

CHAPTER III

RESEARCH METHODOLOGY

3.1 Research Design

This study employed a qualitative case study design to explore the role of linguistic landscape in supporting deep learning-based teaching and learning processes in elementary schools. A qualitative approach was selected because it enabled the researcher to gain an in-depth understanding of the presence of linguistic landscape within school environments and teachers' perceptions regarding its pedagogical use. Rather than measuring students' learning outcomes, the study focused on describing the types of linguistic landscape available in the selected schools, how teachers utilized these resources, and how observable student interactions with the displayed texts reflected opportunities for meaningful learning. Qualitative research allows researchers to investigate social phenomena naturally and contextually by focusing on participants' experiences, meanings, and interpretations (Creswell, 2014).

The case study design was considered appropriate because the research focused on examining a specific phenomenon within its real-life context, namely the use of linguistic landscape in elementary school environments in Ponorogo Regency. According to Yin (2018), case study research is suitable for investigating contemporary phenomena within real social settings where the boundaries between the phenomenon and context are not clearly separated. Through this approach, the

researcher was able to explore how students and teachers interact with environmental texts and how these interactions contribute to meaningful learning experiences.

This study also adopted sociocultural and constructivist perspectives as the theoretical basis for understanding learning processes. From a sociocultural perspective, learning occurs through interaction with social environments and cultural tools, including written texts displayed within schools. Meanwhile, constructivist theory emphasizes that students actively construct understanding through contextual experiences and interaction with authentic learning resources. Therefore, the qualitative case study design was considered suitable for exploring how linguistic landscape functions as a contextual and pedagogical resource that supports deep learning in elementary schools.

3.2 Research Setting and Participants

This study was initially planned to be conducted in four elementary schools in Ponorogo Regency, East Java, Indonesia, namely SD Muhammadiyah Ponorogo, SDMT Ponorogo, SD Ma'arif Ponorogo, and SDN Bangunsari. These schools were selected purposively as potential research sites because they represented elementary schools within the same educational context and were considered likely to provide linguistic landscape data relevant to the study.

Prior to the main data collection, the researcher conducted a preliminary observation in all four schools to identify the presence of visible linguistic

landscape elements, such as posters, signs, labels, announcements, slogans, classroom displays, and other written texts that could support the deep learning-based teaching and learning process. The preliminary observation revealed that only SD Muhammadiyah Ponorogo and SDMT Ponorogo possessed sufficient linguistic landscape elements relevant to the objectives of this study. In contrast, SD Ma'arif Ponorogo and SDN Bangunsari showed very limited or no relevant linguistic landscape features that could provide adequate data for the research. Therefore, the researcher focused the main data collection on SD Muhammadiyah Ponorogo and SDMT Ponorogo.

The observations were conducted in various locations within the two selected schools, including classrooms, corridors, stairways, school yards, libraries, and other public spaces where linguistic landscape elements were displayed. These locations contained a variety of environmental texts such as vocabulary posters, classroom labels, motivational quotations, information boards, multilingual signs, and students' work. The availability of these linguistic landscape elements enabled the researcher to examine how written texts were organized within the school environment and how teachers utilized them as contextual learning resources.

Ponorogo Regency was selected as the research setting because the area indicate linguistic diversity reflected in the use of Indonesian, Javanese, Arabic, and English within school environments. These multilingual environmental texts provide authentic language exposure and contextual learning experiences for elementary school students. The selected schools also granted permission for the

researcher to conduct classroom observations, semi-structured interviews, and documentation during the research process.

The data collection was conducted from February to May 2026. During this period, the researcher visited each school several times to conduct preliminary observations, collect documentation of linguistic landscape elements, complete observation checklists, and conduct semi-structured interviews with the participating teachers. Field notes were also written during each visit to record contextual information related to the school environment and the educational use of the linguistic landscape.

The participants of this study consisted of two elementary school teachers, one from SD Muhammadiyah Ponorogo and one from SDMT Ponorogo. The participants were selected using purposive sampling because they were directly involved in planning, implementing, and managing the teaching and learning process while utilizing the linguistic landscape available within their school environments. Although four schools were initially identified as potential research sites, only the two teachers from SD Muhammadiyah Ponorogo and SDMT Ponorogo were included because only these schools met the research criteria established through the preliminary observation.

The inclusion criteria required that the participants (1) were actively teaching in the selected schools, (2) had experience utilizing linguistic landscape as part of classroom instruction or the school learning environment, and (3) were

familiar with the implementation of deep learning-based teaching and learning activities.

The selection of two teacher participants was consistent with the qualitative case study design adopted in this study. Rather than seeking statistical representation, qualitative case studies aim to obtain rich, contextual, and in-depth information from participants who possess direct experience relevant to the research phenomenon. The credibility of the findings was strengthened through data triangulation using classroom observations, semi-structured interviews, and documentation. Therefore, the trustworthiness of the findings was established through the richness, relevance, and consistency of the collected data rather than the number of participants.

