

CHAPTER III

THE RESEARCH METHODOLOGY

In this chapter the writer describes the type of research methodology, research design, and subject of study, techniques of collecting data, and techniques of analyzing data.

3.1. The Research Design

The study is intended for testing hypothesis about the effects of interactive read-aloud towards development of students' reading achievement. This study used Quasi-experimental design, a type of research design which included experimental and control groups without random sampling. The researcher also used questionnaires to know the students' response towards the application of the strategy.

Experimental provides a method of hypothesis testing (Hatch and Lazaraton, 1991). After the researchers define a problem, they proposed a tentative answer or hypothesis. The hypotheses are null hypothesis and alternative hypothesis. The researchers test the hypothesis, confirm or disconfirm them in the light of the controlled variable relationship that the experimenters observed. Furthermore, Hadi (1988) states it is important to note that the confirmation or rejection of hypothesis was stated in terms of probability rather than certainty. He argues that experimental method was a method for establishing activities to sack the result. The result was

defined as something that will emphasize the existence of causal relationship between variables investigated in an issue.

The design used in the quasi experimental method is a pre-test and post-test design, as follows:

E T1 X T2

C T1 T2 (Hatch and Lazaraton 1991).

E = Experiment Group

C = Control Group

T1 = Pre-test

T2 = Post-test

X = Treatment

This research design has several characteristics as follow: (1) it has two groups of subject namely the experimental and control group; (2) the two groups are compared with respect to measurement or observation on the dependent variable; (3) both groups are measured twice; the first measurement serves as the pre-test and the second one as the post-test; (4) measurement on the dependent variable for both groups are conducted at the same time with the same test; (5) the experimental group is manipulated with particular treatment. In this study, the experimental group was

taught using interactive read aloud strategy, while the control group was taught without using the strategy.

3.2 Subject of the Study

This research involved the second year students of SMP N 3 Bayat, with seven classes involved in this research as the population and not all of them were considered to be the sample of the research due to limited time and funds. This research involved only two classes from the seven existing classes, namely class C as control class and D as experiment class.

This study employed purposive sampling. It means that the sample is taken based on certain consideration, as Fraenkle and Wallen (1993:75) state:

On occasion, based on previous knowledge of a population and the specific purpose of the research, investigators used personal judgment to select a sample. Researchers assume they can use their knowledge of the population to judge whether or not a particular sample will be representative.

3.3 Research Instruments

Fraenkel and Wallen, (2007:113) define instrumentation as the whole process of preparing to collect data in research. There were two kinds of instruments which were employed in this research. They were reading comprehension test and questionnaires. The scores of the students' test were used to know the effectiveness of interactive read aloud in attaining language support to the students to improve their ability in reading comprehension. Questionnaires were also administered in this

research. Questionnaire was used to find out students' responses toward the implementation of interactive read-aloud technique in learning reading. The type of the questionnaires was Likert-Scale with five options: Strongly Disagree, Disagree, Uncertain, Agree, and Strongly Agree.

3.4 The Technique of collecting data

In this study used some instruments were used to collect the data. The instruments for the first research question were pre test and post test of reading test to identify students' reading achievement. The reading test for pre test has similar level of validity, reliability, discriminating power and level of difficulty with the reading test for post test. For the test instrument, the multiple choice form is chosen for some reasons. First, the scoring is easier, faster and more objective than the other form of tests. Second, this is very efficient when the number of students is large while the allocated time is very short. Third, the reliability of this type of test was higher than the essay test (Surapranata, 2004).

To get data for the second research questions were used questionnaire to know students' responses toward the implementation of interactive read-aloud technique in learning reading. The type of the questionnaires was Likert-Scale with five options: Strongly Disagree, Disagree, Uncertain, Agree, and Strongly Agree. This type of scale was chosen because it was less laborious and a reliability coefficient of .85 is often achieved (Oppenheim, 1992). There were two kinds of statements in this

instrument; they were positive statements which reflect positive response towards the issue being addressed. On the other hand were the negative statements which negative response towards the issue addressed.

The scoring for positive items was 1 for Strongly Disagree, 2 for Disagree, 3 for Uncertain, 4 for Agree, 5 for Strongly Agree. On the other hand, for negative statements, the scoring was reversed, thus it was 5 for Strongly Disagree, 4 Disagree, 3 for Uncertain, 2 for Agree, 3 for Strongly Disagree. In this study reading test was administered first then followed by questionnaires.

