

## CHAPTER III

### RESEARCH METHOD

This chapter presents the details of the research method employed in this study. It includes the research design, the procedure of the research, the location of the research, the subject of the research, the data and data source, the procedure of data collection, and the data analysis.

#### **A. Research Design**

Research is a process of formulating questions, problems, or hypotheses, collecting data or evidence relevant to these questions or problem or hypotheses; and analyzing or interpreting these data.<sup>1</sup> The research design used in this study is Classroom Action Research (CAR). Classroom Action Research is an effective media in improving the quality of English teachers' performance in instruction as well as students' achievement in learning English in classrooms.<sup>2</sup> The researcher uses the model from Kemmis & McTaggart, 1998 which is involved repeated cycles, each consisting of planning, acting, observing, and reflecting.

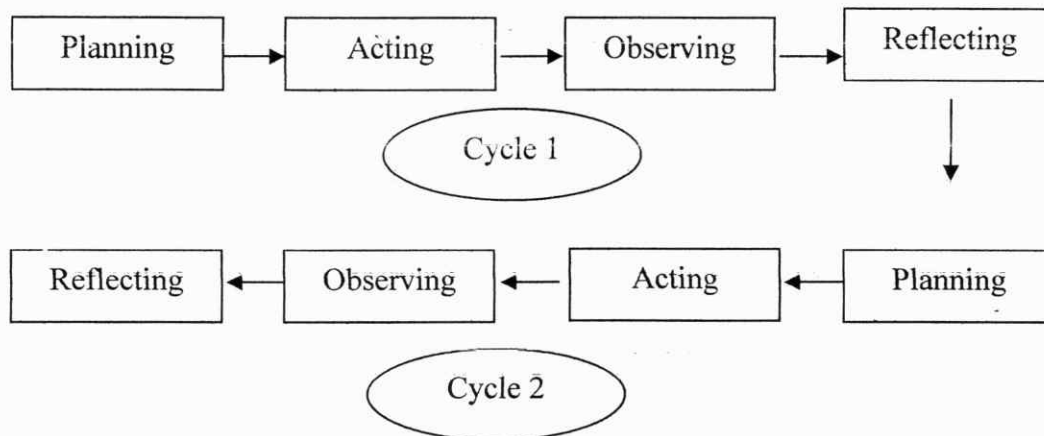
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<sup>1</sup> David Nunan, *Research Methods in Language Learning*, (USA: Cambridge University Press, 1992), p.3.

<sup>2</sup> Muhammad Adnan Latief, *Research Methods on Language Learning: an Introduction*, (Malang: UM Press, 2012), p.144.

Figure 1

## The Action Research Spiral



The goals of Classroom Action Research are as follow:<sup>3</sup>

1. To improve the quality, the process, and the result of learning.
2. To create a research culture for teachers in order to be more pro active in solving learning problems.
3. To increase the research productivity for teachers, especially to find the solution toward the learning problems.
4. To improve the collaboration among educators in solving learning problems.

<sup>3</sup>Suharsimi Arikunto, Suhardjono, and Supardi, *Penelitian Tindakan Kelas*, (Jakarta: PT. Bumi Aksara, 2008), p. 107.

## B. Procedure of the Research

In conducting the research, the researcher uses Classroom Action Research which consists of the Planning, Acting, Observing, and Reflecting in each cycle. The cycle depends on the result of every cycle given.

### 1. Planning

In planning step, the researcher conducts the following activities; those are asking permission, compiling the lesson plan, and doing an evaluation. Firstly, the researcher asks for permission to the headmaster of SMA-BI Ar-Risalah Lirboyo Kediri to have an observation there. Secondly, the researcher arranges the lesson plan, the instrument, and the criteria of success.

#### a. Lesson Plan

Lesson plan is as same as RPP which is made by the teacher. It consists of three topics; those are competency that consists of standard competency, basic competency, indicators, and learning objectives. The second topic is learning material. It is a material that will be given to the students in learning activity. The third topic is learning method and learning activities which consist of method, learning activities, learning media, and evaluation. (See Appendix 1 and 2)

#### b. Instrument

The researcher uses tests, the criteria of a good test, and scoring guide as instrument of this research. The first instrument to collect

the data is test. The test is a worksheet taken from the curriculum of senior high school. It is used to measure the students' achievement in comprehending reading passages. There are three kinds of tests in here; try out, pre-test and post test in each cycle.

