

CHAPTER III

RESEARCH METHOD

A. Research Design

The design of this research is Experimental research. According to Gay (2000:367), the experimental research is the only type of research that can test hypotheses to establish cause-and-effect relationship. It aims to find out the effect of question stories technique towards students' writing skill, related to; content, organization, vocabulary, language use, and mechanics. Sugiyono (2013: 113) states that experimental research is a research on the action from the beginning.

There are two classes will involve in this research. The first is classified as the experimental (E) and the other one is the control class (C). Both classes have the same topic, the same length of time. Both experimental class and control class will be taught by researcher. The two groups are treated as many as five meetings; it will be assumed that five meetings will be sufficient in seeing any difference that occurred afterward. After deciding which class is experimental and control, the researcher will be continued with the treatment process for experimental class and no treatment process for the control class. Before doing treatment researcher gives pre-test to both sample. Pre-test is given to know the students skill in writing before treatment. After treatment five

times, researcher gives post-test. Post test is done to know students' skill in writing after treatment. The result will be known by comparing the pretest and posttest.

The design of the research could be described as follows:

Table 3.1
Research Design

Group	Pre-test	Treatment	Post-test
A	O1	X	O2
B	O1	---	O2

Where:

A : Experimental class

B : Control Class

X : Treatment for experiment group by using Hamburger Strategy.

O1 : Pre-Test

O2 : Post-Test

The researcher gives question stories technique for the experimental class, and conventional technique for the control class. At the end of the research the researcher gives the post test to both samples. The test is written test.

B. Population and Sample

1. Population

Gay (1987:102) stated that the population is the group of interest to the researcher, the group to which she or he would like the result of the study to be generalized. The population of this research was all of the students at class VIII at Junior High School 4 Hikiran

Gumanti. Total numbers of class VIII students of Junior High School 4 Hikiran Gumanti are 120 students consist of three classes (VIII₁, VIII₂, VIII₃, VIII₄)

**Table 3.2 Population of Class VIII Junior High School 4
Hilgum AY.2016/2017**

Class	VIII ₁	VIII ₂	VIII ₃	VIII ₄
Total Students	30	29	31	30

Source: English Teacher's book mark

There are four classes, this research only focus to VIII class. The students are chosen as population based on assumption that they have learnt English, so that they have experience in writing English and they also learn with the same material and syllabus.

2. Sample

Sample is the process of selecting a number of individual for the study in such a way that individual represents the larger group from which they are selected. The purpose of sampling is to gain information about the population by using the sample. The sample is taken by cluster random sampling. Gay (1987:110) says that cluster random sampling is sampling in which group, not individuals, are randomly selected. The researcher will use this sampling strategy because it is hard to regroup the existed group. To decide the sample the writer used the coin. Class control was VIII₄ and experimental class was VIII₁.

Table 3.3
Sample of Research

CLASS	NUMBER OF STUDENTS	AVERAGE
VIII 1 (Experiment Class)	30 STUDENTS	70.09
VIII 4 (Control Class)	30 STUDENTS	55.48

The samples of this study will be VIII₁ as the experiment class and VIII₄ as the control class, the selected samples are assumed homogenous since the students are classified based on a same average knowledge and score by the school. Then, number of all sample are 60 students 30 students are in the experimental group and 30 students are in the control group. Dealing with the sample size of experimental research, 60 students are representative enough to be the sample of this research.

C. Place and Time

This research will be held at Junior High School 4 Hiliran Gumanti. The treatment will be conducted at class VIII students. This research will be done five times meeting where the treatment is one a week for experimental class. The treatment will be carried out based on the teaching schedule of Junior High School 4 Hilgum

D. Research Instrument

Instrument is a tool to collect data from the sample. This instruments which used in this research focused on the data that needed to be collected. The collected data will be used to explain the application of this research. There is one instrument that use in this research.

The instrument that used for this research is writing test. The researcher made the test. It is aim at obtaining the data of students' writing skill in Narrative text. There is pre-test and post-test. The post-test given to the students is aim to see whether the two classes had significant difference scores. This is also to see whether the treatment was useful or not. In post-test, the students assigned to create a narrative text basec the topic given.



