# CHAPTER III

# RESEARCH METHODOLOGY

This chapter presents the method of this research. It discusses purpose of the research, design of the research, the procedure of the research, setting of the research, data collection techniques, data analysis, and testing the validity.

## 3.2 Design of the Research

This study is designed as Classroom Action Research. Classroom Action Research is implemented to solve problem found in the classroom, as Rust and Clark (2010) mention that the classroom action research is proposed to improve teaching and learning plus systematic study of the action and its consequences.

Classroom action research is arranged in cycles, with a minimum of two cycles (Arikunto, 2010; Suhardjono, 2010; and Supardi, 2010). They further mention that each cycle has four steps namely planning, action, observation, and reflection. The following diagram describes the steps in the cycles. The details of each step will be explained in the procedures of the research.
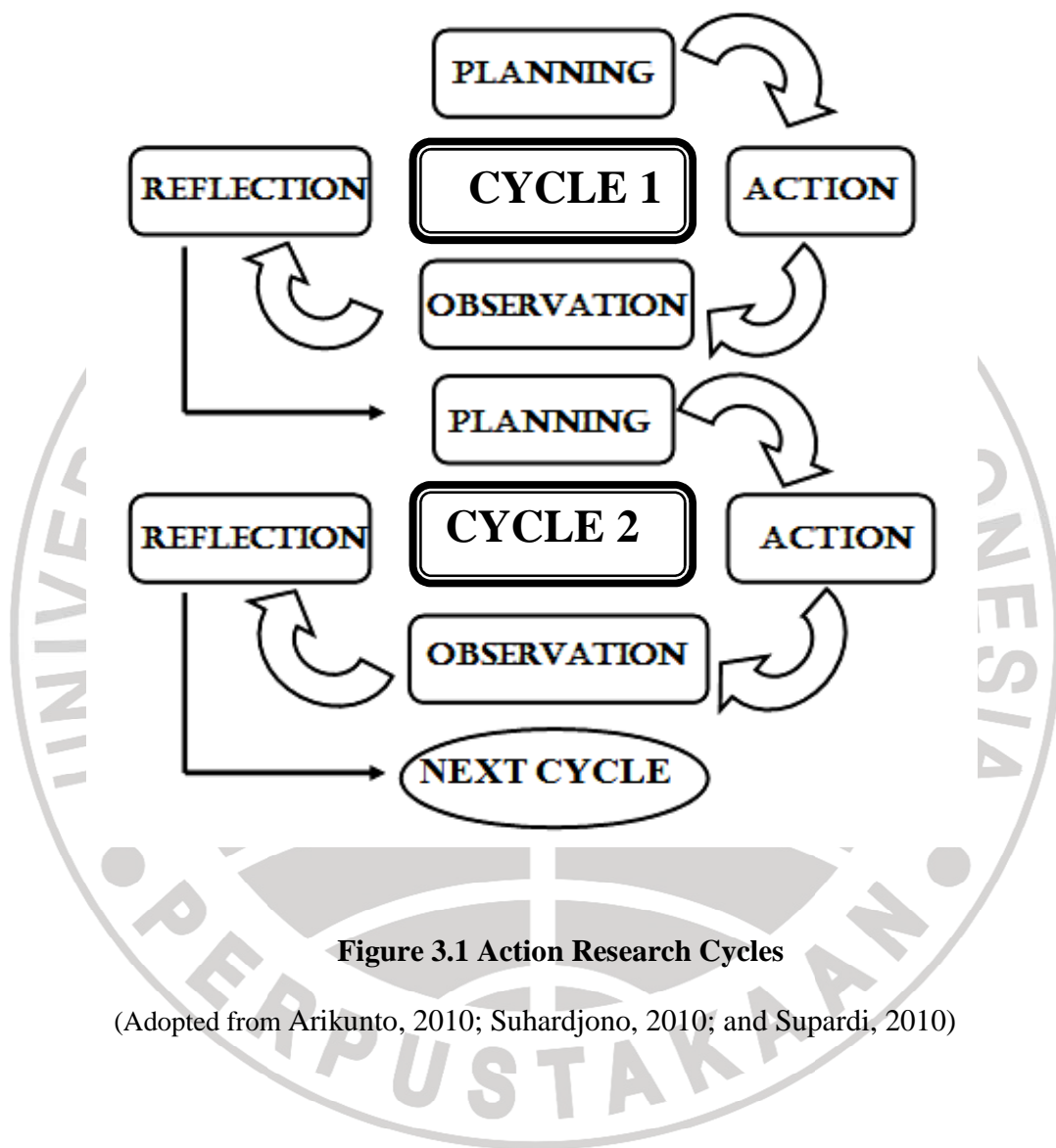
**Figure 3.1 Action Research Cycles**

