CHAPTER III

METHODOLOGY OF RESEARCH

This chapter, it would be presented the methodology of this research that consists of method of research, population and sample, design of research, variable of research, technique of collecting the data, technique of analyzing the data and hypothesis verification. For more presentation is as follows:

3.1 Method of Research

The method used in this research was quaisi experiment method. Sugiono (2009:114) explains that quasi experiment is good for research because sample used of this research obtain the treatment. This method is used based on some reasons such economical reason, time and strength. Quasi experiment design used to find out whether or not story face strategy influences the students’ ability in reading comprehension?

3.2 Population and Sample

3.2.1 Population

The population of this research was the second grade class of SMA Negeri 1 Boliyohuto.

Tabel 1. Population Distribution of Each Class

<table>
<thead>
<tr>
<th>No</th>
<th>Class</th>
<th>Students</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>XI IPA 1</td>
<td>29</td>
</tr>
<tr>
<td>2.</td>
<td>XI IPA 2</td>
<td>30</td>
</tr>
</tbody>
</table>
### 3.2.2 Sample

Sugiono, (2009: 118) says that “sample is the part of population “. Based on population above the purposive sampling is used. In this research, as the sample of research namely class XI IPA3 which consisted of 31 students, they were representative to find the aim of my research and they were some variant level such as high, medium and lower students.

### 3.3 Design of Research

This design of research is supported by Sugiono as follows:

\[
\begin{array}{c}
O1 \\
X \\
O2
\end{array}
\]

Notes:

\- \(O1\) = pre test
\- \(X\) = Treatment
\- \(O2\) = Post test


### 3.3.1 Pretest

The pretest was given before treatment. It was to know the students’ achievement before treatment. The narrative texts that were given consists of five texts with title The three sheiks and Queen of Arabia, Lake Toba, Cinderella, The Lion and The Mouse and Momotaro. Students read the text and answered 22 of
questions. The aims of this test were to know the students’ basic comprehending reading narrative text before treatment.

3.3.2 Treatment

Treatment is the way to apply the story face strategy to solve students’ difficulties in reading learning process. The students had 2 x 45 minutes or 90 minutes for each meeting; this treatment conducted for six times, the different reading is used for each treatment, the story face strategy was conducted after reading. The description about treatment can be explained bellow:

a. In the first meeting, students were taught the narrative text and then they were explained about the strategy. They were divided into some groups. Then, the narrative text with title “the little red hen” was given, every student read the text and discussed about the element of story. Students applied the strategy, put the elements of text and wrote in story face strategy and the last is they explained to other students. After discussion activity, they wrote down in their book the correct answer. In the last section, the way they evaluated.

b. The second meeting, the text with titles “the old man and his camel”, by using story face strategy and the step of treatment was like in first meeting.
c. The third meeting the text gave with title “snow white with the seven dwarfs”, by using story face strategy and the step of treatment like in first meeting.

d. The fourth meeting the text gave with title is “monkey and crocodile”, by using story face strategy and the step of treatment like in first meeting.

e. The fifth meeting “King Lir was taught after they read, students determined elements on picture of story face which were stuck on the wall. After discussion activity, the way they evaluated

f. The last “hunting” was taught. The step of treatment like in five meeting.

3.3.3 Post test

In the post test, the kind of test in post – test like in pre – test. The test consists of five texts with title the three sheiks and Queen of Arabia, Lake Toba, Cinderella, The Lion and The Mouse and Momotaro. Students read the text and answer 22 of questions. The test was given in order to know whether students’ ability in reading comprehension was improved or not.

3.4 Variable of Research

In this research, the variables used are as follows:

1. Story Face Strategies is independent or variable X

2. Students’ ability in reading comprehension as dependent or variable Y.

3.5 Technique of Collection the Data

The data of this research were collected by using multiple choice tests. Djiwandono (2008: 42) explained the advantages’ of multiple choice
wide range of material, the answer is based on examination of each items. Total of the test were 22 questions. Each correct answer gets score 1 and 0 is for incorrect answer. Some indicators used in this research are blue print.

