## CHAPTER III

## METHOD OF RESEARCH

## A. Research Design

This research was an experimental research. According to Cresswell (2008) experiment is testing an idea (or practice or procedure) to determine whether or not it influences an outcome or dependent variable' (p.299). In this research, the writer used quasi experimental design. Creswell (2008) also stated that quasi experiment includes assignment, potential threats of maturation,selection,mortality, but not random assignment of participants to groups because the experimenter cannot artificially create groups for the experiment' (p.310). Therefore, the writer used quasi experiment due to the limitation of the participants that consisted of two classes only.

There were two variables in this research, the first variable was using Story Telling strategy as independent variable, the second was students' reading comprehension as dependent variable. In conducting the research, the seventh grade students at State Junior High School 20 Pekanbaru participated. The writer divided classes into two groups. One became a control class and another class became the experimental group.

The experimental group was treated by using Story Telling strategy and the control group was treated without using Story Telling strategy. Both of these classes were provided with pre-test and post-test to compare their progress. The design of this research can be illustrated as follows

Table III. 1
The Research Design

| GROUP | PRE-TEST | TREATMENT | POST-TEST |
| :---: | :---: | :---: | :---: |
| $\mathrm{X}_{1}$ | O | $\checkmark$ | T |
| $\mathrm{X}_{2}$ | O | - | T |

Where:
$\mathrm{X}_{1}$ : Experimental group
$\mathrm{X}_{2}$ : Control group
O : Pre-test for experimental and control group
$\checkmark$ : Receiving particular treatment

- : Without particular treatment

T : Post-test for experimental and control group

## B. Time and Location of the Research

This research was carried out at State Junior High School 20 Pekanbaru. This research was conducted from July to August 2016.

## C. Subject and Object of the Research

The subject of this research was the seventh grade students of State Junior High School 20 Pekanbaru in 2015/ 2016 academic year while the object of this research was the effect of using Story Telling strategy on Students' reading comprehension at State Junior High School 20 Pekanbaru.

## D. Population and Sample of the Research

The population of this research was the seventh grade students of State Junior High School 20 Pekanbaru consisting 259 of 8 groups. It seems that the population was quite large to be taken as sample in this research. the writer took two groups only after doing random sampling. Sugiono (2013) defines that sampling randomly selects groups, not individuals.
area and has similar characteristic' (p. 65). It can be seen in the following table of sample below:

Table III. 2
The Total Population of the seventh year Students of State Junior High School 20 Pekanbaru 2015/2016

| No | Class | Total |
| :---: | :---: | :---: |
| 1 | VII 1 | 30 |
| 2 | VII 2 | 30 |
| 3 | VII 3 | 30 |
| 4 | VII 4 | 30 |
| 5 | VII 5 | 30 |
| 6 | VII 6 | 42 |
| 7 | VII 7 | 25 |
| 8 | VII 8 | 42 |
| Total | 259 |  |

Table III. 3
The Sample of the seventh Grade Students of State Junior High School 20 Pekanbaru

|  |  | The number of <br> students |  |  | Total |
| :---: | :---: | :---: | :---: | :---: | :--- |
| No. | Class | Male | Female | Sample |  |
| 1. | VII 3 | 8 | 22 | Control class | 30 |
| 2. | VII 4 | 10 | 20 | Experimental <br> class | 30 |
| Total Sample |  |  |  |  |  |

The population above was large enough to be all taken as sample of the research. Based on the design of the research, the writer took only one class as the sample of this research. The class was VIII. 1 by using random sampling. The reason why the writer took this class was because the students' ability in Reading was homogenous. The class consisted of 30 students but not all of
them could be the sample of the research because there were 2 students who did not often attend during the meeting so that the sample of the research was 30 students.

## E. Technique of Collecting Data

In this reseach, the data were collected by using test:
a. Test

The test was distributed to measure the students' reading comprehension. The tests were given to students of control spss and experimental classes. The test was divided into two stages. they were pre-test given before the treatment, and post-test were given after doing the treatment. the type of the test was multiple choice test that consisted of 20 items. Every mutiple choice item consisted of four answer options (a,b,c,d)

Table IIII. 4
Blue Print of Test (Pre-test)

| No. | Indicators | Items of <br> Questions |
| :---: | :---: | :---: |
| 1. | The students identify the main idea of the narrative text. | $1,8,12,15,20$ |
| 2. | The students identify reference of narrative text | $3,5,10,13,18$ |
| 3. | The students find the meaning unfamiliar word of narrative | $4,6,11,16,19$ |
| 4. | The students recognize the generic stucture of narrative text | $2,7,9,14,17$ |

Table III. 5
Blue Print of Test (Post-test)

| No. | Indicators | Items of <br> Questions |
| :---: | :--- | :--- |
| 1. | The students identify the main idea of the narrative text. | $3,6,12,13,17$ |
| 2. | The students identify reference of narrative text | $2,5,9,16,18$ |
| 3. | The students find the meaning unfamiliar word narrative text | $1,8,11,15,19$ |
| 4. | The students recognize the generic stucture of narrative text | $4,7,10,14,20$ |

## F. Techniques of Data Analysis

In order to find out whether there was or not a significant difference of using Story telling strategy on students' reading comprehension in narrative text, the data were analyzed statically. In analyzing data, the writer used the scores of post-test experimental and control groups. Those scores were analyzed by using statistical analysis. The writer analyzed the data by using independent sample t-test and it was calculated by using software SPSS 16 version. According to Hartono (2008), the $t$-test is a statistic test to know the difference variant from both of variables' (p. 202).