(Adopted from Arikunto, 2010; Suhardjono, 2010; and Supardi, 2010)

### 3.3    The Procedure of the Research

This research was conducted in two cycles. Every cycle was conducted in three meetings that involved planning, action, observation, and reflection. Every meeting was conducted in three parts of activities; they were pre activity, main activity, and closing activity. To make it clear, the whole action in this research is presented by the time schedule below.

**Table 3.1 Time Schedule of the Research**

| No | Cycle | Plan Activity | Time (Month & Week) | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | November'10 | | | | December'10 | | | | January'11 | | | |
| | | | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 |
| 1 | CYCLE 1 | PLANNING (Early Observation & Preparation) | | | | | | | | | | | | |
| | | Identification of the problem | x | | | | | | | | | | | |
| | | Deciding the method solution | | x | | | | | | | | | | |
| | | Arranging time schedule | | x | | | | | | | | | | |
| | | Preparing the draft of implementation | | x | | | | | | | | | | |
| | | Developing the Instruments | | | x | x | | | | | | | | |
| | | Creating Instructional media | | | | | x | | | | | | | |
| | | Pretest | | | | | | x | | | | | | |
| 2 | | ACTION & OBSERVATION | | | | | | | | | | | | |
| | | Teaching & Learning Activity | | | | | | x | | | | | | |
| | | Interview (Clarifying some bias from the observation result) | | | | | | x | | | | | | |
| 3 | | REFLECTION | | | | | | x | | | | | | |
| 4 | CYCLE 2 | PLANNING ( Preparing & Developing new lesson plans) | | | | | | | x | | | | | |
| 5 | | ACTION & OBSERVATION | | | | | | | | | | | | |
| | | Teaching & Learning Activity | | | | | | | x | | | | | |
| | | Interview | | | | | | | | x | | | | |
| | | Posttest | | | | | | | | x | | | | |
| 6 | | REFLECTION | | | | | | | | | | | | |
| | | Analyzing data | | | | | | | | | x | | | |
| | | Final check (Including video recording) | | | | | | | | | | x | x | |

Detailed explanation of each step of every cycle in this study will be described below.

## a.     Planning

The planning step was done in the beginning of every cycle. In the first cycle, the researcher executed some actions, namely identifying the problem, deciding and developing the solution of the problem, and developing research instrument (Suhardjono, 2010). However, in the second cycle the researcher discussed the next lesson plan with the class teacher by looking at the result of reflection in the first cycle to make better action than before. The overview of planning will be generally presented in Table 3.2 and Table 3.3. The stages and kinds of activities of Suggestopedia were adopted from Hagiwara (2004) and Lozanov (2005).

