

CHAPTER III

RESEARCH METHODOLOGY

A. Type of Research

The types of research are kinds of activity involved in the teacher-learner interaction. The activities can be lecturing, questioning and answering, and also discussion. It is found that the interaction contains teacher talk and learners talk as well as teacher activity and learners' activity. In other words, the data of the study are in the form of speaking and actions. They are collected as they are no attempts to transform them into numbers or quantities as will be required in quantitative research. Especially, use of *Experimental Research* type.

B. Setting of The Study

The researcher did research at SDIT An Nawawiyah Rembang. There are in Tasik Agung , Jl, Nelayan 2 No. 11-12, Kec. Rembang, Kab. Rembang. Why? Because, this school is near of the reseacher's house, so it makes easier while the reseacher did research. The researcher conducted this research from 3th of February 2012 to 8th of March 2012.

C. Research Approach

This research is an experimental research. Hypothesis is a temporary answer of problems in research until proved from the data which collected.¹ Experimental is the way to find the causal relationship between two factors which are raised by the researcher in purpose by reducing or eliminating any distracting factors. In this research, the subject is divided into two groups. Experimental class which will teach using songs and control class which will teach without using songs.

In research, the researcher will use experiment to teach class (III A) by using songs to teaching Telling Time and control class (III B) without using songs as a medium.

D. Procedure and Timeline

1. Procedure

In this research, the researcher will do

¹ Suharsimi Arikunto, *Prosedur Penelitian: Suatu Pendekatan Praktik*, (Jakarta: PT Rineka Cipta, 2006), 13th Ed. p. 6

a. Planning

Before doing the research, researcher provides material that will use in teaching telling time and makes lesson plans. Then, the researcher makes instrument that will use to evaluate the students' understanding on telling time. The process of teaching learning for experiment group will use songs and for control group will use communicative language teaching (CLT) method.

b. Implementing or Observing

Before started the lesson, the researcher gives pre test to the students both of experiment group and control group. This test is given to know the students' understanding on Telling Time. Then the researcher gives treatment for experiment group by using songs to deliver telling time to the students. Whereas the control group, teaching on telling time using asking question.

At the end of the lesson, the researcher gives post test for the students both of in experiment group and control group. This test to know is there any difference students' achievement between experiment group and control group.

c. Analyzing

The aim of evaluation is to know the students' understanding on Telling Time after they follow the lesson. Data of students' score from pre test and post test both of experiment group and control group will be shown in table.

d. Inferencing

After the researcher put data of the students' score in the table, the researcher concludes the result of students' score. If there are any differences with students' achievement between experiment and control group, if the result of students score in experiment group is higher than control group. It can be concluded that song is effective in teaching telling time.

e. Reporting

In reporting stage, the researcher will focus on formulating report after conducting experiment and gathering data. Such as, the list of students, lesson plans, data of students' score, and picture when the

researcher give experiment in the class. The report will consist of chapter I presents introduction, chapter II presents the literature review, chapter III is the method of investigation, chapter IV presents the analysis the data, chapter V is conclusion and suggestion.

2. Time Line

Table.3.1

| No | Activities | Meeting on March to April | | | | | | |
|----|--|---------------------------|----|-----|----|---|------|----|
| | | Week | | | | | Week | |
| | | I | II | III | IV | V | I | II |
| 1 | Getting the familiar with the school (Observation) | √ | | | | | | |
| 2 | Determine between the experiment and control group | | √ | | | | | |
| 3 | Giving pre-test for both control and experiment group. | | √ | | | | | |
| 4 | Giving treatment | | | √ | √ | √ | | |
| 5 | Giving post test to both of groups. | | | | | | √ | |
| 6 | Analyzing the data | | √ | √ | √ | √ | √ | |
| 7 | Writing report | | | | | | | √ |

E. Variable of the Research

A variable can be defined as an attribute of a person or an object. The object of the study is to see a causal relationship. It is used to study the influence on the student’s vocabulary in speaking practice by using a song in teaching telling time. Variable is the object of research or something that become the concern of research.² Variables can be classified into two kinds of variables; they were independent variables and dependent variable. In this study there are two variables. They are Independent Variable (x) and Dependent Variable (y).

1. Independent Variable (x)

Independent variable is variable that influences or those to be cause of change or emergence the dependent variable, we can tell as stimulus,

² Suharsimi Arikunto, *Prosedur Penelitian*, p. 118.

predictor, or antecedent.³ Independent variable in this research is the use of song in teaching telling time.

Indicators of independent variable as are follows:

- a. Identifying and using songs to explain names of days.
 - b. Identifying and using songs to explain names of months.
 - c. Identifying and express time.
2. Dependent Variable (y)

Dependent variable is variable that was affected or that be the result because of the existence of the independent variable.⁴ Dependent variable in this study is the students' ability in speaking.

