

# **CHAPTER III**

#### **METHOD OF THE RESEARCH**

#### A. The Research Design

This research was an experimental research. According to Cresswell (2012: 295), experiment is testing an idea (or practice or procedure) to determine whether or not it influences an outcome or dependent variable. In this research, the researcher used quasi experimental design. Creswell (2012: 309) also stated that quasi experiment include assignment, but not random assignment of participants to groups. This is because the experimenter cannot artificially create groups for the experiment.

There were two variables used in this research. The first was Hot Seat strategy (X), and the second was the students' reading comprehension in narrative text (Y). This research used control and experimental classes. Both of classes were given pre-test and post-test. Meanwhile, the control class was treated without using Hot Seat strategy and the experimental one was treated by using Hot Seat strategy. According to Creswell (2012: 310), the quasiexperimental design: the pretest-post-test, non-equivalent group design can be presented as follows:



The Research Design

| Group        | Pre-Test | Treatment | Post-Test |
|--------------|----------|-----------|-----------|
| Experimental | X1       | Т         | Y1        |
| Control      | X2       | -         | Y2        |

Where:

| X1 | = Pre-test in experimental group    |
|----|-------------------------------------|
| X2 | = Pre-test in control group         |
| Y1 | = Post-test in experimental group   |
| Y2 | = Post-test in control group        |
| Т  | = Treatment using Hot Seat strategy |

#### **B.** Location and Time of the Research

The location of this research was at the State Junior High School 23 Pekanbaru. This research was conducted from August to September 2016.

# **C.** The Subject and Object of the Research

The subject of this research was the eighth grade students at State Junior High School 23 Pekanbaru while the object of this research was to analyze the effect of using of Hot Seat strategy on students' reading comprehension in narrative text.



#### **D.** The Population and Sample of the Research

The population of the research was the eighth grade students at State Junior High School 23 Pekanbaru. They consisted of nine classes. The total number of population was 360 students. The specification of the population can be seen on the table III.2 below:

#### Table III. 2

# Total Population at the Eight Grade Students State Junior High School 23 Pekanbaru

| No  | Classes | Popula     | Total |       |  |
|-----|---------|------------|-------|-------|--|
| INU | Classes | Female     | Male  | Total |  |
| 1   | VIII A  | 23         | 17    | 40    |  |
| 2   | VIII B  | 24         | 16    | 40    |  |
| 3   | VIII C  | 22         | 18    | 40    |  |
| 4   | VIII D  | 19         | 21    | 40    |  |
| 5   | VIII E  | 19         | 21    | 40    |  |
| 6   | VIII F  | 23         | 17    | 40    |  |
| 7   | VIII G  | 20         | 20    | 40    |  |
| 8   | VIII H  | 22         | 18    | 40    |  |
| 9   | VIII I  | 18         | 22    | 40    |  |
|     | Total   | Population | JSK   | 360   |  |

Based on the total population above, the researcher took sample by using cluster random sampling. According to Gay (2000: 129), cluster sampling randomly selects groups, not individuals. The researcher took it by using cluster random sampling because all classes were in the same level, it means

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there was no the cleverest class or favorite class at State Junior High School 23 Pekanbaru. Therefore, the researcher selected two groups of students to be sample in this research. It was the students of VIII.A as an experimental class and VIII.B as a control class. So the total number of sample was 80 students. The spesification of the research sample can be seen on the table below:

#### Table III. 3

# Total Sample at the Eight Grade Students State Junior High School 23 Pekanbaru

| No | Classes | San    | Total |    |
|----|---------|--------|-------|----|
|    |         | Female | Male  |    |
| 1  | VIII A  | 23     | 17    | 40 |
| 2  | VIII B  | 24     | 16    | 40 |
|    | 80      |        |       |    |

#### E. The Technique of Collecting Data

Collecting the data was one of the most important parts in a research. In this research, the researcher used test to collect the data. The test was used to find out the students' reading comprehension. The type of the test was multiple choices. The researcher gave 25 multiple choices intended to obtain students' reading comprehension of narrative text at the eighth grade at State Junior High School 23 Pekanbaru.