To know the effect size of using Story telling strategy, the writer used this formula below:

$$
\text { Eta squared }=\frac{t^{2}}{t^{2}+(n-1)}
$$

Where:
Eta square : effect size
$t \quad:$ the value of $t$
n : number of students

The effect is considered as follows:

1. $0.01=$ small effect
2. $0.06=$ medium effect
3. $0.14=$ large effect

Then, the writer took the total score from the result of the reading comprehension test. KKM (passed score standard) for English subject is

73 at State Junior High School 20 Pekanbaru. According to Yusmaniar, the English Teacher of State Junior High School 20 Pekanbaru, the classification of the students score is shown below:

## Table III. 6

The Classification of Students' Score

| Score | Categories |
| :---: | :---: |
| $91-100$ | Very Good |
| $82-90$ | Good |
| $75-81$ | Enough |
| $65-74$ | Less |
| $33-64$ | Fail |

1. Validity

Before the test was given to the sample, both of the tests had been tried out to 30 students at the seventh grade of State Junior High School 20 Pekanbaru. According to Brown (2003) A test is a method of measuring a person's ability, knowledge, or performance in a given domain (p. 3). The purpose of try out was to obtain validity and reliability of the test. According to Sugiyono (2013), there are three kinds of validity, namely Construct Validity, Content Validity, and External Validity' (p.352). Here the writer used content validity to compare between content of instrument and material that had been taught. Hughes (2003) states that a test is said to have content validity if its content constitutes a representative sample of the language skills, structure, etc (p.26). with which it is meant to be concerned. According to Arikunto (2009), the formula for item of difficulty'(p. 209) is as follows:
$\mathbf{P}=\frac{B}{I S}$

Where:
P : Index of difficulty or facility value

B : the number of correct answers

JS : the number of examines or students taking the test

The standard level of the difficulty used is $>0.30$ and $<0.70$, it means that the item test is accepted if the level of difficulty between 0.30 (difficult) and over 0.70 (easy). On the other hand, test is not too easy and not too difficult. Then the proportion correct was represented by " p ", whereas the incorrect was represented by " q ".

Table III. 7
Students Can Identify the Main Idea of Narrative text

| Variable | Main Idea |  |  |  |  | N |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| No Item | 1 | 8 | 12 | 15 | 20 | 30 |
| correct | 20 | 21 | 21 | 17 | 19 |  |
| p | 0,67 | 0,70 | 0,70 | 0,57 | 0,63 |  |
| Q | 0,33 | 0,30 | 0,30 | 0,43 | 0,37 |  |

Based on the table III.7. The proportion of correct answer for item number 1 shows the proportion of correct 0.67 , item number 8 shows the proportion of correct 0,70 , item number 12 shows the proportion of correct 0,70 , item number 15 shows the proportion of correct 0.57 , item number 20 shows the proportion of correct 0.63 . Based on the standard level of difficulty " $\mathrm{P} "<0.30$ and $>0.70$, it is pointed out that item difficulties in average of each item number for identifying the main idea of narrative text is accepted.

Table III. 8
Students Can Identify Reference of narrative Text

| Variable | Reference |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| N |  |  |  |  |  |  |
| No Item | 3 | 5 | 10 | 13 | 18 | 30 |
| correct | 13 | 21 | 17 | 15 | 18 |  |
| P | 0,43 | 0,70 | 0,57 | 0,50 | 0,60 |  |
| Q | 0,57 | 0,30 | 0,43 | 0,50 | 0,40 |  |

Based on the table III.8. The proportion of correct answer for item number 3 shows the proportion of correct 0.43 , item number 5 shows the proportion of correct 0.70 , item number 10 shows the proportion of correct 0.57 , item number 13 shows the proportion of correct 0.50 , item number 18 shows the proportion of the correct 0.60 . Based on the standard level of difficulty " P " $<0.30$ and $>0.70$, it is pointed out that item difficulties in average of each item number for identifying reference of narrative tex tis accepted.

Table III. 9
Students Can Identify Unfamiliar Word of Narrative Text

| Variable | Unfamiliar word |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| n |  |  |  |  |  |  |
| No Item | 4 | 6 | 11 | 16 | 19 |  |
| correct | 16 | 20 | 17 | 21 | 19 | 30 |
| P | 0,53 | 0,67 | 0,57 | 0,70 | 0,63 |  |
| Q | 0,47 | 0,33 | 0,43 | 0,30 | 0.37 |  |

Based on the table III.9. The proportion of correct answer for item number 4 shows the proportion of correct 0.53 , item number 6 shows the proportion of correct 0.67 , item number 11 shows the proportion of correct 0.57 , item number 16 shows the proportion of correct 0.70 , item number 19 shows the proportion of correct 0.63 . Based on the standard level of difficulty
" P " $<0.30$ and $>0.70$, it is pointed out that item difficulties in average of each item number for identifying unfamiliar word of narrative text is accepted.

