

**CHAPTER III**  
**METHODS AND PROCEDURES**

This chapter discusses: (a) research method , (b) variables of the study, (c) operational definition, (d) population and sample, (e) technique for collecting data, and (f) technique for analyzing data.

**A. Research Method**

In this study, quasi-experimental method was used. Fraenkel, Wallen and Hyun (2012, p. 275) explain that quasi-experimental designs do not include the use of random assignment. In this study, one of the quasi experimental designs, the pretest-posttest nonequivalent groups design was used. Cohen, Lawrence and Keith (2007, p. 283) formulate the design as follows :

Treatment	: O1	X	O2
	-----		
Control	: O3		O4

Where:

- : Dash line indicated that the experimental and control group have not been equated by randomization.
- O1 : Pretest in experimental group
- O2 : Posttest in experimental group
- X : Treatment to experimental group
- O3 : Pretest in control group

O4 : Posttest in control group

This study included two groups mainly experimental group and control group. The experimental group was taught by using window notes strategy while the control group was not taught by using window notes strategy.

## **B. Reseach variables**

In this study there were two kinds of variables, they were independent variable and dependent variable. The dependent variable is an attribute or characteristic that is dependent on or influenced by independent variable (Creswell, 2012, p. 115). In this study, the dependent variable is reading comprehension achievement of the eighth grade students SMP Muhammadiyah 4 Palembang. Furthermore, the independent variable is an attribute or characteristic that influences or affects an outcome of dependent variable (Creswell, 2012, p. 116). In this study, the independent variable is window notes strategy.

## **C. Operational Definitions**

To reduce misunderstanding between the researcher and the readers about the terms, the following operational definitions are defined. They are as follows:

### **1. Reading Comprehension**

Reading comprehension deals with the eighth grade students of SMP Muhammadiyah 4 Palembang in learning reading narrative text.

## 2. Window Notes Strategy

Window notes strategy has something to do with the strategy that researcher used in increasing students' reading comprehension. This strategy covers four frameworks, such as: facts, feelings, ideas, and questions.

### D. Population and Sample

#### 1. Population

Fraenkel, et. al. (2012, p. 92) say that a population is the of interest to the researcher, the group to whom the researcher would like to generalize the results of the study. The population of this study is all of the eighth grade students of SMP Muhammadiyah 4 Palembang. The population of the study is presented in Table 1.

**Table 1**  
**Population of the Study**

<b>NO</b>	<b>CLASS</b>	<b>MALE</b>	<b>FEMALE</b>	<b>TOTAL STUDENTS</b>
1	VIII A	13	16	29
2	VIII B	14	15	29
3	VIII C	16	16	32
4	VIII U1	14	11	25
5	VIII U2	14	12	26
<b>Total</b>				<b>141</b>

*(Source: SMP Muhammadiyah Palembang 2014/2015)*

#### 2. Sample

Within this target population, researcher selected a sample for study. Creswell (2012, p. 381) states that sample is the group of participants in a study selected from the target population from which the researcher generalizes to the

target population. In this study, the researcher used purposive sampling technique. According to Fraenkel et, al., (2012, p. 100), purposive sampling is different from convenience sampling in that researchers do not simply study whoever is available but rather use their judgment to select a sample that they believe, based on prior information, will provide the data they need. The purposive sampling was used, Class VIII A and VIII B were selected as the sample of the study. Class VIII A and VIII B were chosen based on observation and interview to English teacher, VIII A and VIII B have the same background knowledge and difficulties of reading ability. After the pretest, the result of class VIII B was higher than class VIII A. Therefore, class B was selected as control group and class VIII A as experimental group. The total sample of the this study is fifty-eight students out of 140 populations. The sample of the study is presented in Table 2.

**Table 2**  
**The Sample of the study**

<b>NO</b>	<b>GROUP CLASS</b>	<b>Male</b>	<b>Female</b>	<b>TOTAL</b>
1	VIII A (experimental group)	13	16	29
2	VIII B (control group)	14	15	29
<b>TOTAL</b>		<b>27</b>	<b>31</b>	<b>58</b>

## **E. Techniques for Collecting the Data**

### **1. Tests**

In collecting the data, the reseacher used reading comprehension test in the form of multiple choice. In this research, the reseacher used narrative texts for reading comprehension test. The number of question items were forty, in the form of multiple choice which cover four options, namely (a, b, c, and d). The purpose of the test is to know the results in teaching by using window notes strategy. The

test were given twice to the students. The test items in the pretest are the same as those of posttest, because the purpose of giving them is to know the progress of student reading comprehension scores before and after treatment.

