

CHAPTER 3

RESEARCH METHODOLOGY

This chapter gave detail information about the research design and procedures carried out during this research process. It was divided into five parts namely research design, setting and participants, data collection, data analysis, and research schedule.

A. Research Design

In this study, the researcher used descriptive qualitative, because it describes the English teachers' use of interactive whiteboards as a method of teaching English. Qualitative research method is comprehensive research approaches to understanding and explaining phenomena in their natural context. Qualitative methods emphasize interpretation, understanding context, and subjective meaning. In qualitative research, researchers take part directly with their research subjects to gain in-depth insights into various aspects of human, social, or cultural life (Sugiono, 2013).

Qualitative descriptive research is suited for exploring complex phenomena in natural settings, allowing researchers to capture the richness and depth of participants' experiences and perspectives can capture the complexity and depth of participants' experiences and viewpoints (Colorado & Evans, 2016). This method used the form of words as a descriptive explanation than a number and the result of the data collection is illustrated in the form of describing the teacher's implementation and it is presented in narrative.

B. Research Setting and Participants

This study took place in one of the Elementary Schools in Tasikmalaya, West Java because it is the setting where the phenomenon of the research is found. The classroom activities utilise an interactive whiteboard, with the teacher delivering explanations, games, and videos.

The researcher took one of the English teachers at one of the Elementary Schools in Tasikmalaya that using interactive whiteboard in learning process for

the participant. The interactive whiteboard used once a week for teaching English. The teacher usually used the interactive whiteboard not for general class, but the additional class that held after the school is finished. The teacher usually gives the materials for 30-40 minutes with the interactive whiteboard. The teacher who participating in this research have experience in teaching English in two years and using interactive whiteboard in teaching English for one year.

C. Data Collection

The data used in this research gathered from two primary sources. The data sources are from observation, and interview.

a. Observation

Observation is one of the techniques of collecting data in empirical scientific activities based on field fact and the real text. Observation carried out through the experience of the five senses without using any manipulation (Hasanah, 2017). In this research, the researcher used passive participant observation. It means that the researcher present at the scene of action but does not interact or participate. Researcher conducted one meeting to find out and fulfill the data regarding the teacher's implementation of using Interactive Whiteboard in teaching English to Young EFL Learners. The observation was carried out to examine the classroom activities involving the use of Interactive Whiteboard and to observe how the teacher implemented it in teaching English to young EFL learners.

b. Interview

This research used semi-structured interviews to collect data and strengthen an observation done by the researcher. The researcher uses a set of questions to gain the specific information. Horton et al. (2004) indicated that semi-structured interviews were selected to provide interview participants the freedom to express their thoughts, highlight specific areas of knowledge and interest they believed they possessed, facilitate a deeper conversation surrounding certain responses, and to draw out and resolve apparent contradictions. During the session, new question can be arisen because of the answers given by the resource person and it can be

caused the information mining can be carried out more deeply (Alijoyo et al., 2009).

c. Data Triangulation

To strengthen the validity and credibility of the findings, this study employed data triangulation by comparing and cross-analysing the results of classroom observation and teacher interview. According to Thurmond (2001), data-analysis triangulation is the combination of two or more methods of analysing data. The goal was to ensure that the thematic interpretations—particularly concerning the teacher’s implementation of the Interactive Whiteboard (IWB) in teaching and learning English instruction—were consistent across data sources. Through this triangulation, the study verified that the teacher’s statements during interviews were consistently reflected in her classroom practice. This methodological strategy not only reinforced the reliability of the findings, but also validated the interpretation of the teacher’s TPACK competencies and their influence on student engagement.

D. Data Analysis

After the data was collected, the researcher undertook a more in-depth study of the outcomes of the data obtained. The data was analysed using the theory of Miles and Huberman (1984). The three steps of data analysis were reduction, displaying the data, and drawing conclusion.

a. Data reduction

Data reduction can profitably occur before and during, as well as after data collection. Data reduction is the process of focusing, selecting, simplifying and transforming the data.

Table 3.1 Data Reduction Example from Observation

Example of Reduction	
Original Data	Data Reduction
Teacher demonstrates pronunciation and asks students to repeat.	The teacher provided pronunciation models and encouraged repetition to improve students' English skills.

Table 3.2 Data Reduction Example from Interview

Example of Reduction	
Original Data	Data Reduction
"I only use IWB once a week for non-regular classes due to equipment maintenance."	The IWB is not used daily; its usage is limited to preserve the equipment.

The data came from the observation and interview about how the classroom activities going with using an interactive whiteboard. The initial codes were generated based on the TPACK framework and emerging patterns from the field data. The table below presents the coding framework used:

Table 3.3 Data Reduction

Code	Category	Indicator Description	Data Source
CK1	Content Knowledge	Emphasis on vocabulary development	Observation, Interview
CK2	Content Knowledge	Emphasis on pronunciation modeling	Observation, Interview
TK1	Technological Knowledge	Teacher uses Wordwall and Educaplay platform on IWB	Observation, Interview
TK2	Technological Knowledge	Teacher received basic training and operates IWB independently	Interview
TPK1	Technological Knowledge	Interactive English tasks involving	Observation,

Code	Category	Indicator Description	Data Source
	Pedagogical Knowledge	touchscreen (e.g., categorizing pictures)	Interview
TPK2	Technological Pedagogical Knowledge	Students speak aloud while interacting with IWB	Observation
STU1	Student Response	High engagement when using IWB (touching, playing games, responding orally)	Observation
STU2	Student Response	Students show better retention and motivation after IWB-based lessons	Interview

b. Displaying the data

In this step, the data that has been reduces is presented. To make the reduction data easier to interpret overall, the researcher presents the data in clear, readable terms and describes it to ensure that the research findings are understandable.

Table 3.4 Data Display

Code	Observation Summary	Interview Excerpt
CK1	Teacher used flashcards to introduce new vocabulary	“I use flashcards and games to help students remember vocabulary”
TK1	Teacher launched Wordwall on IWB	“I often use Wordwall because it’s interactive and fun”
TPK1	Students tapped screen to complete sentence tasks	“Students speak while clicking the words—it’s more fun for them”

c. Drawing conclusion

The drawing of conclusions starts after the data is collected and it can be said that the conclusion is continuously analysed and verified its validity to obtain perfection conclusion.

E. Research Schedule

The research was conducted at one of the Elementary School in Tasikmalaya in the 2nd week of June and 1st week of July.

Table 3.5 Research Schedule

Description	Apr 2025	May 2025	Jun 2025	Jul 2025
Research				
Proposal Writing				
Research				
Proposal				
Examination				
Data Collection				
Data Analysis				
Report				
Thesis Result				
Seminar				
Thesis				
Examination				