3.5 Conducting Tryout

Before the materials were tested to the respondents, test of content validity and reliability were conducted.

3.5.1 Validity of the Test

According to Heaton (1988), a good test should have at least three characteristics namely validity, reliability, and practicality. In line with validity Scarivi 1975(cited in Arikunto, 2007) claims that a test is valid if it measures what it has to be measured. In line with that this study employs logical validity test in which the test was arranged based on the careful reasoning and in line with the teaching objective.

The content validity can be met if the test items reflect the contents of the curriculum the students have learned. It also should have relationship between the

course objectives. The test used in this study can be said to have content validity as they are constructed based on the curriculum and the course objectives and it measures what it is intended to measure, i.e. to measure students' comprehension skills (Harris, 1969)

3.5.2 Reliability of the Test

The reliability of the test items also was calculated by using ANATES, deliberating the total of odd score and even score of the items. From the calculation, it is shown that the reliability index is 0.46 for the test, while r table with $df= 28$ and $\alpha = 0.01$ is .4487. It means that of the test is still greater than that of the table. Thus, the test items can be said to be reliable.

3.5.3 Test Items Difficulty

The indexes of items difficulty were calculated using the analyses of test item ANATES Version 4.0.2. The analysis showed that from 40 items for the test, after being tried out, consisting of 4 difficult items, 22 medium items, 7 easy, and 7 very easy items (Appendix 7). The rest 1 was too easy and 1 was too difficult, so that they were eliminated from the test. To make the scoring easier, only 25 items for test were chosen.

3.5.4 Test Items Discriminating Power

The indexes of items discriminating power were also calculated using the analysis of test item ANATES Version 4.0.2. From the analysis, it can be seen that from 40 items for the test, 2 items has very good discriminating power, 8 items are good, 15 items are medium, 6 items are bad, and 4 are very bad. To make the scoring easier, only 25 items for test were chosen.

3.6 The Technique of Analyzing Data

The quantitative data of the research consisting of pretest and posttest results and the qualitative data were collected by questionnaires. To measure the effectiveness of interactive read-aloud toward students' reading achievement, the following formula will be used.

$$t = \frac{\bar{X}_e - \bar{X}_c}{S(\bar{X}_e - \bar{X}_c)}$$

\bar{X}_e = Means of experimental group

\bar{X}_c = means of control group

S = standard error of mean

3.7 Research Procedures

In collecting the data, there were some steps done as follow. First the pre test and post test materials were piloted or tried out to subjects from the same population but not included in the study samples, to make sure the validity, reliability of the instruments and the clarity of the instructions. Try out test was conducted to the students consisting of 30 students. It was May 5th 2009.

Second, before the treatments were given to the experimental group, both the experimental group and the control group were given the same reading pre test. These tests to find out the students score before the treatment were given to the experimental group. The pre test was conducted on 8th May 2009.

Third, upon the completion the second, a series of treatment was given to the experimental group, where the treatments given for eight meetings. In this study the treatment used interactive read aloud technique in teaching reading. Meanwhile the control group was given without the interactive read aloud in teaching reading.

First treatment was conducted on 12th May 2009. The description of the teaching activities can be seen below:

a. classroom activities for experimental group

- Skill focus : Reading
- Level : Junior High School
- Class : VII
- Time : 2 x 45

- Material : Text “Parts of the Tree”

- Presentation

*** Pre-reading activities**

- Teacher activates students’ prior knowledge; provided information related to the reading text by using some questions:

- Do you think this text is fiction or nonfiction?
- What do you know about parts of tree?

- Teacher discussed the topic “part of the tree”, and share objects related to the reading text to draw on prior knowledge or to create new experiences.

- Questions and answer about the new vocabularies.

*** Whilst-reading activities**

- Teacher read text aloud, during which students should be actively involved with the text.

- After reading the title of the text, the teacher began by asking students to make prediction about the text using question like this:

- What do you think a text part of the tree might be about?

*** Post-reading**

- Students shared their log entries through discussion relate the text to their experiences or other text that they have read.

b. classroom activities for control group

- Skill focus : Reading
- Level : Junior High School
- Class : VII
- Time : 2 x 45
- Material : Text “Parts of the Tree”
- Presentation

*** Before reading activities**

- Teacher gave students some questions about new words in the text.
- Teacher asked students to give opinion about the topic will be discussed.