### Table 2. Blue Print

<table>
<thead>
<tr>
<th>No</th>
<th>Indicators</th>
<th>Number of item</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Identify the main idea of text</td>
<td>2, 9, 11, 15, 18</td>
</tr>
<tr>
<td>2.</td>
<td>Identify Conflict of narrative text</td>
<td>1, 7, 13</td>
</tr>
<tr>
<td>3.</td>
<td>Identify Event of the text</td>
<td>4, 6, 14, 16, 20</td>
</tr>
<tr>
<td>4.</td>
<td>Identify The case in the text</td>
<td>5, 12, 22</td>
</tr>
<tr>
<td>5.</td>
<td>Identify Argument in the text</td>
<td>8, 21</td>
</tr>
<tr>
<td>6.</td>
<td>Identify Rethorich steps and communicative purpose of the text</td>
<td>3, 10, 17, 19</td>
</tr>
</tbody>
</table>

Table shows the total question was validity testing. total question before validity testing is 30 questions and after that becomes 22 questions. The number that does not valid is 1, 2, 9, 13, 19, 20, 21, 26.

### 3.6 Technique of Analyzing the Data
There are some steps used in analyzing the data, validity testing, reliability testing, normality and testing hypothesis. These steps are explained as follow:

**3.6.1 Validity Testing**

Validity test used to know whether the test valid or not. (Arikunto, 1998: 160) stated that validity is measurement that shows the high degree of validity. On the other hand, the instrument that is more invalid means that it has the low degree of validity. The formula is as follows:

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

(Sudjana 2002 : 361)

Note

- **r<sub>xy</sub>** : Correlation coefficient
- **N** : Number of Sample
- **X** : Score of each item
- **Y** : Total score of all item

**3.6.2 Reliability Testing**

Arikunto (1998: 168) state that reliability refers to an understanding that an instrument is really accurate to be used in collecting the data because that instrument has been good.
\[ R_{11} = \left( \frac{K}{K-1} \right) \left( \frac{M-(K-M)}{K V_t} \right) \]

(Sudjana 2002: 466)

Notes:

\( R \): Reliability of an instrument

\( K \): The number of items

\( V \): the total of variants

\( M \): the average of the score

3.6.3 Normally testing

The normality testing is the prerequisite of using t-testing. The aim of the normality analysis is to know whether the data is normal or not.

Observation \( X_1, X_2, X_3 \ldots \), \( X_n \) is become deviation \( Z_1, Z_2, Z_3, \ldots \), \( Z_n \) by using the formula as follow:

\[ Z_1 = \frac{X - X}{S} \]

Note:

\( Z_i \): Standard of value

\( X \): The total of the score

\( S \): Total of score deviation

a. For every definition uses distribution uses distribution of normal and then counted the deviation by using the formula as follow:

\[ F(Z_i) = P (Z \leq Z_i) \]
b. The next procedure is counting proportion $Z_1, Z_2, Z_3, \ldots Z_n$ which is small or similar with $Z_i$. If this proportion is $S(Z_i)$

$$S(Z_i) = \frac{\text{Amount } Z_i, Z_2, Z_3 \ldots \ldots Z_n \leq Z_i}{N}$$

c. Count the deviation of $F(Z_i) - S(Z_i)$ and then set the absolute value.

d. Take the big value among the absolute value deviation, which is called as $L_o$.

e. The criterion of analysis, the data is normal distribution if $L_o \leq L_{list}$.

(Sudjana, 2002: 466-467)

### 3.6.4 Testing Hypothesis

Statistic – testing formula used to verify the hypotheses of this research is:

$$t = \frac{x_1 - x_2}{\sqrt{\frac{1}{n_1} + \frac{1}{n_2}}}$$

$$S = \frac{(n_1 - 1)s_1^2 + (n_2 - 1)s_2^2}{n_1 + n_2 - 2}$$

(Sudjana 2002: 239)

Notes:

$X_1$ : The average value of pre test
X2 : The average value of post-test
n1 : The number of samples of pre-test
n2 : The number of samples of post-test
S1 : Standard deviation of pre-test
S2 : Standard deviation of post-test
S : Standard deviation of pre-test and post-test

3.7 Hypothesis Verification.

H0: Story face strategy can influence students’ ability in reading comprehension
H1: Story face strategy can not influence students’ ability in reading comprehension.

- The hypothesis (Ho) will be accepted if \( t_{\text{count}} \leq t_{\text{list}} \)
- The hypothesis (H1) will be accepted if \( t_{\text{count}} \geq t_{\text{list}} \)