

CHAPTER III

METHOD OF THE RESEARCH

A. The Design of Research

The design of this research is experimental research. According to Creswell, experiment is to test an idea (or practice or procedure) to determine whether or not it influences an outcome or dependent variable.¹ The design of research is quasi experimental research especially pre test – post test design. According to Joy W. Creswell that quasi-experiment design is experimental situations in which the researcher assigns but not randomly, participants to groups because the experimenter cannot artificially create group for the experiment.² This research was intended to find out the effect of using Tittle, Headings, Introduction, Every first sentence in a paragraph, Visual and Vocabulary, End-of-chapter questions, Summary (THIEVES) strategy toward reading comprehension in narrative text by comparing the improvement of repulsion from pre test and post test score, between the students who are though by using Tittle, Headings, Introduction, Every first sentence in a paragraph, Visual and Vocabulary, End-of-chapter questions, Summary (THIEVES) strategy and these taught by using three phase technique. In this research, the researcher used two groups as samples that one was called experimental group/class administered by using Tittle, Headings, Introduction, Every first sentence in a paragraph, Visual and Vocabulary, End-of-

¹ Jhon W Cresswell, *Educational Research : planning, conducting, evaluating quantitative and qualitative research*, (New jersey: pearson education,2008),p. 229.

² L. R. Gay and Peter Airaisian, *Educational Research Competencies For analysis and Application*. Six Ed.(Ney Jersey: Prentice-hall, Inc.,2000), p.36.

chapter questions, Summary (THIEVES) strategy and another was control group/class taught without using Title, Headings, Introduction, Every first sentence in a paragraph, Visual and Vocabulary, End-of-chapter questions, Summary (THIEVES) strategy.

There were two kinds of test given in this research; pre test and post test. Pre test was given before the treatment, and post test was given after treatment. This research design can be seen as follows³:

Table III.1

Difference between Control and Experimental Group

O₁	X	O₂
O₁		O₂

Where:

O₁ = Pre-test

O₂ = Post-test

X = Treatment by using Title, Headings, Introduction, Every first sentence in a paragraph, Visual and Vocabulary, End-of-chapter questions, Summary (THIEVES) strategy

B. The Time and Location of the Research

This research was conducted from December to February 2013. The location of the research was in Kampar regency. This research location was conducted at state senior high school MAN Kuok.

³ Donald T. Campbell and Julian C. Stanley, *Experimental and Quasi Experimental Designs for Research*, (Boston:Houghton Mifflin Company. 1963), p. 47.

C. The subject and object of the research

Based on the title of the research, The subject of this research was the second year students at MAN Kuok, and the object was analyzing the effect of Title, Headings, Introduction, Every first sentence in a paragraph, Visual and Vocabulary, End-of-chapter questions, Summary (THIEVES) strategy toward reading comprehension.

D. The population and the sample the research

The writer used two classes as samples of this research XI IPS 2 and XI IPS 3. The detail of the sample is as follows:

Table III.2

Sample of the Research

Class	Population		Total	
	Male	Female		
XII IPS 2	22	10	32	Experimental class
XII IPS 3	21	11	32	Control Class

E. Technique of collecting the data

1. Test

In collecting data about students' reading comprehension, the writer used reading test as the instrument, the kinds of test given to the students were as follows⁴:

⁴Athur Hughes, *Testing For language Teachers, Second Edition* (Cambridge: Cambridge University Press 2003), p. 143.

- a. Pre-test was given to the students before giving the treatment of the technique to both of the experimental and control class, this test was used to measure students' reading comprehension of Narrative text.
- b. Post test was given to the students after giving the treatment by using THIEVES strategy in the experimental class and by using three phase technique in the control class to find out whether it would make difference or not in reading comprehension of Narrative text.

In this test the researchers used the same items in the pre- test, but the items were presented randomly. For getting the data researcher used multiple choice for testing the reading comprehension of the students about the Narrative text.

2. Observation

An observation is the current status of a phenomenon determined by observing⁵. Arikunto Said that there are two types of observation; systematic and non-systematic observation⁶. In this research, the observation was the systematic observation. The observation was used to get the clear data about the implementation of both Strategies in teaching reading comprehension. It was done by the English teacher as the observer by using observation list.

⁵L.R Gay and Peter Airasian, *Educational Research: Competencies for Analysis and Application Sixth Edition*. (New Jersey:Prentice hall, 2000), p.294.

