

## **CHAPTER III**

### **METHODOLOGY**

This chapter describes the method used in this study with the intention of finding the answers of the questions stated in Chapter I. The chapter includes research design, the instruments, the subject, and data collection and analysis.

#### **3.1 Research Methods**

This study is a Classroom Action Research. Action research is a series of research methodology that engage the action and the research result at the same time and it tends to be cyclic, participative, qualitative and reflective (Dick, 2000).

Classroom Action Research was introduced by Kurt Lewin in 1946 and was developed by other experts (cited in Aqib, 2006: 13). They agreed that the term of classroom is not bounded with a room where a teacher teaches but in a wider perspective instead, which is a group of students who are learning or studying with the same material from the same teacher regardless of the place (Arikunto et al, 2006: 3; Aqib, 2006: 12). Action means a series of activity in purpose for a certain goal. In this study, action forms a series of cycle each contains planning, acting, observing and reflecting. Research represents activity of observing something using a certain way and method in order to gain something that is interesting and important for the researcher.

CAR is a study focused in specific problem that occurs in a class. It also focuses on the process not just the result. Doing CAR means observing the process of the treatment. It is strongly recommended that an observer watches the process during the CAR is conducted. It is done in order to assist teacher in sharing the problem of the process and formulating the plan for the next cycles.

Chein (cited in Aqib, 2006: 19-20) states that there are four types of CAR: diagnostic CAR, participation CAR, empirical CAR, and experimental CAR. Diagnostic CAR is a study where a researcher diagnoses and analyzes the background of the problem. Participation CAR is a study where a researcher involves her/himself directly in the study from the beginning until the making of the report. Empirical CAR is a study that engages data gathering and experience during the research in order to make a book of research. Furthermore experimental CAR is a study where the researcher conducts different strategies to decide the most appropriate way in teaching a material. This study is a participation CAR since the writer is the researcher who involves directly in the study.

### 3.1.1 Research Design

There are some designs of Action Research proposed by some experts. This study will use Carr and Kemmis' design (1986) since it tends to be more self-reflection rather than a systematic information collection (Smith, 2007). The steps of each cycle are plan, act, observe, reflect (back to

plan, etc). In this study, three cycles will be performed during three weeks.

The schema of Carr and Kemmis' is shown in figure 3.1.

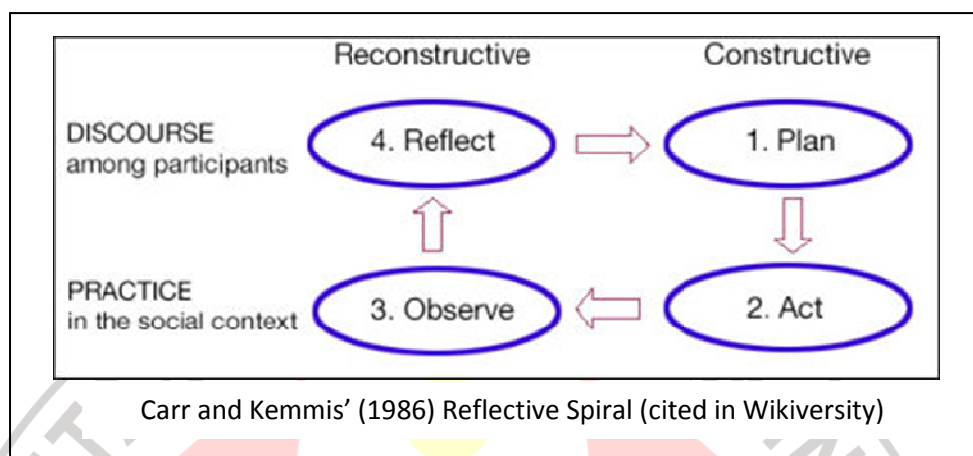


Figure 3.1

Nevertheless Carr and Kemmis (1986) prefer calling it spiral to cycle since it may begin at any step and does not stop after one circuit has been accomplished yet then move on to begin another one.

To confirm the students' improvement before and after the technique given, a pre-test and a post-test were set.

### 3.1.2 Subject of the Study

Since Classroom Action Research is a study to monitor the development of the action given, no population and sample were taken. Instead, a class was managed to observe the implementation of mind map technique. The subject of the study is the students of X-7 SMA Kartika Siliwangi I Bandung.

