

## **CHAPTER III**

### **RESEARCH METHODOLOGY**

This chapter deals with some important aspects related to the research methodology and procedures in conducting the research. The research methodology comprises the aims of the research, research design, setting and participants. In addition, the procedures deal with data collection and data analysis that are based on a case study research design.

#### **3.1 Research Design**

This research employed a case study design since the circumstances on the field were suitable for implementing such research design. The design of this research allowed the researcher to focus on a single group of subjects and pointed out one particular instance of educational practice that was using dynamic assessment in reading comprehension classroom that the researcher acted as a teacher or in this study called as a mediator (Stake, 1995 in Emilia, 2005). Moreover, this research also employed multiple sources of evidence based on the same issue to gain more complete description to analyze the values and the effectiveness of the teaching program, which is in this study refers to mediation, implemented in this study (Yin, 2003). From those characteristics and based on the purpose of this study and the research questions above, this research could be included into qualitative study. Furthermore, based on Nunan's (1992, p. 76) categorization of research designs, this research could be included as a qualitative program evaluation for the reason in which the researcher created and then implemented a teaching program for this study.

The values and the effectiveness of the course were evaluated through ongoing assessment of the students' achievements based on the objectives of the program. As stated by Nunan (1992, p. 78), assessment is important to assist the researcher to determine whether the program needed to be modified or altered in any way. Therefore, the objectives might be achieved more effectively.

### **3.2 Research Site and Participants**

This study was conducted in English Department of a private university in Bandung. This site made the researcher more feasible and suitable in terms of time, mobility, and skills (McMillan & Schumacher, 2001, p. 432). Firstly, it was located near from the researcher's place. This could ease the researcher to manage time and cost in running the study. Secondly, the tertiary levels of students were chosen since they tend to read a lot in English texts and their comprehension is better than any other levels. University students were expected to have better achievement of English, especially in reading skills. They were expected to understand and comprehend the English texts better than the secondary or primary level. Thirdly, the researcher had good access to the site since many of her colleagues were the lecturers in the site.

The participants of this study enrolled in fourth semester of a Bachelor degree in the English department. There were forty-five (45) students involved in this study. They were taking Reading for Academic Purposes subject which frequently dealt with various reading skills and reading materials. The students were assumed to have adequate background which was beneficial for their reading (Alderson, 1999) and they had better proficiency in reading comprehension since they had taken two reading subjects before following the Reading for Academic Purposes subject.

### **3.3 Techniques of Data Collection**

This section discusses data collection methods, including observation, interview, and test.

#### **3.3.1 Classroom Observations**

The classroom observations were conducted in eight sessions in which the researcher acted as the teacher and participant observer. The researcher's involvement in the settings aimed to reveal depth information (Creswell, 2009, p. 139; Punch, 2009, p. 157) from classroom activities. This kind of observation was applied to enable the researcher to reach inside of a real situation and gather a

detailed description about what was happening in order to gain thick descriptions and explanations of the social process and interaction (Cohen, Manion, & Morrison, 2007, p. 405). Moreover, Taft (1989 p.347 cited in Emilia, 2005 p. 347) states that direct experience of researchers to be involved in the normal activities of the group provides unstated knowledge which helps them to understand the group members behaviors significantly rather than the information obtained from other sources such as interviews and documentary material.

During the observation, the researcher took note on everything that was going on in her class which aimed to have better understanding of the implementation of dynamic assessment on students' reading comprehension performance and how the teacher as well as the students participated in the class. In this study, the field notes were recorded continually in the process of the teaching program to gain as much as possible clear and detailed information about what was happening during the process of the implementation of dynamic assessment in the teaching reading which will be discussed in Chapter IV section 4.12. Moreover, the field notes also served to investigate students' opinions on the implementation of dynamic assessment on their reading comprehension performance which will be discussed in Chapter V. To maintain the reliability of observational evidence (Yin, 2011, p. 93) and to reduce bias as well as to avoid missing important events during the observation process (Cohen, Manion and Morrison, 2007 p. 407), the researcher invited one of her colleagues making an observation.

