

CHAPTER III

RESEARCH METHODOLOGY

This chapter presents the procedure of how this study is conducted. The description and justification of choosing specific research design, research site, participants, data collection, and data analysis will be presented. This chapter has significant role as it shows the procedures of how the research questions are answered.

3.1 Research Design

This study was guided by a qualitative case study. Qualitative research design as the umbrella of a case study approach was chosen as it focuses on gaining rich understanding of a specific context (Malik & Hamied, 2016). In this case, the specific contexts that were investigated are the students' type of questions in four narrative texts, students' critical thinking in relation to the questions that the students ask, and the extent to which the critical thinking instruction helps students to ask and answer critical thinking questions.

In particular, the characteristics of a case study are reflected in this study for three reasons, they are:

1. Firstly, as a case study focuses on a description of individual or small group individuals in-depth (Carla, 2001), this study aims at investigating ninth grade students' critical thinking questioning in a classroom.
2. Secondly, the researcher in a case study is allowed to be a participant observer to involve in a variety of activities of the people under the study to get better understanding of the context being studied (Malik & Hamied, 2016, p. 189). In line with this characteristic, this study has intense contact with the participants as the role of participant observer was carried out by the researcher by being the teacher during the study.
3. Finally, as a case study focuses on a single case, it characterizes that the findings of a case study cannot be generalized and cannot be applied to other situations (Malik & Hamied, 2016, p. 243). Similar to this study, the findings cannot be claimed to other similar studies as it emphasizes on investigating 9th grade students' critical thinking questioning in depth in a classroom in Bandung.

3.2 Site and Participants

This study was conducted in one private junior high school in Dago, Bandung, West Java. There are two main reasons why this school was chosen as the research site. Firstly, the researcher is a former English teacher in this school. Thus, she got permission from the principal to conduct the study there. Likewise, the researcher is familiar with the school's characteristics and situation, hence it gives the opportunity for the researcher to discover sufficient information in conducting the study in the setting. Secondly, regarding the teacher's knowledge of the lesson covered in the classroom being studied, a narrative text is one of the texts that is taught in ninth grade. As the students have learned a narrative text in eighth grade, it is assumed that the students are already equipped with the general knowledge of this text and are able to learn critical thinking questioning that is incorporated into the text.

The participants of this study were 17 of ninth graders in a classroom and a researcher herself who played the role as a teacher in the study. The class comprised of six female students and eleven male students. The selection of the students as the participants is in line with qualitative research in which the selection of the participants is purposeful and nonrandom who can give enlightenment of the phenomenon under study (Sargeant, 2012). Specifically, the students in this study are generally have good proficiency in English, with less than five students who have low proficiency in English. In regard to this information, it is assumed that the students are able to follow the instruction on critical thinking questioning.

As the teacher, I was considered as a novice teacher who had less than 5-years teaching experience. The role as the teacher was taken to give the instruction related to critical thinking questioning that focused on student questioning. Considering my involvement in this study as the teacher as well as the researcher, I took a highly participatory approach in conducting the study (Guest, Namey, & Mitchell, 2013).

3.3 Data Collection

In order to answer the research questions, three procedures were employed to collect the data, they are students' document and classroom observation. Further, the elaboration of those data collections is shown below.

3.3.1 Students' Written Document

Students' written document was employed to observe students' critical thinking questioning in written form. This data collection became the primary source to answer the first and second research questions that investigated the types of questions that the students asked in four narrative texts and examined how the questions asked showed the students' critical thinking.

In this study, the students were not asked immediately to ask questions by themselves, instead the instruction on how to ask critical thinking questions was given before the students were asked to make questions. Specifically, the instruction was following the instructional process to enhance critical thinking by King (1995) which focuses on a model of inquiry. The key of this instruction is the students are encouraged to pose questions which they do not know the answer. In guiding the students to create their own critical thinking questions, I as the teacher gave them a set of question stems as the guidance for the students to ask critical thinking questions related to the texts that had been taught. In this study, the question stems were taken from the revised version of Bloom's taxonomy (Anderson & Krathwohl, 2001). After the students posed their own questions, students discussed with their peers in pairs and groups. A classroom discussion took place in order to choose some questions to be discussed further.

