BAB III

RESEARCH METHODOLOGY

A. Research Design

This study employs a qualitative research design through a descriptive case study approach to investigate the implementation of Project-Based Learning (PjBL) in enhancing the reading skills of eleventh-grade students at SMAN 3 Kota Bengkulu. The qualitative approach is deliberately selected because it provides an in-depth exploration of educational phenomena within naturalistic settings, focusing on the lived experiences, processes, and perceptions of the participants involved. Rather than seeking to quantify outcomes, this study aims to understand the meaning-making processes of teachers and students as they engage with PBL activities that foster reading comprehension.

According to Sugiyono, (2020), qualitative research is most appropriate when researchers intend to reveal phenomena holistically and contextually by focusing on the social reality constructed by participants. This paradigm emphasizes depth over breadth, prioritizing the exploration of processes, patterns, and meanings rather than the measurement of variables. It is also characterized by its inductive nature, allowing theories and insights to emerge from the data collected directly from the field rather than testing existing hypotheses. In this research, the natural

classroom setting becomes the central site of investigation, where the researcher serves as the key instrument, collecting data through direct engagement with the participants.

The choice of a descriptive case study aligns with the focus on a specific bounded system a particular school, a single grade level, and a distinctive instructional method (PjBL). As suggested by Yin, (2018),case studies are well-suited for answering "how" and "why" questions related to contemporary educational phenomena within real-life contexts. This methodological framework enables the researcher to obtain a rich, thick description of how PBL is implemented, how students engage with reading tasks within projects, and what factors contribute to the development of their reading comprehension skills.

Data will be collected through multiple sources**:** observations of classroom practices**,** in-depth interviews with teachers and students, and analysis of relevant documentation such as student projects and reflective journals. These data collection methods support triangulation**,** enhancing the credibility and validity of the findings by cross-verifying information from different perspectives(Creswell & Poth, 2018) .This approach allows the researcher to capture the complex, multi-dimensional nature of learning processes, including how students interact with texts, collaborate with

peers, and reflect on their progress during the various phases of PJBL.

The qualitative descriptive case study approach is also valuable in uncovering how constructivist and experiential learning theories manifest in practice. Grounded in Vygotsky's (1978) social constructivism and Kolb's (1984) experiential learning theory, this study seeks to examine how students build knowledge through social interaction, active inquiry, and reflection within project-based tasks. Such a framework enriches the understanding of how PJBL supports the development of reading skills by aligning theoretical insights with classroom realities.

Furthermore, this research aims to fill existing gaps in the literature, particularly the lack of qualitative studies that explore student experiences with PJBL in Indonesian secondary EFL contexts**.** By providing contextualized, practice-oriented findings**,** this study offers valuable contributions to the improvement of EFL pedagogy and curriculum design, especially in integrating project-based methodologies to foster reading comprehension and learner autonomy.

In summary, the qualitative descriptive case study design is integral to achieving the objectives of this research. It enables the researcher to capture the processes, interactions, and perceptions that underlie the implementation of PjBL,

providing nuanced insights into the dynamics of language learning that cannot be obtained through quantitative methods alone.

In descriptive qualitative research, the research flow is not linear but cyclical, meaning that the researcher may return to previous stages as needed based on data from the field. According to Sugiyono (2019, 2020, 2022), descriptive qualitative research begins with the identification of problems that emerge from real-life phenomena. This is followed by a literature review to strengthen the theoretical framework and to narrow down the research focus. After that, the researcher determines the location and subjects of the study using purposive sampling, as participants are selected based on their relevance to the research focus.

The next stage is data collection, which is conducted naturally through interviews, observations, and documentation. The collected data then undergo a process of data reduction, which involves filtering and simplifying the information to match the research focus. Following this, the researcher presents the data (data display) in the form of descriptive narratives, tables, or diagrams to facilitate analysis. From the displayed data, preliminary conclusions are drawn, which are continuously verified with subsequent findings until a valid final conclusion is reached. The last stage is writing the research report, which presents the findings in a

descriptive manner that deeply reflects the studied social context.

B. Research Setting

This research will be conducted at SMAN 3 Kota Bengkulu, a public senior high school located in the heart of Kota Bengkulu, the capital of Bengkulu Province, Indonesia. The school is strategically situated in a semi-urban area, reflecting a microcosm of Indonesia's ethnic and linguistic diversity. Students at SMAN 3 come from varied ethnic backgrounds such as Rejang, Serawai, Javanese, Minangkabau, and Sundanese, fostering a multicultural environment that enriches the dynamics of the teaching-learning process.