1. Try Out test

Try Out test is made by the researcher to get the valid and the reliable tests that will be used in pre-test. This is done to the same school, ability, and level of the research subject but in different class.

2. Pre-test

Pre-test is made by the researcher to know the students' achievement as the subject of the research before they are given a treatment by the researcher uses Blooming Worksheet structure.

3. Post-Test (Test I cycle I and Test II cycle II)

The Post-test (Test I cycle I and Test II cycle II) is made by the researcher to know the students' achievement after they have gotten a treatment by the researcher uses Blooming Worksheet structure. This is done to get the level of success through the material has been given used the method.

#### 4. Scoring guide

From the data which is got, it will be identified with paper test. The result of the test can be counted by convert the total number of correct answers. Since the questions are multiple choices test and cloze test, the score of correct number is 1 and the score of incorrect number is 0. For the test result are raw scores, they are multiplied by certain number to get more meaningful numerical data. By doing so, it can be obtained the rating scale is 1-100. For instance, a student with 25 raw score will be multiplied by 4 to become 100, and so on.

#### 5. The criteria of a good test

Test is an important component in doing research especially scoring result of study. The good test has some characteristic such as: reliability, validity, level difficulty, and discrimination power.

##### a. Reliability

Reliability is one of test characteristic which have the capability to produce measuring continually. Reliability means that there will be no change in the quality or construct being measured, there are consistency of the scores resulted from the test. The reliability of multiple choice tests can be known by an application called SPSS.

Here the researcher uses SPSS 16 to know the reliability of the test.

#### Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.791	.795	30

Thus, from the result above can be concluded that the test of try out is reliable.

From the formula above, Djiwandono divides five grades of correlation, they are as follow:

Very high	= 0,90 – 1,00
High	= 0,70 – 0, 89
Moderate	= 0,50 – 0,69
Low	= 0, 30 – 0, 49
Very low	= less than 0, 30

Reliability is indicated by the coefficient of 1.00 and perfect positive reliability is indicated by coefficient of 1.00. Based on the criteria, the reliability estimate for 30 items is 0,791. It means that the try out is reliable.

#### b. Validity

Validity is suitability between test with something want to be measured using the test. A test is valid if the subject will measure the subject itself not other than it.

c. Level Of Difficulty

According to Djiwandono, the formula of level of difficulty is as follow:

$$P = (JJB : JPT) \times 100\%$$

P : index of difficulty

JJB: the number of correct answer

JPT: the number of students who takes the test

From the formula above, there are some questions' criteria of index difficulty as follow:

The question is easy if  $(P) = 0,81 - 1,00$

The question is fair if  $(P) = 0,20 - 0,80$

The question is difficult if  $(P) = 0,00 - 0,20$

The complete result of level of difficulty can be seen on appendix 7. For example let's take the item number 1

JJB: 18

JPT: 24

$$P = \frac{18}{24} \times 100\%$$

$$= 0,75$$

After getting the P value, we could say that item number 1 is fair. It because the P value is 0,84 belongs to the interval  $0,81 - 1,00$  which is in easy level. The whole competitive results of difficulty index for each item numbers are number 3,17, 20, and 22 as easy items, number 1, 5, 6, 7,

8, 9, 11, 13, 14, 15, 16, 19, 23, 24, 25, 26, 27, 28, 29, and 30 as fair items, and number 2, 4, 10, 12, 18, and 21 as difficult items.

d. DISCRIMINATION POWER

The formula uses to know the discrimination power is as follow:<sup>4</sup>

$$D = (T - R) : N$$

D: the index of discrimination

T: the number of the students in the upper group who answers the item correctly

R: the number of the students in the lower group who answers the item correctly

N: number of the students in each group

The criteria of items index discrimination is as follow:

0 = no discrimination

0,20 – 0,30 = less

0,30 - 0,50 = enough

0,50 or more = good

Thus, if it is less than 0,30 is not acceptable.

The complete result of index discrimination power can be seen on appendix VI.

