CHAPTER III

RESEARCH METHOD

The research consists of a qualitative case study methodology which embedded by observing the interaction in the classroom by video-taping during the classroom session, interviewing the teacher to gain more information related to critical thinking applied in the class, and collecting document such as lesson plan to crosscheck between the plan in the sheet and its implementation in the classroom and students' worksheet to perceive and measure their understanding about thinking skills.

3.1. Research Design

The research was conducted by using a qualitative case study in nature because it analyzing a specific phenomenon related to a person, a group, a community, a society, and other type of social matters (Hamied, 2017). This study observes a teacher's strategies to enhance students' critical thinking and challenges appear along the enhancement process of critical thinking to the students in the class. Furthermore, "a case study method gives a unitary character to the data being studied by interrelating variety of facts to a single case" (Hamied, 2017, p. 262). Essentially, a qualitative case study method develops a holistic and comprehensive ways to assemble, to unite, and to review the impediments that occur by using profound elaboration (Hamied, 2017). Further, transcribing, categorizing, and analyzing of the data were conducted to gain information for research findings.

3.2. Participant

The research involved an EFL undergraduate teacher as the respondent. The teacher has more than five years teaching experience in implementing English as specific purposes in university level which leads to the various classroom interactions patterns among teacher and students. Furthermore, the respondent can

contribute more to the different type of classroom interaction because of her rich of experience of teaching strategies which result in the various talk-in-interaction analysis to seek the strategies and challenges during critical thinking enhancement in the class. Moreover, pre-interview session revealed that the teacher concerns about critical thinking skills and implement some critical thinking activities during classroom teaching and learning process.

3.3. Data Collection Techniques

To gain more information in order to find out the findings, the research employs three data instruments; observation, interview, and documents. First, observation instrument was applied to see the whole package of situation and condition in the classroom directly and how the teacher built and developed the critical thinking skills to the students. Moreover, video-tape recording was also used as a tool to document and reconfirm to the respondent in interview session about what was happening in the classroom at that time to gain more comprehensive dataset to be analyzed further. Second, interview instrument is used for gaining more information in detail from the participant related to the challenges and strategies in enhancing critical thinking to the students in the class. Third, documents-collected instrument were also included to find out critical thinking enhancement in written form of lesson plan, student's worksheet, and student's paperwork.

3.3.1. Observation

The research uses observation instrument to support the data prompted by recording the classroom interaction and viewing the communication among the teacher and the students, identifying non-verbal behavior and to make data analysis more unbiased. Moreover, Alwasilah (2002) states that by observing, a researcher can find implicit meaning which leads to the non-verbal behavior and formulate in how the theories applied in particular context of situations. In addition, Wray et al (1998) mentions that observation enable us to examine non-elicited behavior such as intonation, interactional behavior, etc. which drag into

much more "holistic" view of how long language is being used in context and it makes the researcher easier to find out the important information to link with the necessity of findings.

Participatory observation used in the research in meaning that the researcher appears at the time the researcher records the interaction in the classroom. However, the researcher tried carefully not to distract and influence the process of conversation itself. It is in line with what Wray (1998), "observation involves the collection of data without manipulating it. The study simply observes ongoing activities, without making any attempt to control or determine them (p. 29)."

In order to make observation activity more comprehensive, video-taping technique was take to support the evidence of finding out the pattern of talk-in-interaction between teacher-students in the classroom. Video-taping is an important technique as valuable source of accurate information on teacher-students interaction. Further, recording can be valuable in furnishing researchers with objective first-hand data for analyzing data of teacher and student's behavior in the classroom (Burns, 1999).

Additionally, Wray (1998) states that there are important ethical considerations when it comes to record participants, whether we ask their permission or not. In this case, the researcher recorded the interaction and conversation of undergraduate students in one university with permission for following reasons: (1) the recording activity has never been applied in the classroom, (2) the recorder should be placed in the right place to gain a good quality of result.

