

## CHAPTER III

### METHODOLOGY OF THE RESEARCH

#### A. The Research Design

The type of this research is an experimental research. According to Creswell, Experiment is test an idea (or practice or procedures) to determine whether it influences an outcome or dependent variable.<sup>1</sup>It means there are different contexts that will produce cause effect result. The design of the research was a pre-experimental design which researcher used the one group pretest-posttest design. According to Gay And Airrasian, pre-experimental design, one group pretest-post test design is a design that involves a single group in which it is pretest, exposed to treatment and posttest.<sup>2</sup> This design provides some improvements over the first, for the effects of the treatment are judged by the difference between the pretest and the posttest scores. No comparison with a control group is provided. In relation to that, a group of students were pre tested using writing assessment that measured students' writing ability of narrative text. Then the timed writing checklist as a medium for teaching writing had been implemented as treatment for eight meetings. At the end of the research, the students were post-tested by using the same instrument. The score of pretest and post test were compared to find out the effect of using timed writing checklist strategy. According to Donald T. Campbell and Julian C. Stanley, the types of this research can be designed as follows:<sup>3</sup>

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<sup>1</sup> John. W. Creswell. *Educational Research: Planing, Conducting, and Evaluating Quantitative and Qualitative Research*. (New Jersey: Pearson Education, 2008), p. 299

<sup>2</sup>L.R Gay and Peter Airasian. *Educational Research Competencies for Analysis And Application: 6<sup>th</sup> Edition*. (New Jersey: Prentice-Hall, inc, 2000), p. 367

<sup>3</sup> Donald T. Campbell and Julian C. Stanley. *Experimental and Quasi Experimental Designs for Research*, ( USA:Houghton Mifflin Company,1963), p. 13

**Table III.1**  
**Table of Research Design**

O <sub>1</sub>	X	O <sub>2</sub>
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In which:

O<sub>1</sub> :Pre- test

O<sub>2</sub> :Post-test

X :Treatment (timed writing checklist strategy)

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

The research was conducted at the first year students of MA Muhammadiyah Pekanbaru. It was located at Lobak street number44, Pekanbaru. The research was done two months from August to October 2013.

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

The subject of the research was the first year students of MA Muhammadiyah Pekanbaru. The object of this research was the effect of using timed writing checklist strategy towards students' writing ability on narrative paragraphs.

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

The population of this research was the first year students of MA Muhammadiyah Pekanbaru. The total of this population was 30 students. The researcher took one class for sample, the class was X1 by using total sampling. Arikunto states that amount of the subject is less than 100, it is better to take all the population and if the amount of the subject is more than 100, it is better to take sample about 10-15% or 20-25% of the population.<sup>4</sup>

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<sup>4</sup>Suharsimi Arikunto.2006. *Prosedur Penelitian: Suatu Pendekatan Praktik*. Edisi Revisi VI. Rineka Cipta, Jakarta, p. 134

For this condition, the writer took the total number of population as sample.

The technique used in taking the sample was by total sampling.

**Table III.2**  
**The Population and Sample of the Research**

No	Class	Population		Total
		Male	Female	
1	X1	12	18	30

#### E. The Technique of Collecting Data

The technique used for collecting data was test. In this research, test was used to collect the data about the effect of using timed writing checklist strategy towards students' writing ability of narrative paragraphs. In this case, there were two tests: pre-test which was given before the treatment and post-test was given after the treatment.

**Table III.3**  
**Assessment Aspects of Writing Narrative Paragraphs**

Name: \_\_\_\_\_ Class: \_\_\_\_\_

No	Aspects Assessed	Score			
		1	2	3	4
1	Content				
2	Organization				
	a. Orientation				
	b. Complication				
	c. Resolution				
3	Vocabulary				
4	Grammatical Features				
	a. Action Verb				
	b. Temporal Connectives				
	c. Past Tense				
5	Spelling & Punctuation				
Total					
Maximum Score		20			

Explanation of score:

1 = incompetent

2 = competent enough

3 = competent

4 = very competent<sup>5</sup>

$$\text{Final Score} = \frac{\text{TotalScore}}{\text{MaximumScore}} \times 80$$

**Table III.4**  
**Classification of Students Score**

Score	Category
80-100	Very good
66-79	Good
56-65	Enough
40-55	Less
30-39	Fail

(taken from Suharsimi Arikunto)<sup>6</sup>

## F. The Technique of Data Analysis

In this research, the writer analyzed the data by using statistical method. In order to find out whether there is the effect of using timed writing checklist strategy towards students' writing ability on narrative paragraph at the first year of MA Muhammadiyah Pekanbaru, the data were analyzed statistically. In analyzing the data, the writer used score of pretest and post test. The technique of data analysis used in this research was T-test formula. According to Hartono, T-test is one of the statistic tests that is used to know whether or not there is a significant difference of the two samples of mean in two variables.<sup>7</sup> The different mean was analyzed by using paired sample T-test of SPSS 16 version.