*** During reading activities**

- Teacher read text for the students
- Teacher nominated the students to read the text.
- Students discussed the text in small group

*** After reading**

- Students were permitted to ask some clarification of their difficulties about the text.

Second treatment was conducted on 14th May 2009. The description of the teaching activities can be seen below:

a. classroom activities for experimental group

- Skill focus : Reading
- Level : Junior High School
- Class : VII
- Time : 2 x 45
- Material : Text “Tropical Forest in the World”
- Presentation

*** Pre-reading activities**

- Teacher activated students’ prior knowledge; provided information related to the reading text by using some questions:

- Do you think this text is fiction or nonfiction?
- What do you know about tropical forest in the world?

- Teacher discussed the topic “tropical forest in the world”, and share objects related to the reading text to draw on prior knowledge or to create new experiences.
- Questions and answer about the new vocabularies.

*** Whilst-reading activities**

- Teacher read text aloud, during which students should be actively involved with the text.
- After reading the title of the text, the teacher began by asking students to make prediction about the text using question like this:

- What do you think a text tropical forest in the world might be about?

*** Post-reading**

- Students shared their log entries through discussion relate the text to their experiences or other text that they have read.

b. classroom activities for control group

- Skill focus : Reading
- Level : Junior High School
- Class : VII
- Time : 2 x 45
- Material : Text “Tropical Forest in the World”
- Presentation

*** Before reading activities**

- Teacher gave students some questions about new words in the text.
- Teacher asked students to give opinion about the topic will be discussed.

*** During reading activities**

- Teacher read text for the students
- Teacher nominated the students to read the text.
- Students discuss the text in small group

*** After reading**

- Students were permitted to ask some clarification of their difficulties about the text.

Third treatment was conducted on 16th May 2009. The description of the teaching activities can be seen below:

a. classroom activities for experimental group

- Skill focus : Reading
- Level : Junior High School
- Class : VII
- Time : 2 x 45
- Material : Text “Coconut”
- Presentation

*** Pre-reading activities**

- Teacher activated students’ prior knowledge; provided information related to the reading text by using some questions:
 - Do you think this text is fiction or nonfiction?
 - What do you know about coconut?
- Teacher discussed the topic “coconut”, and share objects related to the reading text to draw on prior knowledge or to create new experiences.
- Questions and answer about the new vocabularies.

*** Whilst-reading activities**

- Teacher read text aloud, during which students should be actively involved with the text.

- After reading the title of the text, the teacher began by asking students to make prediction about the text using question like this:
 - Why coconuts were important for human live?
 - What was the function of coconut?

*** Post-reading**

- Students shared their log entries through discussion relate the text to their experiences or other text that they have read.

b. classroom activities for control group

- Skill focus : Reading
- Level : Junior High School
- Class : VII
- Time : 2 x 45
- Material : Text “Coconut”
- Presentation

*** Before reading activities**

- Teacher gave students some questions about new words in the text.
- Teacher asked students to give opinion about the topic will be discussed.

*** During reading activities**

- Teacher read text for the students
- Teacher nominated the students to read the text.
- Students discussed the text in small group

*** After reading**

- Students were permitted to ask some clarification of their difficulties about the text.

3.8 The Schedule for Treatment

The teaching learning process for experimental class and control class are carried out in the same manner. The total meeting for each class is eight meetings. The time table of the experimental class as well as the control class is shown in the following table:

Table 3.1
The Treatment Time Table

No	Month	Meeting	Topic	Time	
				Experimental	Control
1	8 th May	1	Pre-test	2 x 45'	2 x 45'
2	12 th May	2	Parts of the tree	2 x 45'	2 x 45'
3	14 th May	3	coconut	2 x 45'	2 x 45'
4	16 th May	4	Tropical Forest in the world	2 x 45'	2 x 45'
5	21 th May	5	Leopards	2 x 45'	2 x 45'
6	23 th May	6	Going to zoo	2 x 45'	2 x 45'
7	25 th May	7	The English lesson	2 x 45'	2 x 45'
8	30 th May	8	Post-test	2 x 45'	2 x 45'