⁶Suharsimi Arikunto, *Prosedur Penelitian; Suatu Pendekatan Praktik* (Jakarta: PT. Asdi Mahasatya. 2006), p. 157.

F. The Validity and Reliability of the Test

1. Validity

Before getting the data, the reseaecher used all of the items in try out. Arikunto says that try out is 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 .⁷

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 considered easy.

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

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

Where:

P = Difficulty level

B = the number of correct answer

JS = the number of student

For example, if the number 1 was correct by 8 students of 20 students, the difficulty could be calculated as follows:

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

$$P = \frac{8}{20}$$

$$P = 0.4$$

⁷ Arikunto, Suharsimi. 2011. *Dasar-dasar Evaluasi Pendidikan*. Bumi Aksara: Jakarta. pp. 76.

If the value was changed into percentage, it could be calculated $0.4 \times 100\% = 40$. The value was considered standard, and could be used to get the data. In other words, the item did not need to be changed. After doing try out, the researcher found that there was no item modified because the level of difficulty reached the standard item of difficulty. Then, the proportion correct was represented by “p”, whereas the proportion incorrect was represented by “q”

The data obtained by using posttest were evaluated in 6 components:

- a. Some of the students are not able to identify the word meaning in narrative text
- b. Some of the students are not able to identify the meaning of sentence in narrative text.
- c. Some of the students are not able to identify setting in narrative text.
- d. Some of the students are not able to identify the complication in narrative text
- e. Some of the students are not able to identify the generic structure in narrative text
- f. Some of the students are not able to identify the communicative purpose in narrative text.

Table III.3
The Data of Try Out

No	Indicators of Variable X	Try Out			
		Items no	Correct	P	Q
1	Identify word meaning	5	9	0.45	0.55
		10	12	0.6	0.4
		15	7	0.35	0.65
		20	12	0.6	0.4
		25	10	0.5	0.5
2	Understanding meaning of sentence	4	11	0.55	0.45
		9	9	0.45	0.55
		19	11	0.55	0.45
		24	14	0.7	0.3
3	Identify setting	3	10	0.5	0.5
		13	10	0.5	0.5
		18	7	0.35	0.65
		23	11	0.55	0.45
4	Identify complication	2	14	0.7	0.3
		21	9	0.45	0.55
		17	14	0.7	0.3
		22	7	0.35	0.65
5	Identify generic structure	1	12	0.6	0.4
		6	8	0.4	0.6
		11	10	0.5	0.5
		16	9	0.45	0.55
6	Identify communicative purpose	7	14	0.7	0.3
		12	10	0.5	0.5
		8	9	0.45	0.55
		14	9	0.45	0.55
N		20			

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

$$Q = 100 - P$$

1. Identifying the word meaning

Based on the table III.4, it shows the item numbers of the first indicator for identifying the word meaning are number 5, 10, 15, 20 and 25. The proportion of correct answer for item number 5 is 0.45, item number 10 is 0.6, item number 15 is 0.35, item number 20 is 0.6, and

item number 25 is 0.5. It Means that, all item tests for the first indicator in second try out are **accepted**.

2. Understanding the meaning of sentence

Based on the table III.4, it shows the item numbers of the second indicator for understanding the meaning of sentence are number 4, 9, 19 and 24. The proportion of correct answer for item number 4 is 0.55, item number 9 is 0.45, item number 19 is 0.55, and item number 24 is 0.7. it means that, all item tests for the second indicator in second try out are **accepted**.

3. Identifying the setting of the text

Based on the table III.4, it shows the item numbers of the third indicator for identifying the generic structure of the text are number 3, 13, 18, 23. The proportion of correct answer for item number 3 is 0.5, item number 13 is 0,5, item number 18 is 0,65, and item number 23 is 0,45. It means that, all item tests for the third indicator in second try out are **accepted**.

4. Identifying complication

Based on the table III.4, it shows the item numbers of the fourth indicator for identifying reference are number 2, 21, 17, and 22. The proportion of correct answer for item number 2 is 0.7, item number 21 is 0.45, item number 17 is 0.7, and item number 22 is 0.35. It means that, all item tests for the fourth indicator in second try out are **accepted**.

5. Identifying the generic structure

Based on the table III.4, it shows the item numbers of the fifth indicator for identifying the purpose of the text are number 1, 6, 11, and 16. The proportion of correct answer for item number 1 is 0.6, item number 6 is 0.4, item number 11 is 0.5, and item number 16 is 0.45. It means that, all item tests for the fifth indicator are **accepted**.