### **3.3.2 Interview**

The data of this study were also obtained from interviews which aimed to seek students' opinions on the implementation of dynamic assessment in the reading classroom. The qualitative research interview has been described as a 'conversation with a purpose' (Burgess, 1984, p. 102 cited in Richards, 2009, p. 181) or 'professional conversation' (Kvale, 1996, p. 5) and has been described as 'the gold standard of qualitative research' (Silverman, 2005). Interview was conducted to verify, extend, support, and elaborate the data collection (Cohen,

Manion and Morrison, 2007 p. 351, Fraenkel, Wallen & Hyun, 2012 p.451). It was also done to provide clearly pictures of the students' opinion in the teaching program which might not be seen in the observation and questionnaire.

The interview was conducted after the students were given a posttest to measure their reading development. Nine students were purposively chosen (Creswell, 2009) from low, middle, and high achievers based on the pretest and posttest results. The type of interview used was semi-structured interview (Fraenkel, Wallen & Hyun, 2012, p.453, Cohen, Manion and Morrison, 2007 p. 353) which enabled the researcher to get all information required. It was also at the same time permitted the participants to look into some aspects in depth (Richards, 2009, p.186) such as the effects of dynamic assessment to their reading skills and the advantages of dynamic assessment.

The number of questions in the interview was 14 questions (see Appendix 7). It consisted of some questions to elicit students' opinions about the implementation of dynamic assessment. The questions were related to the dynamic assessments and reading comprehension skills in Chapter II. The interview was recorded, which aimed to provide a comfortable condition so that they were not hesitant to talk (Creswell, 2009), with the agreement of the interviewees where all of the participants were asked the same questions. The researcher set up the interview appointments and facilitated a quiet environment where interruptions could not occur during the interview. The interview was conducted in Bahasa Indonesia in order to elaborate students' answer since it is as their native language; however, the students could also use English in expressing their ideas.

### **3.3.3 Tests**

Reading comprehension tests were administered in this study which included pretest, two progress tests and posttest (see Appendix 1 and Appendix 2). The pretest was given in the beginning of the implementation of dynamic assessment in order to have basic knowledge of the students' ability in reading comprehension skills. The progress tests were given twice in the third week and

sixth week which aimed to see the effects and the improvement on students' reading comprehension performance. The form of the tests chosen was multiple-choice item with several considerations. Firstly, multiple choice is regarded as one of suitable items for testing reading comprehension (Brown, 2004, p. 47). Secondly, it could be administered and scored easily and quickly (Brown, 2004, p. 47). It could be administered and scored in shorter time than the other formats of tests and it could be scored by machine or software. Moreover, the multiple choice item scoring system is more reliable and more accurate. In the term of analyzing the validity and reliability of test items, the multiple-choice form is simple and easy to analyze (Brown, 2001, p. 386).

There were forty (40) items of reading comprehension questions that were asked in the pretest and posttest whereas in the progress tests, the items were reduced to twenty items consisted of two reading passages. The tests items for the pretest were constructed as similar as the posttest in order to seek the students' improvement in reading comprehension performance. Most of the tests were taken from TOEFL reading comprehension tests in order to maintain the content validity (Hatch & Fahardy, 1982, p. 250; Hughes, 2003, p. 26; Brown, 2005, p. 221) which referred to students' level and basic reading competences defined in the syllabus of English Department in the university where this study conducted. The items were tried out to ensure the reliability and subsequently modified (Hatch & Fahardy, 1982, p. 253). They were also tried out to another group of students not involved in the study. There were fifty (50) items on the try-out but only forty (40) items were selected for the tests.

### **3.4 Techniques of Data Analysis**

The data analysis of this study is analyzed along and at the end of the mediation session of dynamic assessment. There are three kinds of data namely, class observation, interview and the results of the reading comprehension tests.

