CHAPTER III

RESEARCH METHOD

A. The Design of the Research

The research was an experimental research. According to Gay and Airaisian (2000, p.367) experimental research is the only type of the research that can test hypotheses to establish cause-effect relationship. The design of pre-test and post-test used two classes as the sample. In conducting the research, the eight grade of islamic junior high school diniyah puteri pekanbaru were the participants.

In this research, the researcher took two classes as the sample, namely: experimental class and control class. Those classes were chosen randomly. For experimental class, the students were treated with Fiction Furrow Reader Strategy on what problems of research the researcher had. Meanwhile, control class was given a pre-test and pos-test without particular treatment given. Both experimental and control classes were treated in the same test.

Table III. 1
The Research Design

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

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 at the eight grade of Islamic Junior High School Diniyah Puteri Pekanbaru on KH. Ahmad Dahlan Street. This research was conducted from March to April 2017.

C. The Subject and Object of the Research

The subject of this research was the eight grade students of Islamic Junior High School Diniyah Puteri Pekanbaru while the object was the effect of using Fiction Furrow Reader Strategy on students' reading comprehension of narrative text.

D. The Population and Sample of the Research

1. The Population of the Research

The population of this research was all students of the eight grade of Islamic Junior High School Diniyah Puteri Pekanbaru. It consisted of 3 classes; they were VIIIA, VIIIB, and VIIIC class. The total population of this research was 84 Students. The specification of the population can be seen in the table below:

Table III.2
The total population of the eight grade at Islamic Junior High School Diniyah Puteri Pekanbaru

No	Class	Number of Students
1	VIII A	29
2	VIII B	27
3	VIII C	28
Total Population		**84**

Source: Curriculum Section of Islamic Junior High School Diniyah Puteri Pekanbaru.

2. The Sample of the Research

Based on the total population above, the researcher took two classes for the samples by using Cluster Random Sampling. According to Gay (2000, p.29), cluster random sampling is most useful when the population is very large or spread out over a wide geographic area. So, the researcher used cluster random sampling in choosing the sample. Cluster random sampling selects groups, not individuals.

Based on the explanation above, in getting the sample, the researcher used lottery by passing out small rolled paper marked by sequence name of the class, they were VIIIA, VIIIB, and VIIIC. Then after passing out the paper, the samples of this research were VIIIB as experimental class and VIIIC as control class. The specification of the sample can be seen in the table below:

Table III. 3
The Sample of the Research

No.	Class	Population	Sample	Total
		Female		
1	VIIIB	27	Experiment Class	**27**
2	VIIIC	28	Control Class	**28**
	Total Sample			**55**

E. The Technique of Data Collection

In completing the data, the researcher used techniques of collecting data, namely observation and test for measuring the students' reading comprehension in narrative text.

1. Observation

Observation is used to get data about the implementation of the Fiction Furrow Reader Strategy in teaching reading narrative text; it is done to makesure that the strategy is given procedurally. The observational list can be seen in the table below:

Table III.4
The Observational Checklist of Using Fiction Furrow Reader Strategy

No.	Indicators of Using Fiction Furrow Reader Strategy	Alternative Answers	
		Yes	No
1.	Teacher asks students to identify the difficulty that occurs after they read the text.		
2.	Teacher asks students to identify what the difficulty is from the text.		
3.	Teacher asks students to restate the difficult sentence or passage in their own words.		
4.	Teacher asks students to collaborate in teams to make up a fiction text as indicated. Include the following words in the fiction text		
5.	Teacher asks students to look back through the text.		
6.	Teacher asks students to look forward through the text		
Total			
Percentage			

Therefore, the English teacher observed the researcher for six meetings in experimental class. It can be described in the tables presenting frequency distribution of each observation. Furthermore, the researcher

used the following formula to get the percentage of the observation (Sudjiono, 2007):

$$\mathbf{P} = \frac{\mathbf{F}}{\mathbf{N}} \mathbf{X\ 100\%}$$

Where : P : Percentage

F : Frequency of the score

N : Number of Case

2. Test

The collections of the data were collected by using reading test. According to Brown (2003) he stated that a test refers to a method of measuring a person' ability, knowledge, or performance to perform the language. In order to obtain the students' reading comprehension by using Fiction Furrow Reader Strategy, the researcher gave the test. The test were divided into two kinds, they were pre-test and post-test. The pre-test were used for measuring students' comprehension before using Puppet Show strategy in teaching narrative to the students in experimental and control classes while the post-test were used for measuring students' comprehension after using Puppet Show strategy in experimental class.

