

CHAPTER 3

RESEARCH METHODOLOGY

This chapter presents the research methodology which deals with the research questions, research design, site and participants, data collection, and data analysis.

3.1. Research Question

This study is conducted to answer the following question: “How does the teacher foster critical thinking in the classroom when teaching argumentative essay at the high school level?”

3.2. Research Design

The research methodology employed in this study is the descriptive qualitative method, which is case study approach. This particular design is proposed because the study is going to describe and understand how teacher foster critical thinking in the classroom when teaching argumentative essay. This is in line with Creswell’s (2009) statement about the function of the qualitative method that is to explore, describe, and understand the meaning of individuals or group ascribe to a social and human problem. Qualitative research, according to Malik & Hamied (2016), allows the researcher to take an issue from participants’ perspective and understands the meaning then interprets the behavior or act.

As an approach in the qualitative method, based on Heigham & Croker (2009), the case study could define as an empirical investigation of existing phenomena within real-life contexts. It is consisting of individual or entity and the setting in which they act. In addition, Burns’s (1994, see Cohen & Manion, 1994) stated that case study involves an observation of individual unit, e.g. an individual, a student, a delinquent clique, a family group, a class, a school, a community, an event, or even an entire culture. Since the study describing and understanding how teacher fosters critical thinking in the classroom when

teaching argumentative essay, the case study approach is appropriate for this study because of some reasons:

First, this study focuses on gaining a deep description and understanding of the way teacher fostering critical thinking in the classroom when teaching argumentative essay. The focus of the study is suitable for one of the characteristics of the case study by Stake (1995, in Heigham & Croker, 2009), that is the intrinsic case study which emphasizes on gaining a deep understanding of the case itself. The intrinsic case study is lies purely in one particular case itself, which is in this study is the way teacher fostering critical thinking.

Second, the aim of this study is to present a contextualized picture in description form of the way teacher fostering critical thinking in the classroom when teaching argumentative essay. The aim is in line with a characteristic of the case study by Yin (2003, in Heigham & Croker, 2009), that is the descriptive case study which is aimed only to present a detailed, contextualized picture of a particular phenomenon.

By the regard of the explanation before, the descriptive qualitative method with case study approach considered suitable since it is the focus on gaining deep understanding and views the natural process of interaction in the classroom.

3.3. Site and Participant

This section would elaborate setting of the study and participant of the study. Further description would be elaborated as follow.

3.3.1 Setting

This study was conducted at Kuntum Cemerlang Senior High School in Bandung, Indonesia. The school was chosen for several reasons. First, the school was reachable by the researcher, so it allowed the researcher to get access there easily. Second, the consideration of choosing the senior high school level in this study is because the age of senior high school students based on the Piaget's (in Rasiman, 2015) stages of intellectual development lie on formal operations stage. At this stage, if the students are faced with the things, then the students can formulate assumption or hypotheses and then deduction the consequences based on those assumptions or hypotheses (Rasiman, 2015). In other words, senior high

school students hopefully could think in complexity and critically. Besides, senior high school students are expected to be able to write a type of argumentative texts as stated in the curriculum. The argumentative essay in this study used as a setting and media to foster critical thinking for several reasons as stated in Chapter 2.

3.3.2 Participant

The participants of the study were a teacher and students in her class. The participants are chosen for the reasons of (1) the teacher were the only one who willing to participate in this study from 3 teachers that had been interviewed by the researcher, (2) the teacher teaches in the level in which her students hopefully being able to think more abstract to produce critical writing, (3) the teacher teach argumentative essay in her class at the time this study was conducting, (4) the teacher aware about critical thinking even though she never taught about it in her educational background, and (5) the teacher demanded by the headmaster to foster not only the language but also students' thinking in the classroom. The last two reasons bring the curiosity about this participant is terms of how she can fosters critical thinking in the classroom. All of the students and the teacher, who take part in the study, speak Bahasa Indonesia as their native language and English as their foreign language.

3.4 Data collection

The data collection was conducted in different data collection instruments, namely classroom observation and interview.