Table III. 10
Students Can Identify Generic Stucture of Narrative Text

| variable | generic stucture |  |  |  |  | N |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| no item | 2 | 7 | 9 | 14 | 17 |  |
| correct | 21 | 19 | 21 | 18 | 19 | 30 |
| p | 0,70 | 0,63 | 0,70 | 0,60 | 0,63 |  |
| q | 0,30 | 0,37 | 0,30 | 0,40 | 0,37 |  |

Based on the table III.10. The proportion of correct answer for item number 2 shows the proportion of correct 0.70 , item number 7 shows the proportion of correct 0.63 , item number 9 shows the proportion of correct 0.70 , item number 14 shows the proportion of correct 0.60 , item number 17 shows the proportion of correct 0.63 . Based on the standard level of difficulty "P" $<$ 0.30 and $>0.70$, it is pointed out that item difficulties in average of each item number for identifying the generic structure of narrative text is accepted.

## 2. Reliability

One of the characteristics of instruments is good or not if the instrument is reliable. Brown (2003, p.20) has stated that a reliable test is consistent and dependable. Reliability is used to measure the quality of the tests score and a test is consistent. In this research, the writer used SPSS 16. Formula to calculate the reliability of the test. The reliability coefficients for good identified kinds of structure text and reading
comprehension test were expected to exceed 0.0 and close 1.00 . The reliability of the test was considered as follows:

1. $0.0-0.20=$ reliability is low
2. $0.21-0.40=$ reliability is sufficient
3. $0.41-0.70=$ reliability is high
4. 0.71-1.0 = reliability is very high

To obtain the reliability of the test given, the writer used SPSS 16.00 to find out whether the test was reliable or not.

Table III. 11

Reliability Statistics

| Cronbach's Alpha | N of Items |
| :---: | :---: |
| .094 | 2 |

From the table III. 10 above, it can be seen that the value of Cronbach' Alpha is 0.94 . From Heaton level above, it can be said that reliability was accepted which was $0.71<0.94<1.0$ or higher than 0.71 and lower than 1.0. It also can state that reliability is very high.

## 3. Normality

Test of normality is the testing about the normality of data. Assessing normality of data is used to describe a symmetrical, bell shaped curve, which has the greatest frequency of score in the middle with smaller frequency towards the extremes. In this research, the writer assessed the normality of data by using kolmogorov smirnov test from SPSS 16 version. This test establishes whether the scores in the sample can reasonably be attributed to a population with a certain distributive. The result of the test can be seen as follows:

Table. III 12
One-Sample Kolmogorov-Smirnov Test

One-Sample Kolmogorov-Smirnov Test

|  |  | pretest | posttest |
| :--- | :--- | ---: | ---: |
| N |  | 30 | 30 |
| Normal Parameters ${ }^{\mathrm{a}}$ | Mean | 54.6667 | 66.8333 |
|  | Std. Deviation | 1.15917 E 1 | 1.08662 E 1 |
| Most Extreme Differences | Absolute | .156 | .241 |
|  | Positive | .156 | .169 |
|  | Negative | -.102 | -.241 |
|  |  | .856 | 1.317 |
| Kolmogorov-Smirnov Z |  | .456 | .062 |
| Asymp. Sig. (2-tailed) |  |  |  |
| a. Test distribution is Normal. |  |  |  |

From the table above, it can be concluded that the data came from populations with normal distribution. The value asymp. sig (2-tailed) are 0.456 and 0.62 higher than 0.05 . It can be concluded that the test distribution is normal.
4. Homogeneity

Homogeneity test is a test for distinguish between two or more populations. All the characteristics of the population can vary from one population to another, for example, the mean and variance. Homogeneity test aims to determine whether the variance score was measured in both samples have the same variance or not. Populations with equal variances called homogeneous population variance, while the populations with nonequal variances called heterogeneous population variance. In this research, the writer assessed the homogeneity of data by using SPSS 16 version. The result of the test can be seen as follows:

Table III. 13

| Test of Homogeneity of Variance |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Levene <br> Statistic | df1 | df2 | Sig. |  |
|  | Based on Mean | .447 | 1 | 58 | .506 |  |
|  | Based on Median | .527 | 1 | 58 | .471 |  |
|  | Based on Median and <br> with adjusted df | .527 | 1 | 54.144 | .471 |  |
|  | Based on trimmed <br> mean | .490 | 1 | 58 | .487 |  |

From the table III. 12 above, it can be seen that the test using Based on Mean statistic has value significance of 0.506 . The value was higher than 0.05 . It can be concluded that the data was homogeneity. Hendro (2012) said that if the significance obtained $>\alpha(0.05)$, then the variance of each sample is the same (homogeneous) and if the significance of acquired $<\alpha$ (0.05), then the variance of each sample is not the same (not homogeneous).