6. Identify the communicative sentence

Based on the table III.4, it shows that item numbers of the sixth indicator for identifying the communicative sentence are number 7, 12, 8, and 14. The proportion of correct answer for item number 7 is 0.7, item number 12 is 0.5, item number 8 is 0.45, and item number 14 is 0.45. It means that, all item tests for the sixth indicator are **accepted**.

2. Reliability

A test must first be reliable in measuring instrument. Reliability is a necessary characteristic of any good test.

There are some factors that make a test reliable, they are:

1. The extent of the sample of material selected for testing
2. The administration of the test, clearly this is an important factor in deciding reliability, especially in tests of oral production and listening.

Sudijono says that if $r_{ii} < 0.70$ means that the test reliability is low or unreliable and if > 0.70 means that the test reliability is high or reliable⁸

⁸ Anas Sudijono. *Pengantar Statistik Pendidikan*. Jakarta: PT. Rajafindo Persada, 2008 pp.254.

To find out the reliability of the test, the writer used the formula K-R 20 as follows:⁹

First Step to find out $\sum xt^2$ by using formula:

$$\begin{aligned}\sum xt^2 &= \sum Xt^2 - \frac{\sum Xt^2}{N} \\ &= 3742 - \frac{258}{20} \\ &= 3742 - \frac{66564}{20} \\ &= 3742 - 3328 \\ &= 413.8\end{aligned}$$

The second step to find out the S_t^2 by using formula:

$$\begin{aligned}S_t^2 &= \frac{\sum xt^2}{N} \\ &= \frac{413.8}{20} \\ &= 20.69\end{aligned}$$

The third step to find out the r_{11} by using formula:

$$r_{11} = \frac{n}{n-1} \frac{St^2 - \sum Piq_i}{St^2}$$

Where :

n : 25

N : 20

$\sum Xt^2$: 413.8

St^2 : 20.69

$\sum Piq_i$: 5.96

⁹ Sudijono, Anas.2009. Pengantar Evaluasi Pendidikan. Jakarta:Rajawali Pers pp: 254

$$\begin{aligned}
r_{11} &= \frac{n}{n-1} \frac{St^2 - \sum p_i q_i}{St^2} \\
&= \frac{25}{25-1} \frac{20.69-5.96}{20.69} \\
&= \frac{25}{24} 0.711938134 \\
&= (1.041666667) (0.711938134) \\
&= \mathbf{0.74}
\end{aligned}$$

Based on the statistical analysis above, the score of reliability of the test is 0.74. So, it can be analyzed that $r_{ii} = 0.74$ is higher than 0.70. It means that, the instrument test is reliable.

G. The Technique of Data Analysis

This research design was a quasi experimental research, there were three research questions that should be found out the answers. In analyzing the data, the writer used some analysis techniques to find out the improvement of students' reading comprehension and the effect of using THIEVES Strategy towards students' reading comprehension in Narrative text. Thus, the writer used the following analysis techniques to answer the research questions:

1. To find out the students' mean score can be interpreted by using the following rubric¹⁰:

Table III.4

¹⁰Suharsimi Arikunto, *Dasar-dasar Evaluasi Pendidikan*.(Jakarta: Bumi Aksara. 2010),p. 245.

The Classification of Students' Score

No	Categories	Score
1	Very Good	80-100
2	Good	66-79
3	Enough	56-65
4	Less	40-55
5	Fail	30-39

2. To find out the significant effect of using THIEVES Strategy towards students' reading comprehension in Narrative text, and the data were analyzed by using Independent Sample t-Test as follows:

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

Where:

t_o : the value of t-obtained

Mx : mean score of experiment class

My : mean score of control class

SDx : standard deviation of experiment class

SDy : standard deviation of control class

N : number of students¹¹

Statistically hypothesis:

$$H_a : t_o > t_{table}$$

$$H_o : t_o < t_{table}$$

¹¹Hartono, *Statistik untuk Penelitian*, (Pekanbaru: Zanafa Publishing, 2010), p. 207.

H_0 is accepted if $t_0 > t_{table}$ or there is no significant effect of using THIEVES strategy towards students' reading comprehension in Narrative text of the second year students at MAN Kuok

H_a is accepted if $t_0 < t_{table}$ or there is a significant effect of using THIEVES strategy towards students' reading comprehension in Narrative text of the second year students at MAN Kuok