SMAN 3 Kota Bengkulu is recognized for its academic excellence and pedagogical innovation, particularly in implementing student-centered learning strategies, including Project-Based Learning (PjBL) as part of its English language instruction. The school has consistently integrated PJBL not only to enhance language competencies but also to cultivate students' critical thinking, collaboration, and communication skills.

C. Research Participants

This study involves participants who are directly engaged in the implementation of Project-Based Learning (PjBL) in the English language learning process, with a particular focus on the development of reading skills. The participants include English teachers as the primary informants and Grade XI students as supporting informants. Both groups were selected using purposive sampling, a non-probability sampling technique that enables the researcher to deliberately select individuals based on specific characteristics relevant to the research objectives (Sugiyono, 2020)

The primary informants are English teachers at SMAN 3 Kota Bengkulu who apply PjBL strategies in their reading instruction.Teachers will be selected based on the following criteria: currently teaching English in Grade XI A, having a minimum of three years of teaching experience, demonstrating experience in implementing Project-Based Learning in the classroom, and showing willingness to participate in interviews, classroom observations, and other data collection activities. These teachers play a critical role in providing rich insights into the planning, implementation, and assessment of PjBL, particularly in relation to the development of students' reading skills.

The use of purposive sampling is appropriate for this qualitative case study because it allows for the selection of

participants who possess relevant experience and in-depth understanding of the phenomenon being studied. This approach aligns with the qualitative paradigm, which emphasizes depth rather than breadth, and seeks to collect meaningful, contextually grounded information that can inform a deeper understanding of educational practices.

Each group of informants contributes uniquely to the research. The teachers offer valuable information regarding instructional strategies, project design, assessment methods, and their observations of student engagement and literacy progress. Meanwhile, the students provide firsthand experiences of participating in reading-based projects, including their interaction with texts, collaboration in group work, and reflections on their learning outcomes. Together, these perspectives offer a comprehensive view of how PBL supports the development of reading skills in an authentic classroom setting.

D. Data Source

This qualitative study entitled *"An Analysis of Project-Based Learning to Student Reading Skills of Eleventh Grade Students at SMAN 3 Kota Bengkulu"* draws upon two main types of data sources primary data and secondary data to generate a comprehensive and credible understanding of how Project-Based Learning (PjBL) supports students' reading development. By integrating multiple forms of evidence, this

study emphasizes data triangulation, a cornerstone of qualitative inquiry, which enhances the validity, reliability, and depth of the research findings.

1. Primary Data

Primary data are the core foundation of this research, referring to original data collected directly from participants who are actively involved in the implementation of PBL in English classrooms. The primary data aim to capture the lived experiences, perceptions, and practices of both English teachers and Grade XI students at SMAN 3 Kota Bengkulu. These data are collected through the following methods:

a. In-depth Interview:

Semi-structured interviews are conducted with English teachers and selected students to obtain nuanced insights into their experiences, beliefs, challenges, and reflections regarding PjBL in reading activities. The interviews enable exploration of how instructional decisions are made, how projects are designed, and how students perceive their learning process.

b. Non-Participant Observations:

The researcher engages in classroom observations without intervening in the teaching-learning process. These observations document instructional strategies, student interactions, engagement levels, and how

reading tasks are facilitated within the PjBL structure. Special attention is given to how students negotiate meaning, collaborate in groups, and utilize reading resources.

c. Document Analysis:

Authentic classroom artifacts such as students' reading journals, project reports, rubrics, and assessment records are analyzed to provide concrete evidence of students' reading skill development over time. These documents also reveal how teachers evaluate progress and integrate feedback into learning cycles.

These diverse primary data sources provide rich, contextualized information that captures the complexity and dynamism of the teaching-learning environment in a real-world educational setting. As Bandara, Perera, and De Alwis (2025) emphasize, qualitative research grounded in naturalistic inquiry allows researchers to bridge theory and practice by analyzing educational phenomena in situ.