Table 4

Sample of Instrument in Giving Writing Scores

1. Post-test for the experiment class

No. of Students	Aspects					
	Content (30)	Organization (20)	Voc (20)	Grammar (25)	Mechanics (5)	Total (100)
1						
2						
↓						
30						

2. Post-test for control class

No. of Students	Aspects					
	Content (30)	Organization (20)	Voc (20)	Grammar (25)	Mechanics (5)	Total (100)
1						
2						
↓						
30						

While, the researcher used the Jacob's criteria (1981:90) in scoring the student's writing. Those criteria can be seen from table below:

Table 3.5
Indicator of writing based on Jacob

No	Items	Criteria of Each Item	Score
1	Content	○ Excellent to very good: Knowledgeable; substantive; thorough development of thesis; relevant to assigned topic.	30-27
		○ Good to average: Some knowledge of subject; adequate range; limited development of thesis; mostly relevant to topic, but lacks detail.	26-22
		○ Fair to poor: limited knowledge of subject; little substance; inadequate development of topic.	21-17
		○ Very poor: does not show knowledge of subject; non-substantive; not pertinent; or not enough to evaluate.	16-13
2	Organization	○ Excellent to very good: Fluent expression; ideas clearly stated/ supported; succinct; well organized; logical sequencing; cohesive.	20-18
		○ Good to average: somewhat choppy; loosely organized but main ideas stand out; limited support; logical but incomplete sequencing.	17-14
		○ Fair to poor: non-fluent; ideas confused or disconnected, lacks logical sequencing and development.	13-10
		○ Very poor: does not communicate; no organization; or not enough to evaluate.	9-7
3	Vocabulary	○ Excellent to very good: sophisticated range; effective word/ idiom choice and usage; word form mastery; appropriate register.	20-18
		○ Good to average: adequate range; occasional errors of word/ idiom form, choice, usage but meaning not obscured.	17-14
		○ Fair to poor: limited range; frequent errors of word/ form choice, usage; meaning confused or obscured.	13-10
		○ Very poor: essentially translation; little knowledge of English vocabulary, idioms, word form, or not enough to evaluate.	9-7

4	Language Use	<ul style="list-style-type: none"> ○ Excellent to very good: effective complex constructions; few errors of agreement, tense, number, word order/ function, articles, pronouns, prepositions. ○ Good to average: effective but simple construction; minor problems in complex constructions; several errors of agreement, tense, number, word order/ function, articles, pronouns, prepositions but meaning seldom obscured. ○ Fair to poor: major problems in simple/ complex constructions; frequent errors of negation, agreement, tense, number, word order/ function, articles, pronouns, prepositions and/ or fragments, run-ons, deletions; meaning confused or obscured. ○ Very poor: virtually no mastery of sentence constructions rules; dominated by errors; does not communicate; or not enough to evaluate. 	<p>25-22</p> <p>21-18</p> <p>17-11</p> <p>10-5</p>
5	Mechanics	<ul style="list-style-type: none"> ○ Excellent to very good: demonstrates mastery of conventions few errors of spelling, punctuation, capitalizations, paragraphing. ○ Good to average: occasional errors of spelling, punctuation, and capitalization, paragraphing but meaning not obscured. ○ Fair to Poor: Frequent errors of spelling, punctuation, capitalizations, paragraphing; poor handwriting; meaning confused or obscured. ○ Very poor: no mastery of conventions dominated by errors of spelling, punctuation, capitalization, paragraphing; handwriting illegible; or not enough to evaluate. 	<p>5</p> <p>4</p> <p>3</p> <p>2</p>

Table 3.6 Blueprint of Writing Test

No	Types of Test	Component of writing	Indicator	Genre /Topics	Item
	Writing test	Content	The students are able to write down a paragraph in good content, organization, vocabulary, language use and mechanics	Narrative Text	1
		Organization		 <p>1. Malin Kundang</p>	
		Vocabulary		 <p>2. Nyi roro kidul</p>	1
		Language use		 <p>3. Mouse deer and Crocodile</p>	11
		Mechanics		 <p>4. Pinocchio</p> <p>5. The boy cried wolf</p>	1
	Total				5

E. Procedure of Research

There are some steps in this research such as preparation, learning process, and evaluation.