Table 3.2 Outline of Planning in Cycle I

| Stage of Suggestopedia | Activity | Objective: Students are able to recognize and mention words of fruits | | |
|---|---|---|---|---|
| | | 1 st meeting | 2 nd meeting | 3rd meeting |
| Preparatory (opening activity) | • Introduction (greeting) | Teacher greets the students and teaches them how to greet. | Teacher greets the students and teaches them how to greet. | Teacher greets the students and teaches them how to greet. |
| | • Listening to the Music and sing together | "Marry Had a Little Lamb" | "Twinkle-Twinkle Little Star" | "Potatoes" |
| | • Building context | Teacher asks students what they favorite fruits are. | Teacher asks students about some fruits in the market. | Teacher asks students about some fruits in their refrigerator. |
| Active Concert (whilst activity) | Storytelling by the teacher. • Accompanying by classical music background • The teacher acted out and moved out dramatically. • Using media such as pictures, cartoon, etc. | The story : My Fresh Fruit  Music : "Canon" | The story : Fruit Tree  Music : "Bethoven-Symphony no.5" | The story : Cold Fruits  Music : "Baroque for Concentration" |
| Passive Review (whilst activity) | • Storytelling with normal speed by the teacher using music background | The story : My Fresh Fruit  Music : "Canon" | The story : Fruit Tree  Music : "Bethoven-Symphony no.5" | The story : Cold Fruits  Music : "Baroque for Concentration" |
| Practice (whilst and closing activity) | • Playing Game (It will be two or three times games, depends on the time allocation. One of them will be as the daily assessment ) | The teacher throws the ball and show the fruits pictures. The student who catches the ball should mention the name of fruits. | Teacher gives one fruit picture to the students. Teacher brings fairy stick and sings. The student who is chosen has to mention the name of fruit in his hand. The picture will be reshuffle. | Teacher divides the class into two groups. The students compete to put the right of the fruits picture that mentions by the teacher |
| | • Reviewing the lesson | The teacher asks students about the fruits story and sing a song together "Twinkle-Twinkle Little Star" | The teacher asks the students about what they have learnt and sing a song together "Mulberry Bush" | The teacher asks the students about what they have learnt and sing a song together "Potatoes" |

Table 3.3 Outline of Planning in Cycle 2

| Stage of Suggestopedia | Activity | Objective: Students are able to recognize and mention words of fruits | | |
|---|---|---|---|---|
| | | 1st meeting | 2nd meeting | 3rd meeting |
| Preparatory (opening activity) | • Introduction (greeting)<br>• Listening to the Music and sing together<br>• Building context | Teacher greets the students.<br><br>"Happy Song"<br><br>Teacher asks students what the fruits that they have in home. | Teacher greets the students.<br><br>"Hello–Hello"<br><br>Teacher asks students about fruits and aquarium in their home. | Teacher greets the students.<br><br>"Potatoes"<br><br>Teacher asks students about their interest in flowers and fruits. |
| Active Concert (whilst activity) | • Storytelling by the teacher.<br>• Accompanying by classical music background<br>• The teacher acted out and moved out dramatically.<br>• Using media such as pictures, cartoon, etc. | The story :<br>Fruits Hat<br><br>Music :<br>"Twinkle-Twinkle Little Star-instrumental only" | The story :<br>Fruits Aquarium<br><br>Music :<br>"Twinkle-Twinkle Little Star" | The story :<br>Fruits on the Big Flower<br><br>Music :<br>"Bethoven-Symphony no.5" |
| Passive Review (whilst activity) | • Storytelling with normal speed by the teacher using music background | The story :<br>Fruits Hat<br><br>Music :<br>"Twinkle-Twinkle Little Star-instrumental only" | The story :<br>Fruits Aquarium<br><br>Music :<br>"Twinkle-Twinkle Little Star" | The story :<br>Fruits on the Big Flower<br><br>Music :<br>"Bethoven-Symphony no.5" |
| Practice (whilst and closing activity) | • Playing Game (It will be two or three times games, depends on the time allocation. One of them will be as the daily assessment )<br><br>• Reviewing the lesson | The students use cardboard necklace picture of fruits. The teacher asks the students to stand up when the teacher mention the name of fruits in the necklace. After that, the teacher asks the students who stand up rightly to mention name of fruit while appointing another student who uses suitable necklace.<br><br>The teacher asks the students about what they have learnt and sing a song together "Happy Song" | The teacher throws the first doll and shows the fruits in the aquarium picture. The student who catches the ball should mention the name of fruits and throws that ball to another friend. That student should do the same activity with previous student.<br><br>The teacher asks the students about what they have learnt and sing a song together "Mulberry Bush" | Teacher asks the students to take fruits pictures on the big flower in front of the class while mentioning the name of fruits. The students put again the picture on the big flower while mentioning the name of fruits.<br><br>The teacher asks the students about what they have learnt and sing a song together "Hello–Hello" |