2. Secondary Data

Secondary data in this study serve to establish theoretical grounding, enrich contextual understanding, and position the study within the broader field of educational research. The George Lucas Educational Foundation (GLEF) through the Edutopia framework provides one of the main theoretical foundations for the implementation of Project-Based Learning (PBL) phases. This framework formulates

systematic steps for implementing PBL, beginning with "Start with the Essential Question" and ending with "Evaluate the Experience."This framework is relevant to the research instrument used in this study, particularly the observation sheet, which consists of six stages of PBL implementation. The observation instrument follows these stages chronologically in order to examine the teacher's consistency in implementing each phase of Project-Based Learning during classroom instruction.According to the framework developed by the George Lucas Educational Foundation, there are six operational steps (syntax) of that guide teachers in implementing PBL in a structured and systematic way in the classroom. These steps serve as a practical guideline for teachers to facilitate project-based instructional activities effectively. The six steps of Project-Based Learning are as follows:

a. Start with the Essential Question
b. Design a Plan for the Project
c. Create a Schedule
d. Monitor the Students and the Progress of the Project
e. Assess the Outcome
f. Evaluate the Experience

These stages are widely used as a reference in implementing Project-Based Learning because they provide a clear structure for organizing learning activities that involve inquiry, collaboration, and reflective evaluation.

E. Data Collection Techniques

In this qualitative case study entitled *"An Analysis of Project-Based Learning to Student Reading Skills of Eleventh Grade Students at SMAN 3 Kota Bengkulu"*, the researcher employs three primary data collection techniques classroom observation, semi-structured interview, and documentation review. These methods are deliberately chosen for their capacity to yield rich, contextualized, and authentic data that reflect the complex realities of teaching and learning in the classroom. In line with the interpretive paradigm of qualitative research, the emphasis is placed on understanding the meaning-making processes, classroom interactions, and individual experiences related to the implementation of Project-Based Learning (PjBL) in reading instruction.

1. Classroom Observation

The first data collection method involves direct, non-participant observation of PjBL-based English lessons. This technique enables the researcher to gain firsthand insights into the learning environment without interfering with the instructional flow. The researcher closely observes how PBL is implemented in the classroom, how teachers facilitate reading activities, and how students engage with reading materials and collaborate with peers.

a. Instrument: Structured observation checklist
b. Focus: Classroom dynamics, teacher-student interactions, peer collaboration, scaffolding strategies, and student engagement in reading-related tasks
c. Purpose and Rationale: Observation provides naturalistic and real-time data on instructional practices and student behaviors. It is particularly useful in capturing non-verbal cues, learning atmosphere, and contextual variables that may not surface through interviews. According to Qalyubi and Hapsari (2025), classroom observation is a key method in qualitative research to document authentic learning processes and better understand instructional environments in situ.

This technique helps the researcher explore how reading comprehension is scaffolded during project activities and how students respond to authentic texts and collaborative challenges within the PjBL framework.

2. Semi-Structured Interviews

The second data collection method is semi-structured interviews, conducted with both English teachers Grade XI. This technique allows for flexibility in exploring personal perspectives while ensuring coverage of key themes relevant to the study.

a. Instrument: Interview guide with open-ended, exploratory questions

b. Participants: Two English teachers Grade XI

c. Purpose and Rationale: Semi-structured interviews provide a deep understanding of participants' thoughts, motivations, and experiences. Teachers are asked to reflect on their instructional strategies, perceptions of student progress, and challenges in implementing PjBL. Students are encouraged to share their experiences with reading projects, group dynamics, and perceived learning outcomes.

This method supports the construction of rich, narrative data that illuminate the subjective experiences of learners and educators, which are central to a case study approach.

3. Documentation Review

The third technique involves systematic analysis of documents and artifacts produced during the teaching and learning process. This includes examining lesson plans, students' project reports, reading journals, and assessment tools.

a. Sources: Teacher-created instructional materials, student-generated reading projects, project rubrics, and reflective journals

b. Purpose and Rationale: Document analysis enables the researcher to triangulate findings from observations and interviews, assess the alignment between intended learning outcomes and instructional design, and examine evidence

of reading skill development over the course of the project. These artifacts serve as tangible proof of how PBL is operationalized in the classroom and offer insight into assessment practices, student creativity, and comprehension levels.

F. Research Instrument

To collect in-depth, contextual, and valid data, this study utilizes three core instruments: observation sheets, interview guides, and documentation checklists. Each instrument is designed to uncover the implementation of Project-Based Learning (PjBL) and its impact on students' reading comprehension, motivation, and collaborative learning. The triangulation of these instruments ensures the richness and trustworthiness of the data obtained.

1. Observation Sheets

Non-participant classroom observation

The observation sheet functions as a structured tool combining a checklist format with descriptive field notes, enabling the researcher to systematically monitor the real-time implementation of PjBL in English reading lessons. This instrument is particularly effective in capturing both planned instructional strategies and spontaneous classroom dynamics. Key indicators include:

a. Teacher facilitation techniques (e.g., scaffolding inquiry, guiding student collaboration, managing group discussions)
b. Student cognitive and behavioral engagement during project-related reading tasks (e.g., reading aloud, summarizing, questioning, inferencing, note-taking)
c. The use and relevance of reading texts in the context of the ongoing project (e.g., articles, narratives, instructions)
d. Collaborative learning indicators, including peer interaction, task division, group problem-solving, and peer feedback
e. Classroom atmosphere, such as student participation, motivation levels, and student-teacher rapport

This instrument offers a naturalistic, real-time lens to observe how PjBL strategies unfold organically in the classroom environment. The observation results also serve to validate data from interviews and documentation.