#### **a. Pretest**

Pretest is done before treatment are given. The pretest is administrated to know students' English reading comprehension before treatment.

#### **b. Posttest**

The posttest is administrated to control and experiment groups after pretest and treatment were given. The posttest is administrated to know students' English reading comprehension scores after treatment.

### **2. Research Instruments Analysis**

Research instrument is test-question items designed for students' pretest and posttest activities. The test-question items which were used for students' pretest is the same as it is given for students' posttest activities. Before they are implemented as research instrument, it should be analyzed or checked for their validity, readability, and reliability tests.

#### **a. Validity Test**

Validity refers to the appropriateness, meaningfulness, correctness, and usefulness of the inferences a researcher makes. Fraenkel, et. al. (2012, p. 147) state that validity is the most important idea to consider when preparing or selecting an instrument for use.

## **1. Construct Validity**

According to Fraenkel, et. al (2012, p. 148), the construct validity refers to the nature of the psychological construct or characteristic being measured. The researcher asked her lecturers Eka Sartika, M.Pd as Validator I, Beni Wijaya, M.Pd as Validator II and Mgs. Sulaiman, M.Pd as Validator III to estimate her instruments. Based on the assessment carried out by validator II and III, the instrument can be used without revision and based on validator I it can be used with a few revision. It means that the research instrument can be applied in this research.

## **2. Validity of each question item**

To find out the validity of the test question items, the researcher analyzed the items of the tests by conducting a try-out in order to find out the validity of each question items. The instruments of the test was tested to 31 students (VIII 3) of eighth grade students of SMP Nurul Iman Palembang. The result of the test was analyzed by using Pearson Correlation coefficient formula. The result of significant score of Pearson Correlation was compared with  $r_{table}$  (0.355), it means that the item is valid. From Pearson Correlation Formula, it was also found that there were only forty-one test items out of sixty were valid. Pearson Correlation in SPSS 22 showed that there were 19 questions were considered invalid. They are questions item number 1, 4, 5, 12, 14, 18, 19, 37, 39, 40, 42, 45, 48, 50, 51, 53, 54, 57 and 60, since the score of significance are lower than 0.355. Then, 41 questions item were considered valid. They are questions item number 2, 3, 6, 7, 8, 9, 10, 11, 13, 15, 16, 17, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34,

35, 36, 38, 41, 43, 44, 46, 47, 49, 52, 55, 56, 58 and 59, since the score of significance are higher than 0.355. Since there were 41 questions are considered valid, the writer just took 40 valid questions item. The result analysis of validity test in each questions item was described in Table 3.

**Table 3**  
**Result of Test Validity**

<b>No</b>	<b>Question Items</b>	<b>Sig. (1-tailed) of Pearson Correlation</b>	<b>r-table</b>	<b>Result</b>
<b>1</b>	item1		0,355	Invalid
<b>2</b>	item2	687	0,355	<b>Valid</b>
<b>3</b>	item3	766	0,355	<b>Valid</b>
<b>4</b>	item4	150	0,355	Invalid
<b>5</b>	item5	138	0,355	Invalid
<b>6</b>	item6	457	0,355	<b>Valid</b>
<b>7</b>	item7	938	0,355	<b>Valid</b>
<b>8</b>	item8	891	0,355	<b>Valid</b>
<b>9</b>	item9	390	0,355	<b>Valid</b>
<b>10</b>	item10	687	0,355	<b>Valid</b>
<b>11</b>	item11	982	0,355	<b>Valid</b>
<b>12</b>	item12	013	0,355	Invalid
<b>13</b>	item13	679	0,355	<b>Valid</b>
<b>14</b>	item14	087	0,355	Invalid
<b>15</b>	item15	706	0,355	<b>Valid</b>
<b>16</b>	item16	982	0,355	<b>Valid</b>
<b>17</b>	item17	982	0,355	<b>Valid</b>
<b>18</b>	item18	059	0,355	Invalid
<b>19</b>	item19	191	0,355	Invalid
<b>20</b>	item20	922	0,355	<b>Valid</b>
<b>21</b>	item21	687	0,355	<b>Valid</b>
<b>22</b>	item22	938	0,355	<b>Valid</b>

