CHAPTER III
METHOD OF THE RESEARCH

A. The Research Design

This study was a kind of experimental research.The design of this research was quasi experiment design. The purpose of quasi-experimental research was to get information through some assumption from the true experiment which was impossible to control or manipulate the entire relevant variables. The type wasnon-equivalent grouppretest-posttest control group design.[1]

In this research, the writer used two groups or two classes as the sample, namely: experimental class and control classes.Those classes were not chosen randomly.For experimental class, the students were treated with particular teaching on what problems of research the writer had. Meanwhile, control classwas only given a pre-test and post-test without particular treatment as given to the experiment class. Both experimental and control classes were treated in the same test.

Table III.1
Research Design

Class	Pre-test	Treatment	Post-test
Experimental Class	O_1	X	O_2
Control Class	O_1	-	O_2

[1]James H. McMillan, *Research in Education, SixthEdition*. (New york: Pearson Education Inc, 2006), p. 274

Where:

O_1 :Pre-test for experimental class and control class

X : Receiving particular treatment

O_2 :Post-test for experimental class and control class

B. The Location and Time of the Research

This research was conducted from 25 Maret-26 April 2014. It was conductedto the eleventh grade studentsatSMAS Purna Manunggal District of Kampar Regency.

C. The Subject and Object of the Research

The subject of this research was the eleventh grade students atSMAS Purna Manunggal District of Kampar Regency, while the object of this research was the effect of usingMultipass strategy on students'reading comprehension.

D. The Population and Sample of the Research

The total of population of this research was all of the eleventh grade students at SMAS Purna Manunggal District of Kampar Regency. They were divided into three classes, one class for science departement and two classes for social departement and the total numbers of students was76 students. In this research, the writer used quasi-experimental research; the writer took two classes only. They were XI IPS-1 class that consisted of 25students as experimental class, and XI IPS-2 class that consisted of 25 students as control class,so the total of sample was 50students.

The population of this research was large enough to be taken as sample of the research. Furthermore because they were homogenous where the students were taught by the same teacher, same material books,so the writer used cluster sampling to take the sample.

Table III.2

TotalSampleof the Eleventh GradeStudents

atSMAS Purna Manunggal District of Kampar Regency

No	Classes	Total
1	XI IPS-1	25
2	XI IPS-2	25
Total of Sample		50

E. The Technique of Collecting Data

In order to get data needed to support this research, the writer applied the techniques to determine the result of the teaching learning process by using Multipass strategy, the writer used a test as an instrument to collect data. The test was divided into two ways:

1. Pre-test was used to determine students' reading comprehension before getting treatment.
2. Post-test was used to determine students' reading comprehension after getting the treatment. Post-test was carried out once, after treatment, to get the maximum result.

In giving the assessment, the writer correlated it to the goal or purpose of the reading in curriculum. The technique used by writer was multiple choices. Hughes says that there are many techniques that can assess the students' reading comprehension; one of them is multiple choice techniques. Multiple choice technique was a technique where the candidate provides evidence of successful reading by making a mark against one out of a number of alternatives.[2]Then, the writer used multiple choice techniques consisting 20 items. This technique could assess the students' reading comprehension.

[2]Arthur Hughes. *Testing for Language Teachers, Second Edition.* (Cambridge: Cambridge University Press, 2003), p. 143

Table. III.3

The Blue Print Pre-Test

No	Indicators	Number of Items
1.	Identify main idea of the text	1, 8, 14, 17
2.	Find specific information from the text	3, 12, 15
3.	Infer the meaning of an unknown word in the text	2, 11, 19
4.	Identify reference of the text	5, 9, 16
5.	Make inferences from the text	6, 10, 18
6.	Identify the generic structures of Hortatory exposition text (thesis, arguments, and recommendation)	4, 7, 13, 20

Table. III.4

The Blue Print Post-Test

No	Indicators	Number of Items
1.	Identify main idea of the text	1, 5, 8, 15
2.	Find specific information from the text	7, 13, 20
3.	Infer the meaning of an unknown word in the text	3, 12, 18
4.	Identify reference of the text	4, 11, 16
5.	Make inference from the text	2, 9, 19
6.	Identify the generic structures of Hortatory exposition text (thesis, arguments, and recommendation)	6, 10, 14, 17

After the students did the test. The writer then took the total score from the result of the reading comprehension test. The classification of the students' score can be seen below[3]:

Table. III.5

The Classification of The Students' Score

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

F. The Item Difficulties, Validity, and Reliability

1. The Item Difficulties

Before getting the data, the writer used all of the items in try out. The test was tried out to 20 students of the eleventh grade on the other class out of the sample. Try out was intended to know the value of the test. The value itself was used to find out the level of difficulties of each item. The standard of value used was ≥ 0.30 and ≤ 0.70.[4] The items that could not fulfill the standard value were replaced. The facility value under 0.30 is considered difficult and above 0.70 is cinsidered easy. The

[3]Suharsimi Arikunto. *Dasar-Dasar Evaluasi Pendidikan*. (Jakarta: Bumi Aksara, 2009), p. 245

[4]*Ibid*, p. 210

level of difficulty was used to show how easy and difficult an item was. It was calculated by using the formula:[5]

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

Where:

P = Difficulty level

B = The number of correct answer

JS = Students taking test

For example, if the number 1 was correct answered by 10 students of 25 students, the difficulty could be calculated as follows:

$$= \frac{10}{25}$$

$$= 0.4$$

Then, the proportion correct was represented by “p”, whereas theproportionincorrect was represented by “q”.The purpose of try out was to obtain validity and reliability of the test. It was determined by finding the difficulty level of each item. The data obtained by consorting 6 components:

a. Identify main idea of the text

b. Find specific information from the text

c. Infer the meaning of an unknown word in the text

d. Identify reference of the text

[5]*Ibid*, p. 208

e. Making inference from the text

f. Identify the generic structures of Hortatory exposition text (thesis, arguments, and recommendation)

Table. III.6

The students are able to identify main idea of the text

Variable	Identify main idea				N
Item no	1	4	8	15	20
Correct	14	12	13	9	
P	0.70	0.60	0.65	0.45	
Q	0.30	0.40	0.45	0.55	

The table above showed the item numbers of question for identifying main idea were 1, 4, 8, 15. It can be shown that the proportion of correct answer of the test. The percent proportion of correct answer for item number 1 was 0.70, the percent proportion of correct answer for item number 4 was 0.60, the percent proportion of correct answer for item number 8 was 0.65, and the percent proportion of correct answer for item number 15 was 0.45. The total correct answer of identifyingmain idea was 0.60. Then based on the standard level of difficulty “p” is >0.30 and <0.70. So,the items of identifying main idea were accepted.

Table III.7

The students are able to find specific information from the text

Variable	Finding specificinformation			N
Item no	2	14	20	20
Correct	11	10	13	
P	0.55	0.50	0.65	
Q	0.45	0.50	0.35	

The table above showed the item numbers of question for finding specific information were 2, 14, 20. It can be shown that the proportion of correct answer of the test. The percent proportion of correct answer for item number 2 was 0.55, the percent proportion of correct answer for item number 14 was 0.50, and the percent proportion of correct answer for item number 20 was 0.65. The total correct answer of finding specific information was 0.57. Then based on the standard level of difficulty “p” is >0.30 and <0.70. So,the items of finding specific information were accepted.

Table III.8

The students are able to infer the meaning of an unknown word of the text

Variable	Inferringthe meaning of an unknown word			N
Item no	6	10	18	20
Correct	11	11	12	
P	0.55	0.55	0.60	
Q	0.45	0.45	0.40	

The table above showed the item numbers of question for inferring the meaning of an unknown word were 6, 10, 18. It can be shown that the proportion of correct answer of the test. The percent proportion of correct answer for item number 6 was 0.55, the percent proportion of correct answer for item number 10 was 0.55, and the percent proportion of correct answer for item number 18 was 0.60. The total correct answer of inferring the meaning of an unknown word was 0.57. Then based on the standard level of difficulty “p” is >0.30 and <0.70. So,the items of inferring the meaning of an unknown word were accepted.

Table III.9

The students are able to identify reference of the text

Variable	Identifyingreference			N
Item no	3	11	16	20
Correct	10	14	12	
P	0.50	0.70	0.60	
Q	0.50	0.30	0.40	

The table above showed the item numbers of question for identifyingreference were 3, 11, 16. It can be shown that the proportion of correct answer of the test. The percent proportion of correct answer for item number 3 was 0.50, the percent proportion of correct answer for item number 11 was 0.70, and the percent proportion of correct answer for item number 16 was 0.60. The total correct answer of identifyingreference was

0.60. Then based on the standard level of difficulty “p” is >0.30 and <0.70. So,the items of identifyingreference were accepted.

