

CHAPTER III

RESEARCH METHOD

This chapter explains the research methodology used in this study. It describes the research design, research setting, participants, data collection methods, research instruments, data analysis procedures, and the strategies used to ensure the trustworthiness of the findings. These methods were employed to answer the research questions.

A. Research Design

This study employed a qualitative case study design. A qualitative approach was chosen because it aims to explore and understand a phenomenon from the participants' perspectives. According to Creswell (2018), qualitative research is used to explore and understand the meaning individuals or groups ascribe to a social or human problem.

A case study was selected because it allows an in-depth exploration of a contemporary phenomenon in its real-life context. Merriam (2009) defines a case study as an in-depth investigation of a bounded system, while Yin (2014) states that it is appropriate for examining a contemporary phenomenon in its real-life context.

Based on the objectives of this study, a qualitative case study was considered appropriate to explore the phenomenon in depth. This approach allowed the researcher to examine teachers' strategies, the challenges encountered during implementation, and students' responses to the use of digital innovation in English language teaching. Data were collected through classroom observations, semi-structured interviews, and open-ended questionnaires to answer the research questions.

B. Research Setting

This study was conducted at SMP Negeri 7 Banjarmasin, located on Jl. Veteran, East Banjarmasin, South Kalimantan. Academically, the school implements the Kurikulum Merdeka and operates standard junior high school instructional sessions. This environment supports technological integration through school-wide internet access and dedicated computer laboratories.

The setting was strictly selected based on its academic suitability and information-rich environment, rather than personal familiarity with the school personnel. Methodologically, the school represents a unique case as digital innovations, such as digital platforms and multimedia tools, are systematically utilized in English language teaching. Therefore, this context serves as an appropriate bounded system to investigate how digital innovation is implemented to foster students' critical thinking skills.

C. Data

The data in this study classroom observation, a semi-structured interview with the English teacher, and students' open-ended questionnaires. These data were used to obtain comprehensive information regarding the implementation of digital innovation in English teaching to foster students' critical thinking.

1. Primary Data

The primary data were collected directly from the research participants through classroom observations, a semi-structured interview with the English teacher, and open-ended questionnaires administered to the students.

a. Classroom Observation

The classroom observation notes provided information about the implementation of digital innovation during English lessons, including the teacher's instructional strategies, the use of digital media and applications, teacher-student interactions, students' participation, and learning activities related to critical thinking.

b. Semi- Structured Interview

The teacher interview notes provided detailed information regarding the teacher's instructional strategies, the use of digital innovation, students' responses, challenges encountered during the teaching and learning process, and strategies used to address those challenges.

c. Students' Questionnaire

The students' questionnaire responses provided descriptive information about students' learning experiences, classroom participation, challenges, and perceptions of digital-based English learning.

2. Participants

The participants in this study consisted of one English teacher and six ninth-grade students. The English teacher served as the primary participant because the implementation of digital innovation in English language teaching formed the main focus of the study. As the classroom teacher, the English teacher provided information regarding instructional planning, classroom implementation, challenges encountered during the teaching process, and efforts to foster students' critical thinking through digital innovation.

In addition to the English teacher, six ninth-grade students participated in the study to provide learner perspectives on the implementation of digital

innovation in English language teaching. The students had experienced English learning activities in the classroom where digital innovation was integrated into the teaching process. Information obtained from the students complemented the data collected from the English teacher by providing insights into learning experiences, classroom participation, and responses toward the learning activities.

The involvement of both the English teacher and the students enabled the researcher to examine the phenomenon from different perspectives. Information collected from the teacher reflected the instructional aspect of classroom practice, while information obtained from the students represented the learning experiences within the same educational context. The combination of these perspectives also strengthened the credibility of the study by allowing data to be compared and interpreted across different sources.

D. Technique of Data Collection

Data for this study were collected through three qualitative techniques: classroom observation, semi-structured interviews, and open-ended questionnaires. Each technique contributed different types of information related to the implementation of digital innovation in English language teaching. Using more than one technique also enabled the researcher to obtain

a more comprehensive understanding of the phenomenon by gathering information from different sources.

1. Classroom Observation

Classroom observation served as the initial stage of the data collection process. This technique was employed to obtain direct information about the implementation of digital innovation during English language teaching. Particular attention was given to classroom activities, teacher–student interaction, students’ participation, and the overall learning process to gain a better understanding of how digital innovation was integrated into classroom instruction.

The observation was conducted while the teaching and learning process was taking place. During the observation, the researcher acted as a non-participant observer to minimize interference with classroom activities. Information was documented using an observation sheet supported by field notes to record classroom situations, interactions, and other relevant events throughout the lesson. After the observation had been completed, the observation records were reviewed and organized before proceeding to the next stage of data collection.

Merriam and Tisdell (2016) explain that observation enables researchers to obtain first-hand information by directly examining participants’ actions and interactions within their natural setting. In this study, classroom

observation provided valuable contextual information that supported a deeper understanding of the implementation of digital innovation during English language teaching.

2. Semi-Structured Interview

Following the classroom observation, a semi-structured interview was conducted with the English teacher to obtain a more detailed understanding of the implementation of digital innovation in English language teaching. The interview explored the teacher's experiences regarding the implementation of digital innovation, instructional strategies, students' responses, challenges encountered during the implementation process, strategies used to overcome those challenges, and suggestions for improving the implementation of digital innovation in English teaching.