1. Preparation

In this step, this research prepared the steps such as determined the research time, prepared the lessons plan arranged by curriculum, explained to the students about the planning in learning process, prepared the final test.

2. Learning Process

Table 3.7 Procedure of Experiment

No	Procedures activities	Teacher Activities	Students' Activities
1.	Pre Teaching Activities	<ul style="list-style-type: none"> • Teacher greets the students. • Praying. • Teacher Asks the students to read the holy Qur'an • Teacher check student's attentent list. • Teacher asks the students last material. • Teacher introduces learning objective to students. • The teacher asks the students based on the topic to built students background knowledge 	<ul style="list-style-type: none"> • Students give the response • Students praying • Students read the holy Qur'an • Students give the response
2.	Main Teaching Activities		
	Observing	<ul style="list-style-type: none"> • Teacher asks students to observe the example of narrative text • Teacher assigns the students to identify the 	<ul style="list-style-type: none"> • Students observe the example of narrative text • Students identify the

		<p>characteristics of narrative text</p> <ul style="list-style-type: none"> • Teacher explain about question stories technique in narrative text 	<p>characteristics of narrative text</p>
	Questioning	<ul style="list-style-type: none"> • Under the guidance and direction of teachers, students asking and questioning about question stories technique in narrative text. • Teacher explains how to write narrative text with question storis technique 	<ul style="list-style-type: none"> • Students asking and questioning the social function, the structure of the text, and linguistic elements of each of the text. • Students listen to the teacher explanation
	Exploration	<ul style="list-style-type: none"> • Teacher asks the student to find generic structure and social function from the example of narrative text 	<ul style="list-style-type: none"> • Students' find generic structure and social function from the example of narrative text
	Association	<ul style="list-style-type: none"> • The teacher gives students feedback on the students' work 	<ul style="list-style-type: none"> • Students listen to the teacher
	Communicating	<ul style="list-style-type: none"> • When they already found their matches they can report to the teacher and if they are right, the teacher ask them to compose longer paragraph. 	<ul style="list-style-type: none"> • Students' compose sentences based on the words they got on their cards.
3.	Post Teaching Activities	<ul style="list-style-type: none"> • Students are asked about their feeling after following the instructional activities or learning process. • Teacher asks the students about 	<ul style="list-style-type: none"> • Students answer the teachers' question

		<p>understanding materials that students have gotten.</p> <ul style="list-style-type: none"> • Teacher and students review and conclude the lesson. • Teacher closes the lesson. 	
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Table 3.8 Procedure of Control Class

No	Procedures activities	Teacher Activities	Students' Activities
1.	Pre Teaching Activities	<ul style="list-style-type: none"> • Teacher greets the students. • Praying. • Teacher Asks the students to read the holy Qur'an • Teacher check student's attendance list. • Teacher ask the students last material. • Teacher introduces learning objective to students. 	<ul style="list-style-type: none"> • Students give the response • Students praying • Students read the holy Qur'an • Students give the response
2.	Main Teaching Activities		
	Observing	<ul style="list-style-type: none"> • Teacher give the examples of narrative text • Teacher asks students to read a simple narrative text • Teacher assigns the students to identify the generic structure of narrative text • Teacher asks students 	<ul style="list-style-type: none"> • Students observe the example of narrative text • Students read the text • Students identify the generic structure of narrative text • Students to discuss

		to discuss the function, generic structure, and language features	the function, generic structure, and language features
	Questioning	<ul style="list-style-type: none"> • Under the guidance and direction of teachers, students asking and questioning the social function, the structure of the text, and linguistic elements of each of the text. • Teacher explains how to write narrative text 	<ul style="list-style-type: none"> • Students asking and questioning the social function, the structure of the text, and linguistic elements of each of the text. • Students listen to the teacher explanation
	Exploration	<ul style="list-style-type: none"> • Teacher asks each student make outline of narrative text in peer • Teacher asks each student write a narrative text individually 	<ul style="list-style-type: none"> • Students make outline of narrative text in peer
	Association	<ul style="list-style-type: none"> • The teacher gives students feedback on the students' work 	<ul style="list-style-type: none"> • Students listen to the teacher
	Communicating	<ul style="list-style-type: none"> • Teacher ask students to communicate their writing in front of the class • Teacher collects the students' work 	<ul style="list-style-type: none"> • Students' communicate their writing in front of the class
3.	Post Teaching Activities	<ul style="list-style-type: none"> • Students are asked about their feeling after following the instructional activities or learning 	<ul style="list-style-type: none"> • Students answer the teachers' question

