

## CHAPTER III

### RESEARCH METHODOLOGY

Chapter three provides the methodology in conducting the research and description of research procedure in order to find out the answer from research questions stated in Chapter I.

#### 3.1 Research Design

This research aimed to describe a process of phenomena that happened in the learning process. It focused on the explanation of the process that caused certain things happened. Therefore, qualitative method was used in this research. Qualitative is the method that believes the truth is constructed and not discovered (Hamied, 2017). Through qualitative, the researcher will have more spaces to investigate any aspects of the participants as its characteristic is eclectic. Including the whole natural settings such as experience and behavior (Alwasillah, 2002).

The findings were described explanatory because the research question aimed to investigate the process and gather the information to conclude the data analysis that is in line with the meaning of descriptive which is to collect, organize and summarize the data (Hamied, 2017). It was expected that by using descriptive, the study would be able to provide a clear information of teachers' questioning practices in promoting students' critical thinking ability. Thus, based on the case of questioning and critical thinking, a case study was used. A case study was chosen as its character suits to seek and explain some present circumstances during the research (Hamied, 2017). Moreover, applying case study means that the researcher identified the process over specific case involved in the certain people, group unit or institution. The case as employed in this study were the questioning process that happened though during the learning process between two teachers and two classes.

The process of questioning that promoted critical thinking were analyzed using adapted framework of Questioning level by Anderson & Krathwohl (2001) and Critical thinking by (Watson & Glaser, 2010).

### 3.2 Site and Participants

The study was conducted in one Senior High School in Bandung. It involved two teachers and two classes that per classes consist of 36 students. The 6 students were chosen as the representatives of each of the classes to be interviewed and to be asked in joining forum discussion. The chosen students were based on teacher recommendation that range from those who are in low, middle and high achievement students as well as the result of observation during the teaching learning process. Thus, the difference data collecting process for the students was because their classes scheduled that happened to be different and not possible in having all students' discussion. The chosen classes were also based on the recommendation from the school and the teacher that have the right permission to allow this study to be conducted in.

### 3.3 Data Collection

In this research, the data was collected through two sources which are Observation and semi interview for both teacher and students. All those two sources were recorded using video tape.

#### 3.3.1 Observation

Observations were conducted in this research to capture the real portrait of classroom learning atmosphere in which critical thinking that promoted through the process of questioning was carried out. Its process enabled the researcher to acquire data on the setting of physic, human, interaction and program. Observation also allowed the researcher to have the insight and develop relationship with participant (Hamid & Malik, 2014). Through the observation, the process of teaching and promoting critical thinking in a form of questioning was seen directly. Thus, the researcher observed not only the actions, communication and pattern, but all of the detailed of the concept in the school or site and participants located. Thus, the observation held in this research was conducted for four meeting for the first class and three meetings for the second class due to one holiday in the middle of observation week.

### 3.3.2 Interview

Interview is a purposeful interaction where researcher tries to obtain information from the subjects who agree to participate in the research (Hamied, 2017). In this research, semi-interviewed was used as its flexibility in following each of the answers that might provoke another important questions are possible. Through the interview, the way of gathering data by face to face in aiming their respondent concerning of social process and behaviors of interest was also seen thoroughly.

The data obtained from interviewing functioned to confirm or deny data collected from observation. Another benefit of using this technique was to gain data that were not obtained in observation. This is because through observations the researcher could only gained a very the information from what it seen and heard. Whereas many detailed information including purposes were only found through interview. Interviews were very useful for getting the story behind a participant's experiences. The interviewer pursued in-depth information around the topic. Interviews may be useful as follow-up to certain respondents to questionnaires to further investigate their responses (McNamara, 1999).

The interview was employed for two teachers and 6 representative's students from each classes. The two teachers were based on the school regulation that allowed the researcher to be interview as well as observing. It was also based on the availability of teachers in the school. Meanwhile, the 6 students were selected based on the teacher's perspective and suggestion that range for two higher achievement students, two middle achievement and two lower achievement students. The interview was also held after the observation was done. This was purposely conducted based on some data of the observations that analyzed first.

### 3.4 Data Analysis

In this research, data analysis was conducted ever since the process of collecting data happened until the whole observation and interview finished. While video tape and observation were mostly on-going process, the interview were conducted after the observation were analyzed.

The data from the observation that were recorded was firstly transcribed and then classified the questioning process and types that occurred during the learning process. The data were then analyzed again to seek the questioning process that promoted critical thinking ability. thus, the information gained from the observation notes were then formed to be the question interview.

The interview data was functioned to clarify, reduce and justify the data from the observation (Miri et al., 2007). Therefore, the interview analysis from both teacher and students would be done in the las session. After all the information gathered and analyzed, the data were then presented elaborately side by side in findings and discussion to present the explanation of research question's answer.

### **3.5 Concluding Remark**

This chapter covered up the explanation regarding the description of how the study was conducted. It presents the research question, research design, site and participant, data collection, and data analysis to be conducted in order to find the answer from the research question. Meanwhile, the next chapter will elaborate the findings and discussion gained in this study.