Furthermore, the type of test was multiple-choices. According to Brown (2003) he stated that the most popular method of assessing the reading comprehension is multiple-choice format, so that its purpose is to make it easier to administer and can be scored quickly.

There were twenty five questions given to the students. The questions were based on the indicators of reading narrative text comprehension. The indicators consisted of five indicators and each of which had five questions. It can be seen from the blue print of the test below:

Table III.5
The Blue Print of the Reading Test

No	Indicators	Number of items	Total
1	Identify the purpose of narrative text	1, 6, 11, 16, 21	5
2	Identify the meaning of vocabulary in the text.	2, 7, 12, 17, 22	5
3	Identify the generic structure of narrative text	3, 8, 13, 18, 23	5
4	Identify the factual information of narrative text	4, 9, 14, 19, 24	5
5	Identify the references of word of narrative text	5, 10, 15, 20, 25	5
Total			**25 Items**

Then, the researcher took the total score from the result of the reading comprehension test. The minimum students passing grade (KKM) for Reading is 70 at Islamic Junior High School Diniyah Puteri Pekanbaru. According to Arikunto (2009) the classification of the students score can be shown below:

Table III. 6
The Classification of Students' Score

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

F. Validity and Realibility of The Instrument

1. Validity

Validity is a crucial part of any test. Before carrying out a test, it is necessary to know the validity of instruments. According to Brown (2003) he stated that validity is measuring exactly what it is proposed to be measured. Pertaining to the statement above, Ary et al. (2010) mentioned that the validity is defined as the extent to which the instrument measured what it is claimed to be measured, thus, the test is said valid if it measures accurately what it is intended to be measured.

Furthermore, Brwon (2003) also mentioned that there are five types of validity, they are content-related evidence, criterion-related evidence, construct-related evidence, consequential validity and face validity. Among all kinds of validity, the content validity was the most appropriate to measure the instrument used in this research.

In term of content validity, Brown (2003) stated that it refers to the content of the test provide samples about the subject matter are being measured. It means that we have to design the tests based on the material that they had learned, thus, the researcher concluded that this research belonged to the content validity in consideration of the tests reflected to what the students had learned the content of the curriculum. In order words, the tests were given based on the material that they had learned and concerned with five components as follows:

1. The students are able to identify the purpose of narrative text.
2. The students are able to identify the meaning of vocabulary in the text.
3. The students are able to identify the generic structure of narrative text.
4. The students are able to identify the factual information of narrative text.
5. The students are able to identify the references of word of narrative text.

Regarding with this, Arikunto (2012) formulates the formula of item difficulty is as follows:

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

Where

P : index of difficulty or facility value

B : the number of correct answers

JS : the number of examines or students taking the test

The formula above was used in order to know the easy or difficult tests those were given to the respondents. As mentioned by Arikunto (2009) he added that the standard value of the proportion of correct can be seen in the table bellow:

Table III.7
Index Difficulty Level of Instruments

Proportion correct (p)	Item category
P > 0.70	Easy
0.30 ≤ P ≤ 0.70	Mean
P < 0.30	Difficult

The standard level of the difficulty used was **>0.30 and <0.70**, thus, the items were accepted if the level of difficulty between 0.30 – 0.70 and it was rejected if the level of difficulty below 0.30 (difficult) and over 0.70 (easy). Then the proportion correct was represented by "p", whereas the incorrect was represented by "q". The calculation of the items difficulty can be seen as in the following tables:

Table III.8
Students are Able to Identify the Purpose of Narrative Text

Variable	Identifying the Purpose of Narrative Text					N
Item No	1	6	11	16	21	55
Correct Item	**37**	**31**	**25**	**35**	**37**	
P	0.67	0.56	0.45	0.64	0.67	
Q	0.33	0.44	0.55	0.36	0.33	

Based on the table III.8, item number 1 shows the proportion of correct 0.67, item number 6 shows the proportion of correct 0.56, item number 11 shows the proportion of correct 0.45, item number 16 shows the proportion of correct 0.64, item number 21 shows the proportion of correct 0.67. Based on the standard level of difficulty, all items for identifying the purpose or "p">0.30 and <0.70. So, the items of identifying the purpose are accepted.

