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#### **CHAPTER III**

#### **RESEARCH METHODOLOGY**

#### The Method of the Research

The type of this research was experimental research. According to John W. Cresswell (2008:299), experiment is you test an idea (or practice procedures) to determine whether it influences an outcome or dependent variable. This research uses a quasi-experimental design: the pretest-post-test, non-equivalent group design. Thus, this research uses experimental and control group. The dashed line separating the parallel rows in the diagram of the non-equivalent control group indicates that the experimental and control groups have not been equated by randomization – hence the term 'non-equivalent. There are two variables in this research, first variable is Selective Highlighting strategy as independent variable (x variable), the second is reading comprehension as dependent variable (y variable). Therefore the experimental and control class will be provided with pre-test, treatment, and post-test.

The quasi-experimental design: the pretest-post-test, non-equivalent group design can be presented as follow:



Table III.1
The Research Design

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

Where:

E	= Experimental group
С	= Control group
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

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

This research was conducted at Junior High School 14 Pekanbaru. It is located in Jl. Hangtuah, Sail. This research was started from November-December

2016.

# C. The Subject and Object of the Research

The subject of the research was the ninth grade students of SMP 14 Pekanbaru. Then, the object of the research was the effect of Using Selective Highlighting on students' reading comprehension in narrative text.

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

The population of the research is all the ninth grade students of SMP 14 Pekanbaru. They were eight classes. The total number of population is 261 students.



Considering that population of this research was big, thus, the writer took the sample of the population of the research by using cluster sampling. According to Gay and Petter Airasian (2000:389), cluster sampling is sampling in which group, not individually; it can be communities, school district, and so on. All the member of selected group have similar characteristics. It means that the sample was chosen in group not individually. The writer chose two classes randomly as the sample of this research. The classes chosen were IX.3 for experimental class and IX.4 for control class. The experimental group consisted of 30 students while the control group consists of 30 students. So, 60 students are representative enough to be sample of this research.

### E. The Technique of Collecting Data

In collecting the data, the writer used the test. The researcher uses reading test to collect data. The test is used to find out the students' comprehension in reading narrative text. This test is multiple choices test. This appropriate with nature of reading. According to Dorn (2005:25), reading is multidimensional process involves the eyes, the ears, the mouth, and most importantly, the brain. Dorn also stated that reading is a complex process involving a network of cognitive actions that work together to construct meaning. The test is divided into two phases:

1. Pre-Test

Pre-test used to collect the data about students' reading comprehension in narrative text before they are taught by using Selective Highlighting strategy. It



have given to both experimental and control class. In this test, the writer used multiple choice type and the questions are based on the indicators of reading comprehension.

2. Post-Test

Pre-test used the collect the data about students' reading comprehension in narrative text after they are taught by using Selective Highlighting strategy. It have given to both experimental and control class. In this test, the writer used multiple choice type and the questions are based on the indicators of reading comprehension.

## F. Technique of Analyzing Data

In order find out whether or not there is a significant effect of using Selective Highlighting strategy on students' comprehension in reading narrative text, the data were analyzed statistically. To analyze the data, the writer used score of post-test of the experimental and control classes. These scores were analyzed by using statistical analysis by using T-test (independent samples t-test), and they are calculated by using software SPSS 17 version.

After computing t-test, it obtains the degree of freedom that is used to determine whether the t-score is significant or not. Then the researcher use this following formula in order to know the effect size (Pallent, 2010:247) of this strategy as follow:



Eta Squared =  $\frac{t^2}{t^2 + (N-1)}$ 

Pallent (2010:210) also informed that the guidelines for interpreting this value are 0.01 = small effect, 0.05 = medium effect, 0.14 = large effect.

H<sub>o</sub> is accepted if  $t_0 < t$ -table or there is no significant effect of Using Selective Highlighting strategy toward students' reading comprehension in narrative text.

 H<sub>a</sub> is accepted if t<sub>o</sub>> t-table or there is any significant effect of Using Selective Highlighting strategy toward students' reading comprehension in narrative text.

#### G. Validity and Reliability of the Test

#### 1. Validity of Reading Comprehension Test

Every tests, whether it is short, informal classroom test or a public examination should be as valid as the test constructor can make it. The test must aim at providing a true measure of the particular skill in which it is intended to measure. Before the test is given to the sample of this research, the test is tried out to the students of the ninth grade students. While Gay (2000:161) stated that validity concerned with the appropriateness of the interpretations made from tests score. Validity is the score of the test. The purpose of try out was to obtain validity of the test. hTe following table was the validity of each item or reading comprehension test



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Table III.2			
The Anal	ysis of Reading Comprehension Test	Validity	
R hitung	R table	Des	

⊂ No	R hitung	R table		Description
a		5 %	5 %	
3 1	0.94	0.707	0.834	Valid
2	0.86	0.707	0.834	Valid
⊼ 3	0.94	0.707	0.834	Valid
⊂ 4	0.94	0.707	0.834	Valid
2 5	0.94	0.707	0.834	Valid
0 6	0.94	0.707	0.834	Valid
⊆ 7	0.94	0.707	0.834	Valid
8	0.94	0.707	0.834	Valid
∞ 9	0.94	0.707	0.834	Valid
<b>~</b> 10	0.86	0.707	0.834	Valid
<u>∞</u> 11	0.97	0.707	0.834	Valid
12	0.88	0.707	0.834	Valid
13	0.88	0.707	0.834	Valid
14	0.97	0.707	0.834	Valid
15	0.90	0.707	0.834	Valid
16	0.97	0.707	0.834	Valid
17	0.97	0.707	0.834	Valid
18	0.97	0.707	0.834	Valid
19	0.90	0.707	0.834	Valid
20	0.97	0.707	0.834	Valid
21	0.90	0.707	0.834	Valid
22	0.89	0.707	0.834	Valid
on 23	0.88	0.707	0.834	Valid
24	0.90	0.707	0.834	Valid
25	0.88	0.707	0.834	Valid

The score obtained was higher than r table whether at 5% and or

1% then, the reading comprehension test was valid.



#### **Reliability of Reading Comprehension Test** 2.

According to Brown (2003:19), that reliability has to do with accuracy of measurement. This kind of accuracy was reflected in obtaining similar results when measurement was repeated on different occasions or with different instruments or by different persons. The characteristic of reliability was sometimes termed consistency. Briefly, the test was reliable when an examinee's results were consistent on repeated measurement. The following table was the categorization of reliability of the test:

Table III.3 The Alpha Ceofficients

<b>Cronbach Alpha</b>	Internal Consistency
>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

Based on the calculation, the reading comprehension test was highly reliable. The table showed below is the reliability statistic of reading comprehension test.



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Table III.4 The Alpha Ceofficients of Reading Comprehension Test **Reliability Statistics** 

Cronbach's	N of Items
Alpha	
.991	25

The score obtained was higher than r table whether at 5% and or 1% (0.707, 0.991 > 0.834. then, the readinf comprehension test was reliable.