In gaining the data, the researcher followed some steps from Wray (1998) to be practical, as follows using a good machine. By applying the "trial recording" the researcher check the quality of tape or video, using new, good quality cassette or devices, using two machines. Nevertheless, with the improvement of technology today, a gadget such as mobile phone which has video recording feature aid the video-taping activity in the classroom easier to apply. The benefit

of fast-forward and repeat the recording can also make the data is more accurate to be analyzed. Further, the device also should be equipped by fully charged the mobile phone at first, prepare more than one devices to avoid error and malfunction of the hard and software of the device. It can be a total mess if the device is unusable because the classroom recording will lose its momentum in catching detail interaction among teacher and students in the classroom.

According to Schenk and Williamson, 2005, there are three ethical consideration in recording video; (1) *Respect for Persons* (Treat individuals as autonomous human beings, capable of making their own decisions and choices, and do not use people as a means to an end), (2) *Beneficence* (Minimize the risks of harm and maximize the potential benefits), and (3) *Justice* (treat people fairly and design research so that its burdens and benefits are shared equitably). Even though, the observation class is a college level, but still, this research followed several steps before taking documented-information from video-taping, as follow:

1. The researcher explained to the students the purpose of making the video tape recording in the classroom
2. The researcher informed the students' about the students' rights during the tape recording
3. The researcher asked the students to act, to speak, to communicate, and to interact with their teacher and classmates naturally

Furthermore, this study took five meetings of video-taping session in the class. Various patterns of classroom interaction caught on tape such as teacher's questions to the topic, students' responses to the teacher's questions, LOTS and HOTS implementation through questions and statements in teacher-students interaction, non-verbal signals (latching, overlapping, pausing or back channeling). The classroom meetings record provided some benefits in the process of gaining information for the research importance such as genuine wording used in real interaction, the range of formulas and strategies used by the speaker, the extent of response or the number of turn it takes to fulfill the function (talk-in-interaction contents in the classroom), the length of emotion that in turn

qualitatively affects the tone, content, and form of linguistic performance, the number of repetitions and elaboration which occur, and the actual rate of occurrence of a speech act.

3.3.2. Interview

Besides collecting data through observing and recording the classroom talk-in-interaction, the research will use interview instrument to support both. Alwasilah (2002) shapes that by interviewing the respondent, a researcher can get in-depth information such as the researcher can modify, explain and paraphrase the questions which cannot be understood by respondents, the researcher can give follow up questions, and respondents can tell in detail about something in the past and the future.

This study conducted the interview in order to get two purposes. First, the teacher's point of view related to the strategies applied in critical thinking approach in the classroom on what they have seen from the video, whether they will clarify, give objection, and complete the data. In this case, the researcher played the video or tape after the teacher has finished performing the instruction or the lesson to avoid forgetting the process itself. Second, the interview session also intended to seek the challenges occur along the way of applying critical thinking in the classroom by the teacher.

Kidder and Judd (1986) stated that there are two categories of interviews. The first is open-ended or free-response which allow the respondents to answer in a relatively unconstrained way. The second is close-ended questions, which present two or more alternatives that the respondents select the choice closest to their own position. In this case, open-ended question of face-to-face interview for both teacher and students after playing the video to get the information about their opinion and perspective regarding to the classroom talk-in-interaction and critical thinking activity in the classroom.

The interview took seven sessions (two times interviews to gain information before conducting the research as pre-interview session to find out the information about the teacher's backgrounds, general interest, general teaching

experience, critical thinking perspective, and students' background; five times interviews after teaching session to find out the strategies and challenges that occurred during the classroom interaction because the researcher should directly find out what strategies that the teacher used every meeting to apply critical thinking to the students and the common ground behind the choosing that or those strategies).

Hence, the researcher can determine when the observation and video-taping activities can be stopped from the result of revealing the information from the interview session. If the strategy's pattern is the same and looks monotone reveal from the interview session, then the researcher states to end the whole sessions and go on to the next step of data analysis.