Although only two teachers participated in this study, they were selected because they possessed direct experience in utilizing the linguistic landscape available in their respective schools. The purpose of participant selection was not to obtain statistical representation but to gather rich and context-specific information regarding the educational use of linguistic landscape. Therefore, the findings should be understood within the context of the two selected schools rather than generalized to all elementary schools in Ponorogo Regency.

3.3 Research Instruments

In qualitative research, the researcher acts as the primary instrument for collecting and interpreting data. However, to ensure systematic and consistent data

collection, this study employed several supporting research instruments, namely an observation sheet, a semi-structured interview guide, and documentation. Each instrument was designed to address specific research questions and to facilitate data triangulation throughout the study.

Research Question	Instrument	Purpose
RQ1. What kinds of linguistic landscape support the deep learning-based teaching and learning process in Ponorogo Regency elementary schools?	Observation, Documentation, Interview	To identify and classify the types, locations, languages, and educational functions of linguistic landscape elements found in the selected schools.
RQ2. What are teachers' perceptions of the role of linguistic landscape in supporting the deep learning-based teaching and learning process?	Semi-structured Interview	To explore teachers' experiences, opinions, and perceptions regarding the pedagogical use of linguistic landscape.
RQ3. How does the linguistic landscape contribute to student engagement and understanding during deep learning in Ponorogo Regency elementary schools?	Observation, Interview, Documentation	To describe observable student interactions with linguistic landscape and to interpret teachers' perceptions regarding its contribution to classroom learning.

3.3.1 Observation Sheet

The observation sheet was developed to systematically identify and record the linguistic landscape found within the selected school environments. The observation was conducted using a non-participant observation approach, meaning that the researcher did not intervene in classroom activities or evaluate the teaching process. Instead, the researcher focused on observing the presence, characteristics,

and educational functions of linguistic landscape elements displayed throughout the school environment. The observation also included naturally occurring student interactions with the displayed texts when they were visible during school activities.

The observation focused on identifying the types of linguistic landscape, the language used, the placement of the displays, their educational functions, observable student interactions, and their potential contribution to supporting deep learning-based teaching and learning. The observation did not include assessing students' academic achievement, vocabulary mastery, learning outcomes, or teachers' instructional performance because these aspects were beyond the scope of this study.

Observation Aspect	Indicators
Types of Linguistic Landscape	Literacy displays, motivational texts, informational texts, multilingual resources
Language Used	Indonesian, English, Arabic, Javanese
Placement	Classroom, corridor, library, school yard
Educational Function	Literacy, vocabulary learning, classroom instruction, motivation
Student Interaction	Reading, observing, discussing, asking questions
Deep Learning Support	Student engagement, contextual learning, meaningful understanding

These observation aspects served as the basis for recording field data systematically and ensuring that all relevant elements of the linguistic landscape were consistently documented during each school visit.

3.3.2 Interview Guidelines

Semi-structured interview guidelines were used to explore teachers' perceptions, experiences, and understanding related to linguistic landscape and deep learning processes. The interview focused on teachers' awareness, perspectives, and strategies regarding the use of linguistic landscape as a contextual learning resource, as well as their perceptions of its contribution to students' engagement and understanding during the teaching and learning process.

The interview data primarily addressed the second research question by providing in-depth information about teachers' perceptions regarding the role of linguistic landscape in supporting deep learning-based teaching and learning processes.

3.3.3 Documentation

Documentation instruments were used to collect visual and written data related to the school linguistic landscape. Documentation included photographs of signs, posters, labels, announcements, slogans, and other visual texts found within school environments. Field notes were also used to record contextual information related to observations and participant interactions during the research process.

The documentation also functioned as supporting evidence for the observation findings and assisted the researcher in validating the interpretation of the linguistic landscape identified during the fieldwork.

3.4 Data Collection Techniques

Data were collected from February to May 2026 using three complementary techniques: observation, semi-structured interviews, and documentation. These techniques were employed sequentially to obtain comprehensive information regarding the linguistic landscape available in the selected schools and teachers' perceptions of its role in supporting deep learning-based teaching and learning. The use of multiple data collection techniques also enabled methodological triangulation, thereby enhancing the credibility of the research findings.

3.4.1 Observation

Observation was conducted using a **non-participant observation** approach. In this approach, the researcher observed the school environment without participating in classroom instruction or influencing teaching and learning activities. The primary purpose of the observation was to identify and describe the linguistic landscape available in the selected elementary schools.

During the observation, the researcher examined various linguistic landscape elements displayed throughout the school environment, including classrooms, corridors, stairways, libraries, school yards, and other public spaces. These elements consisted of classroom labels, educational posters, motivational

quotations, information boards, multilingual signs, slogans, notices, and students' work. The researcher also recorded the language used, the placement of the displays, and their educational functions in supporting teaching and learning activities.