Table III.9
Students are Able to Identify the Meaning of Vocabulary of Narrative Text

Variable	Identifying the Meaning of Vocabulary of Narrative Text					N
Item No	2	7	12	17	22	55
Correct Item	**36**	**33**	**37**	**38**	**36**	
P	0.65	0.60	0.67	0.69	0.65	
Q	0.35	0.40	0.33	0.31	0.35	

Based on the table III.9, item number 2 shows the proportion of correct 0.65, item number 7 shows the proportion of correct 0.60, item number 12 shows the proportion of correct 0.67, item number 17 shows the proportion of correct 0.69, item number 22 shows the proportion of correct 0.65. Based on the standard level of difficulty, all items for identifying the Meaning of Vocabulary or "p">0.30 and <0.70. So, the items of identifying the meaning of Vocabulary are accepted.

Table III.10
Students are Able to Identify the Generic Structure of the Narrative Text

Variable	Identifying the Generic Structure of the Narrative Text					N
Item No	3	8	13	18	23	55
Correct Item	**29**	**35**	**32**	**28**	**34**	
P	0.53	0.64	0.58	0.51	0.62	
Q	0.47	0.36	0.42	0.49	0.38	

Based on the table III.10, item number 3 shows the proportion of correct 0.53, item number 8 shows the proportion of correct 0.64, item number 13 shows the proportion of correct 0.58, item number 18 shows the proportion of correct 0.51, item number 23 shows the proportion of correct 0.62. Based on the standard level of difficulty, all items to

difficulty, all items to identifying the Generic Structure or "p">0.30 and <0.70. So, the items of identifying the Generic Structure are accepted.

Table III.11
Students are Able to Identify the Factual Information of Narrative text

Variable	Identifying the Details					N
Item No	4	9	14	19	24	55
Correct Item	**26**	**34**	**29**	**32**	**33**	
P	0.47	0.62	0.53	0.58	0.60	
Q	0.53	0.38	0.47	0.42	0.40	

Based on the table III.11, the proportion of correct answer for item number 4 shows the proportion of correct 0.47, item number 9 shows the proportion of correct 0.62, item number 14 shows the proportion of correct 0.53, item number 19 shows the proportion of correct 0.58, item number 24 shows the proportion of correct 0.60. Based on the standard level of difficulty, all items for identify the Factual Information or "p">0.30 and <0.70. So, the items of identifying the Factual Information are accepted.

Table III.12
Students are Able to Identify the References of Word of Narrative text

Variable	Identifying the Factual Information					N
Item No	5	10	15	20	25	55
Correct Item	**34**	**35**	**35**	**37**	**31**	
P	0.62	0.64	0.64	0.67	0.56	
Q	0.38	0.36	0.36	0.33	0.44	

Based on the table III.12, the proportion of correct answer for item number 5 shows the proportion of correct 0.62, item number 10 shows the proportion of correct 0.64, item number 15 shows the proportion of correct 0.64, item number 20 shows the proportion of correct 0.67, item number 25 shows the proportion of correct 0.56. Based on the standard level of difficulty, all items for identifying the References of Word or "p">0.30

and <0.70. So, the items of identifying the References of Word are accepted.

2. Reliability of the Instrument

A test must be reliable as measuring instrument. Reliability is a necessary characteristic of any good test. Brown (2004, p.20) said that a reliable test is consistent and dependable. It means the test should be similar result when the tester gives the same test to the same respondent on two different occasions.

According to Grant Henning (1987, p.74), reliability is thus a measure of accuracy, consistency, dependability, or fairness of scores resulting from administration of a particular examination. If reliability is associated with accuracy of measurement, it follows that reliability will increase as error measurement made to diminish. We actually quantify reliability so that we can be aware of the amount of error present in our measurement and the degree of confidence possible in score obtained from the test.