#### **1.** Blueprints of the test

For further information about the instruction of the text, the researcher showed the blueprint of the test as follows:



#### **The Blue Print of Pretest**

| No          | Indicators                                    | Total   | Items Of      |
|-------------|---|---------|---------------|
| Π           |   | Item    | Number        |
| 1.          | The students' ability to find out the main    | 5 items | 1,6,11,16,21  |
| $\subseteq$ | idea of narrative text.                       |         |               |
| Z           |   |         |               |
| 20          | The students' ability to find out the factual | 5 items | 2,7,12,17,22  |
| S           | information in narrative text.                |         |               |
| 3.          | The students' ability to find out the         | 5 items | 3,8,13,18,23  |
| $\nabla$    | meaning of vocabulary on narrative text.      |         |               |
| 2           |   |         |               |
| 4.          | The students' ability to identify the         | 5 items | 4,9,14,19,24  |
|             | reference in narrative text.                  |         |               |
|             |   |         |               |
| 5.          | The students' ability to make inference       | 5 items | 5,10,15,20,25 |
|             | from narrative text.                          |         |               |
|             |   |         |               |

# Table III.5

# **The Blue Print of Posttest**

| No   | Indicators                                    | Total   | Items Of         |
|------|---|---------|------------------|
| te   |   | Item    | Number           |
| 5    | The students' ability to find out the main    | 5 items | 5,10,15,20,25    |
|      | idea of narrative text.                       |         |                  |
| 2.   | The students' ability to find out the factual | 5 items | 4, 9, 14, 19, 24 |
|      | information in narrative text.                |         |                  |
| 3.   | The students' ability to find out the         | 5 items | 3,8,13,18,23     |
|      | meaning of vocabulary on narrative text.      | KA      | RIAU             |
| 4.   | The students' ability to identify the         | 5 items | 2,7,12,17,22     |
| Sult | reference in narrative text.                  |         |                  |
| 5.   | The students' ability to make inference       | 5 items | 1,6,11,16,21     |
|      | from narrative text.                          |         |                  |
|      |   |         |                  |



Then, the researcher took the total score from the result of the reading comprehension test. KKM (passed score standard) for English subject is 75 at State Junior High School Pekanbaru. According to Arikunto (2009: 245), the classification of the students score is shown below;

The Classification of Students' Score

| Categories |  |  |
|------------|--|--|
| Very Good  |  |  |
| Good       |  |  |
| Enough     |  |  |
| Less       |  |  |
| Fail       |  |  |
|            |  |  |

# 2. Validity of the Instrument

Before carrying out a test, it is necessary to know the validity of instruments. Brown (2003: 3) stated that a test is a method of measuring a person's ability, knowledge, or performance in a given domain. The purpose of try out is to obtain validity and reliability of the test.

According to Sugiyono (2013: 352), there are three kinds of validity, namely Construct Validity, Content Validity, and External Validity. Here the researcher used content validity to compare between content of instrument and material that was be taught.



Hughes (2003: 26) stated that a test is said to have content validity if its content constitutes a representative sample of the language skills, structure, etc. with which it is meant to be concerned. According to Arikunto (2009: 209), the formula for item of difficulty is as follows:

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

Where

| Р | : | index | of | difficulty | or | facility | value |
|---|---|-------|----|------------|----|----------|-------|
|---|---|-------|----|------------|----|----------|-------|

B : the number of correct answers

JS : the number of examines or students taking the test

The formula above was used to find out easy or difficult test items that researcher gave to the respondents. Arikunto (2009: 245) also added the standard value of the proportion of correct can be seen in the table below:

#### Table III.7

**Index Difficulty Level of Instruments** 

| Proportion correct (p) | Item category |  |  |
|------------------------|---------------|--|--|
| P > 0.70               | Easy          |  |  |
| $0.30 \le P \le 0.70$  | Average       |  |  |
| P < 0.30               | Difficult     |  |  |

Where:

p: The proportion of the students making correct answers was divided by the total number of the students

q: The proportion of the students making incorrect answers was divided by the total number of the students.



The difficulty level of an item shows how easy or difficult a particular item in the test. The items that did not reach the standard level of difficulty were excluding from the test and they were changed with the new items that were appropriate.

