

CHAPTER III

METHOD OF RESEARCH

This chapter discussed sources of data, subject and setting of research, research design, research variable, instruments, and procedures of experimentation, scoring technique, and method of data analysis.

A. Sources of Data

Arikunto states that sources of data are subjects from whom the data is taken.¹ In this study, the researcher used the research procedure in order to get the required data. The researcher taught two groups of students. The first group was an experimental group and the second group was a control group. The experimental group was a group which was given treatments by using movie as medium while the control group was a group which was given treatments without movie. At the beginning of the research, both two groups were given a pre-test to know the students' initial capacity before getting treatments. At the end of the research, both two groups were given a post-test.

B. Subject and Setting of The Research

This study was conducted in SMAN 6 Semarang located at Jalan Ronggolawe No.4 Semarang Barat 50149. The subjects of this study were the tenth grade students of SMAN 6 Semarang in the academic year of 2010/2011. This study was conducted in the first semester. Due to limitation of time, the researcher did not take all students as the subjects of the study, but drew a sample.

1. Population and Sample

According to *Encyclopedia of Educational Evaluation* as cited by Arikunto, population is a set (or collection) of all elements possessing one

¹ Suharsimi Arikunto, *Prosedur penelitian Suatu Pendekatan Praktik*, (Jakarta: PT Rineka Cipta, 2006), p. 129.

or more attributes of interest.² The population of this research was the tenth grade students of SMAN 6 Semarang in academic year 2010/2011.

Sample is part of population which is chosen as source of data.³ Sample is a representative group from population to serve as respondents.⁴ Arikunto said that sample is a part that can represent all the population observed. It is called sample research when we want to generalize the sample research result.⁵ The researcher selected two groups of students from the population as sample in this study. The total number of the population was 392 students which were divided into ten classes. The process of selection would be discussed in the sampling technique.

Table III.1. List of population

No	Class	Number
1	X 1	32
2	X 2	36
3	X 3	36
4	X 4	36
5	X 5	36
6	X 6	36
7	X 7	36
8	X 8	36
9	X 9	36
10	X 10	36
11	X 11	36
Total		392

² *Ibid.*, p. 130.

³ Prof. Sukardi, Ph.D, *Metodologi Penelitian Pendidikan*, (Jakarta: PT Bumi Aksara, 2009), p. 54

⁴ Tuckman, *Introduction to Linguistic Research*, (Great Britain: Longman, 1978), p. 226.

⁵ Suharsimi Arikunto, *op.cit.*, p. 131.

2. Sampling Technique

In order to get the representative samples, the sampling must be done in the correct way. Sampling could be defined as the process of selecting individuals that could represent different characters of the larger group (population). In selecting the sample, the researcher used *simple random sampling*. Sukestiyarno and Wardono state that if the characteristic of population is homogeneous and placed in different classes, and in order not to change the class composition which has been homogeneous, the sampling can be done by selecting the class randomly.⁶

If the population is more than 100 persons, the researcher might take 10-15% or 20-25% or more from population.⁷ Therefore, the researcher took 18 % out of 392 students as the sample from this study or equal to 72 students. Then, the sample was divided into two groups; experimental group and control group. Each group consisted of 36 students. Students in class X 2 was taught by using movie and considered as experimental group. While students in class X 5 was taught without movie (using text) and considered as control group.

C. Research Design

Research design played an important role in a research because the quality of research greatly depended on the design. In this research, the researcher used the form of quantitative approach to analyze the data. According to Michael J Wallace, quantitative is broadly used to describe what can be counted or measured and can therefore be considered objective.⁸

In this research, researcher uses an experimental research. An experimental research involved two groups: experimental group and control group. An experimental group received a new treatment while control group received an usual treatment. According to Nunan, experiment is designed to

⁶ Sukestiyarno and Wardono, *Statistika*, (Semarang: UNNES Press, 2009), p. 51.

⁷ Suharsimi Arikunto, *op.cit.*, p. 134.

⁸ Michael J Wallace, *Action Research for Language Teacher*, (Cambridge: Cambridge University Press, 1998), p. 38.

collect data in such a way that treats to the reliability and validity of the research are minimized.⁹ This study used pre-test and post-test.

