

## **CHAPTER III**

### **METHODOLOGY**

The purpose of this chapter is providing the information related to systematic activities accomplished in answering the research questions. To achieve that purpose, the third chapter is divided into four major sections. They are research questions, research design, data analysis, and conclusion. Each section will be described in the following paragraphs.

#### **3.1. Research Questions**

Considering the background and purposes of the study explained in the first chapter of this thesis, there are two research questions that are formulated in this study. They are:

1. How does the use of critical pedagogy principles in teaching EFL reading in tertiary level assist students to think critically?
2. What are the benefits and challenges of using the critical pedagogy principles in EFL reading class from the students' perspective?

#### **3.2. Research Design**

In attempting to search the answers for the research questions, the present study applied a case study design. A case study is defined as an in-depth and detailed investigation of a case that could be a setting, a particular event, a subject, an ongoing process, or a document rather than a full numerical survey (Boglan & Biklen, 1992; Fraenkel et al., 2012). A case study was used as a consequence of this study trying to understand the detailed aspect of meaning and process of a particular phenomenon. A case study was selected as the research design also because of this study employed various data collection techniques and resources in seeking the depth and the comprehensiveness of understanding of the research context. This research was conducted in the form of teaching program.

##### **3.2.1. Site and Participants**

The research site for this study was a private teacher education in Bandung, West Java. This teacher education was selected due to the importance of introducing CP as a teaching EFL approach to tertiary level education in Indonesian context (Hayati, 2010). Furthermore, by implementing CP principles to teacher students, it is expected that the participants will

practice and develop dialogic education and democratic classroom after they become teachers in the future. In addition, it was selected because of accessibility and economical reasons. The site is near the place where researcher lives as near as from the university where researcher studies and meets his supervisors.

The group of participants was one of Reading in Professional Context classes consisted of 59 fourth semester students (13 male and 46 female) in English Education Department. The participants were 19-21 years of age. To pursue an in depth investigation and for the reason of time limitation in conducting the research, the present study only focused on 6 students (2 higher achievers, 2 medium achievers, and 2 other are lower achievers). The higher achievers had GPA more than 3.50. The medium achievers' GPAs were less than 3.50 but more than 3.00. Meanwhile the GPAs of the lower achievers were less than 3.00. For the reason of ethical issue, the names of those six students are presented in pseudonyms.

### **3.2.2. Techniques of Collecting Data**

The data collection techniques in this study were divided into two categories. They were the main and the supporting techniques. The main data collection techniques were observing classroom interactions and activities and distributing questionnaires. The supporting ones were conducting interview and gathering students' learning journals. The various data collection techniques were employed in order to seek the rich data and to reduce the weaknesses possessed by each data collection technique (Yin, 2011; Alwasilah, 2012).

The sections below explain each of data collection techniques as well as instruments used in this study. In addition, the sources from which the data acquired using those strategies also included in each section.

#### **3.1.2.1. Observation**

In the reading classroom, the observation is focused on the students and the teacher interaction around the text (Wallace, 2003). However, in this study, the classroom observation was performed to find out how the researcher used critical pedagogy principles in tertiary level EFL reading class and to count as well as to record the occurrence of the students' critical thinking skills during the program. The items observed were centered in the classroom activities and talks around the texts during the teaching learning process. More

specific, the observation focused on the dialogical processes in constructing textual meaning in classroom.

Two types of observation were employed in current research. They were overt non-participatory and covert participatory observations. An overt non-participatory observation was performed by a colleague who was in the same time conducting other research on critical literacy in the context of EFL secondary classroom. Meanwhile the covert participatory observation was executed by the researcher. Both observations were conducted to minimize researcher's bias and in order to gain more valid and reliable data (Fraenkel et al., 2012). Furthermore, for the purpose of checking as well as avoiding misunderstanding the data from observations, classroom activities were recorded using video tape.