3.4.1 Observation

According to Malik & Hamied (2016), during the observation, the researcher will observe the behavior, action, and communication patterns and write it in detailed including the context in a natural situation. This is in line with the aim of the observation by Cresswell (2009) that is observation was aimed at getting information directly and naturally. By the regard of definitions mentioned earlier, observation is appropriately used in this study in term of gathering the data

in a natural situation, understanding a phenomenon in depth and describing it in detailed.

The observation in this study was a non-participant observation. This kind of observation have the advantage of not being emotionally involved with the people so may give a neutral perspective (Malik & Hamied, 2016). The observation was conducted five times and there was only one class of first grade of senior high school level being observed. The observation would be videotaped in case the observer misses several things.

In observation, some notes were taken focusing on the overall activities in the classroom. This note taking activity was used to identify the stages of teaching argumentative essay and the way teacher fostering critical thinking in the classroom. It is in line with Malik & Hamied (2016) that field notes contain descriptive information about what is seen, heard, and experienced on-site.

The instrument that was used in the observations was adapted from a research by Thomas (1999) which was a replication of the Commission on Teacher Credentialing Study done by Paul, Elder, and Bartell (1997). The observation instrument by Thomas (1999) was chosen, rather than the original, by several reasons that are (1) the instrument applied designed and applied in high school level which in line with this study, (2) the theory used in conducting the instrument is in line with the theory used in this study, critical thinking by Paul, and (3) the instrument could provide a good description that needed to answer the question how does the teacher foster critical thinking in the classroom when teaching argumentative essay.

In addition, Jackson et. al (1993; in Thomas, 1999) advocate a two-step process for classroom observations which distinguish two phases of the process: descriptive and reflective. The descriptive phase takes place while sitting in the classroom and taking note as natural as possible about what happen in the classroom. Later those notes can be expanded in order to fill in some of the detail that is remembered but was not written down. Then the reflective phase began which describe as thinking, talking, and writing phase.

3.4.2 Interview

Another source of data was the interview with the participant, in this study was interview the teacher. Malik & Hamied (2016) defines interview as a purposeful interaction where a researcher tries to obtain information from the participants. The purpose of the interview in this study was to know the teacher basic knowledge and opinion about fostering critical thinking in the classroom. The interview was conducted after the third observation sessions for 70 minutes.

In this study, a semi-structured interview was used in order to gain further and in-depth information and keep make the teacher comfortable in answering questions. As stated by Arikunto (2002), *a semi-structured interview* is a kind of interview which is freer rather than the structured interview. The result of the interview was expected to support the data gained from the observation (Fraenkel, Wallen & Hyun, 2012). The interview was recorded with the agreement of the interviewees. The interview was transcribed as the best represent the dynamic nature of the living conversation (Malik & Hamied, 2016).

The instrument used in the interview was adapted from Thomas's (1999) study that he used in his research in high school level. As the first step, the interviewer introduces herself and tells the purpose of the interview. Next is gaining the background information of the interviewee such as the gender, years of experiencing, background education field, and the background knowledge about critical thinking. There are nine open questions used in the interview. The complete questions list was stated in Appendix.

3.5 Data Analysis

Data analysis in this study was conducted during the observation and after the whole observation and interview finished. Ongoing data analysis and interpretations were mainly from the observation notes. On the other hand, the data which were analyzed after the observation was interview data.

Data from observation were analyzed descriptively to describe the approach implemented to fostering critical thinking in the classroom practices. It is in line with what Creswell (1994) suggest that data emerge from the qualitative study are descriptive and should, therefore, be reported in words (primarily the participants'

words). The data transcribed from the field notes were read repeatedly. The next step was coding the data or identifying the evidence within the tape and the field notes that relate to the research questions, namely the approach and the stages of fostering critical thinking in the classroom done by the teacher. Last, the data were synthesized and summarized.

All interview data were analyzed in several steps. The first one was to put the interview questions into categories. Then the teacher comments were categorized into themes that had become the focus of the study to develop a thematic analysis (Kvale, 1996; Merriam, 1998; as cited in Emilia, 2005). After that, the data were presented in a condensed body of information. In the discussion of these data, the teacher's responses in the interview will be related to the observation data.

3.6 Concluding Remark

This chapter has widely discussed a detailed research procedure applied in this study, including the research question, the research design, the site and participant, the data collection, and the data analysis. Therefore, the next chapter will elaborate the findings and the discussions of the data analyzed.