

A. Research Design

and post-test.

lak Cipta Dilindungi Undang-Undang

Pengutipan tidak merugikan kepentingan yang wajar UIN Suska R

	Table	III.1	
	The Researc	ch Design	
Group	Pre-Test	Treatment	P
Experimental	ХАК	Т	
Control	X TI	-	

CHAPTER III

RESEARCH METHOD

Creswell (2008:299), "experiment is you test an idea (or practice

procedures) to determine whether it influences an outcome or dependent

variables". This research used a quasi-experimental design: the pretest-

post-test, non-equivalent group design. Thus, this research used

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 Louis Cohen (2007:283). There were two

variables in this research, first variable was Scaffolding Reading

Experience as independent variable (x variable), the second is reading

comprehension as dependent variable (y variable). Therefore the

experimental and control classes were be provided with pre-test, treatment,

The quasi-experimental design: the pretest-post-test, non-equivalent

Post-Test

Y1

Y2

The type of this research is experimental research. According to



Where:

Е	= Experimental group
С	= Control group
X AK	= Pre-test in experimental group
X TI	= Pre-test in control group
Y1	= Post-test in experimental group
Y2	= Post-test in control group
Т	= Treatment

B. The Location and Time of the Research

This research was conducted at Vocational High School Muhammadiyah 3 Terapdu Pekanbaru It is located in Cipta Karya Street Panam, Pekanbaru. This research was carried out from April to Mei 2016.

C. The Subject and Object of the Research

1. The Subject of the research

The subject of the research was the tenth grade students of Vocational High School Muhammadiyah 3 Terpadu Pekanbaru 2015/2016 academic year.

2. The Object of the research

Object of the research was using Scaffolding Reading Experience Text strategy and students' reading comprehension at Vocational High School.

3. The Population and Sample of the Research

The population of the research was the tenth grade students at Vocational High School Muhammadiyah 3 Terpadu Pekanbaru. They consisted of five classes. The total number of population was 124 students.



Table III.2 The Population of the tenth Grade Students of Vocational Hugh School Muhammadiyah 3 Terpadu Pekanbaru

No	Classes	Population		
1	XAK	23 Students		
2	X TI 1	23 Students		
3	X TI 2	26 Students		
4	X TRK	25 Students		
5	X TKR/TSM	27 Students		
	Total	124 Students		

Source: Curriculum section of Vocational High School Muhammadiyah 3 Terpadu Pekanbaru

The researcher used cluster random sampling technique in determining the sample of the research. Furthermore, Gay and Petter Airasian (2000:389), cluster sampling is sampling in which group, not individually; it can be communities, school district, and so on. The researcher gave name card to the classes based on every tenth grade class in Vocational High School Muhammadiyah 3 Pekanbaru, they were X AK, X TI 1, X TI 2, X TKR, X TKR/TSM. The researcher mixed these cards then took two cards randomly as the sample of the research. The chosen classes were X AK and X TI 1. Class XI AK was experimental class, and class X TI 1 was control class. So the total number of sample is 46 students.

Table III.3

The Sample of the Research

No	Class	Male	Female	Total
1	X AK	8 Students	16 Students	23 Students
2	X TI 1 19 Students		4 Students	23 Students
		46 Students		



itate Islamic University of Sultan Syarif Kasim Ria

D. The Technique of Collecting Data

In order to get some data needed to support this research, the researcher applied the techniques by the test. The test wasmultiple choice, the question consisted of 20 items based on the indicator. The test was used to know the students' reading comprehension in narrative text.

The test was divided into two test; pre-test and post-test. Pre test was given before treatment. The test was administered to class X AK as experimental class and class X TI as control class. Post- test was given after teaching several time, it was given for both of the classes. The test was administered to class X AK as experimental class and class X TI as control class.

Based on Arikunto (2009:245), the interpretation of students score is classified follow:

NO	INDICATOR	NUM	IBER OF	QUEST	TION
1	The students' ability to identify the main idea of narrative text.	1	6	11	16
2	The students' ability to know the meaning word of narrative text.	2	7	12	17
3	The students' ability to identify generic structures of narrative text.	3	8	13	18
4	The students' ability to identify moral value of narrative text.	4	9	14	19
5	The students' ability to identify factual information of narrative text.	5	10	15	20

Table III.4 The Blueprint of The Test



Table III. 5 The Classification of Students Score

THE SCORE LEVEL	CATEGORY	MARK
81-100	VERY GOOD	А
61-80	GOOD	В
41-60	ENOUGH	С
21-40	POOR	D
0-20	FAIL	Е

1. Validity and Reliability of the Test

Validity of the Test a.