23	item23	486	0,355	<b>Valid</b>
24	item24	457	0,355	<b>Valid</b>
25	item25	891	0,355	<b>Valid</b>
26	item26	766	0,355	<b>Valid</b>
27	item27	982	0,355	<b>Valid</b>
28	item28	766	0,355	<b>Valid</b>
29	item29	508	0,355	<b>Valid</b>
30	item30	582	0,355	<b>Valid</b>
31	item31	486	0,355	<b>Valid</b>
32	item32	806	0,355	<b>Valid</b>
33	item33	938	0,355	<b>Valid</b>
34	item34	891	0,355	<b>Valid</b>
35	item35	457	0,355	<b>Valid</b>
36	item36	891	0,355	<b>Valid</b>
37	item37	309	0,355	Invalid
38	item38	486	0,355	<b>Valid</b>
39	Item39	099	0,355	Invalid
40	item40	242	0,355	Invalid
41	item41	797	0,355	<b>Valid</b>
42	item42	045	0,355	Invalid
43	item43	508	0,355	<b>Valid</b>
44	item44	486	0,355	<b>Valid</b>
45	item45	256	0,355	Invalid
46	item46	489	0,355	<b>Valid</b>
47	item47	567	0,355	<b>Valid</b>
48	item48	007	0,355	Invalid
49	Item49	463	0,355	<b>Valid</b>
50	item50	079	0,355	Invalid
51	item51	007	0,355	Invalid
52	item52	679	0,355	<b>Valid</b>
53	item53	059	0,355	Invalid

<b>54</b>	item54	256	0,355	Invalid
<b>55</b>	item55	486	0,355	<b>Valid</b>
<b>56</b>	item56	582	0,355	<b>Valid</b>
<b>57</b>	item57	151	0,355	Invalid
<b>58</b>	item58	489	0,355	<b>Valid</b>
<b>59</b>	Item59	463	0,355	<b>Valid</b>
<b>60</b>	Item60	023	0,355	Invalid

### 3. Content Validity

Content validity refers to the content and format of the instrumental (Fraenkel, et. al, 2012, p. 148). In order to judge whether or not a test has content validity, a specification of the skills or structures should be made based on the curriculum and syllabus. The instrument of the test was taken from Junior High School books. There were forty questions with narrative reading text used in this study. The result analysis in content validity is described in table of specification test in Table 4.

**Table 4**  
**The Specification of the Test Items**

<b>Objective</b>	<b>Test Materials</b>	<b>Indicators</b>	<b>Number of Test</b>	<b>Type of Test</b>	<b>Answer Key</b>
	Redfeather the Hen	The students are able; 1. to find reference word 2. to find the detail and factual information	1 2	Multiple Choice	a c

The students are able to respond, understand, and comprehend the written meaning of reading text in short functional texts and essays in the context of daily life	Little Brother, Little Sister	1. to find the detail and factual information	3, 4, 5, 6, 7	Multiple Choice	b, c, a, d, b
	The Smart Parrot	1. to find the detail and factual information 2. to guess word meaning from context	8, 9, 10, 11, 12, 13	Multiple Choice	b, c, d, a, c, c
	The Ant and the Dove	1. to find reference word 2. to find the detail and factual information 3. to guess word meaning from context 4. to identify the purposes of the text. 5. to find moral value of the text	20 14, 15, 16, 19, 21 17 18	Multiple Choice	c d, d, b d, a c a
	The Donkey and the Wolf	3. to find the detail and factual information 6. to find moral value of the text 7. to find synonym and antonym of the text	25, 26 24 22, 23	Multiple Choice	d, c a a, b
	The Lion and the Mosquito	1. to identify main idea 2. to find the detail and factual information 4. to guess word meaning from context	27 28, 29 30	Multiple Choice	b a, c d