The following is the teaching agenda during the study. There were thirteen meetings, in which each meeting was conducted in 80 minutes.

Table 3. 1 The Teaching Agenda

No	Date	Lesson
1.	29 th February 2018	Observing the students' understanding towards a narrative text and their critical thinking capacity.
2.	2 nd February 2018	Lesson 1. The Wekaburi Lake: checking students' prior knowledge, reading the story, answering general comprehension questions.
3.	6 th February 2018	Lesson 2. The Wekaburi Lake: introducing the characteristics of a narrative text and demonstrating how to ask critical thinking question.
4.	8 th February 2018	Lesson 3. The Wekaburi Lake: demonstrating how to ask critical thinking question, introducing what is categorized as critical thinking questions, assigning a homework to make critical thinking questions.
5.	13 th February 2018	Lesson 4. The Wekaburi Lake: making a dialogue about asking and giving opinion, revising the questions.
6.	15 th February 2018	Lesson 5. The Wekaburi Lake: answering some selected critical thinking questions from the students in written form.
7.	8 th March 2018	Lesson 6. Purbasari and Lutung Kasarung: retrieving students' prior

		knowledge, reading the text, discussing the characteristics of a narrative text, answering general comprehension questions.
8.	13 th March 2018	Lesson 7. Purbasari and Lutung Kasarung: introducing the elements of narrative text, demonstrating how to ask critical thinking questions from the question prompt, assigning students to make questions based on the question prompt.
9.	20 th March 2018	Lesson 8. Purbasari and Lutung Kasarung: checking students' questions, revising questions.
10.	22 nd March 2018	Lesson 9. Purbasari and Lutung Kasarung: checking students' questions, revising questions, discussing some question in whole class.
11.	3 rd April 2018	Lesson 10. Jaka Tarub and Nawang Wulan: retrieving students' prior knowledge, reading the text, discussing the characteristics of a narrative text, answering general comprehension questions.
12.	5 th April 2018	Lesson 11. Jaka Tarub and Nawang Wulan: demonstrating how to ask critical thinking questions.

13.	12 th April 2018	Lesson 12. Jaka Tarub and Nawang Wulan: constructing critical thinking questions individually.
14.	24 th April 2018	Lesson 13. The Origin of Lake Toba: reading the text in whole class and making critical thinking questions individually.

During collecting the data, as the teacher, I gave the instruction related to a narrative text and critical thinking questions and held a discussion that facilitated the students to discuss their questions further. At the same time, I fulfilled the role of researcher by recording videos and taking notes (Guest, Namey, Mitchell, 2013).

As students had several tasks that needed to be completed, they were given a note book in which all tasks during the study were written there. In every meeting after the class, the note books were submitted and checked. In the final meeting, students' note books were submitted, so I as the researcher could analyze and check the entire questions that the students had made from all four narrative texts comprehensively.

3.3.2 Classroom Observation

The aim of conducting a classroom observation is to describe any information about what is seen, heard, and experienced during the study (Malik & Hamied, 2016, p. 191). In this study, a classroom observation was conducted to observe the activities during critical thinking questioning learning which mainly focused on the teacher's instruction and the classroom discussion. By understanding how the teacher gave the modeling in critical thinking questioning and how critical thinking questioning was taught, the extent to which students could ask and answer critical thinking questions were observed.

3.4 Procedure of Data Analysis

As mentioned previously, the student's document was analyzed to answer the first and the second questions. In analyzing the data collection, it took several steps. They are:

1. At the beginning of the analysis, the students' questions were read.
2. The questions were assessed and categorized into the revised version of Bloom's taxonomy (Anderson & Krathwohl, 2001).
3. The questions were further examined based on how to find the answer of the questions (Raphael, 1986).
4. Further, the questions were identified based on the critical thinking skills that are reflected based on critical thinking skills which focus on four skills, namely: interpretation, analysis, evaluation, and inference (Facione, 2015).
5. In answering the third research question in which the data were obtained from classroom observation. In analyzing the data, the first step was transcribing the recording of classroom observation and student's interview. In analyzing classroom observation, the students' responses were categorized into the dimension of critical thinking which comprises of weighing up pros and cons, looking at the situation from all the angles, looking back on the situation, and looking beyond what is there (Phillips & Bond, 2004).

