CHAPTER III

RESEARCH METHODOLOGY

A. Research Design

This research was an experimental research. According to Creswell (2012, p. 295), the experimental research is conducted when the researcher intends the possible cause and effect between independent variable (variable X) and dependent variable (variable Y). It consisted of two variables, the first was the 3 H Strategy as variable X and the second was the students' reading comprehension as variable Y. Because, the population of this research was large, the researcher used the quasi-experimental design. Creswell (2012, p. 309) also states that quasi experimental design is in which the researcher assigns participants to groups but not randomly. In this research, quasi-experimental designs had experimental group and control group. There were two kinds of test; pre-test and post-test. Pre-test was given before treatment and post-test was given in the last of treatment. Cresswell (2012, p. 310) states the type of this research can be designed as follows:

TABLE III.1
The Research Design

Group	Pre-test	Treatment	Post-test
Experimental	X_1	T	Y_1
Control	X_2	-	Y_2

Where:

X_1 = Pre-test of experimental group

X_2 = Pre-test of control group

$\mathbf{Y_1}$ = Post-test of experimental group

$\mathbf{Y_2}$ = Post-Test of control group

T = Treatment by using 3H (Here, Hidden, in my Head) Strategy.

B. Location and the time of the Research

The research was conducted at the second year of state Junior High School 1 Peranap that is located at Indragiri Hulu. This research was carriedout for 4 weeks, started from 06 March 2017 to 28 march 2017.

C. Subject and Object of the Research

The subject of this research was the second year students at State Junior High School 1 Peranap Indragiri Hulu, while the object of this research was the effect of using 3H (Here, Hidden, in my Head) Strategy on students' reading comprehension in narrative text at the second year of State Junior High School 1 Peranap.

D. Population and Sample of the Research

1. Population of The Research

The population of this research was the second year students at State Junior High School 1 Peranap that is located at Indragiri Hulu . The second year students consisted of six classes. The total population of the second year was 193 students.

2. Sample of The Research

Sample is the amount of participants that is selected by the researcher to collect the data of research. According to Gay and Airasian (2012, p 135), cluster sampling selects based on group not individually, all

the members of selected group have similar characteristics. The reseracher used class VIII 6 as an experimental class and VIII 3 as a control class. Each class consisted of 30 students. So the total sample was 60 students.

E. Technique of Collecting Data

In this research, the researcher used test to measure the students. The test was written test. The kind of test that the researcher used was multiple choices. The researcher used twenty five (25) items to collect the data. Every multiple choice consisted of four answer options (a, b, c and d). Then, there were two tests that the researcher gave to the students as follows:

1. Pre-test

   According to Creswell (2012, p. 297), pre-test provides a measure on some attribute or characteristic that you assess for participants in an experiment before they receive a treatment.

2. Post-test

   According to Creswell (2012, p. 297), post-test is a measure on some attribute or characteristic that is assessed for participant in an experiment after the treatment.

TABLE III.2
Blue Print of Reading Comprehension

Number	Indicator of items	Number of items	Items number
1	The students are able to identify main topic of narrative text.	5	1,6,11,16,21
2	The students are able to identify specific information of narrative text	5	2,7,12,17,22
3	The students are able to identify generic structure of narrative text	5	3,8,13,18,23
4	The students are able to identify language features of the narrative text	5	4,9,14,19,24
5	The students are able to identify communicative purpose of narrative text	5	5,10,15,20,25

After the students did the test, then the researcher took the total score from the result of the reading comprehension test. Based on Arikunto (2009, p. 245), the interpretation of the students score is classified as follows:

TABLE III.3
The Classification of Students Score

The Level Score	Category
80-100	Very Good
66-79	Good
56-65	Enough
40-55	Poor
30-39	Fail

F. Validity and Reliability of the Test

1. Validity of the Test

According to Cohen (2007, p. 105), validity is an important key to effective research. If a piece of research is invalid, then it is worthless. Validity is thus a requirement for a quantitative and qualitative/naturalistic

research. Whilst earlier versions of validity were based on the view that it was essentially a demonstration that a particular instrument in fact measures what it purposes to measure. It means that to measure students' ability needs the validity.

Every test, whether it is a short, informal classroom test, or a public examination should be as valid as the test constructor can make it, the instrument of the test must aim at providing a true measure of the participation skill in which it is intended to measure. The instrument of the test is valid if the instrument used can measure the thing that will be measured. In this research, researcher used content validity to measure validity of the test before given to the students.