**b. Action**

The action was a teaching and learning process by using Suggestopedia method. Every treatment was based on a lesson plan. In the lesson plan, there were detail description of the opening, whilst, and closing activity. The media and complete learning material were also included in the lesson plan. The lesson plan was guided by Suggestopedia stages: (a) preparatory stage, (b) active concert, (c) passive review, and (d) practice. Based on the objective of the each stage adopted by Hagiwara (2004), preparatory stage was included in the opening activity. Active concert, passive review, and practice were included in whilst activity. For the closing activity, the activity was reviewing what the students had learnt by asking them some questions about the lesson. Details of lesson plan can be accessed in Appendix 1.

**c. Observation**

In the observation step, the class teachers and I took some information by observing the teaching and learning process. The observation was focused on students' responses toward the use of Suggestopedia that were categorized into speaking production and behaviors. In this research, the observation was done by taking field note and video recording. Those techniques were designed to obtain all the things needed for collecting data. The aim of the observation itself is to collect the data to see how far the effect of the action has achieved success (Supardi, 2010). He also adds that the data required are quantitative data in the form of the value of

student progress and qualitative data in the form of student interst and learning atmosphere.

The researcher arranged the notes directly after each meeting to keep the fresh memory of the observation (Van Lier, 1998 as cited in Emilia, 2005). In taking field notes, I observed by moving around the classroom during the teaching and learning process. So, the type of observation in this research is participant observation (Merriam, 1998). I also carried out the observation by watching the video recording. The recording would be the sources for categorization and it was combined with the field notes. Besides that, the video-recording data should be coded to ease the process of the identification of the phenomena (Alwasilah, 2008).

### d.    Reflection

The reflection step can be the evaluation in order to build a better teaching and learning process in the next cycle. This is in line with Sulipan (2010) who explains that reflection is the activity of evaluation, analysis, interpretation, explanation, conclusion, and identification of follow ups in planning the next cycle. Follow up will be in the form of a lesson plan for Cycle 2 based on the observation and assessments in Cycle 1.

### 3.4    Setting of the Research

The setting of the research explains about the location and description of a group of students or subjects who will be given action (Arikunto, 2010). The subject

that was investigated in this research was students of Class B1 at Kindergarten A in Bandung consisting of 22 kindergarten students. Based on the preliminary tests and observations of the class, fifteen of the students had problems in recognizing and mentioning English vocabularies.

## 3.5    Data Collection Techniques and Data Analysis

The data in this study were obtained through three intruments used in this research namely assessments, observation, and interview. The data were analyzed both quantitatively and qualitatively. In analyzing quantitative data, assessments were conducted to measure kindergarten students' scores in recognizing and mentioning English vocabulary. In addition, observation was also conducted to support the quantitative data.

In analyzing qualitative data by observation, a process of interpretative approach is used to understand the essences of a phenomenon under investigation by focusing on meanings of events and phenomena and the social events (Jeans, 1997; Newman, 2002). The data from notes taking and video recording were categorized into some responses of students toward the use of Suggestopedia method. Data were cross-checked by interviewing the teachers who usually teach and hold the class daily before receiving the action to determine the consistency and accuracy of the data. Each technique of data collection and analysis will be described below.

