

## CHAPTER III

### RESEARCH METHOD

#### A. The Research Design

This research is designed to be quasi experimental research. “It is procedures in quantitative research in which the investigator determines whether an activity or materials make difference in result for participants.”<sup>1</sup> So, in experimental research, the writer would like to improve something that can influence the result of studying. In addition, Louis Cohen, Lawrence Manion and Keith Marrison state an experiment involves making a change in the value of one variable – called the independent variable – and observing the effect of that change on another variable – called the dependent variable.<sup>2</sup>

The design of this research is a Quasi Experimental design, with Non-equivalent control group design. In this design, the researcher would use pre-test and posttest design. Furthermore Creswell says that the researcher can use intact group the experimental and control treatments, give a pre-test to both groups, hold experimental treatment activities with the experimental group only, after that give a post-test to assess the differences between the two groups<sup>3</sup>.

In conducting the research, two classes of the second year students were involved. A class was treated as an experimental class and the other class was

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<sup>1</sup>Jhon W. Creswell. *Educational Research: Planning, Conducting, and Evaluating Quantitative and Qualitative Research*. (New Jersey: Pearson Education, 2008), p.60

<sup>2</sup>Louis Cohen, Lawrence Manion and Keith Marrison. *Research Methods in Education Sixth Edition*. (City: N Routledge. 2007), p.272

<sup>3</sup>Ibid. p.313-314.

treated as a control class. An experimental class was a class that was taught by using QUIP strategy (the alternative way), meanwhile, control class was a class that was not taught by using QUIP strategy. The treatment for the control class was Three-Phase Technique (the traditional way). In brief, this research is designed by the following table:<sup>4</sup>

**Table III.1  
Research Design**

<b>Class</b>	<b>Pre-Test</b>	<b>Treatment</b>	<b>Post-Test</b>
Control	X1	T <sub>1</sub>	X2
Experimental	Y1	T <sub>2</sub>	Y2

Note:

X1 and X2 : Pre-test and post-test for control group

Y1 and Y2 : Pre-test and post-test for experimental group

T<sub>1</sub> : Three-Phase Technique

T<sub>2</sub> : QUIP Strategy

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

This research was conducted at the second year students of MA.Muhammadiyah Penyasawan Kampar Regency The research would be conducted from December to January 2013.

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<sup>4</sup> John W. Creswell, Loc.cit,p.314

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

The subject of this study was the second year students at MA.Muhammadiyah Penyasawan Kampar Regency academic year 2013-2014, and the object of this research was the effect of using QUIP strategy on students' writing ability in analytical exposition paragraph.

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

#### **1. Population of the Research**

The population of this research was the second year students at MA.M Penyasawan, which consisted of two classes they were X IPS A (15 students), X IPS B (15 students). Based on the data above, the population counted 30 students. Then, XI IPS A become Experimental group and XI IPS B as Control group.

#### **2. Sample of the Research**

**Table III.2**

**The Total Population and Sample of Social Department at the Second Year Students of MA.M Penyasawan**

<b>No.</b>	<b>Class</b>	<b>Male</b>	<b>Female</b>	<b>Total</b>
1.	XI A	5	10	15
2.	XI B	5	10	15
Jumlah		10	20	30

Based on the total population above, the writer took samples by using (Non-equivalent comparison group design) the dashed line indicates

nonrandom assignment to comparison groups sampling. According to Gay *et al*, cluster sampling select groups, not individual<sup>5</sup>. So, the researcher selected two groups of students to be taken as samples, that consisted of 30 students, they are XI A and XI B.

#### **E. The Techniques of Collecting Data**

To obtain the data that is needed in this research, the writer would use the technique as follows:

##### 1. Writing test

In this research, the researcher would use test as the technique of collecting data. The students would be tested by asking them to write a analytical exposition paragraph. The writer would use pre-test and post-test to experiment class and control class in order to know the effect of using the Questions Into Paragraphs (QUIP) strategy on students' ability on writing an analytical exposition paragraph of the second year at MA.Muhammadiyah Penyasawan.

To collect the data, the writer used pre-test and post-test, the writing result would be evaluated by concerning five components and each component has score of level. The specific of assessment aspects is as follows:

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<sup>5</sup> Gay, L.R, Peter Airasian. *Educational Research: Competencies for Analysis and Application*. New Jersey: Prentice-Hall, inc. 2000, p. 129

**Table III.3**

**Assessment Aspects of Writing Analytical Exposition**

<b>No</b>	<b>Aspect assessments</b>	<b>The Highest Score</b>
1	Content	
2	Organization a. Thesis b. Argument c. Reiteration	
3	Vocabulary	
4	Grammatical Features a. Argument sequence b. The uses of emotive and evaluative words c. Present Tense	
5	Spelling & Punctuation	
Total Score		
Maximum Score		100

Category :