The design of the experiment could be described as follows:

$$\begin{array}{c} \underline{E \ 01 \ X \ 02} \\ C \ 03 \ Y \ 04 \end{array}$$

Adopted from Arikunto.¹⁰

Where:

E = experimental group

C = control group

01 = pre-test for experimental group

02 = post test for experimental group

03 = pre-test for control group

04 = post test for control group

X = treatment by using movie

Y = treatment without movie

From the design above, subjects of research were grouped into an experimental group (top line) and a control group (bottom line). The quality of subjects was first checked by pre-test them (01 and 03). Then, the experimental treatment (taught by using movie) was applied to the experimental group, while the control group was taught without the aid of movie. The test was held in the form of composition. The results of post-test (02 and 04) were then computed statistically.

D. Research Variable

According to Fred D. Kerlinger as cited by Arikunto, that all experiments have one fundamental idea behind them; to test the effect of one or more independent variables on a dependent variable (it is possible to have more than one dependent variables in experiments).¹¹

⁹ David Nunan, *Research Method in Language Learning*, (Cambridge: Cambridge University Press, 1992), p. 47.

¹⁰ Suharsimi Arikunto, *op.cit.*, p. 86.

¹¹ *ibid.*, p. 119.

This research, that used movie as medium in the teaching of recount, had two variables. Those variables were:

1. The independent variable

Independent variable is the variable that the experimenter changes within a defined range. The independent variable in this research was the use of media in the teaching learning process for both groups. The experimental group wrote recount text through movie while the control group wrote recount text without the aid of movie (by using text only).

2. The dependent variable

Dependent variable is variable that measures the influence of the independent variable. The dependent variable in this study was the students' achievement in the test score.

Based on the variables above, the writer can make indicators that support the variables. The schema of indicator's variable is stated as follows:

III. 2. Table of indicator's Variable

Variable	Indicators
<p>1.(Independent Variable)</p> <p>Using Movie</p>	<p>a. Preparing movie and the tools, such as laptop, LCD, and sound.</p> <p>b. Playing movie by the title "Mr. Bean's Holiday".</p> <p>c. Asking students to watch the movie and take a note about the story in every scene.</p>
<p>2.(Dependent Variable)</p> <p>Students' achievement in the writing test score in recount text.</p>	

Sub-Variable	Indicators
a. Sub-Variable; Students' ability in understanding recount text.	1) Defining recount text. 2) Identifying the generic structure in recount text. 3) Identifying the social function of recount text.
b. Sub-Variable; Students' ability in explaining recount text.	1) Explaining main idea of a paragraph. 2) Explaining contains of recount text.
c. Sub-Variable; Students' ability in composing written recount text.	1) Arranging the main scenes to be right plot. 2) Rewriting the movie's story into recount text.

E. Technique of Data Collection

The researcher must uses instrument in order to get the better data. The instrument of the research is a tool or facility that is used by researcher for collecting the data in order to get better result; it can be occurred complete and systematic.

To make this research successful, the researcher uses some instruments to collect data, they are follows:

1. Test

In this research, the researcher used test to collect data. Brown states that a test is a method of measuring a person's ability, knowledge, or performance in a given domain.¹² Heaton states that achievement test is

¹² Douglas Brown, *Language assessment Principles and Classroom Practices*, (San Francisco: Longman, 2004), p. 3.

generally used to refer to more formal tests which have been designed to show mastery of a particular syllabus. This test is similar to class progress tests in the sense that they are generally based on syllabus and measure what has been taught and learnt.¹³ Test is an examination or trial to find its quality, value, composition, etc.¹⁴ According to Longman English dictionary, test is any procedure for measuring ability, knowledge, or performance.¹⁵ In conducting to this study, the researcher uses test as the first method of collecting the data. The test is used to collect the students' writing that must be analyzed to identify students' achievement on writing recount.

Based on the statements above, the researcher conducted the achievement test in his research. This test was used to measure students' achievement. The test, which was conducted before the treatments, called pre-test. It was used to find out the initial condition of students before treatment. The test, which was done after all treatments, called the post-test. The researcher gave an assignment to write a recount text based on theme. The students had to use at least 75 words in 35 minutes. Students had to pay attention to the five aspects of writing which would be used in the assessment. These five aspects were as follow; grammar, vocabulary, mechanic, relevance and fluency.