The interview was conducted face-to-face at the school in a setting that allowed the discussion to take place comfortably. An interview guide was used to keep the conversation focused on the objectives of the study while allowing the researcher to ask follow-up questions whenever further clarification was needed. Instead of using an audio recorder, the researcher documented the teacher's responses by taking detailed written notes of the teacher's statements throughout the interview. The researcher also recorded several direct quotations to preserve the participant's original responses. After the interview, the notes were reviewed and organized into detailed interview notes for data analysis.

Kvale and Brinkmann (2015) describe semi-structured interviews as guided conversations that allow researchers to explore participants' experiences while maintaining flexibility throughout the discussion. This characteristic made the technique suitable for obtaining detailed explanations that could not be fully observed during classroom activities.

3. Open-Ended Questionnaire

After the observation and interview sessions had been completed, open-ended questionnaires were distributed to six ninth-grade students. The questionnaires were used to collect written responses regarding students' learning experiences, classroom participation, and perceptions of the implementation of digital innovation in English language teaching.

Before the questionnaires were distributed, the purpose of the study was explained, and participants were informed that all responses would remain confidential and would only be used for research purposes. Each participant completed the questionnaire independently by writing responses on the answer sheet provided. After all questionnaires had been collected, the responses were reviewed, organized, and securely stored to ensure that all qualitative descriptive data were complete and ready for the subsequent stage of the study. Fraenkel et al, (2019) state that open-ended questionnaires provide participants with opportunities to express opinions and experiences freely using their own words. In this study, the questionnaire complemented the observation and

interview data by providing written descriptions of students' learning experiences and perspectives.

E. Research Instrument

In qualitative research, the researcher served as the primary instrument in collecting, interpreting, and analyzing the data. To facilitate the data collection process, several supporting research instruments were developed, including an observation sheet, a semi-structured interview guide, and an open-ended questionnaire. The development of these instruments was guided by the research questions, research objectives, and the theoretical framework concerning digital innovation in English language teaching and students' critical thinking skills. Each instrument served a different purpose while complementing one another throughout the data collection process to give indicator of each item or each question.

1. Observation Sheet

The classroom observation sheet was designed to collect information about the implementation of digital innovation during English lessons. It focused on the use of digital media and applications, instructional strategies, teacher–student interactions, students' participation, classroom activities related to critical thinking, and challenges encountered during the teaching and learning process. The observation sheet enabled the researcher to record

classroom events systematically based on the predetermined observation indicators. The complete observation sheet is presented in Appendix II.

2. Interview Guide

The semi-structured interview guide was designed to obtain in-depth information from the English teacher regarding the implementation of digital innovation in English teaching to foster students' critical thinking. The interview guide consisted of ten interview questions covering digital innovation strategies, digital learning applications, lesson preparation, students' participation, digital learning activities, students' responses, challenges encountered during the implementation of digital innovation, strategies to overcome those challenges, and suggestions for improving the implementation of digital innovation in English teaching. The complete interview guide is presented in Appendix III.

3. Open-Ended Questionnaire

The student open-ended questionnaire was designed to explore students' experiences and perceptions of learning English through digital innovation. The questionnaire focused on students' learning experiences, classroom participation, analytical learning activities, challenges encountered during digital learning, and their perceptions of how digital learning supported their English learning. The open-ended questions allowed students to express

their responses in their own words, providing rich descriptive data for the study. The complete questionnaire is presented in Appendix IV

F. Data Analysis

The data collected from classroom observations, semi-structured interviews, and open-ended questionnaires were analyzed using thematic analysis proposed by Braun and Clarke (2006). This method was selected because it provides a systematic way to identify, organize, and interpret patterns of meaning across qualitative data. Through thematic analysis, the researcher was able to examine the implementation of digital innovation in English language teaching from different sources and develop themes that addressed the research objectives.

Braun and Clarke (2006) propose six phases of thematic analysis, which were applied in this study as follows.

1. Familiarizing with the Data

The first stage involved becoming familiar with the collected data. Observation notes, interview notes, and students' responses to the open-ended questionnaires were read repeatedly to gain a thorough understanding of the information. During this process, important points and initial ideas related to the research focus were noted to facilitate the next stage of analysis.

2. Generating Initial Codes

After becoming familiar with the data, the researcher identified meaningful pieces of information and assigned initial codes. Coding was carried out by highlighting words, phrases, sentences, or events related to the implementation of digital innovation, students' critical thinking, classroom practices, and challenges encountered during the teaching and learning process.

3. Searching for Themes

The initial codes were then compared and grouped according to similarities and relationships. Codes representing similar ideas were organized into broader categories that reflected patterns emerging from the data. These categories later developed into potential themes related to the implementation of digital innovation in English language teaching.

4. Reviewing Themes

At this stage, the preliminary themes were carefully reviewed by comparing them with the original data from classroom observations, interview notes, and questionnaire responses. Themes that did not accurately represent the data were revised, combined with other themes, or removed to ensure that every theme reflected the participants' experiences consistently.

5. Defining and Naming Themes

Once the themes had been refined, each theme was clearly defined and given an appropriate name. The researcher identified the central idea represented by each theme and determined how it contributed to answering the research questions.

6. Producing the Report

The final stage involved presenting the findings in a clear and coherent manner. Each theme was described by integrating evidence obtained from classroom observations, interview notes, and students' questionnaire responses. The themes were then interpreted in relation to the theoretical framework and previous studies to answer the research questions comprehensively.

Braun and Clarke (2006) emphasize that thematic analysis is not merely a process of summarizing qualitative data but also an approach to interpreting patterns of meaning within the data. Therefore, this method was considered appropriate for understanding the implementation of digital innovation in English language teaching and its role in fostering students' critical thinking skills.