For example let's take item number 1

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<sup>4</sup> Ibid 143



$$T = 8$$

$$R = 2$$

$$D = \frac{8-2}{8} = 0,75$$

After getting the D value, we could say that the item number 1 is good discrimination. It because the P value 0,75 belongs to the interval 0,50 or more whose criteria is good. The whole competitive result of discrimination power of the test can be seen on appendix 7.

c. The criteria of success

The Blooming Worksheet structure is successful if the averages score of the students is 75. The score determined by the researcher is 75 based on KKM (Kriteria Ketuntasan Minimal) of this school.

2. Acting

For the first action, the researcher processes a new strategy. After getting the description of condition of the class (the students' attention, activity, and reading ability), the researcher does the first class action that is doing reading activity using the new strategy. In this step, the researcher does some actions as follow: opening the class, presenting the theme, giving instruction, presenting the new method, and asking the students to answer the questions. There are two meetings in a week where each meeting is 1x45 minutes to implement the method in the first meeting and to hold a post test of each cycle in the second meeting. The research is applied on the first semester of 2012-2013 year academic in May.

### 3. Observing

In this step, the researcher observes the teaching and learning process during teaching using the method. Besides, the researcher observes the influence and the result of the method used.

### 4. Reflecting

After doing the cycle and evaluation, the researcher looks for the problems which need some correction and new preparation to reduce it. The reflection will be done on the next cycle to overcome the problems. Therefore, the cycles will be stopped if the average score of the student is 75.

## **C. Location of the Research**

The research will be done at SMA Ar-Risalah Lirboyo Kediri, a formal school with some educational level such as Elementary School and Junior High School. Besides a formal school, it has a dormitory school where the students stay there to study both general science and religious science. Most of them are from different background and ethnicity.

## **D. Subject of the Research**

The subject of the research is tenth grade students of SMA Ar-Risalah Lirboyo Kediri. It is done in class A with 24 students of all girls with different background and ethnicity. They all stay in the dormitory and study both general science and religious science. So far, the teacher teaches reading

by only asking and answering the question given between teacher and student. Therefore, the researcher wants to conduct a new strategy in teaching reading through Blooming Worksheet structure. The researcher hopes that by this method, the students will be interested in studying reading and able to improve their score in reading comprehension.

#### **E. Data Collection**

The data collection of this research is taken from the test and observation.

The first data is collected by test. There are two kinds of tests in here; pre-test and post-test in each cycle. The pre-test will be done before the researcher gives treatment to the students. The tests are 15 multiple choices test and 10 cloze test. The first item is multiple choices test where the questions are based on the reading text given. The second item is cloze test with blank spaces where the optional answers are given. Here the researcher only counts totally 25 questions from 27 valid and reliable questions to easier the raw score to be converted.

#### **F. Data Analysis**

The researcher gets the data for this research is analyzes. The quantitative data can be analyzed by descriptive statistic. For example, looks for mean. The

analysis is started in a process. The data analysis consists of data reduction, presenting the data, conclusion, and verification.<sup>5</sup>

Reduction is an activity to select, focus, and simplify all the data since the beginning until the writing of this thesis. It is done to get the clear explanation and conclusion. Presenting the data is an activity to present the result in a narrative form to make a possible conclusion. The information is got from the combination among of the observation result, the interview, and the test. Conclusion and verification are an activity to make a conclusion from the result of the interpretation and the evaluation. The activity is done to measure the truth and the data evaluation.<sup>6</sup>

To know the improving students' reading comprehension, the researcher looks for the mean of every cycle. The formula for this statistic is as follows:<sup>7</sup>

$$\bar{X} = \frac{\sum X}{N}$$

Where  $\bar{X}$  = mean, X = scores, N = number of sample,  $\sum$  = sum (or add)

Second, the researcher converts the raw score by multiplied them by 4 to get more meaningful numerical data.

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<sup>5</sup> Riska Inayati, *Improving Listening Skill Trough English Songs for First Grade of MA Ar-Rosyaad, Balong, Ringinrejo*, (English Department Faculty of Education State College for Islamic Studies (STAIN) Kediri, 2010), p. 26

<sup>6</sup> Arikunto, loc. Cit, p. 131

<sup>7</sup> M. Soenardi Djiwandono, *Tes Bahasa Dalam Pengajaran*, (Bandung: Penerbit ITB, 1996), p. 148