Hughes (1989:22), a test is said to be valid it if measures accurately what it is intended to measure. Gay (2000:161) stated that the validity is the appropriateness of the interpretations made from the test score. There are three kinds of validity that consist of content validity, construct validity, and criterion validity.

Before the test given to the sample of this research, the researcher did try out the test items. The test given to the students was considered not too difficult or not too easy. According to Arikunto (2008:208) the test is accepted if the degree of difficulty is between 0.30-0.70. It was determined by finding the difficulty level of each item. The formula for item difficulty is as follows:

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

Where:

P: Index of difficulty B: The number of correct answer



40

Js: The number of students

The difficulty level of an item shows how easy or difficult a particular item in a test. The items that do not reach the standard level of difficulty are excluding from the test and they are changed with new items that are appropriate. The standard level of difficulty used is <0.30 and >0.70. It means that an item is accepted if the level of difficulty is between 0.30-0.70, and it rejected if the level of difficulty is less than 0.30 (the item is too difficult) and over than 0.70 (the item is too easy).

Table III.6 Validity test

Question no	Score	Result
1	0.61	Valid
2	0.70	Valid
3	0.43	Valid
4	0.52	Valid
5	0.61	Valid
6	0.70	Valid
7	0.48	Valid
8	0.70	Valid
9	0.70	Valid
10	0.61	Valid
11	0.70	Valid
12	0.52	Valid
13	0.43	Valid
14	0.70	Valid
15	0.57	Valid
16	0.70	Valid
17	0.70	Valid
18	0.35	Valid
19	0.65	Valid
20	0.65	Valid



Table III.7 The Students' ability to identify the main idea in narrative text

Variable	I	dentifying	the main ide	ea	Ν
Item no	1	6	11	16	
Correct	14	16	16	16	23
Р	0.61	0.70	0.70	0.70	23
Q	0.39	0.30	0.30	0.30	

Based on the table III.7, the proportion of correct answer for item number 1 shows the proportion of correct 0.61, item number 6 shows the proportion of correct 0.70, item number 11 shows the proportion of correct 0.70, item number 16 shows the proportion of correct 0.70. Based on the standard level of difficulty "p" <0.30 and >0.70, it is pointed out that item difficulty level of each item number for identify the main idea in narrative text is accepted.

Table III.8

The Students' ability to know the meaning word in narrative text

Variable	Student	N			
Item no	2	7	12	17	
Correct	16	11	12	16	22
Р	0.70	0.48	0.52	0.70	23
Q	0.30	0.52	0.48	0.30	T A

Based on the table III.8, the proportion of correct answer for item number 2 shows the proportion of correct 0.70, item number 7 shows the proportion of correct 0.48, item number 12 shows the proportion of correct 0.52, item number 17 shows the proportion of correct 0.70. Based on the



standard level of difficulty "p" <0.30 and >0.70, it is pointed out that item difficulty level of each item number for knowing the meaning word in narrative text is accepted.

Table III.9

The students' ability to identify the generic structure in narrative text

	Variable Identifying the generic structure					
	Item no	3	8	13	18	
ſ	Correct	10	16	10	8	22
ľ	Р	0.43	0.70	0.43	0.35	25
[Q	0.57	0.30	0.57	0.65	

Based on the table III.9, the proportion of correct answer for item number 3 shows the proportion of correct 0.43, item number 8 shows the proportion of correct 0.70, item number 13 shows the proportion of correct 0.43, item number 18 shows the proportion of correct 0.35. Based on the standard level of difficulty "p" <0.30 and >0.70, it is pointed out that item difficulty level of each item number for identify the generis structure in narrative text is accepted.

Table III.10The Students' ability to identify the moral value in narrative text

Variable	Identifying the moral value of the text				
Item no	4	9	14	19	
Correct	12	20	16	15	
Р	0.52	0.70	0.70	0.65	23
Q	0.48	0.30	0.30	0.35	

Based on the table III.10, the proportion of correct answer for item number 4 shows the proportion of correct 0.52, item number 9 shows the



proportion of correct 0.87, item number 14 shows the proportion of correct 0.78, item number 19 shows the proportion of correct 0.74. Based on the standard level of difficulty "p" <0.30 and >0.70, it is pointed out that item difficulty level of each item number for identify the moral value in narrative text is accepted.