	The Lion and the Hare	1. to find the detail and factual information 2. to find moral value of the text	31, 32  33	Multiple Choice	b, d  b
	The Wind and the Sun	1. to find the detail and factual information 2. to guess word meaning from context	34, 35  36	Multiple Choice	c, a  c
	The Crow and the Oyster	1. to guess word meaning from context 2. to find moral value of the text	38  37	Multiple Choice	c  d
	The Fox and the Crow	1. to find the detail and factual information 2. to guess word meaning from context	39  40	Multiple Choice	a  d

### 3. Reliability Test

According to Fraenkel, et al., (2012, p. 154), reliability refers to consistency of the scores obtained, how consistent they are for each individual from one administration of an instrument to another and from one set of items to another. The concept of reliability is related to the consistency of the measurements when the testing procedure is repeated on a population of individuals or groups. Reliability test measures whether research instrument used for pretest and posttest activities is reliable or not.

To know the reliability of the test used in this study, the researcher calculated the students' score by using Spearman-Brown Prophecy Formula found

in SPSS 22 (Statistical Package for the Social Science) program. The scores of reliability are obtained from tryout analysis which is done once using the instruments test. The school where the tryout conducted is different from the school where the research study were conducted. Therefore, split-half test method is used to obtain the scores of tryout analysis. The score was described in Appendix B.

To measure the reliability test using split half method, it was found that the p-output of Guttman Split-half Coefficient is 0.734 from the score it can be stated that the reliablity of reading test items is reliable since the p-output is higher than 0.70 with sample (N) is 31 students. The result analysis of reliability test was described in Table 5.

**Table 5**  
**The Result of Reliability Analysis**  
**Using Spearman-Brown Prophecy Formula**

<b>Case Processing Summary</b>		N	%
Cases	Valid	31	100,0
	Excluded <sup>a</sup>	0	,0
	Total	31	100,0

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

### Reliability Statistics

Cronbach's Alpha	Part 1	Value	,224
		N of Items	20 <sup>a</sup>
	Part 2	Value	,516
		N of Items	20 <sup>b</sup>
	Total N of Items		40
Correlation Between Forms			,597
Spearman-Brown Coefficient	Equal Length		,747
	Unequal Length		,747
Guttman Split-Half Coefficient			,734

a. The items are: item\_1, item\_2, item\_3, item\_4, item\_5, item\_6, item\_7, item\_8, item\_9, item\_10, item\_11, item\_12, item\_13, item\_14, item\_15, item\_16, item\_17, item\_18, item\_19, item\_20.

b. The items are: item\_21, item\_22, item\_23, item\_24, item\_25, item\_26, item\_27, item\_28, item\_29, item\_30, item\_31, item\_32, item\_33, item\_34, item\_35, item\_36, item\_37, item\_38, item\_39, item\_40.

#### 4. Research Treatments

Treatments were designed at least for twelve meetings including pretest and posttest activities. The treatments are given in experimental group with window notes strategy. But before treatments are done in experimental group, readability test of teaching materials were done.

##### a. Readability Test

Readability test is done to know the appropriate level of reading texts for students' class level in comprehending the reading texts. It means that the readability test is done to put the reading texts in an appropriate class meeting based on the difficulty level of each reading text during research treatments.

Readability test is measured using online readability test which is accessed from : <http://www.readability test Formula.com>.

There are ten texts that the researcher used in this study. They were taken from two different books. They are “Passport to the World, A Fun and Easy English Book for grade VIII of Junior High School by Djatmika, Priyanto, Dewi, Thomy (2009) published by PT. Tiga Serangkai Pustaka Mandiri and English in Focus for Grade VIII Junior High School by Wardiman and Jahur (2008) published by Pusat Perbukuan Departemen Pendidikan Nasional”. The researcher used texts for eighth grade students on junior high school based on syllabus in the second semester. The texts consist of narrative text. The result analysis of readability test was described in Table 6.