- 1 = Incompetent
- 2 = Competent enough
- 3 = Competent
- 4 = Very Competent

Maximum score: 100

$$\text{Final Score} = \frac{\text{Total score}}{\text{Maximum score}} \times 100^6$$

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<sup>6</sup> Melgis Dikawaty Pratama, *Teaching Writing A Hanbook of Teaching Productive Skill*. Pekanbaru: Rizky Grafika, 2012, pp. 205

To interpret the final score, the following criteria were used:

1. 80-100 = Very Competent
2. 66-79 = Competent
3. 55-65 = Competent enough
4. 0-54 = Incompetent

#### **F. The Technique of Data Analysis**

In order to analyze students' ability in writing analytical exposition paragraph, the writer used minimum standard score of English lesson in MA.Muhammadiyah Penyasawan Kampar (KKM) that is 70 for students' writing ability. There were tests ; Pre- Test which was given before the treatment and Post-Test was given after the treatment. It means for those who get score  $< 70$ , they do not pass the passing grade (KKM), while for those who get score  $\geq 70$ , they pass passing grade (KKM).

In order to find out whether there is a significant difference between students' ability on writing analytical exposition paragraph before being taught by using QUIP strategy and students' ability on writing analytical exposition paragraph after being taught by using QUIP strategy, the data were analyzed statistically. In analyzing the data, the researcher used score of pre-test and post-test. The different mean is analyzed by using simple independent T- test formula through using SPSS 16 Version.

The  $F_{\text{calculated}}$  is obtained by considering variable of  $dk$  as follows:<sup>7</sup>

$dk = N - \text{independent variable} - 1$

$N = \text{Number of cases}$

The significant level chosen in analysing the score  $F_{\text{calculated}}$  through using SPSS 16 Version is 5% or 0.05.

Statistically the hypotheses are:

$H_a: F_{\text{calculated}} > F_{0.05}$

$H_o: F_{\text{calculated}} < F_{0.05}$

$H_a$  is accepted if  $F_{\text{calculated}} \geq F_{0.05}$  or there is a significant effect of using QUIP strategy on students' writing ability in analytical exposition paragraph at the second year of MA.M Penyasawan of Kampar Regency

$H_o$  is accepted if  $F_{\text{calculated}} < F_{0.05}$  or there is no significant effect of using QUIP strategy on students' writing ability in analytical exposition paragraph at the second year of MA.M Penyasawan of Kampar Regency.

In analyzing the data, the researcher used scores of pre-test and post-test of experimental and control group (cluster group) . This score would be analyzed statistically. To analyze data from the classroom observation, the researcher used the category standard as follows:<sup>8</sup>

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<sup>7</sup>Hartono. *Statistik untuk Penelitian*. Yogyakarta: Pustaka Pelajar, 2008, pp. 191

<sup>8</sup>Suharsimi Arikunto. *Dasar-Dasar Evaluasi Pendidikan*. Jakarta: PT. RinekaCipta, 2009. p. 245

1. 80-100 = Very Competent
2. 66-79 = Competent
3. 55-65 = Competent enough
4. 0-54 = Incompetent

$$Me = \frac{\sqrt{\sum xi}}{n}$$

Me: Mean

: Epsilon( score sample)

Xi: Score x ke i until n

N: population individual

$$S = \sqrt{\frac{\sum f_i(x_i - \bar{x})^2}{(n - 1)}}$$

“The different mean is analyzed by using T – test formula.”<sup>9</sup> In this research, the researcher used T-test to know whether the result of the research was statistically significant. The data were analyzed by using the formula as follows:

$$t_o = \frac{Mx - My}{\sqrt{\left(\frac{SD_x}{\sqrt{N-1}}\right)^2 + \left(\frac{SD_y}{\sqrt{N-1}}\right)^2}}$$

$t_o$  = The value of t – obtained

$M_x$  = Mean score of experimental sample

$M_y$  = Mean score of control sample

$SD_x$  = Standard deviation of experimental group

$SD_y$  = Standard deviation of control group

The t – table is employed to see whether there is a significant difference between the mean score of both experiment and control group. The

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<sup>9</sup>Hartono. *Statistik Untuk Penelitian*. Yogyakarta: PustakaPelajar, 2009, p.193



t - obtained value is consulted with the value of t – table at the degree of freedom (df) as follow:

$$df = (N1+N2) - 2$$

df = the degree of freedom

N1 = the number of students in experimental class

N2 = the number of students in control class

Statically hypothesis is:

$$H_a : t_o > t - \text{table}$$

$$H_o : t_o < t - \text{table}$$

- a)  $H_a$  is accepted if  $t_o > t - \text{table}$  or there is a significant effect of using QUIP strategy on students' ability in writing analytical exposition paragraph.
- b)  $H_o$  is accepted if  $t_o < t - \text{table}$  or there is no significant effect of using QUIP strategy on students' writing ability in analytical exposition paragraph.

