r^2 \times 100\%$, $r =$ Pearson Correlation $(0.874)^2 \times 100\% = 77\%$.

Table III.11
The Reliability of Translation Ability Test

Reliability Statistics	
Cronbach's Alpha	N of Items
.925	2

From the table above, it was obtained that the value of *Cronbach's Alpha* is 0.925. It means that the items of the test were very high reliable