2. Interview

Interview is a dialogue between interviewer and interviewee¹⁶. It was done by the researcher to get more information that the researcher did not get from observation. The researcher took 12 experimental class' students as interviewee. The researcher used structured interview and the result or the interview was unrecorded.

¹³ J. B. Heaton, *Writing English Language Test*, (London: Longman, 1975), p. 163.

¹⁴ Suharsimi arikunto, *Op.cit.*, p.223

¹⁵ Jack C. Richards and Richard Schmidt, *Longman Dictionary of Language Teaching and Applied Linguistics*, 3rd Ed. (London: Pearson Education Limited, 2002) p. 546.

¹⁶ Prof. Dr. S. Nasution, M.A, *Metode Research (Penelitian Ilmiah)*, (Jakarta: Bumi Aksara, 2009), p. 113

3. Observation

Observation was the activity that was done by the researcher to get data. There were two kinds of observation, they were:

- a. Non systematic observation' which was done by the researcher without using instrument.
- b. Systematic observation which was done by the researcher using instrument as the guide of the research.¹⁷

The observation focuses on teacher and students activity in classroom. In this part, the researcher used checklist as instrument to take information related to the activity in the class room.

4. Documentation

Document is a piece of written or printed material that provides a record of evidence or event an agreement, ownership, identification etc.¹⁸

Documentation is the accumulation, classification, and dissemination of information.¹⁹ It refers to the archival data that help the researcher to collect the needed data. In this study, this method was used to get the data that related to the object research such as students name list were included in the population. In this case, the data was gained by the help of the English teacher.

F. Scoring Technique

To score the test paper, the researcher used analytic scale which categorized by some categories. O'Malley and Pierce state that analytic scale separates the features of a composition into components that are each scored separately.²⁰ This analytic score has five items and each item scores five. So, the maximum score is 25. The items are:

¹⁷ *Ibid.*, p.157

¹⁸ John Eastwood, *Concise Oxford Dictionary*, 8th Ed. (London: Oxford University Press, 2004) p. 256.

¹⁹ *Ibid.*, p. 256.

²⁰ J. Michael O'Malley and Lorraine Valdez Pierce, *Authentic Assessment for English Language Learners*, (London: Longman, 1996), p.144.

1. Grammar

Brown states that grammar is the system of rules governing the conventional arrangement and relationship of words in a sentence.²¹

2. Vocabulary

Vocabulary plays important role in writing; it is the basic thing that should be owned by students. The lack of vocabulary means the failure in the communication. Students can not make a communication especially in writing if they master little vocabulary.

3. Mechanics

Mechanic is connecting with the appropriate punctuation or spelling that is used in writing. Mechanic will make students' writing well and reasonable to be read. The examples of mechanic are capital letter, quotation, comma, semicolon, and others.

4. Relevance

It contains reasonable sentences (supporting sentences) that support to the main idea. If students write paragraph without state the main idea, the reader will confuse to decide the main topic of the text.

5. Fluency (style and ease of communication)

Fluency refers to the sentences that flow easily and not too hard to understand by audiences (readers). If the researcher uses strange vocabulary, the readers will confuse what the purpose of writing.

Table III.3. Analytic Scoring of Writing

Writing Component	Score	Description
Grammar	5	Mastery of grammar taught on course – only 1 or 2 minor mistake.
	4	A few mistakes only (prepositions, articles, etc.)
	3	Only 1 or 2 major mistakes but a few ones.

²¹ H. Douglas Brown, *Teaching by Principle* (San Fransisco: Longman,2001), p. 362.

	2	Major mistakes, which lead to difficulty in understanding, lack of mastery of sentence construction.
	1	Numerous serious mistakes – no mastery of sentence construction – almost unintelligible.
Vocabulary	5	Use of wide range of vocabulary taught previously.
	4	Good use of new word acquired – fairly appropriate synonyms, circumlocution.
	3	Attempts to use word acquired – fairly appropriate vocabulary on the whole but sometimes restricted – has to resort to use of synonyms, circumlocution, etc., on few occasions.
	2	Restricted vocabulary – use of synonyms [but not always appropriate] imprecise and vague-affect meaning.
	1	Very restricted vocabulary-inappropriate use of synonyms seriously hinders communication.
Mechanic	5	No errors.
	4	1 or 2 minor errors only [e.g. ei or ie].
	3	Several errors – do not interfere significantly with communication – not too hard to understand.
	2	Several errors – some interfere with communication – some words very hard to recognize.
	1	Numerous errors – hard to recognize several words – communication made very difficult.