Table III.10

The students are able to make inferences from the text

Variable	Making inferences			N
Item no	5	9	19	25
Correct	10	9	11	
P	0.50	0.45	0.55	
Q	0.50	0.55	0.45	

The table above showed the item numbers of question for makinginferences were 5, 9, 19. It can be shown that the proportion of correct answer of the test. The percent proportion of correct answer for item number 5 was 0.50, the percent proportion of correct answer for item number 9 was 0.45, and the percent proportion of correct answer for item number 19 was 0.55. The total correct answer of makinginferenceswas 0.50. Then based on the standard level of difficulty “p” is >0.30 and <0.70. So,the items of makinginferences were accepted.

Table III.11

The students are able to identify the generic structures of the text

Variable	Identifyingthe generic structures				N
Item no	7	12	13	17	25
Correct	13	12	11	10	
P	0.65	0.60	0.55	0.50	
Q	0.35	0.40	0.45	0.50	

The table above showed the item numbers of question for identifyingthe generic structures were 7, 12, 13, 17. It can be shown that the proportion of correct answer of the test. The percent proportion of correct answer for item number 7 was 0.65, the percent proportion of correct answer for item number 12 was 0.60, the percent proportion of correct answer for item number 13 was 0.55, and the percent proportion of correct answer for item number 17 was 0.50. The total correct answer of identifyingthe generic structures was 0.58. Then based on the standard level of difficulty “p” is >0.30 and <0.70. So,the items of identifyingthe generic structures were accepted.

2. Validity

Every test must aim at providing a true measure of the participation skill in which it is intended to measure. Before the items were used to get the data, all of them were tried out first. The instrument

of the test is valid if the instrument that used can measure the thing that will be measured.[6]

The purpose of try out was to obtain validity and reliability of the test. It was determined by finding the difficulty level of each item. To find validity the test, the writer used correlation product moment with the formula as follow[7]:

$$r_{xy} = \frac{\sum xy}{\sqrt{\sum x^2 \ \sum y^2}}$$

Where:

r_{xy} : Correlation product moment

$\sum xy$: Total x and y

X^2 : X quadrant

Y^2 : Y quadrant

$$r_{xy} = \frac{1525}{\sqrt{1975 \ \ 2080}}$$

$$= \frac{1525}{\sqrt{4108000}}$$

$$= \frac{1525}{2026{,}82}$$

$$r_{xy} = 0{,}75$$

[6] L.R. Gay, and Peter Airasian. *Educational Research: Competencies for Analysis and Application Sixth Edition.* (New Jersey: Prentice Hall, 2000), p. 23

[7] Hartono. *Statistik Untuk Penelitian.* (Yogyakarta: Pustaka Pelajar, 2009), p. 84

If the validity test in 0,75, it means that the validity is good. According to Arikunto, he stated that the range of validity is:[8]

Table III.12

The Standard of Validity

No	The Standard of Validity (rxy)	Score
1	Excellent	0,800-1,00
2	Good	0,600-0,800
3	Fair	0,400-0,600
4	Poor	0,200-0,400
5	Very poor	0,000-0,200

3. Reliability

Arikunto stated that it is possible for the test is reliable but it is not valid, whereas the test is valid automatically, it is reliable. To obtain the reliability of the test given, the researcher used Spearman-Brown formula as follows[9]:

$$r_{11} = \frac{2r_{1/21/2}}{1+r_{1/21/2}}$$

Where:

r_{11} : Instrument of reliability

r1/21/2 : r_{xy} that mean as correlation of index

[8]Suharsimi Arikunto. *Dasar-Dasar Evaluasi Pendidikan*. (Jakarta: Bumi Aksara, 2009), p. 245

[9]Suharsimi Arikunto. *Prosedur Penelitian*. (Jakarta: PT. Rineka Cipta, 2010), p. 223

$$r_{11} = \frac{2\times 0,75}{1+0,75}$$

$$= \frac{1,5}{1,75}$$

$$r_{11} = 0,86$$

To know the test reliable or not, the value of r_{11} should be compared with r-product moment. The value of r_{11} should be higher than r-table. From the calculation above the value of r_{11} is 0.86. Then the r-table at 5 % grade of significance is 0.369. While r-table at 1% grade significance is 0.505. So, it can be concluded that 0.369<0.86>0.505. In order words, the instrument was reliable because the value of r_{11} is higher than r-table.

G. The Technique of Data Analysis

In analyzing the data, the writer used the statistical calculation of independent sample T-test formula. The independent sample T-test used to find out the significant difference of result between students' reading comprehension taught and without taught by using Multipass strategy at SMAS Purna Manunggal District of Kampar Regency. The data analyzed by using SPSS 16.0 Version.