### 3.1.2.2. Questionnaire

Present study utilized both close-ended and open-ended questionnaires. The close-ended one, adapted from Cottrell (2007), was intended to uncover the level of CT possessed by the participants. This likert-scale questionnaire consists of ten statements that should be read, understood and responded by the participants based on their own awareness on their CT skills. Aspects of CT skills tried to investigate through questionnaire were analysis and evaluative skills (AES), open-mindedness (OM), and reasoned decision making (RDM). In order to question whether there was an improvement of participants' CT, the questionnaire was distributed before and after the program. Table 3.1 follow describes the statements and the aspect of CT skills questioned.

**Table 3.1 Self-evaluation critical thinking skills questionnaire**

No	Statements	Aspects
1	I can analyse the structure of an argument in a text	EAS
2	I am good at recognizing the signals used to indicate stages in an argument	AES
3	I find it easy to separate key points from other material	AES
4	I am good at identifying unfair technique used to persuade readers	AES
5	I am good at reading between the lines	AES
6	I find it easy to evaluate the evidence to support a point of view	AES
7	I find it easy to access different points of view fairly	OM
8	If I am not sure about something, I will research to find out more	RDM
9	I can spot inconsistencies in an argument easily	AES
10	I know how to evaluate source material	AES

In the meantime, the open-ended one was circulated in the last meeting of the program to investigate students' responses toward the program as well as benefits and

challenges perceived by each participant. To put it in detail, this open-ended questionnaire consists of four points questioning students' opinions about the meaning of CT for each of them, how the program assisted them to think critically, benefits they have got after joining the program, and challenges they faced when attending the class.

### **3.1.2.3. Learning Journal**

After attending each meeting, the participants were required to write reflective learning journals about their interest and difficulty (Emilia, 2005) in English. Learning journals were also expected to provide the researcher with information about the indication of participants' CT skills such analysis and evaluative skills, open-mindedness and suspended decision making skill (Norris & Ennis, 1990). In writing their learning journals, the participants were guided by the format that was established before. The learning journal format generally consists of what the students have known about the topic discussed in particular meeting, what the students get from classroom teaching learning activities, and what students want to know further after attending the class relating topic discussed in particular meeting.

### **3.1.2.4. Interview**

The type of interview employed in this study was a semi-structured that was conducted once in the end of the program. Its purposes were confirming, supporting and comparing as well as intensifying the researcher's understanding toward what had been collected using learning journals, questionnaires and classroom observations. Moreover, it also aimed at revealing the participants' responses toward the overall program. The interview was also conducted to facilitate students to raise their awareness towards what they have gained from the teaching program. The interview guidelines, consisted of 14 questions, were adapted from Emilia (2005) and Gustine (2014). Six participants were chosen to be interviewed consisted of two high achievers, two averages, and two others low achievers.

## **3.3. Data Analyses**

In this stage, the accumulated valid data were systematically transcribed, organized, coded, looked for patterns, thematically categorized, synthesized, interpreted, and concluded to answer the research queries (Bogdan & Biklen, 1992; Silverman, 2005; Yin, 2011; Alwasilah, 2012; Fraenkel et al., 2012). The data analyses were performed both during and after collecting the data (Bogdan, & Biklen, 1992; Silverman, 2005). The ongoing analysis was executed for data that are assembled using classroom observation (Silverman, 2005) and

the rests were analyzed after the data had been collected. The following sub-sections elaborate how the collected data using each data collection technique were analyzed.

### 3.3.1. Observation

The frist steps taken in analysing the data from classroom observation were rewriting the observers' and reserachers' notes as well as transcribing the video tape recordings. The transcriptions and the rewritten notes were then analyzed through identifying and highlightng classroom talks and activities that represented the sutdents' critical thinking skills performances and the implementation of critical pedagogy principles. Table 3.2 Below describes the codings employed to transcribe recordings in current research.