Relevance	5	All sentences support the topic – highly organized – clear progression of ideas well linked educated native speaker.
	4	Ideas well organized – links could occasionally be clearer but communication not impaired.
	3	Some lacks of organization – rereading required for clarification ideas.
	2	Little or no attempts at connectivity – though reader deduces some organization – individual ideas may be clear but very difficult to deduce connections between them.
	1	Lack of organization so severe that communication is seriously impaired.
Fluency	5	Flowing style – very easy to understand – both complex and simple sentences – very effective.
	4	Quite flowing style – mostly easy to understand a few complex sentences – very effective.
	3	Style reasonably smooth – not too hard to understand mostly [but not all] simple sentences – fairly effective.
	2	Jerky style – an effort needed to understand and enjoy – complex sentences confusing – mostly simple sentences or compound sentences.
	1	Very jerky – hard to understand can not enjoy reading – almost all simple – complex sentences confusing – excessive use of “and”.

Based on Heaton's grid as cited by Novie Fatmawati.²²

²² Novie Fatmawati, *Suggestopedia As an Alternative Method in Teaching Writing Recount (The Case of The Second Grade Students of SMPN 1 Bawen in the Academic Year 2005/2006)*, (Semarang: UNNES, 2006), p. 29-32.

G. Method of Data Analysis

There were some steps to do the research; one of the most important steps was collecting data. It influenced the result of the research.

1. The Activities of Experimental Group

a. Pre-test

Pre-test was given before the treatments. First, the researcher came to the class. Then, he explained to the students what they had to do. Finally, he distributed the instruments and asked them to do the test.

b. Activities in Experimental Group

There were some activities in experimental group (Class X 2) as follows:

Table III.4. Activities in Experimental Group

No	Activities	Time Allotment
1	1) Teacher lets students watch the movie. 2) Teacher asks students to make notes about the characters of the movie and other information that relates to the movie.	2x45'
2	1) Teacher explains about the generic structures of recount. 2) Teacher shows the movie to students and lets them watch it. 3) Teacher asks students to discuss the generic structures of the movie in pair.	2x45'
3	1) Teacher explains about the linguistic features of recount text. 2) Teacher lets students watch the movie. 3) Teacher asks students to analyze the	2x45'

	linguistic features of recount from the movie.	
4	1) Teacher reminds students about previous lesson. 2) Teacher asks students to write a recount text.	2x45'

c. Post-test

Post-test was held after all treatments were conducted. This test was used to measure students' achievement after they were given treatments. The result of test was analyzed statistically.

2. The Activities of Control Group

a. Pre-test

Pre-test was given before the treatment. First, the researcher came to the class. Then, he explained to the students what they had to do. Finally, he distributed the instruments and asked them to do the test.

b. Activities for control group

There were some activities in control group (class X 5) as follows:

Table III.5. Activities in Control Group

No	Activities	Time Allotment
1	1) Teacher distributes recount text. 2) Teacher asks students to make notes about the characters of the story and other information that relates to the text.	2x45'
2	1) Teacher explains about the generic structures of recount. 2) Teacher distributes the recount text to the	2x45'

	students and lets them read it. 3) Teacher asks students to discuss the generic structures of the text in pair.	
3	1) Teacher explains about the linguistic features of recount text. 2) Teacher lets students read the story. 3) Teacher asks students to analyze the linguistic features from the text.	2x45'
4	1) Teacher reminds students about previous lesson. 2) Teacher asks students to write a recount text.	2x45'

c. Post-test

Post-test was held after all treatments were conducted. This test was used to measure students' ability after they were given treatments. The result of test was analyzed statistically.