The observation focused on identifying the presence and characteristics of linguistic landscape elements, their educational functions, and naturally occurring student interactions with the displayed texts, such as reading, observing, or discussing the information presented. However, the observation did not include evaluating students' academic achievement, vocabulary mastery, learning outcomes, or teachers' instructional performance, as these aspects were beyond the scope of this descriptive study.

The observation was conducted through the following procedures:

1. Visiting the selected schools according to the research schedule.
2. Identifying linguistic landscape elements displayed throughout the school environment.
3. Completing the observation sheet based on predetermined indicators.
4. Taking photographs of relevant linguistic landscape displays as supporting documentation.
5. Writing field notes to record contextual information regarding the educational use of the linguistic landscape.

3.4.2 Interview

After completing the observations, semi-structured interviews were conducted with two participating teachers from the selected schools. The interviews aimed to explore teachers' perceptions regarding the educational role of linguistic landscape in supporting deep learning-based teaching and learning processes.

The interview guide consisted of open-ended questions that allowed participants to describe their experiences, opinions, and practices in utilizing linguistic landscape as part of classroom learning. Additional probing questions were asked whenever further clarification was required. Each interview was conducted individually, audio-recorded with participants' consent, and subsequently transcribed for analysis.

3.4.3 Documentation

Documentation was used to complement the observation and interview data. The researcher collected photographs of linguistic landscape elements displayed throughout the school environment, including classroom labels, educational posters, motivational quotations, information boards, multilingual signs, and other visual texts relevant to the study. These photographs served as supporting evidence for the observation findings and facilitated data verification during the analysis process.

3.5 Data Analysis Technique

This study employed the Interactive Model of Data Analysis proposed by Miles, Huberman, and Saldaña (2014), which consists of four interconnected stages: data collection, data condensation, data display, and conclusion drawing and verification. These stages were carried out continuously throughout the research process to ensure systematic and comprehensive data analysis.

3.5.1 Data Collection

The first stage involved collecting data through non-participant observations, semi-structured interviews, and documentation. Observation data were obtained using observation sheets and field notes to identify linguistic landscape elements displayed within the school environment. Interview data were collected from two participating teachers to explore their perceptions regarding the educational role of linguistic landscape. Documentation, including photographs of linguistic landscape displays, was used to support and verify the observation findings.

3.5.2 Data Condensation

During the data condensation stage, the researcher organized, selected, and simplified the collected data according to the research questions. Observation data were categorized based on the types of linguistic landscape, language used, placement, educational function, student interaction, and support for deep learning. Interview transcripts were coded to identify recurring themes related to teachers'

perceptions. Documentation data were reviewed to support and validate the observation findings.

3.5.3 Data Display

The condensed data were then presented in the form of descriptive narratives, tables, and photographs. The presentation of data enabled the researcher to compare information obtained from different data sources and identify relationships among the observed linguistic landscape, teachers' perceptions, and the educational functions of the displayed texts.

3.5.4 Conclusion Drawing and Verification

Finally, conclusions were drawn based on patterns emerging from the observation, interview, and documentation data. Throughout the analysis process, the researcher continuously verified the findings by comparing evidence obtained from different instruments. This verification process ensured that the conclusions accurately reflected the collected data and answered the research questions.

3.6 Trustworthiness of the Data

To ensure the trustworthiness of the findings, this study applied several criteria proposed by Lincoln and Guba (1985), namely credibility, transferability, dependability, and confirmability.

3.6.1 Credibility

To ensure credibility, the researcher employed methodological triangulation by comparing data obtained from observations, semi-structured interviews, and documentation. In addition, member checking was conducted by confirming the interview summaries with the participating teachers to ensure that their responses were accurately interpreted.

3.6.2 Transferability

Transferability was enhanced by providing detailed descriptions of the research setting, participants, data collection procedures, and the characteristics of the linguistic landscape observed in the selected schools. These detailed descriptions enable readers to determine the applicability of the findings to similar educational contexts.

3.6.3 Dependability

Dependability was maintained by documenting each stage of the research process, including the development of research instruments, observation procedures, interview protocols, data analysis procedures, and revisions made throughout the study. This audit trail enhances the consistency and transparency of the research process.

3.6.4 Confirmability

Confirmability was achieved by ensuring that the findings were grounded in the collected data rather than the researcher's personal assumptions. The

researcher continuously compared observation notes, interview transcripts, and documentation throughout the analysis process to verify interpretations and maintain objectivity.

Although students were not interviewed, their engagement and understanding were examined through prolonged classroom observations and supported by teachers' perceptions as well as documentation. The use of multiple data sources enabled the researcher to triangulate the findings and enhance the credibility of the interpretations regarding students' learning experiences.