In analyzing student's type of questions, they were assessed by categorizing those questions into the revised version of Bloom's taxonomy (Anderson & Krathwohl, 2001). Specifically, table 3.2 shows the lists of Bloom's taxonomy and the questions which are categorized into the cognitive categories.

Table 3. 2 Bloom's Taxonomy

Cognitive Level	Definition	Cognitive Process	Questions
Remember	Exhibit memory of previously learned material by recalling facts, terms, basic concepts, and answers.	- Recognizing - Recalling	<ul style="list-style-type: none"> • What is...? • How is....? • Where is....?
Understand	Demonstrate understanding of facts and ideas By organizing, comparing, translating, interpreting, giving descriptions, and stating main ideas.	- Interpreting - Exemplifying - Classifying - Summarizing - Inferring - Comparing - Explaining	<ul style="list-style-type: none"> • Summarize... or explain... • What does ... mean?
Apply	Solve problems to new situations by applying acquired knowledge, facts, techniques and rules in a different way.	- Executing - Implementing	<ul style="list-style-type: none"> • What would happen if...? • What is new example of...?
Analyze	Examine and Break information into parts by Identifying motives or causes. Make inferences and find evidence to support generalizations	- Differentiating - Organizing - Attributing	<ul style="list-style-type: none"> • What is the difference between... and...? • Explain why / Explain how? • How are ... and ... similar?
Evaluate	Present and defend opinions by making Judgments about information, validity Of ideas, or quality of work based on a set of Criteria	- Checking - Critiquing	<ul style="list-style-type: none"> • Why is ... happening? • Do you agree or disagree with the statement? Why?
Create	Compile information together in a different way By combining elements in a New pattern Or proposing Alternative solutions	- Generating - Planning - Producing	<ul style="list-style-type: none"> • What is the solution to the problem of...? • What do you think causes...? Why ?

For students' questions, besides they were examined based on their cognitive levels in Bloom's taxonomy, the questions were scrutinized based on critical thinking skills that induced. The following is the lists of critical thinking skills with its description and subskill.

Table 3. 3 Critical Thinking Skills

Skill	Description	Subskill
Interpretation	To comprehend and express the meaning or significance of a wide variety of experiences, situations, data, events, judgments, conventions, beliefs, rules, procedures, or criteria	Categorize Decode significance Clarify meaning
Analysis	To identify the intended and actual inferential relationships among statements, questions, concepts, descriptions, or other forms of representation intended to express belief, judgment, experiences, reasons, information, or opinions	Examine ideas Identify arguments Identify reasons and claims
Inference	To identify and secure elements needed to draw reasonable conclusions; to form conjectures and hypotheses; to consider relevant information and to reduce the consequences flowing from data, statements, principles, evidence, judgments, beliefs, opinions, concepts, descriptions, questions, or other forms of representation	Query evidence Conjecture alternatives Draw logically valid or justified conclusions

Evaluation	To assess the credibility of statements or other representations that are accounts or descriptions of a person's perception, experience, situation, judgment, belief, or opinion; and to assess the logical strength of the actual or intended inferential relationships among statements, descriptions, questions, or other forms of representation	Assess credibility of claims Assess quality of arguments that were made using inductive or deductive reasoning
Explanation	To state and to justify that reasoning in terms of the evidential, conceptual, methodological, criteriological, and contextual considerations upon which one's results were based; and to present one's reasoning in the form of cogent arguments	State results Justify procedures Present arguments
Self-Regulation	Self-consciously to monitor one's cognitive activities, the elements used in those activities, and the results educed, particularly by applying skills in analysis, and evaluation to one's own inferential judgments with a view toward questioning, confirming, validating, or correcting either one's reasoning or one's results	Self-monitor Self-correct