**Table 3.2 Codings**

Coding	Meaning
T	Teacher
S1	An unidentified student
Ss	Unidentified students
Sss	Whole class
((..))	Non verbal
Mmm	Fillers
...	Pause
{..}	Overlap
[..]	Additional information. English translation

In analysing classroom talks, turn taking and the complexity of stucture and content of students' utterances were analyzed to investigate the critical moments occurred in the classroom. In order to assess and identify the degree of criticality and descriptions of students' talks about codes and written texts, present research adopts an axial coding rubric established by Mambu (2009: 65). Here is the brief delineation of that rubric:

**Table 3.3 Criticality and descriptions rubric**

	0	1	2
A	The description (of objects literally shown in the picture) is not detailed.	The explanation is not thought-provoking; The reasoning is weak or not well-supported by evidence.	One or more social issues is/are superficially addressed but social critiques in terms of injustice or marginalization are not explained.
B	The description is a bit more detailed.	In spite of being relatively thought-provoking, the explanation may still be	Social critiques in terms of injustice or marginalization are

		partial or trapped in logical fallacies; there is very limited evidence of application, analysis, synthesis, and evaluation.	slightly addressed.
C	The description is elaborate.	The explanation is more logical, thorough, and thought-provoking; there is some evidence of application, analysis, synthesis, and evaluation.	Social critiques in terms of injustice or marginalization are obvious and well-explained

While ‘0’ represents the lower thinking order, ‘1’ and ‘2’ verify the range of thinking criticality. In assessing the depth of students’ talks, ‘A’ demonstrates the poor description (for ‘0’) low criticality (for ‘1’ and ‘2’). ‘B’ means the average description or criticality. And ‘C’ shows the good description or deep degree of criticality.

The analysis were also performed by thematically separating and categorizing tehacer-students talks portion and students’ responses toward teachers’ and other students’ questions based on similarity, diference, and frequency of accuracy. The analysis results were then compared between the data from observer, resracher, and video tape recordings to find out the evidence for critical moments as well as students’ involvement, cooperation, enthusiasm and improvement in joining the program in each meeting.

### 3.3.2. Questionnaire

Data from the two close-ended questionnaires distributed in the beginning and the end of program were compared to question whether there was development of ten points of CT skills recognized by students. The result of comparison were then categorized into well-developed, slightly-developed, and undeveloped. Students’ critical thinking skills are categorized as well-developed when the scale numbers in more than five points are increased. When there are developments but no more in five points then the students’ CT skills are classified as slightly-developed. However, when there is no development between the questionnaire distributed in the beginning and in the end of the program or even the scale numbers in the first questionnaire and in the second one decreased, then the students’ critical thinkings skills are labeled as undeveloped. In the meantime, the open-ended questionnaire were analyzed by coding and classifying into several categories in order to answer the two research questions.

### **3.3.3. Learning Journal**

Data from learning journals were analyzed by highlighting and categorizing the identical students' writings to identify reflective comments and responses including difficulties they faced in every meeting. Students' CT skills were also reflected in their learning journals. It could be identified from content and structure of their writing whether they put arguments for their claims or not. Those data were then interpreted in answering the research questions.

### **3.3.4. Interview**

The interview data were analyzed in several identical sequential steps in order to answer both first and second research queries. Those are transcribing, coding, condensing, categorizing, and interpreting. The recorded interviews were transcribed to get the precise and more accurate data. Categorization was executed thematically by considering the importance, frequency, repetition, keywords in contexts, and similarity and difference based on the research questions and framed by the theories in chapter two. In interpretation step, the data were related and compared with the theories and previous studies.

### **3.3.5. Triangulation**

Validity is a crucial issue in qualitative research. In order to make sure that the research is valid and trustworthy, triangulation was performed in present study. In current research, it was carried out through executing three activities. Firstly, the data were accumulated using different data collection techniques (Alwasilah, 2012). Secondly, by comparing accumulated data from different data resources and data collection techniques. The purpose of comparison was to find out the existence of consistency and inconsistency between the assembled data (Emilia, 2012). Lastly, triangulation was also accomplished throughout involving a colleague to observe the teaching program (Fraenkel et al., 2012) in order to minimize the researcher's bias.

## **3.4. Conclusion of the Chapter Three**

This chapter has mentioned and described the research questions and methodology. In answering two research questions, current study used a case study design to 59 English Education Program sophomores in a private teacher education in Bandung. The data collection techniques which were used in present research were observation, questionnaire, learning journal, and interview. The collected data were then analyzed by performing some

sequential such transcription, coding, categorization, and interpretation. The next chapter will elaborate the teaching program conducted during data collection stage of this research.