### 3.5.1 Assessments

There were three kinds of assessments used in this research: pretest, posttest, and daily assessment. Pretest and posttest were used as the first and final assessment with each contains 12 questions related to the fruits vocabularies given in the lesson. The pretest was aimed to know the students' preliminary achievement of their English vocabulary before Suggestopedia method was given. The posttest was given after the action with an aim to know the improvement of the students' English vocabularies after using Suggestopedia method. The questions in both tests were the same.

Secondly, daily assessments were given to the students in every meeting. The daily assessment consisted of questions that were presented through activities such as vocabulary games that were included in practice stage of Suggestopedia method. Hagiwara (1997) and Brown (2001) agree that the use of games is useful to review, consolidate learning, and give process feedback from the teacher. The data analysis of assessments will be elaborated below.

### a)    Pretest and Posttest

Pretest and posttest in this research have same scoring system analysis. The scoring system and standard criteria of students' score can be seen in the table below.

**Table 3.4 Scoring System of Pretest and Posttest of English Vocabulary Mastery**

| No | Student's Name | Question Number | | | | | | | | | | | | Total Score |
|----|----------------|---|---|---|---|---|---|---|---|---|----|----|----|-------------|
| | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |

**Note :** - Number 1 until 12 in the Question Number items are codes of the name of English vocabularies that were chosen as a questions.
- The score of 1 is given for the tangible pronunciation.

In calculating the students' score, the researcher used this system in Figure 3.2. That calculation system was chosen to reach ten points (10) as the maximum score.

$$\text{Pretest/Posttest score} = \frac{\text{the number of correct answer}}{\text{6 points}} \times 5 \text{ points}$$

**Figure 3.2 Calculation Pretest and Posttest**

**Table 3.5 Standard of Criteria of Pretest and Posttest**

| | |
|-----------|--------|
| Excellent | 9 - 10 |
| Very Good | 8 |
| Good | 7 |
| Average | 6 |
| Poor | ≤6 |

In achieving the aim of the study, 90% of the students' score of posttest after treatment should passed the *KKM (Kriteria Ketuntasan Minimum)*. The passing grade *(KKM)* of English language for the kindergarten A students in Bandung is 6.

**b)      Daily Assessments**

The results of daily assessments' result would describe the students' progress of their English vocabularies. The scoring is presented below.

**Table 3.6 Scoring System of English Vocabulary Mastery of Daily Assessment**

| No | Student's Name | Name of Vocabularies | | | | Total Score |
|---|---|---|---|---|---|---|
| | | A (apple) | B (grapes) | C (orange) | D (watermelon) | |
| | (for example : Fathur) | 1 | - | - | 1 | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |

Note:  -    A, B, C, D, and E could be changed by the name of vocabularies.
      -    The score of 1 is given for the tangible pronunciation

**Table 3.7 Standard of Criteria of Daily Assessment**

| Excellent | 4 |
|---|---|
| Very Good | 3 |
| Good | 2 |
| Average | 1 |
| Poor | 0 |

Those data result from pretest, posttest, and daily assessments were analyzed together by using descriptive statistics. Descriptive statistics provides simple summaries about the sample and the measures (Trochim, 2006). He also adds that together with simple graphics analysis, they form the basis of virtually every quantitative analysis of data.

### 3.5.2 Observation

The data were analyzed from taking field notes and video recording into categorization. The data from notes taking and video recording were categorized into two main issues related to the students' responses, which were language speaking productions and behavior responses.

Students' speaking production in this research had classified into some types of speaking according to Brown (2001). The types of speaking production can be seen in Table 3.8.

**Table 3.8 Types of Speaking Production According to Brown (2001)**

| Types of Speaking | Explanation |
|---|---|
| Imitative | Students are able to imitate some particular element of language form |
| Intensive | The students go one step beyond than imitative types. They are able to practice some phonological or grammatical aspect of language. |
| Responsive | The students are able to reply shortly to the teacher's or students' questions or comments. |
| Transactional | The students are able to convey or exchange specific information. |
| Interpersonal | The students are able to maintain social relationship. |
| Extensive | The students are able to give extended monologues in the form of oral report, summarize, or short speech. |

Meanwhile, behavior responses were divided into behavior indicating students want to learn and behavior indicating students do not want to learn that in line with Azwar (2008) that divided the tendency of students learning behavior towards positive and negative. The categorization of language utterance and behavior response can be seen in Table 3.9.