 Table III.11

 The Students' ability to identify factual information in narrative text

Variable	Identifying the factual information of the text				Ν
Item no	5	10	15	20	
Correct	14	14	13	15	23
Р	0.61	0.61	0.57	0.65	
Q	0.39	0.39	0.43	0.35	

Based on the table III.11, the proportion of correct answer for item number 5 shows the proportion of correct 0.61, item number 10 shows the proportion of correct 0.61, item number 15 shows the proportion of correct 0.57, item number 20 shows the proportion of correct 0.65. Based on the standard level of difficulty "p" <0.30 and >0.70, it is pointed out that item difficulty level of each item number for identify factual information in narrative text is accepted.

b. Reliability

H. Douglas 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. Meaning that, we can say the test was reliable when an examinee's results were consistent on repeated measurement. To obtain the reliability of the test, it must be known the mean and standard deviation of test.

The reliability is a criterion that can judge the quality of the test. Reliability is a necessary characteristic of any good test. Heaton (1988:159) explained that reliability is primary importance in the use of both public achievement and proficiency test and classroom test. Scott and Steven (2005: 279) said that Reliability is usually measured with four techniques: (a). test – retest reliability, (b). equivalent form reliability, (c). internal consistency, and (d). interrater reliability.

There are some factors affecting the reliability of a test, they are:

a. The extent of the sample of material of material selecting for testing.

b. The administration of the test, clearly this is an important factor in deciding reliability.

Then, Tinambunan in Dian Mujarokhim (2011: 37) stated that the reliability for good classroom achievement tests are expected to exceed 0.0 and closed 1.00. He state that reliability of test is considered as follows:

1. 0.00-0.20 : Reliability

2. 0.21-0.40 : Reliability is sufficient

3. 0.41-0.70 : Reliability is high

4. 0.71-1.00 : Reliability is very high



to find out whether the test is reliable or not. Table III.12 **Realibilty Test**

To obtain the reliability of the test given, the writer used SPSS 17.00

Case Processing Summary

÷				
-		-	Ν	%
Ζ	Cases	Valid	23	100.0
0		Excluded ^a	0	.0
5		Total	23	100.0

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

Reliability Statistics

Cronbach's Alpha	N of Items			
.554	2			

The reliability of test was 0.554. It is categorized into high reliability level.

2. Normality and Homogeneity of the test

Assessing normality of data is used to describe a symmetrical, bell shaped curve, which has the greatest frequency of score in the middle with smaller frequency towards the extremes. In this research, the researcher assessed the normality of data by using kolmogorov-smirnov test from SPSS 16 version. The kolmogorov-smirnov Z test is typically used to assess univariate normality (Abell, 2009:121). The result of the test can be seen as follows:



	20	
_		
	3	
	-	
	_	
	3	
	0	
	0.0	
-		
_		

Table III.13					
One-Sample Kolmogorov-Smirnov Test					
	-	pretest	posttest		
Ν		23	23		
Normal Parameters ^a	Mean	51.9565	69.5652		
	Std. Deviation	8.49320	6.72733		
Most Extreme Differences	Absolute	.200	.213		
	Positive	.200	.213		
	Negative	176	134		
Kolmogorov-Smirnov Z		.958	1.023		

Asymp. Sig. (2-tailed) a.test distribution is normal

From the table III.10 above, the value (asymp.sig 2-tailed) in pretest and posttest are 0.318 and 0.246 higher than 0.05. It can be concluded that the test distribution is normal. Then, the homogeneity of the test also could be seen the table below:

Table III.14 **Test of Homogeneity of Variance**

Test of	Homogeneity	of	Variance
---------	-------------	----	----------

3		Levene Statistic	df1	df2	Sig.
Score	Based on Mean	2.047	1	44	.160
	Based on Median	1.515	1	44	.225
oity of	Based on Median and with adjusted df	1.515	A1	42.633	.225
n	Based on trimmed mean	1.938	1	44	.171

.246

.318



To find out the homogeneity of the test, the writer used SPSS 17. Referring to the table above, it could be seen that sig. in based on trimmed mean is 0.171 > 0.05 (5%). In conclusion the data of test was homogenous.

4. Technique of Analyzing Data

In this research, the data were analyzed by using a statistic software of Statistical Product and Service Solutions (SPSS) 17 version. The result of ttest analyzing could be seen on the SPSS output, independent sample t-test and eta squared.

After computing t-test, it was obtained the degree of freedom used to determine whether the t-score was significant or not. The obtained value was consulted with the value of t-table by using degree of freedom (df) = (NI+N2)-2 statically hypothesis Hartono (2004:209) :

- H_a : is accepted if to \geq t-table or it can be said that there is significant effect of students' reading comprehension in narrative text by using Scaffolding Reading Experience strategy at vocational high school muhammadiyah 3 Terpadu pekanbaru.
- H₀: is accepted if to ≤ t-table or it can be said that there is no significant effect of students' reading comprehension in narrative text by using Scaffolding Reading Experience strategy at vocational high school muhammadiyah 3 Terpadu pekanbaru.

47