Usually the indicators of dependent variable as are follows:

- a. Fluency to tell kinds of time (names of day, months, and clock).
- b. Intonation to tell kinds of time (names of day, months, and clock).
- c. Accuracy to tell kinds of time (names of day, months, and clock).
- d. Pronunciation to tell kinds of time (names of day, months, and clock).

F. Source of Data

The research will conduct in SDIT An Nawawiyah Rembang in the academic year of 2011/2012.

1. Population

Population is the whole subject of research.⁵ The population of this study will take population of 3rd graders of SDIT An Nawawiyah Rembang in the academic year of 2011/2012 has two classes (III A and III B) and each class consist of 24 students.

2. Sample

Sample is part of population which has same characteristics.⁶ The researcher will take two classes from 3rd graders of SDIT An Nawawiyah Rembang in the academic year of 2011/2012 as a sample. The researcher will use cluster random sampling to take the sample. To make it easy, we take sample by random each class and it is based on lottery.

Names of student at 3rd grader in SDIT An Nawawiyah Rembang are follows:

³ Sugiono, *Metode Penelitian Pendidikan*, (Bandung: Alfabeta, 2010), Ed. 10, p. 61

⁴ Sugiono, *Metode Penelitian*, p. 27.

⁵ Suharsimi Arikunto, *Prosedur Penelitian*, p.130

⁶ Suharsimi Arikunto, *Prosedur Penelitian*, p. 131

Table.3.2

| No | Name | |
|----|-----------------------------|--------------------------------|
| | Class III A (Control Group) | Class III B (Experiment Group) |
| 1 | C-1 | E-1 |
| 2 | C-2 | E-2 |
| 3 | C-3 | E-3 |
| 4 | C-4 | E-4 |
| 5 | C-5 | E-5 |
| 6 | C-6 | E-6 |
| 7 | C-7 | E-7 |
| 8 | C-8 | E-8 |
| 9 | C-9 | E-9 |
| 10 | C-10 | E-10 |
| 11 | C-11 | E-11 |
| 12 | C-12 | E-12 |
| 13 | C-13 | E-13 |
| 14 | C-14 | E-14 |
| 15 | C-15 | E-15 |
| 16 | C-16 | E-16 |
| 17 | C-17 | E-17 |
| 18 | C-18 | E-18 |
| 19 | C-19 | E-19 |
| 20 | C-20 | E-20 |
| 21 | C-21 | E-21 |
| 22 | C-22 | E-22 |
| 23 | C-23 | E-23 |
| 24 | C-24 | E-24 |

G. Methods of Data Collection

Method of data collections is very important in a research. According to Arikunto data source in a research is basically source of which a researcher gets

data, depends on the necessity and kind of information which is needed.⁷ In this research, the researcher will use observation and test.

Methods that are used to collect the data as follows:

1. Observation

The researcher will carry out three activities to gain the data containing pretest, treatment for the experimental group and post test. The researcher developed the instrument of research and administered it to the students to collect the data. This research is an experimental research, uses of quantitative to data collection. The instrument is *test*.⁸

Observation is the process of observe and write the phenomena that happened in class systematically.⁹

In this research, observation is done during the action research as a method to observe the teaching process and the students' activity. The researcher observes the event in class during the lesson or the treatment using check list to get data. Observation checklist uses to make the observation process easier, the aspect that observe are concern to teacher explanation, being anthusthiastic, seriousness in discussion, responding to question and accomplishing the task.

2. Test

Testing provides a form feedback, both of learners and teachers.¹⁰ From Arikunto's book said that *achievement test* is to measuring students' knowledge. So, test is a question which is used to measure competence, knowledge, intelligence, and ability of talent which is possessed by individual or group to collect data.

Technique of data collections are follows:

a. Pretest

Before the researcher taught new material by using song, the researcher gave written test to the students, it is pre-test. Pre-test was given to the experimental and control classes in same way. This test was given before the experiment was run.

⁷ Suharsimi Arikunto, *Prosedur Penelitian*, p. 149

⁸ Margono, *Metode Penelitian Pendidikan*, (Jakarta : Rineka Cipta, 2005), 5th Ed, p.170

⁹ Sutrisno Hadi, *Metodologi Penelitian*, (Yogyakarta: Andi Publishing, 2004), p.151

¹⁰ Scott Thornbury, *How Teach to Vocabulary*, (England: London, 2002), p. 129

b. Treatment Step

Here is the mean point of this research, because in this section researcher using song (as a medium) in teaching leaning process in experiment class. We can call it with *audio-lingual method*. Control class just uses a *communicative language teaching (CLT) method* to explain it. It means that researcher find the finding or the effectiveness of this media, song, in teaching telling time or not.

c. Post Test

After doing treatment step, student will be given an instrument to evaluate this material and getting the finding of this research, it is post-test. Content of this test is same with pre-test. This test is to measure students' achievement on telling time both of control group and experiment about telling time.

d. Scoring Technique

There are four aspects, which are used as consideration in scoring. They are pronunciation, accuracy, fluency, and intonation. The researcher concludes the result of pre-test and post-test's student exam to get their score, the scoring guidance is as follows:

Table. 3.3

| No. | Aspects to Assessment | Score |
|-----|-----------------------|-------|
| | - Pronunciation | |
| | • No mistake | 20-25 |
| | • 1/3 mistake | 15-19 |
| | • 1/2 mistake or more | 10-14 |
| | - Accuracy | |
| | • Correct | 18-25 |
| | • Incorrect | 10-17 |
| | - Fluency | |
| | • 71%-100% Fluent | 20-25 |
| | • 51%-70% Fluent | 15-19 |
| | • 30%-50% Fluent | 10-14 |
| | - Intonation | |
| | • Correct | 18-25 |
| | • Incorrect | 10-17 |

The score of students' achievement can be calculated by using this following formula:¹¹

$$\text{Score} = \frac{\text{The got score}}{\text{The maximal score}} \times 100\%$$

3. Documentation

The documentation method is used to look for the data concerning matters or the variable that took from of the note, transcript, book, newspaper, magazine, inscription, ledger, agenda, etc. It refers to the archival data that helps the researcher to collect the data needed. In this research, this method was used to get the data of students' name list that become respondents, syllabus, lesson plan, etc. the data was gained by the help of the English teacher.

H. Methods of Data Analysis

The data analysis method, which is used in this research, is quantitative analysis. Quantitative is concerned with the amount or number.

1. Observing

The researcher did not observe the events that happened during teaching learning process. The researcher did as teacher and the real teacher as observer. In observation step consist of two steps, they are in experimental and control class.

a. Experimental class

The observer observed the activity by using observation guide, the steps were as follow:

- 1) The observer observed the interaction and the attention between the students and the researcher in the classroom during teaching learning process with song as a medium.
- 2) The observer observed students' activeness and enthusiasm in the classroom. The reseacher gave an simple song then all of studens repeting and sang together. There were 2 students who gave an example song in front of classs. She looked that the another students very anthusthiasthing and interesting because this song made easier to memorize the material.

¹¹ Suharsimi arikunto, *Prosedur Penelitian*, p. 235

- 3) The observer observed the students ability of the materials. The reseacher gave some simple oral questions and some students can answer the question well.
- 4) The observer observed the students ability on mentioning kinds of time. All of students can tell time perfectly.

b. Control class

The observer observed the activity by using observation guide, the steps were as follow:

- 1) The observer observed the interaction and the attention between the students and the researcher in the classroom during teaching learning process.
- 2) The observer observed the students understanding of the materials. Some students looked bored because there was not media that they can use to explaine the material conventionally. The reseacher gave some simple oral questions and some students can answer the question well.
- 3) The observer observed the students ability on telling time material. She looked students did not mention understand well about the material. The reseacher gave some simple oral questions and some students can not answer the question well.
- 4) The observer observed the students ability on mentioning kinds of time. They looked confused to memorize its. In this step eight students who can anwer it well. There were six students who need more help to finish their answer.

2. Pre-requisites Test

Before the researcher determines the statistical analysis technique used in subjective assessment, the first the researcher examined the normality sample of test. The ways that was used to examine the normality and homogeneity test.

a. Normality Test

To know the normality is using Chi Quadrate formula, which is as follow:¹²

$$X^2 = \sum \frac{(f_o - f_h)^2}{f_h}$$

¹² Sutrisno Hadi, *Statistik*, Vol. 2, (Yogyakarta: Andi, 2004), p. 259.

Which:

X^2 : chi quadrate

f_o : frequency from sample

f_h : frequency which hoped from sample

b. Homogeneity Test

Homogeneity test is used to compare variance in a group of three categories data or more and its categories can be compared fairly if the categories are homogeneity. By:

1) Calculate Mean (\bar{X})

2) Calculate the Variance (S^2)

Formula:

$$S^2 = n \frac{\sum x_1^2 - (\sum x_2)^2}{n(n-1)} \text{ or } S^2 = \frac{(n_1-1)S_1^2 + (n_2-1)S^2}{n_1 + n_2 - 2}$$

S_1^2 : Variance of experiments group

S_2^2 : Variance of control group

n_1 : subject of experiments group

n_2 : subject of control group

3) Calculate F

$$\text{Formula: } F = \frac{\text{highest variance}}{\text{lowest variance}}$$

3. Hypothetical Test

Statistic Technique used to know comparative significance level (to compare the means of a group with another group by using t-test). To see the differences of the students' mastery on Telling Time between who taught using song and who taught without it is significant or not, the *t-test* formula is used.

The formula of *t-test*:

$$t = \frac{\bar{x}_1 - \bar{x}_2}{S \sqrt{\frac{1}{n_1} + \frac{1}{n_2}}}, \text{ and } S^2 = \frac{(n_1-1)S_1^2 + (n_2-1)S^2}{n_1 + n_2 - 2}$$

Which:

t : t- value

\bar{x}_1 : mean of experiments group achievement

\bar{x}_2 : mean of control group achievement