## 3.2 Research Instrument

There are four instruments used in this study. They are students' worksheet, observation sheet, reflection sheets, and tests.

### 3.2.1. Students' worksheet

Students' worksheet is the mind map that describes their comprehension on the text given. The texts that were given to the students were narrative texts. Narrative provides an interesting story that the students would enjoy to read.

Their comprehension of the text should contain:

1. The things that relate to the title or K of KWL strategy.
2. Their curiosity about the story or W of KWL strategy.
3. The characterization of the story.
4. The settings of the story: time and place.
5. The generic structure of the story.
6. The tenses used in the story and the example(s).
7. The moral value of the story.
8. Colours: at least 5 colours.
9. Drawings.

### 3.2.2. Observation sheet

While the actions were given there was an observer to monitor the process of the teaching. The observation sheet was adopted from Brown's Teacher Observation Form A: Observing Other Teachers (2001) since it covers the whole aspects of teaching and learning. The indicators are

divided into five: (1) Preparation, (2) Presentation, (3) Execution/Methods, (4) Personal Characteristics, and (5) Teacher/Student Interaction. All of the indicators were observed and given some comments to be developed into reflection sheet.

### 3.2.3. Reflection sheet

After the action and observation were done, a reflection was conducted to plan the next cycle. Reflection sheet contains some suggestions to make the next cycle run better.

### 3.2.4. Tests

Two tests were conducted in the study. They were pre-test and post-test. The students' pre-test and post-test scores were compared in order to see their improvement in comprehending a text.

## 3.3 Data Collection Techniques

The study was conducted went along the regular schedule of the school. It was conducted every Wednesday and Thursday from September 4, 2008 to September 18, 2008. Table 3.1 shows the schedule of the study.

No	Date	Material
1	4 September 2008	Pre-test: The Trickster Tricked
2	10 September 2008	Cycle 1: The Little Red Hen
3	11 September 2008	Cycle 2: The Gingerbread Man

4	17 September 2008	Cycle 3: Goldilocks and the Three Bears
5	18 September 2008	Post-test: The Boy with the Long Name

### Schedule of the Study

Table 3.1

The data for this study was collected before, during, and after the actions were given. Before and after the action are pre-test and post-test respectively. The data during the action are the students' worksheet on different narrative texts.

#### 3.4 Procedure of the Study

The writer acted as the teacher in the classroom. From the daily assessment, it was detected that the students have difficulty in comprehending a text. Then it was planned to conduct a classroom action research in the class to solve the problem. To confirm the students' ability, a pre-test was conducted. Material and teaching aids such as colourful chalks and markers were prepared after the pre-test scores obtained.

During the study, there was an observer. The observer was expected to discover the weaknesses of the teaching process thus there would be improvement from one cycle to the next ones. A post-test was carried out to observe whether there is improvement after the cycles have been completed which means that the action research accomplished. The following sub-chapters describe the steps of the study.

### 3.4.1 Pre-test

Before the classroom action research is conducted, a pre-test was organized to survey the students' prior comprehension. The questions tested students' comprehension of the information that occurred in the text explicitly and implicitly. After identify the result of the test, a strategy was decided in order to solve the problem.

### 3.4.2 Classroom Action Research

The research conducted in this study consisted of three cycles. Each cycle consists of four stages, which are plan, act, observe, and reflect.

#### 1) Plan

This stage is the preparation before the action given to the class. In this stage, strategy of the teaching was decided as well as the material and the media of the teaching process. In the second and the third cycles, this stage was the implementation of the reflection from the previous cycles.

After finding the result of the pre-test, it was decided to use the combination of KWL strategy and mind map technique in order not to make the students feel boring. Narrative texts were selected randomly to attract the students to read and also to introduce them to the western bedtime stories. The text that was used in the first cycle was *The Little Red Hen*. While for the second and the third cycles were *The Gingerbread Man* and



*Goldilocks and the Three Bears*. Lesson plans were made in order to plot the implementation of the technique.

Since mind map involve the use of colours and draws, teaching aids were also prepared to support the successful of the technique. It was supposed to use OHP or computer and LCD to make the process more attractive to the students; since the school did not provide all of them, the simpler ones were set up such as colourful chalks, colourful pens and pencils, and blank papers.