<sup>5</sup> Arthur Hughes, *Testing for Language Teachers: Second Edition*. ( United Kingdom: Cambridge University Press, 2003),p. 104

<sup>6</sup> Suharsimi Arikunto. *Dasar-Dasar Evaluasi Pendidikan*. ( Jakarta: Bumi Aksara, 2009), p.24

<sup>4</sup> Hartono. *Statistik Untuk Penelitian*, (Yogyakarta:Pustaka Pelajar, 2009), p. 165

The T-table was employed to see whether or not there is a significant difference between the mean score of pre test and post test. The t-obtained value was consulted with the value of t-table at the degree of freedom (df) = N-1.

Statistically hypotheses are:

$$H_a = t_0 > t\text{-table}$$

$$H_0 = t_0 < t\text{-table}$$

$H_a$  is accepted if  $t_0 > t\text{-table}$  or there is a significant difference of the students' ability in writing narrative paragraph between students before and after being taught by using timed writing checklist strategy at the first year students of MA Muhammadiyah Pekanbaru.

$H_0$  is accepted if  $t_0 < t\text{-table}$  or there is no a significant difference of the students' ability in writing narrative paragraph between students before and after being taught by using timed writing checklist strategy at the first year students of MA Muhammadiyah Pekanbaru.

### **G. The Reliability and Validity**

In this research the researcher used inter-rater reliability. Gay said that inter-rater reliability can be obtained by having two or more judges independently score the test and then compare the score of each judge to each test taker. The score of judge 1 can be correlated to judge 2. The higher the correlation is the higher the interjudge reliability will be.<sup>8</sup>

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<sup>8</sup> Gay, *Op. Cit.* a

In this research, the researcher used inter- rater reliability because the researcher had two raters in order to score the students' ability in writing ability. The categories of reliability can be seen from the following table:

**Table III.5**  
**The Categories of Reliability**

No	Reliability	Level of Reliability
1	0.0-0.20	Low
2	0.21-0.40	Sufficient
3	0.41-0.70	High
4	0.71-1.0	Very high

(taken from Tinambunan in Meltiawati in Zelly)<sup>9</sup>

To determine the correlation between the scores given by rater 1 correlated to the scores given by rater 2, the researcher used Pearson Product Moment formula through SPSS 16 version.

**TABLE III.6**  
**Correlations**  
**Correlations**

		RATER 1	RATER 2
RATER 1	Pearson Correlation	1	.631**
	Sig. (1-tailed)		.000
	N	30	30
RATER 2	Pearson Correlation	.631**	1
	Sig. (2-tailed)	.000	
	N	30	30

<sup>9</sup> Zelly putriani, *The Correlation Between Reported Speech Mastery and Speaking Ability of The Students of SMKN 1 Pekanbaru* ( Pekanbaru:Unpublished, 2011),p. 35

From the output above, it can be seen that  $r$  calculation is 0.631 correlated to  $r$  table,  $df = 29$ . at level of 5%  $r$  table is 0.355, while at level of 1%  $r$  table is 0.456. thus the  $r$  observed is obtained higher than  $r$  table, either at level of 5% or 1% ( $0.355 < 0.631 > 0.456$ ). so, the researcher concluded that there is a significant correlation between score of rater 1 and score of rater 2. In other words, the writing ability tests are reliable. So, the reliability of writing ability tests are high relationship.

Besides, the tests used also had the validity. A test is said to be valid if it measures accurately what it is intended to measure.<sup>10</sup> In the research, the writer used content validity. According to Sugiyono, content validity is a kind of test that is used to measure achievement, the test must be created based on appropriate material, easy to be comprehended or suitable with students level.<sup>11</sup> The test of the research was appropriate to students' knowledge and it was familiar materials to the students' daily life.

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<sup>10</sup>Arthur Hughes, *Testing for Language Teachers. Second Ed.* (Cambridge: Cambridge University Press, 2003),p. 26

<sup>11</sup> Prof. Dr. Sugyono. *Metode Penelitian Pendidikan: Pendekatan Kuantitatif, Kualitatif dan R&D.* (Bandung:Alfabeta, 2011),p. 176