### 3.4.1 Analysis of Data from Classroom Observation

The data from the classroom observation were analyzed in several steps. First, each video recorded of observation session was transcribed and analyzed. Then, various types of mediation moves used in dynamic assessment were noted from the interaction between the teacher and the students emerged. Mediation program, as one of the stages in dynamic assessment (see Chapter II section 2.4), was used to capture the teacher-students' interaction. After that, the data were coded into some different kinds of prompts based on the interaction happened during the implementation of dynamic assessment. The codes were proposed as mediational strategies in order to portray a clearer picture on the analysis of the interaction between the teacher, which was in this study called mediator, and the students. The purposes of the mediational strategies were to diagnose the source of the students' problems impedes to comprehend the written English and offer the learners an opportunity to improve their reading ability as well as to promote their second language in general. The mediational strategies could be seen in the figure below;

1. Accepting response
2. Rereading the question and relevant part of the passage
3. Identifying the problems area
4. Providing clues
5. Offering a choice
6. Translation
7. Requesting for re-answering the question
8. Providing the correct response and explanation

Figure 3.1 Typology of Mediator's Strategies Occurred during Dynamic Assessment the Implementation in Reading Classroom

This mediation typology was developed based on Aljaafreh & Lantolf's regulatory scales (1994) and Poehner's mediation typology (2005) as stated in Chapter II Section 2.4.2.2. The mediational strategies were arranged from the most implicit (low numbers) to the most explicit (the higher numbers).

This study employed a cake and sandwich formats of dynamic assessment, as discussed in Chapter II section 2.4.2.3, that privileged mediation determined on the basis of mediated dialoguing between the teacher and the learner which was sandwiched during dynamically conducted assessments. Although Figure 3.1 presented the identified mediator's strategies arranged hierarchically from implicit to explicit, their use was not predetermined in advance and adjusted to the quality of students' reading performance.

Finally, after coding the data based on the mediational strategies, the data were reported and generated to tabulate the number of each type of strategy that was used for each interaction and individual. It should be specified that the strategies, presented in Figure 3.1, regularly and typically occurred during each dynamically conducted assessment and were not used in precisely the same order which emerged in responding to the difficulties experienced by the students. Students' comprehension performance was analyzed based on the amount and quality of mediation used to help them complete the task in-group and individually.

### **3.4.2 Analysis of Data from Interview**

The data from interview were analyzed through several steps. Firstly, the recorded data were transcribed to get the precise and more accurate data. In transcribing the data, the participants were coded to protect their privacy (Silverman, 2005) and their names were substituted with pseudonyms (Punch, 2009 p. 153). Then, the data were categorized based on the thematic analysis which became the main concern of this study (Creswell, 2009); they are the participants' impression on dynamic assessment and the effects on their reading comprehension performance skills and strategies. Finally, the data were interpreted based on the second research question namely students' opinions on the implementation of dynamic assessment on reading comprehension classroom. In discussing the data, students' opinions were related to the value of each element of dynamic assessment and their responses during the classroom

observation. It aimed to support the data from the classroom observations and the reading comprehension tests.

### **3.4.3 Analysis of Data from Tests**

The pretest scores gained in the beginning of the mediation program were investigated to see the students' basic knowledge and reading ability. These data were important as a starting point of the program. The scores from the progress test, which were administered in the third week and sixth week, were analyzed by using matched t-test to see the improvement of the students' reading comprehension performance. The scores of pretest and progress test were analyzed by using t-test formula which was appropriate for sets of paired data (J. D. Brown, 1988, p. 169). The match t-test analysis was aimed to see the comparison between two means obtained and the effects of dynamic assessment during and after the implementation of mediation program. The detailed explanation will be presented in Chapter IV Section 4.2.

### **3.5 Conclusion of the Chapter**

This chapter has provided the information about the methodology of the research including research setting, participants, and research design. This chapter also presents techniques of data collection and data analysis such as tests, observation, questionnaire, and interview.

The next chapter discusses the teaching procedures as the teaching programs for the study. It describes the steps of mediation procedure of dynamic assessment and its implementation and the result of class observation.