According to Hughes (1989, p. 22), "a test said to be valid if it measures accurately what it is intended to measure:. 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. Historically, validity was defined as the extent to which an instrument measured what it claimed to measure.

The test given to students was considered not too difficult or too easy, often showing the low reliability. Item difficulty was determined as the proportion of correct responses. This is held pertinent to the index difficulty; it was generally exppressed as the percentage of the students who answered the question correctly. According to Arikunto (2006, p. 208), the formula of each item difficulty is as follows:

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

Note:

P: Index of difficulty of facility

B: the number of correct answer

JS: the number of examiners 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 is 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.4
The Students' ability to identify the main topic in narrative text

Variable	Identifying the main topic					N
Item no	1	6	11	16	21	30
Correct	15	17	16	17	16	
P	0.50	0.57	0.53	0.57	0.53	
Q	0.50	0.43	0.47	0.43	0.47	

Based on the table III.4, item number 1 obtained the proportion of correct 0.50, item number 6 obtained the proportion of correct 0.57, item number 11 obtained the proportion of correct 0.53. item number 16 obtained the proportion of correct 0.57, and item number 21 obtained the proportion of correct 0.53. Based on the standard level of difficulty "p">0.30 and < 0.70, it is pointed out that item difficulties in average of each item number for identifying the main topic were accepted.

Table III.5
The Students' ability to identify specific information in narrative text

Variable	Identifying the specific information					N
Item no	2	7	12	17	22	30
Correct	18	18	14	17	14	
P	0.60	0.60	0.47	0.57	0.47	
Q	0.40	0.40	0.53	0.43	0.53	

Based on the table III.5, the proportion of correct answer for item number 2 got the proportion of correct 0.60, item number 7 got the proportion of correct 0.60, item number 12 got the proportion of correct 0.47, item number 17 got the proportion of correct 0.57, and item number 22 got the proportion of correct 0.47. Based on the standard level of difficulty "p">0.30 and < 0.70, it is pointed out that item difficulties in average of each item number for identifying specific information were accepted.

Table III.6
The Students' ability to identify generic structure in narrative text

Variable	Identifying the generic stucture					N
Item no	3	8	13	18	23	30
Correct	19	16	15	16	13	
P	0.63	0.53	0.50	0.53	0.43	
Q	0.37	0.47	0.50	0.47	0.57	

Based on the table III.6, item number 3 gained the proportion of correct 0.63, item number 8 gained the proportion of correct 0.53, item number 13 gained the proportion of correct 0.50, item number 18 gained the proportion of correct 0.53, and item number 23 gained the proportion of correct 0.43. Based on the standard level of difficulty "p">0.30 and < 0.70. it is pointed out that item

difficulties in average of each item number for identifying generic structure were accepted.

Table III.7
The Students' ability to identify language features in narrative text

Variable	Identifying the language features					N
Item no	4	9	14	19	24	30
Correct	18	16	15	18	18	
P	0.60	0.53	0.50	0.60	0.60	
Q	0.40	0.47	0.50	0.40	0.40	

Based on the table III.9, item number 4 obtained the proportion of correct 0.60, item number 9 obtained the proportion of correct 0.53, item number 14 obtained the proportion of correct 0.50, item number 19 obtained the proportion of correct 0.60, and item number 24 obtained the proportion of correct 0.60. Based on the standard level of difficulty "p">0.30 and < 0.70, it is pointed out that item difficulties in average of each item number for identifying language features were accepted.

Table III.8
The Students' ability to identify communicative purpose in narrative text

Variable	Identifying the communicative purpose					N
Item no	5	10	15	20	25	30
Correct	17	20	17	16	19	
P	0.57	0.67	0.57	0.53	0.63	
Q	0.43	0.33	0.43	0.47	0.37	

Based on the table III.10, item number 5 got the proportion of correct 0.57, item number 10 got the proportion of correct 0.67, item number 15 got the proportion of correct 0.57, item number 20 got the proportion of correct 0.53, and

item number 25 got the proportion of correct 0.63. Based on the standard level of difficulty "p">0.30 and < 0.70, it is pointed out that item difficulties in average of each item number for identifying communicative purpose were accepted.