3. Analyzing the Data

After conducted the test, data analysis was carried out to find out the data normality and the homogeneity of sample. It was meant to check if the research result met the requirement of good research or not. Data analysis discussed two main things:

a. Test of data normality

The first step that had to be done before doing the research was to test the data normality. It was aimed to know whether the data came from normal distribution or not. The researcher used Chi-Kuadrat formula, as follows:

$$X^2 = \sum_{i=1}^k \frac{(O_i - E_i)^2}{E_i}$$

Cited from Sudjana.²³

Where:

- X^2 = Chi-kuadrat
 O_i = Frequency that was obtained from data
 E_i = Frequency that was hoped
 k = the sum of interval class

If the obtained score was lower than t-table score by using 5% alpha of significance, H_0 was accepted. It was meant that H_a was rejected. So, the data is normal.

b. Test of homogeneity

It was meant to get the assumption that sample of research came from a same condition or homogenous. The researcher used the formula as follows:

With this formula²⁴:

$$\chi^2 = (\ln 10) \left\{ B - \sum (n_i - 1) \log s_i^2 \right\}$$

With:

$$B = (\log s^2) \sum (n_i - 1) \quad \text{and} \quad s^2 = \frac{\sum (n_i - 1) S_i^2}{\sum (n_i - 1)}$$

Where:

- χ^2 = chi kuadrat
 s_i^2 = i-variance
 n_i = number of participant
 k = the sum of interval class

If $x^2_{count} \geq x^2_{(1-\alpha)(k-1)}$ with significance 5% and $dk = k - 1$ so H_0 was refused, the data is not homogeneous. If the participant is

²³ Sudjana, *Metoda Statistika*, (Bandung: Tarsito, 2002). p. 272.

²⁴ *Ibid.*, hlm. 263.

homogenous, the writer uses the formula below to measure the hypothesis:

$$F = \frac{\text{Biggest Variance}}{\text{Smallest Variance}}$$

Cited from Sugiono.²⁵

$$\text{Hypothesis: } H_0: \sigma_1^2 = \sigma_2^2$$

$$H_a: \sigma_1^2 \neq \sigma_2^2$$

Ho is accepted if $F < F_{1/2\alpha (nb-1):(nk-1)}$

4. Analyzing The Result of The Test

Firstly, the test was done in both groups, experimental and control group. Secondly, the result of the test was scored by using analytic scale. Thirdly, the means score of the two groups were determined. Finally, the two means were compared by applying t-test formula. T-test was used to differentiate if the students' result of writing a recount paragraph by using movie and without using movie was significant or not.

$$t = \frac{\bar{x}_1 - \bar{x}_2}{s \sqrt{\frac{1}{n_1} + \frac{1}{n_2}}}$$

Where:

$$s = \sqrt{\frac{(n_1 - 1)s_1^2 + (n_2 - 1)s_2^2}{n_1 + n_2 - 2}}$$

Cited from Sudjana.²⁶

Where:

\bar{x}_1 = the mean score of the experimental group

\bar{x}_2 = the mean score of control group

n_1 = the number of the experimental group

n_2 = the number of the control group

s = standard deviation

²⁵ Sugiyono, *Statistika Untuk Penelitian*, (Bandung: Alfabeta, 2007), p. 140.

²⁶ Sudjana, *op.cit.*, p. 239.

$$s^2 = \text{variance}$$

If the obtained score was higher than t-table score by using 5% alpha of significance, H_0 was rejected. It meant that H_a was accepted: “There was a significant difference in writing achievement between the experimental and control group.”

H. Research procedures

In this research, there were three procedures in applying experiment research:

1. Administering a pre-test

The test administered before the treatment section. The students in both of class (control class and experimental class) asked to free write recount text based on their background knowledge.

2. Giving Treatment

It was given in two formations, those are using movie in experimental class and without using movie in control class. The treatment was done twice for each class.

3. Administering a pos-test

After given the treatment in both of class, the writer gave the pos-test to measure the students' achievement on writing recount text. From this test, the data obtained in form students' test score.

Table III.6. Schedule of the experiment

Group	Agenda			Pos-test
	Pre-test	Treatment I	Treatment II	
Experimental class	Friday, November 5 th , 2010	Friday, November 12 nd , 2010	Friday, November 19 th , 2010	Friday, November 26 th , 2010
Control class	Tuesday, November 4 th , 2010	Tuesday, November 11 st , 2010	Tuesday, November 18 th , 2010	Tuesday, November 25 th , 2010