3.3.3. Documents

This research also involve a document-collected instrument to sharpen the research data in order to strengthen observation and interview instruments. Bowen (2009), "Document-collected is a systematic procedure for reviewing or evaluating documents—both printed and electronic (computer--based and Internet--transmitted) material" (p. 27). In other words, it requires the process of data examination and interpretation to elicit meaning, gain understanding, and develop empirical knowledge. Furthermore, O'Leary (2014) has formulated three types of documents:

1. Public Records: The certified documents, current activities documentation record of schools, institutions, or organizations paper or computer-based documents.

   For example: Syllabi, lesson plan, weekly lesson plan, annual reports, students' work, students' notebooks.

2. Personal Documents: Individual's accounts which can record his/her activities, experiences, point of views, and movements.

   For example: E-mails, blogs, *Facebook*, *Twitter*, *Instagram* posts, calendar, journals, and reports.

3. Physical Evidence: Physical items which embedded along with the study setting.

For examples: Banner, posters, flyers, agenda, booklets, and handouts.

In this particular research, public records have been chosen as one of research instruments to enhance evidences related to synchronize the teacher's action in the classroom with the lesson plan that has been written and formed before teaching. Moreover, some material sheets and students' report were analyzed to find out some additional strategies conducted by the teacher.

3.4. Data Analysis

This present study used Miles and Hubberman (1994) data analysis which consist of data reduction, data display, and data verification. Comprehensive details are explained in the points below:

1. Interview and classroom observation instruments were categorized to get the information regarding to the teachers' roles and ways of formulation in applying critical thinking in teacher-students interaction.

2. After jotting down all information from the face-to-face interview, the information themselves would be broken down into several code and classification in order to distribute the appropriate information easily and accurately. The classroom observation also be investigated to seek the similarities or supporting information regarding teachers' role in the classroom.

3. The final step of analyzing the data. Information from interview and classroom observation were connected and linked with the previous studies and literature review either the analysis result eventually support or against the previous studies and literature review.

According to the theory above, this study involved several steps in gaining information about the teacher's strategies in facilitating students' critical thinking and challenges in implementing students' critical thinking in the classroom. Moreover, the steps below are the process of analyzing the data to gain comprehensive dataset to be discussed:

1. Conducting classroom observation to comprehend real situation in the class according to the ethical guidance to maximize the result of dataset

2. Video-taping of teacher-students interactions to record the conversation, responses, expressions, and ways of communication of critical thinking enhancement

3. Organizing and coding the teacher-students interaction into conversation transcriptions by using *George Yule's transcription design* to find out the strategy patterns and challenges in implementing students' critical thinking in the class

4. Using mobile phone's recorded application in interview session to achieve important information related to teacher's strategies and challenges to enhance students' critical thinking. The method of interview is conveyed by analyzing, coding, and recalling some interview items to get adequate result

5. Creating subthemes of findings from two research questions based on the result of video-taping and interview instruments

6. Composing and connecting the research findings with the literature and previous studies to reach the new information and conclusion of the study.

3.5. Establishing Trustworthiness

One criterion of naturalistic inquiry is trustworthiness. This is to achieve the trustworthiness of the data. Trustworthiness is the truth, which is resulted from the description, conclusion, interpretation and other kinds of reports (Alwasilah, 2002). To construct trustworthiness of this study, the researcher applied some kinds of strategies from Burns (1999) as follows:

3.5.1. Triangulation

According to Burns (1999) triangulation is a way of arguing that "if different methods of investigation produce the same result then the data are likely to be valid." In addition, this is the technique by which the researcher gathers information and data from the respondents and setting by applying various kinds of methods (Alwasilah, 2002).

To apply this trustworthiness, the researcher conducted three methods of collecting data: observing through video recording, interviewing, and analyzing the document. The research triangulates the data collected from recording and observation with the interview's response from the teacher and students. Moreover, the document analysis of syllabus and lesson plan will also check the classroom interaction activity whether it is according to the plan written in the document or not. Therefore, by conducting those various methods, the research will reduce bias causing the subjectivity.

3.5.2 Member Checks

The research took the data analysis and interpretations back to the actual participant involved in the research by asking the teacher to read the data analysis and interpretations. As the result, the teacher recognized and supported the findings that make the researcher becomes more confident of the validity of the study.