According to Heaton (1980, p.159), the standard reliability was considered as follows:

0.00-0.20 : Reliability is low

0.21-0.40 : Reliability is sufficient

0.41-0.70 : Reliability is high

0.71- 1.0 : Reliability is very high

In this research, the researcher used software SPSS 22 version to calculate the reliability of test. The following steps are how to get the result data based on SPSS 22.0 for windows-statistical software:

1. Open the student test file.
2. From the menu of SPSS, click *Analyze* and then click sub menu *Scale.*
3. From the menu click your variables, and press the narrow button.
4. From *statistics*, click item and scale, at summaries; click means, and then click *ok* to end this process and you will see the output data of SPSS automatically.

Table III.13

Reliability Statistics	
Cronbach's Alpha	N of Items
.756	25

The reliability of test was 0.756. It is categorized into very high reliability level.

G. The Technique of Data Analysis

1. Normality Test

Before analyzing the data by using t-test formula, the researcher had to find out the normality test of the data. The normality test of the data was analyzed by using Kolmogorov-Smirnove technique with SPSS 22 version. Analysis:

p-value (Sig.) >0.05= the data are in normal distribution

p-value (Sig.) <0.05= the data are not in normal distribution

The result of normality of post test score in experimental and control classes was computed by using SPSS version 22. It is presented in the following table:

Table III.14

Tests of Normality							
		Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	GROUP	Statistic	Df	Sig.	Statistic	df	Sig.
SCORE	EXPERIMENT	.155	27	.096	.960	27	.379
	CONTROL	.105	28	.200*	.963	28	.408
a. Lilliefors Significance Correction							

Based on the table above, it was found that the significance level in Kolmogorov-Smirnov test of experimental class was 0.096; it means that 0.096> 0.05, and significance level of control class was 0.200; it means that .200 > 0.05. In conclusion, the data are in normal distribution

2. The Homogeneity of the test

The homogeneity of the test was obtained from the result of Variance of pre-test in experimental and control classes. The data of mean and deviation for both classes were obtained by using SPSS 22 version.

The homogeneity test used to measure whether the data are correlated from true population or not. Data homogeneity of variance test was calculated by using SPSS version 22. The SPSS result for Levene test was interpreted as follows:

p-value (Sig.) > 0.05 = the data are homogeneous

p-value (Sig.) < 0.05 = the data are not homogeneous

The result of homogeneity test of pre-test data or Levene test which was computed by using SPSS version 22 presented in the following table:

Table III. 15

Test of Homogeneity of Variances			
SCORE			
Levene Statistic	df1	df2	Sig.
.097	1	53	.756

Based on the data above, it was obtained that the sig. value was 0.756. 0.756 > 0.05. According to Pallant (2010, p.2070), data are homogeneous or variant when the value Sig. is higher than 0.05. Based on the table, it is clear that Sig. is higher than 0.05 which indicates the homogeneity of the data. The comparison can be stated by 0.97> 0.05.

3. Analysis Data t-test

In order to find out whether there is or not a significant difference between using and without using Fiction Furrow Reader Strategy on students' reading comprehension at the eight grade of Islamic Junior High School Diniyah Puteri Pekanbaru, the data were analyzed statistically. In analyzing the data, the researcher used pre-test and post-test scores of the experimental class and control class. Those scores were analyzed by using statistical analysis. In this research, the researcher used T-tests formula (independent sample t-test) and it was calculated by using software SPSS 22 Version.

The independent samples t-test is probably the single most widely used test in statistics. Pallant (2010, p.239) stated that independent

samples t-test is used to compare the mean score of two different groups of people or conditions. It means that it is used to determine whether or not there is a significant difference at selected groups. T-test is obtained by considering the degree of freedom (*df*) = (N1+N2) – 2. Therefore, in calculating the effect size for independent sample t-test, the researcher used the following formula:

Eta Square (η^2)

$$\eta^2 = \frac{t^2}{t^2 + (n_1 + n_2 - 2)}$$

Where:

t = the value will be found

N= number of students

In order to interprete the eta squared values, the guideline quoted from Cohen (1988) in Julie Pallant (2001, p.184) can be read as follows:

Table III.16
Interpretation of Eta Squared for Effect Size

No.	Value	Effect
1.	0.01	Small Effect
2.	0.06	Moderate Effect
3.	0.14	Large Effect

* Adapted from Cohen (1988)