The standard level of difficulty used was <0, 30 and >0, 70. It means that the item test that was accepted if the level of difficulty was between 0.30-0.70 and it was rejected if the level of difficulty was below 0.30 (difficult) and over 0.70 (easy). Then, the proportion correct was represented by "p", whereas the proportion incorrect was represented by "q".

#### **Table III.8**

#### The students' ability to find out the main idea of narrative text.

| Variable | Ability to find out the main idea of narrative text |      |      |      |      |    |
|----------|---|------|------|------|------|----|
| Item no. | 1   | 6    | 11   | 16   | 21   |    |
| Correct  | 19  | 21   | 22   | 22   | 24   | 40 |
| Р        | 0,48  | 0,53 | 0,55 | 0,55 | 0,60 | -  |
| Q        | 0,53  | 0,48 | 0,45 | 0,45 | 0,40 | ТТ |

Based on the table III.5, the proportion of correct answer for item number 1 shows the proportion of correct 0.48, item number 6 shows the proportion of correct 0.53, item number 11 shows the proportion of correct 0.55, item number 16 shows the proportion of



correct **0.55**, item number **21** shows the proportion of 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 items number for find out the main idea of narrative text are accepted.

#### Table III.9

The students' ability to find out the factual information in narrative text.

| Variable | Ability to find out the factual information in narrative text |      |      |      |      |    |
|----------|---|------|------|------|------|----|
| Item no. | 2   | 7    | 12   | 17   | 22   |    |
| Correct  | 20  | 21   | 21   | 20   | 19   | 40 |
| Р        | 0,50  | 0,53 | 0,53 | 0,50 | 0,48 |    |
| Q        | 0,50  | 0,48 | 0,48 | 0,50 | 0,53 |    |

Based on the table III.6, the proportion of correct answer for item number 2 shows the proportion of correct 0.50, item number 7 shows the proportion of correct 0.53, item number 12 shows the proportion of correct 0.53, item number 17 shows the proportion of correct 0.50, item number 22 shows the proportion of correct 0.48. Based on the standard level of difficulty "p" <0.30 and >0.70, it is pointed out that item difficulties in average of each items number for find out the factual information in narrative text are accepted.



The students' ability to find out the meaning of vocabulary on narrative text.

| Variable | Ability to find out the meaning of vocabulary on narrative text |      |      |      | N    |    |
|----------|---|------|------|------|------|----|
| Item no. | 3   | 8    | 13   | 18   | 23   |    |
| Correct  | 22  | 21   | 20   | 19   | 24   | 40 |
| L S P    | 0,55  | 0,53 | 0,50 | 0,48 | 0,60 |    |
| R Q      | 0,45  | 0,48 | 0,50 | 0,50 | 0,40 |    |

Based on the table III.6, the proportion of correct answer for item number 3 shows the proportion of correct 0.55, item number 8 shows the proportion of correct 0.53, item number 13 shows the proportion of correct 0.50, item number 18 shows the proportion of correct 0.48, item number 23 shows the proportion of 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 items number for find out the meaning of vocabulary on narrative text are accepted.

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The students' ability to identify the reference in narrative text.

| Variable | Ability to identify the reference in narrative text |      |      |      | N    |    |
|----------|---|------|------|------|------|----|
| Item no. | 4   | 9    | 14   | 19   | 24   |    |
| Correct  | 21  | 23   | 22   | 21   | 21   | 40 |
| u s ka   | 0,53  | 0,58 | 0,55 | 0,53 | 0,53 |    |
| R Q      | 0,48  | 0,43 | 0,45 | 0,48 | 0,48 |    |

Based on the table III.6, the proportion of correct answer for item number 4 shows the proportion of correct 0.53, item number 9 shows the proportion of correct 0.58, item number 14 shows the proportion of correct 0.55, item number 19 shows the proportion of correct 0.53, item number 24 shows the proportion of correct 0.53. Based on the standard level of difficulty "p" <0.30 and >0.70, it is pointed out that item difficulties in average of each items number for identify the reference in narrative text are accepted.