**Table 6**  
**Result of Readability Test for Research Treatments**

No	Test Title	Text Type	Test Statistic			Flesh Reading Ease Score	Test Category
			Number of Sentences	Words per Sentences	Character per word		
1	The Fox and the Grapes	Narrative	16	9.69	1.11	103.1	Very Easy
2	Moongame	Narrative	42	10.31	1.14	100	Very Easy
3	The Lion and the Mouse	Narrative	37	10.11	1.17	97.5	Very Easy
4	The Owl and the Nightingale	Narrative	9	11.56	1.20	93.4	Very Easy
5	The Empty Pot	Narrative	51	10.61	1.24	91.1	Very Easy
6	The Boy Who Cried Wolf	Narrative	13	15.69	1.18	91	Very Easy
7	Buggy Races	Narrative	9	14.11	1.21	89.9	Easy
8	The Four Friends	Narrative	28	13.96	1.24	87.9	Easy

9	Mantu's Little Elephant	Narrative	20	11.30	1.31	84.9	Easy
10	The Prince and His Bestfriends	Narrative	17	17.00	1.33	76.9	Fairly Easy

### **b. Research Teaching Schedule**

This treatment was implemented to the eighth grade students of SMP Muhammadiyah 4 Palembang. The researcher has given the treatment to the experimental about three weeks. The treatment were given twice and four times a week, so there were ten meetings altogether. Each meeting takes 80 minutes (2 x 40). The researcher applied window notes strategy to the students through oral and written instructions. Additionally, the researcher demonstrated window notes strategy to the students through whole-class, guided practice using the text book. The researcher used narrative reading text as reading materials. The texts were taken from Passport to the World, A Fun and Easy English Book for grade VIII of Junior High School by Djatmika, et.al (2009) published by PT. Tiga Serangkai Pustaka Mandiri and English in Focus for Grade VIII Junior High School by Wardiman and Jahur (2008) published by Pusat Perbukuan Departemen Pendidikan Nasional. Reading materials for research treatments were displayed in following Table 7.

**Table 7**  
**Teaching Schedule for Experimental Group**

Experimental Group			Control Group
Day/date	Time allocations	Theme/material	
First Meeting (Monday, 18	1x40	<b>5 minutes:</b> the teacher gives the instructions to do the test to her students.	(Tuesday, 19 May 2015)

May 2015)		<p><b>30 minutes:</b> the students do the pretest.</p> <p><b>5 minutes:</b> the teacher close the class.</p>	
Second Meeting (Tuesday, 19 May 2015)	2x40	<p><b>10 minutes:</b> teacher asked students opinion about “ The Fox and the Grapes”.</p> <p><b>35 minutes:</b> teacher gives text to the students and applied the steps of window notes strategy.</p> <p><b>35 minutes:</b> the students do exercise from the text that was given by the teacher. Then the teacher close the class.</p>	
Third Meeting (Thursday, 21 May 2015)	2x40	<p><b>10 minutes:</b> teacher asked students opinion about “The moongame”.</p> <p><b>35 minutes:</b> teacher gives text to the students and applied the steps of window notes strategy.</p> <p><b>35 minutes:</b> the students do exercise from the text that was given by the teacher. Then the teacher close the class.</p>	
Fourth meeting (Saturday, 23 May 2015)	2x40	<p><b>10 minutes:</b> teacher asked students opinion about “The Lion and the Mouse”.</p> <p><b>35 minutes:</b> teacher gives text to the students and applied the steps of window notes strategy.</p>	

		<p><b>35 minutes:</b> the students do exercise from the text that was given by the teacher. Then the teacher close the class.</p>	
<p>Fifth meeting (Monday, 25 May 2015)</p>	<p>2x40</p>	<p><b>10 minutes:</b> teacher asked students opinion about “The Owl and the Nightingale”.</p> <p><b>35 minutes:</b> teacher gives text to the students and applied the steps of window notes strategy.</p> <p><b>35 minutes:</b> the students do exercise from the text that was given by the teacher. Then the teacher close the class.</p>	
<p>Sixth meeting (Tuesday, 26 May 2015)</p>	<p>2x40</p>	<p><b>10 minutes:</b> teacher asked students opinion about “The Empty Pot”.</p> <p><b>35 minutes:</b> teacher gives text to the students and applied the steps of window notes strategy.</p> <p><b>35 minutes:</b> the students do exercise from the text that was given by the teacher. Then the teacher close the class.</p>	
<p>Seventh meeting (Thursday, 28 May 2015)</p>	<p>2x40</p>	<p><b>10 minutes:</b> teacher asked students opinion about “The Boy Who Cried Wolf”.</p> <p><b>35 minutes:</b> teacher gives text to the students and applied the steps of window notes strategy.</p> <p><b>35 minutes:</b> the students do exercise</p>	

