

Chapter Three

Methodology

This chapter discusses the methodology used by the researcher in this study. This chapter discusses the methodology. There are seven sections of the methodology namely research design, research setting, population and sample of the research, research instrument, data collection procedure, validity and reliability, and data analysis. Several theories are also included in this chapter to support the methodology in this study.

Research Design

This study used quantitative research method. The researcher chose quantitative research method because this method is suitable to answer the research questions which aim to know students' frequency in reading English short stories, students' simple past tense mastery, and the correlation of both reading frequency and simple past tense mastery. Besides, quantitative research method was appropriate to be used since the researcher wanted to present numerical data and statistical data of two variables. This method used quantitative research design because in this study was correlational research design.

According to Creswell (2012), in correlational research design, the researcher uses correlational statistical test to describe and measure the relationship between two or more variables and set of scores. The type of correlational design that was used in this research was explanatory design. Creswell (2012) stated that an explanatory research design is a correlational

design in which the researcher is interested in the extent to which two variables or more. This study used two variables.

Research Setting

The study was held on English language education department of an Islamic private university at translating class. The first reason why the researcher choose this setting was that there because lecturer using short stories in teaching reading and translating class. For the second reason, Translating class provided some activities which could show the students' ability on simple past tense and reading English short stories. The other reason was the lecturer gave a test about reading translation which were the reading used short stories. in addition, in a short story applied simple past tense. Hence, this class is suitable with this study. The last reason was because the researcher had the access to conduct research in this department. The data collection had taken on september 2019.

Population and Sample of the Research

For the population criteria, the participants should be part of Translating class at English Language Education Department. The population of the research was students from translating class. The number of research population was 80 students. Which are the class divided into two classes. In each class consists of 40 students. To gain the data, the researcher used convenience sampling that were filled 63 data that filled by participants from the population was 80 students at Translating class. In this case, just few of students who filled the questionnaire and the test. Hence, the researcher only got the data 63 respondents.

Research Instrument

The data collection instruments used in this research includes the questionnaire and the test. Wilson and Mcleand as cited in Cohen et al (2011) stated that the questionnaires are widely used, and instruments are used to provide structured, often numerical data which can be managed without the presence of the researcher and are often analysed to collect survey information (p. 377). Therefore, the questionnaire will be used to gather the data for frequency of reading English short stories.

The first instrument used questionnaire. This instrument was used to investigate the students' reading frequency. The questionnaire was distributed to students of Translating class. Hence, questionnaire items are adopted from Zulfirnan (2010). Hence, the researcher set the questionnaire. The questionnaire contains 6 items. Moreover, the questionnaire ratings scales include always, often, sometimes, seldom, and never.

The second instrument was a test. This test used multiple-choice as a form of assessment. By using multiple choices, the researcher wanted to find out the students' simple past tense mastery. The total grammar test was 20. The test measured by containing the elements of simple past tense. There are *did, were, was, why did, what did, where did, when did, did not, regular verb, irregular verb*.

The test was conducted to get the students' scores. Then, the researcher analysed the score of students to answer the study. The test as an instrument was adopted from Azar (1999) in grammar book entitled "understanding and using English grammar third edition and English sentence structure book" by

Krohn (1971). This test was to measure the students' grammar mastery practiced by Yulita (2017) in her research entitled "EED of UMY students' ability in using tenses-aspects".

Data Collection Procedure

In conducting this research, the researcher did several steps to collect the data. Firstly, the researcher prepared the questionnaire and the test. The instrument which was adopted from Zulfirnan (2010). The questionnaire and the test items had been checked by experts. Then the researcher determined two translating classes to become research respondents. Additionally, the questionnaires were distributed to students who involved the Translating class.

To collect the data, the researcher used share the link from google form to translating students. In distributed the link of Google form, the researcher asked the students who knew and joined in Translation class. The researcher asked the students to become a participants and the researcher asked the participants to share the linked on social media such as WhatsApp and line. Besides, the researcher checked the data from the research. The researcher sends the message all students who did not fill the data yet. The researcher need the data about a week to collect the data.

Validity and Reliability

In this part, a questionnaire and a test were assessed by using validity and reliability. The data would define the validity or not to distributed to respondents. Then, the data would distribute to the respondents. The researcher also presented the level of reliability on the questionnaire and the test.

The criteria to identify the validity are low < 0.4 , medium $0.4 - 0.8$ and high > 0.8 . Based on the criteria, the researcher could determine the items was valid. The item was valid if the score is is more than 0.4. These criterions were used to check whether the data are valid or not. Based on the result from test, the researcher found out six items were highly valid and 1 item was medium validity . The test shows that there was no item with low validity. Hence, all of the questionnaire items were valid. So, the researcher used all the items to get the data. The data were presented in the table below:

Table 3.2 Table Analysis of Questionnaire

Items	Expert 1	Expert 2	Expert 3	S1	S2	S3	Sum	V	Validity Category
1	4	4	4	3	3	3	9	1.00	High
2	3	3	4	2	2	3	7	0.78	Moderate
3	4	4	4	3	3	3	9	1.00	High
4	4	4	4	3	3	3	9	1.00	High
5	4	4	4	3	3	3	9	1.00	High
6	4	4	4	3	3	3	9	1.00	High

Tabel aiken test table for validity checking

Validity of grammar test. In making this test, researcher used the expert judgment to analyse the grammar section test. Experts analysed the validity of this test. After consulting with experts, they assumed that the test has fulfilled the validity. Then, they allow to distribute the test with several considerations such as

the form of the question to be used as a test. In grammar test also used aiken test to check the tests were valid or not. Based on the result from test, the researcher found out 14 items were high validity, and 6 items were medium. The test shows that there was no item with low validity. Hence, all of the questionnaire items were valid. So, the researcher used all items to get the data. The data was presented below:

Table 3.3 Table Analysis of Grammar Test

Items	Expert 1	Expert 2	Expert 3	S1	S2	S3	Sum	V	Validity Category
1	3	3	4	2	2	3	7	0.78	Moderate
2	4	4	4	3	3	3	9	1.00	High
3	3	3	4	2	2	3	7	0.78	Moderate
4	4	4	4	3	3	3	9	1.00	High
5	3	3	4	2	2	3	7	0.78	Moderate
6	4	4	4	3	3	3	9	1.00	High
7	4	4	4	3	3	3	9	1.00	High
8	4	4	4	3	3	3	9	1.00	High
9	3	3	3	2	2	2	6	0.67	Moderate
10	4	4	4	3	3	3	9	1.00	High
11	4	4	4	3	3	3	9	1.00	High

12	4	3	4	3	2	3	8	0.89	High
13	4	4	4	3	3	3	9	1.00	High
14	4	4	4	3	3	3	9	1.00	High
15	3	3	3	2	2	2	6	0.67	Moderate
16	4	3	4	3	2	3	8	0.89	High
17	3	4	3	2	3	2	7	0.78	Moderate
18	4	4	4	3	3	3	9	1.00	High
19	4	3	4	3	2	3	8	0.89	High
20	4	3	4	3	2	3	8	0.89	High

Table aiken test table for validity checking

Reliability of Instrument

Reliability is a value to reveal whether the instrument in the study used to collect the data can be trusted or not. Reliability values are shown based on the level of scores obtained from Cronbach Alpha technique analysis using SPSS.

Table 3.4. The Criteria of Reliability

Cronbach's Alpha Score	Category
>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 Criteria of Reliability (Cohen et al, 2011).

Based on the table above, the data item was reliable if the score is 0.70 or higher. If the score is under of 0.60, the data item is not reliable. The researcher checked whether the data was reliable or not by using statistical application program.

The result of reliable analysis on statistical application program shows that all of questionnaire items were reliable. There were 6 questioner items used in this research. The reliability statistic is 0.914 which included in reliable category with interval >0.90. It means that all questioner items were very higly reliable. Hence, all questionnaire items could used to get the data. The result of reliability test is presented below:

3.5 Reliability Statistics

Cronbach's Alpha	N of Items
.914	6

Data Analysis

This study used two data analysis, descriptive statistics and inferential statistics. Descriptive statistics displayed the score of reading frequency and simple past tense mastery. The descriptive statistics deals the mean as the central

tendency of group values, median as the score from the lower to highest values, and mode as the highest frequency of the values. It is in line with Cohen, Manion, and Morrison (2011) who stated that “Descriptive statistics include frequencies, measure of dispersal (Standard deviation), measures of central tendency (means, modes, medians), standard deviations, crosstabulations and standardized scores” (p. 622). In this study, the first and second research questions were analyzed using descriptive statistics. The first question is “How frequent do the students read English short stories?” and the second research question is “How is the students’ simple past tense mastery?”. Then, after gaining all the values from the descriptive statistics analysis, the research used inferential statistic to display the correlation between reading frequency and simple past tense mastery. Inferential statistics was used to do a normality test.

In addition, this data analysis used class interval to determine class width, class size, and class length of this research. According to Supranto (2000), the formula to determine class width is:

$c = \frac{Xn - X1}{K}$	<p>C = class width, class size, class length</p>
$c = \frac{30 - 6}{5}$	<p>Xn = Maximum value</p>
$c = 4.8$	<p>X1= Minimum value</p>
	<p>K = The number of class</p>

From the formula above, the researcher found out the class width was 10.5. It was used as the interval to categorize the level of frequency reading English short stories. The result of the interval value was shown below:

Table 3.6. Interval Value

Scale	Description
$25.2 \leq x < 30$	Very high
$20.4 \leq x < 25.2$	High
$15.6 \leq x < 20.4$	Moderate
$10.8 \leq x < 15.6$	Low
$6 \leq x < 10.8$	Very low

To answer the second research question, the researcher used the formula of class interval. It was used to determine the minimal and maximal simple past tense score. The data had 20 items. Every item has 5 point; hence the total point is 100. The scores of the students' mastery in the test are classified to determine their level of their mastery, the classification is as follows:

Table 3.7 The Classification of Students' Simple Past Tense Mastery

Classification	Category
80 – 100	Good to excellent
60 – 79	Average to good
50 – 59	Poor to average
0 – 49	Poor

Harris in Asni (2007)

The last research question aimed to know the correlation of two variables by using inferential statistics. This research used normality test to check whether the data is normal or not. If the data of this research is normal, the researcher has to perform a correlational test. The data is called correlated if the significant value of the data is > 0.05 , but if the significant value of the data is < 0.05 it means that there is no correlation. According to Creswell (2012), “the correlational design, it provides an opportunity to predict scores and explain the relationship among variables” (p.338). There are standard values to measure the strength of correlation between two variables. According to Sugiyono (2003), there are five criteria, which show the strength of the correlation between variables.

Table 3.8 The Criteria of Correlation

No	Internal of Coefficient	The Level of Correlation
1	0.80 – 1.000	Very high
2	0.60 – 0.799	High
3	0.40 – 0.599	Moderate
4	0.20 – 0.399	Low
5	0.00 – 0.199	Very low

Based on the table above (3.8), if the correlational range is 0.00 - 0.199, the item has a very low correlation. If the correlation range is between 0.20 – 0.399, the item has a low correlation. Then, if the correlational range is between 0.40 – 0.599, the item has a moderate correlation. After that, if the correlation range is between 0.60 – 0.799, the item has a strong correlation. The last, if the correlation range 0.80 – 1.000, the item has a very strong correlation.