		<p>process.</p> <ul style="list-style-type: none"> • Teacher asks the students about understanding materials that students have gotten. • Teacher and students review and conclude the lesson. • Teacher closes the lesson. 	
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3. Evaluation

After doing the learning process the next step is the final test. The test is given to group as a sample. The test is written test. The students will be given explanation about the components of writing that were measured. They were content, organization, vocabulary, language use and mechanic.

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F. Types of Data

The researcher collected the data in the form of quantitative. The term of qualitative data is used to describe a type of information that came from the data that expressed numerically. This type of data is often collected in experiments, and statistically analyzed. Quantitative data can be represented visually in graphs, histograms, tables and charts. The quantitative data got from the result of students' writing test in form of written test.

G. Technique of Data Collection

The researcher will collect the data by using test. To have a valid data, the researcher will collect the data by using writing test. The data that will be analyzed is post-test scores in form writing narrative text. After teaching for five times, the researcher will give post test for both experimental and control class.

The data is test. Data of this test consist of students' scores in post-test; the data will be collected by giving writing test. Post-test will be given at the end of the research or after finishing the treatment for five meetings. The test will be given both experiment and control group for 60 minutes.

H. Technique of Data Analysis

The researcher will use the statistical procedures to analyze the scores. It gives a way to analyze the differences of writing achievement between control group and experimental group. To find the standard deviation in experimental and control class, the writer will use the formula of t-test.

In this case, T-test means a statistical procedure which is used to determine, whether there is any significant difference between the means of the two sets score from control and experiment class. In analyzing the students' test score, there are some steps that will be done before analyzing the different mean by using t-test formula as follows:

1. This formula applied to decide mean of students' test score in experiment and control group:

$$\bar{X}_1 = \frac{\sum F_1 X_1}{\sum F_1} \quad (\text{Experimental group})$$

$$\bar{X}_2 = \frac{\sum F_2 X_2}{\sum F_2} \quad (\text{Control group})$$

2. This formula will be used to decide standard deviation of experimental group;

$$S_1^2 = \frac{n_1 \times \sum F_1 x_1^2 - (\sum F_1 X_1)^2}{n_1 (n_1 - 1)}$$



3. This formula will be used to decide standard deviation of control group;

$$S_2^2 = \frac{n_2 \times \sum F_2 x_2^2 - (\sum F_2 X_2)^2}{n_2 (n_2 - 1)}$$

The formula of t-test as follows (Subana, 1996; 239)

$$t = \frac{\bar{X}_1 - \bar{X}_2}{S \sqrt{\frac{1}{N_1} + \frac{1}{N_2}}}$$

$$S^2 = \frac{(n-1)S_1^2 + (n-1)S_2^2}{n_1 + n_2 - 2}$$

Note:

t = the value of t calculated

\bar{X}_1 = Mean score of experimental group

\overline{X}_2 = Mean score of control group

S_1^2 = Standard deviation of experimental group

S_2^2 = Standard deviation of control group

n_1 = Number of experimental group

n_2 = Number of control group

The t_{table} will be employed to see weather there was a significant difference between the mean score of both experimental group and control group. The value of $t_{\text{calculated}}$ will be consulted with the value of t_{table} at the degree of freedom $(n_1-1) + (n_2-1)$ and the level of confidence of 95% = 0.05. If the value of $t_{\text{calculated}}$ is less than the value t_{table} , the null hypothesis was not accepted; on the contrary, if the value of $t_{\text{calculated}}$ is equal or bigger than value of t_{table} , the alternative one is accepted.



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