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The students' ability to make inference from narrative text.

| Variable | Ability to identify the reference in narrative text |      |      |      | N    |    |
|----------|---|------|------|------|------|----|
| Item no. | 5   | 10   | 15   | 20   | 25   |    |
| Correct  | 21  | 17   | 23   | 23   | 19   | 40 |
| u s k    | 0,53  | 0,43 | 0,58 | 0,58 | 0,48 |    |
| R Q      | 0,48  | 0,58 | 0,43 | 0,43 | 0,53 |    |

Based on the table III.10, the proportion of correct answer for item number 5 shows the proportion of correct 0.53, item number 10 shows the proportion of correct 0.43, item number 15 shows the proportion of correct 0.58, item number 20 shows the proportion of correct 0.58, item number 25 shows the proportion of correct 0.48. Based on the standard level of difficulty "p" <0.30 and >0.70, it is pointed out that item difficulties in average of each items number for make inference from narrative text are accepted.

#### 3. Reliability of the Instrument

A test must be reliable as measuring instrument. Reliability is a necessary characteristic of any good test. Brown (2004: 20) said that a reliable test is consistent and dependable. It means the test should be



similar result when the tester gives the same test to the same respondent on two different occasions.

The mean and standard deviation of the test must be known for obtaining the reliability of the test.

There are some factors affecting the reliability of a test, they are:

The extent of sample of material selecting for testing a.

The administration of the test, clearly this is an important factor b. in deciding reliability.

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 0.41-0.70 = reliability is high 3. = reliability is very high 4. 0.71-1.0

To obtain the reliability of the test given, the researcher used

SPSS 16.00 to find out whether the test was reliable or not.

|       | Case I focess         | ing Summ | lai y |
|-------|-----------------------|----------|-------|
|       |                       | N        | %     |
| Cases | Valid                 | 40       | 100.0 |
|       | Excluded <sup>a</sup> | 0        | .0    |
|       | Total                 | 40       | 100.0 |

Table III. 13 **Case Processing Summary** 

a. Listwise deletion based on all variables in the procedure.



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**Reliability Statistics** 

| Cronbach's |            |
|------------|------------|
| Alpha      | N of Items |
| .881       | 2          |

From the table III.12 above, it can be seen that the value of Cronbach's Alpha is 0.881. From level above, it can be said that reliability was accepted which was 0.71<0.881<1.0 or higher than 0.71 and lower than 1.0. It also can be stated that reliability is very high.

#### 4. Normality of the test

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 researcher assessed the normality of data by using Kolmogorov Simonov test from SPSS 16 version. The result of the test can be seen as follows:



F.

|                                    | Table III. 15  |           |          |  |  |
|------------------------------------|----------------|-----------|----------|--|--|
| One-Sample Kolmogorov-Smirnov Test |                |           |          |  |  |
|                                    |                | pretest   | posttest |  |  |
| N                                  |                | 40        | 40       |  |  |
| Normal Parameters <sup>a</sup>     | Mean           | 52.0000   | 76.4000  |  |  |
|                                    | Std. Deviation | 1.27138E1 | 8.09178  |  |  |
| Most Extreme Differences           | Absolute       | .198      | .130     |  |  |
|                                    | Positive       | .198      | .120     |  |  |
|                                    | Negative       | 173       | 130      |  |  |
| Kolmogorov-Smirnov Z               |                | 1.255     | .824     |  |  |
| Asymp. Sig. (2-tailed)             |                | .086      | .500     |  |  |
|                                    |                |           |          |  |  |

a. Test distribution is Normal.

From the table III.13 above, the value (asymp.sig 2-tailed) in pretest and posttest are 0.086 and 0.506 higher than 0.05. It can be concluded that the test distribution is normal.

# The Technique of Data Analysis

In order to find out whether there is a significant effect of using Hot Seat strategy on students' reading comprehension in narrative text, the data of this research were analyzed statistically. In analyzing the data, the researcher used statistical method that was T-test formula by using SPSS 16 version.

After computing the t-test formula, it is necessary to obtain the effect size. Cohen in Cohen (2007: 522) said that the effect size is a measure of the effectiveness of the treatment. According to Cohen (2007: 522), in calculating the effect size (eta squared) for independent samples in a t-test the following formula can be used:



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Eta Square 
$$(\eta^2)$$
  
 $\eta^2 = \frac{t^2}{t^2 + (N_1 + N_2 - 2)}$ 

Note:

- t : The t-value
- N<sub>1</sub> : The number of group one (the experimental class)
- N<sub>2</sub> : The number of group two (the control class)