**Table 3.9 Categorization of Languages Utterances and Behaviors Responses**

| CATEGORY | CODE | INDICATORS | ACTIVITY | EVIDENCE | | RESPONSE TYPE | INDICATOR FULFILLMENT |
|---|---|---|---|---|---|---|---|
| | | | | LANGUAGE UTTERANCES | BEHAVIOURS RESPONSES | | |
| Preparatory Stage | PS | Students participate in answering the greeting. | Pre-activity<br>- Introduction | For example, when the students repeated what the teacher said obviously, it would be the imitative process. | In this part, what the teacher did and said, and what the students responded would be written and explained | (the response type would be behavior indicating the students wanted to learn or behavior indicating the students did not want to learn ) | (If the responses are suitable to the indicator, it would be positive. However, if the responses are not suitable, it would be negative) |
| | | Students enjoy listening to the music. | Pre-activity<br>- Listening to the Music | | | | |
| | | Students participate in answering the teacher's question to start the lesson. | Pre-activity<br>- Building context | | | | |
| | | | Pre-activity<br>- Building context | | | | |
| Active Concert | AC | Students listen and pay attention to the story told by the teacher | Whilst-activity<br>- Storytelling dramatically with music background | | | | |
| Passive Concert | PC | Students listen and pay attention to the story told by the teacher | Whilst-activity<br>- Storytelling with normal speed using music background | | | | |
| Practice | P | Students participate actively in the activity | Whilst-activity<br>- Playing Game (1) | | | | |
| | | | Whilst-activity<br>- Playing Game (2) | | | | |
| | | Students are able to recognize and mention the vocabularies in the assessment | Whilst-activity<br>- Playing Game (3) as an assessment. | | | | |
| | | Students participate actively in the reviewing activity | Post-activity<br>- Reviewing the lesson | | | | |

### 3.5.3   Interview

The interview was conducted to gain additional information related to the result of the observation. Interview was applied to the school teachers. The type of interview was face to face interview that is useful when informants cannot be daily observed (Creswell, 1994). The interview questions were created in informal situation so as to gain genuine statements or answers from the participants (Meleong, 2010). This interview was also needed to clarify some bias or unclear observation that could help make a complete data. Here were the main concerns to be asked in the interview to the class teachers.

a.   Students' responses toward using Suggestopedia method.

b.   Teaching and learning atmosphere using Suggestopedia method.

c.   What the students' like or dislike in using the method, by looking from the teacher's point of view.

The other questions were to ask confirmation that developed according to phenomena happening in the field. The questions can be seen completely in Appendix3. The data were analyzed by transcribing the data from interview, and interpreting the data from interview to complete and clarify the observation phenomena in addressing research questions.

### 3.6 Testing the Validity

In classroom action research, practical validity/reliability is known, which as long as every researching member decided that the instruments were valid and reliable, then the instumenst could be used (Supardi, 2010). The reliability of this research was obtained by observing and recording the activities in the lesson. In this research, the results of data analysis from assessments, observation, and interview were triangulated by comparing and matching those data to see the relationships. The triangulation tests the consistency of findings gathered through different method and source of data and also strengthens the reliability as well as internal validity especially in terms of using multiple methods of data collection and analysis (Sydenstricker-Neto, 1997 and Trochim, 2001 as cited by Calabrese, 2006, p.10, and cited in Emilia, 2008 and Merriam, 1998).

### 3.7 Concluding Remark

This chapter has displayed research methodology consisting of research method, site and participants, data collecting techniques, and data analysis. The whole research finding is discussed in Chapter IV.