		from the text that was given by the teacher. Then the teacher close the class.	
Eighth meeting (Saturday, 30 May 2015)	2x40	<p><b>10 minutes:</b> teacher asked students opinion about “Buggy Races”.</p> <p><b>35 minutes:</b> teacher gives text to the students and applied the steps of window notes strategy.</p> <p><b>35 minutes:</b> the students do exercise from the text that was given by the teacher. Then the teacher close the class.</p>	
Nineth meeting (Monday, 1 June 2015)	2x40	<p><b>10 minutes:</b> teacher asked students opinion about “ The Four Friends”.</p> <p><b>35 minutes:</b> teacher gives text to the students and applied the steps of window notes strategy.</p> <p><b>35 minutes:</b> the students do exercise from the text that was given by the teacher. Then the teacher close the class.</p>	
Tenth meeting (Wednesday, 3 June 2015)	2x40	<p><b>10 minutes:</b> teacher asked students opinion about “Mantu’s Little Elephant”.</p> <p><b>35 minutes:</b> teacher gives text to the students and applied the steps of window notes strategy.</p> <p><b>35 minutes:</b> the students do exercise from the text that was given by the teacher. Then the teacher close the class.</p>	

Eleventh meeting (Thursday, 4 June 2015)	2x40	<p><b>10 minutes:</b> teacher asked students opinion about “Prince and His Bestfriend”.</p> <p><b>35 minutes:</b> teacher gives text to the students and applied the steps of window notes strategy.</p> <p><b>35 minutes:</b> the students do exercise from the text that was given by the teacher. Then the teacher close the class.</p>	
Twelfth meeting (Saturday, 6 June 2015)	1x40	<p><b>5 minutes:</b> the teacher gives the instructions to do the test to her students.</p> <p><b>30 minutes:</b> students do the posttest</p> <p><b>5 minutes:</b> closing all meeting.</p>	(Saturday, 6 June 2015)

## F. Techniques for Analyzing the Data

Data obtained from the quasi experimental study is submitted using statistical analysis by using statistical package for the social science (SPSS) version 22 software. The researcher analyzed the data from the test (pretest and posttest) between two groups experimental and control groups using some techniques, as follows:

### 1. Data Descriptions

Before analyzing the data, distribution of the data was used to see distribution of frequency data and descriptive statistics.

### **a. Distribution of Frequency Data**

In distributions of frequency data, the students' score frequency, percentage will be achieved. The distributions of frequency data were obtained from students' pretest score in control group, students' posttest score in control group, the students' pretest score in experimental group, and students' posttest score in experimental group.

### **b. Descriptive Statistic**

The researcher used descriptive statistic to find out number of sample, the score of minimal, maximal, mean, standard deviation and standard error of mean are obtained. Descriptive statistic are obtained from students' pretest and posttest scores in control and experimental group.

## **2. Pre-requisite Analysis**

Before analyzing the data, pre-requisite analysis is done to see whether the data obtained is normal and homogen. The following is the procedures in pre-requisite analysis.

### **a. Normality Test**

Normality test is used to measure whether the obtained data was normal or not. The data can be classified into normal when the p-output is higher than 0.05 (Basrowi, 2007, p. 85). In measuring normality test, One sample Kolmogorov Smirnov is used. The normality test is used to measure students' pretest scores in control and experimental groups, and students' posttest scores in control and experimental groups.

### **b. Homogeneity Test**

According to Basrowi (2007, p. 106), homogeneity test is used to measure the scores obtained whether it is homogen or not. He stated that the score is categorized homogen when the p-output is higher than mean significant difference at 0.05 levels. In measuring homogeneity test, Levene Statistics in SPSS is used. The homogeneity test is used to measure students' pretest and posttest scores in control and experimental groups.

### **3. Hypothesis testing**

In this study, in finding out a significant difference between student's posttest scores in control and experimental groups, the researcher used independent sample t-test through SPSS version 22. A significant difference is found whenever p-output is lower than 0.05 and t-obtain is higher than t-table (1.673).