2. Reliability

Reliability has to do with accuracy of measurement. This kind of accuracy is reflected in obtaining of similar results when measurement is repeated on different occasions or with different instrument or by different persons.

Brown (2003, p. 20) states that reliability has to do with accuracy of measurement. This kind of accuracy is reflected in obtaining of similar result when measurement is repeated on different occasions or with different instrument of by different persons. The characteristic of reliability is sometimes termed consistently. It means that we can say the test is reliable when an examinee's results are consistent on repeated measurement or the reliability of a measuring instrument is the degree of consistency with which it measures whatever it is measuring.

Heaton (1988, p. 78) states that the reliability of the 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 obtain the reliability of the test given, the researcher used SPSS 23.00 to find out whether the test is reliable or not.

Table III.9
Case Processing Summary

	N	%
Valid	30	100.0
Excluded[a]	0	.0
Total	30	100.0

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

Table III.10
Reliability Statistics

Cronbach's Alpha	N of Items
.448	2

From the table III.12 above, it was found that the value of Cronbach's Alpha was 0.448. from Heaton level above, it can be said that reliability was accepted which was $0.41 < 0.448 < 0.70$ or higher than 0.41 and lower than 0.70. it also can be stated that reliability is high.

G. The Homogeneity and Normality Test

1. The Homogeneity of the Test

Homogeneity test is a test to identify whether the objects of the research (there or more samples) have the same variance. The method used in homogeneity test is the biggest variant compared to smallest variance.

In this research, the researcher used SPSS 23 to assess the homogeneity of the data. The result of assessing the homogeneity can be seen as follows:

Table III.11
Test of Homogeneity of Variances

Levene Statistic	df1	df2	Sig.
1.523	1	58	.222

From the table, it was found that the value of significance (sig.) was 0.222. Data are homogenous or variant when the value Sig. is higer than 0.05. Based on the table, it was clear that Sig. was higher than 0.05 which indicated the homogeneity of the data. The comparison can be stated as $0.222 > 0.05$

2. Normality 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 (Sttatistical Product and Service Solutions) 23 version. The result of the test can be seen as follows:

Table III.12
Tests of Normality

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Experiment	.147	30	.099	.966	30	.443
Control	.132	30	.190	.951	30	.177

a. Lilliefors Significance Correction

Based on the table above, it was obtained that the significant (Sig.) of Post-test in Experimental group was 0.09. Then, the significant (Sig.) of post-test in Control group was 0.19. The data of this research were normal. It was measured by using Kolmogorov Smirnov table. It explains that the data are called normal if > 0.05. So, the data gotten from this research were normal.

H. Technique of Data Analysis

In order to find out whether there is significant effect of using 3H (Here, Hidden, in my Head) strategy on students' reading comprehension of narrative text, the data of the research were analyzed statistically. To analyze the data, the researcher used score of post-test of experimental and control groups. These scores were analyzed by using T-test (independent sample t-test) formula by using SPSS.23.0 version. The t-test was employed to see whether or not there is significant different between the mean score in both experimental and control groups.

After finding the difference, the researcher would find out the effect size of the phenomenon. Pallant (2010, p. 207) stated that effect size statistics provides an indication of the megnitude of the differences between your groups (not just whether the difference could have occurred by chance). The effect size statistic used in this research was eta squared. For t-test, SPSS does not provide eta squared values. The formula of eta squared is as follows:

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

Where:
η^2 : Eta square
t : t obtained
n_1 : The number of experimental class
n_2 : The number of control class

In order to interprete eta squared values, the guideline quoted from Cohen (1988) in Julie Pallant (2010, p.211) can be read as follows:

Table III.13
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)

Statistically the hypotheses are:

$H_a = t_o \; >:$ Significant Value

$H_o = t_o \; <:$ Significant Value

Criteria for hypothesis:

H_a : is accepted if $t_o >$ Significant Value or the students' reading comprehension taught by using 3 H (Here, Hidden, in my Head) Strategy is better than the students' reading comprehension taught without using 3 H (Here, Hidden, in my Head) Strategy at the second year of SMPN 1 Peranap Indragiri Hulu

H_o : is accepted if $t_o <:$ Significant Value or the students' reading comprehension taught by using 3 H (Here, Hidden, in my Head) Strategy is worse than the students' reading comprehension taught without using 3 H (Here, Hidden, in my Head) Strategy at the second year of SMPN 1 Peranap Indragiri Hulu