## 2) Act

This stage is the implementation of the plan. There was observer during the action performed. In the beginning, the students were given the title of text, which is *The Little Red Hen*. They were asked the related things they knew from the title. This was done to set their prior knowledge about the story (K point). After responding to the K point, the students were asked to state what they want to know from the story (W point). The students' responses were drafted on the blackboard in mind map form.

Afterwards, the students were given the text and asked to read the story. Then, the students and the teacher discussed the aspects of the narrative text such as the characterizations, settings, general structure, and the moral value of the story. Until this stage, the students were not allowed to write anything in their book. This was done to make the students focus on the discussion.



The next step was the students drafted their comprehension of the text based on the discussion in mind map form as had been exemplified (L point). The lesson finished by collecting students' worksheet.

### 3) Observe

This stage was conducted during the action given to the class. It was done by an observer who sat in the back of the class. The indicators of the observation sheet were adopted from Brown's Teacher Observation Form A: Observing Other Teachers (2001) which cover the preparation, presentation, execution/methods, personal characteristics, and teacher/student interaction.

### 4) Reflect

This stage was conducted after the action and observation accomplished. In this stage the teacher and the observer discussed the implementation of mind map technique and the class situation during the action stage. The students' worksheets were analysed whether they contain the indicators that had been set before or not.

The cycle stopped when all of the students reached 8 points out of 13 or completed at least 6 indicators on their worksheets and the observer felt satisfied when the teacher reached 140 points out of 164. The value of each indicator would be explained in subchapter 3.5.

### 3.4.3 Post-test

A post-test was conducted in order to investigate the students' improvement by comparing it with the pre-test score. The test consists of 15 questions that tested students' comprehension of the text.

## 3.5 Data Analysis

The data that had been collected were analyzed in two ways, scoring technique and descriptive analysis. Pre-test and post-test score, students' worksheets, and observation sheets were analyzed through scoring technique.

While

### 3.5.1 Scoring technique

Scoring technique is used for:

1. Comparing students' pre-test score with post-test score. Each test consists of 15 comprehension questions. The value of each question is one (1). The formula for the scoring is:

$$S = \frac{T}{15} \times 100$$

S = Score

T= Total points

2. Analyzing students' worksheet. Students' mind-maps contain:
  - a. The things that relate to the title or K of KWL strategy (1 point).
  - b. Their curiosity about the story or W of KWL strategy (1 point).

- c. The characters and characterization of the story (2 points).
- d. The settings of the story: time and place (2 point).
- e. The generic structure of the story (2 point).
- f. The tenses used in the story and the example(s) (2 points).
- g. The moral value of the story (1 point).
- h. Colours: at least 5 colours (1 point).
- i. Drawings (1 point).

Thus, the maximum points that a student can get is 13 for each worksheet. The formula of the scoring is:

$$S = \frac{T}{13} \times 100$$

S= Score

T= Total points

### 3. Observing teacher's performances based on Brown's form (2001).

Brown ranged teacher's point from 4 to 1 and not applicable (N/A). 4 is excellent, 3 is above average, 2 is average and 1 is unsatisfactory. There are 41 indicators for the observer to observe (see subchapter 3.2.2), thus, the maximum score for each cycle is 164. The formula is:

$$S = P \times 41$$

S= score

P= point(s) for each indicator

### 3.5.2 Descriptive Study

Descriptive study is “a study that tries to reveal patterns associated with a specific disease without an emphasis on pre-specified hypotheses” (Simon, 2002). In other words, descriptive study does not test hypothesis instead it is similar to an exploratory study. Descriptive study provides informal information about a condition. In this study, descriptive study is used for the following.

1. Reflecting the observation sheets. Even though the observation sheets has been analysed through scoring technique, it is considered that it is also essential to analyse it descriptively. Besides scoring teacher’s performance, it analysed the condition of the class based on the observation form. Through this analysis a reflection was obtained in order to move on the next cycle.
2. Concluding students’ reaction on the technique given. At the time the study was conducted, the post-test was held approximately on last day of regular school days as we were facing Idul Fitri. The students could only be asked to write their impressions of the use of mind map on a piece of paper. Therefore, the open questionnaire were analysed through descriptive analysis.