2. Interview Guide

Semi-structured interview

The interview guides are designed separately for English teachers and Grade XI students, with tailored questions to elicit reflective and experiential responses regarding PjBL implementation and its perceived effects on reading development.

a. For Teachers:

1). How do you integrate PjBL strategies into your reading instruction?

2). What instructional approaches do you find most effective for engaging students in reading-based projects?

3). Can you describe any observable changes in students' reading comprehension or participation since using PjBL?

4). What kinds of reading materials do you typically use for project tasks?

5). What challenges have you faced in aligning project goals with curriculum targets?

b. For Students:

1). What kinds of reading activities are involved in your English projects?

2). How do you collaborate with your group members when reading and completing a project?

3). Do you think projects make reading more interesting or easier to understand? Why?

4). What reading strategies have you used or learned while doing projects (e.g., summarizing, predicting, asking questions)?

5). Can you share a memorable project experience that helped you improve your English reading skills?

This semi-structured format allows the researcher to probe further based on initial responses, enabling flexibility and depth in the data collection. It is especially effective in capturing personal insights, beliefs, and subjective experiences that are not observable through surface-level inquiry.

3. Documentation Checklists

Systematic document analysis

The documentation checklist serves to gather and analyze various instructional and student-generated artifacts that reflect the planning, execution, and outcomes of reading tasks embedded in PjBL. This includes:

a. Lesson plans with clear indicators of PjBL structure and reading objectives
b. Students' project reports that incorporate reading activities (e.g., summarization, evidence-based arguments, research findings)
c. Selected reading materials (articles, instructional texts, digital content) used during the project
d. Reflection journals or portfolios showcasing students' metacognitive engagement with texts
e. Assessment rubrics and feedback sheets used to evaluate both reading comprehension and project performance

Evaluation criteria in the checklist involve:

a. The integration of reading skills (literal, inferential, critical) in project-based tasks
b. The alignment of project learning outcomes with national curriculum standards
c. Authenticity and cultural relevance of reading materials used
d. Evidence of student agency and reflection in using texts to solve real-world problems

This instrument not only helps in triangulating observational and interview data, but also offers concrete evidence of how PjBL is structured and implemented to enhance reading competencies.

G. Data Analysis Techniques

This qualitative study adopts a hybrid data analysis approach by integrating the Miles and Huberman interactive model with thematic analysis to interpret the data collected from classroom observations, semi-structured interviews, and document reviews. This combined approach is particularly effective for analyzing complex and multi-layered educational phenomena such as the implementation of Project-Based Learning (PjBL) and its influence on students' reading skill development in authentic classroom environments. Through this dual lens, the researcher seeks to generate meaningful

patterns, emergent themes, and evidence-based interpretations that are grounded in participants' lived experiences.

1. Interactive Model by Miles and Huberman and Saldana

The interactive model of data analysis developed by Miles and Huberman and Saldana (Muthmainna & Siroj, 2025) is especially well-suited for qualitative case study research because of its emphasis on iterative processes, cyclical analysis, and constant engagement with data. This model consists of three key components that function simultaneously rather than sequentially:

a. Data Condensation:

Data condensation refers to the process of selecting, focusing, simplifying, and transforming raw data obtained from the field. At this stage, the researcher organizes and manages the collected data so that it becomes more structured and easier to interpret. The researcher conducts coding activities by assigning labels to important pieces of information found in interviews, observations, and documentation. These codes are then grouped into categories based on similarities in meaning or themes that emerge from the data. Through this process, irrelevant or repetitive information can be minimized so that the analysis remains focused on the research objectives. Data condensation also involves summarizing and refining

large amounts of qualitative data without losing the essential meaning contained in the information. This process occurs continuously throughout the research process, from the beginning of data collection until the final stage of analysis (Miles, Huberman, & Saldaña, 2014).

b. Data Display:

The reduced and coded data are organized into visual formats such as matrices, flowcharts, coding maps, and thematic tables. These displays help the researcher visualize relationships, compare participant responses, trace thematic development, and identify cross-case consistencies or contrasts. Visual representation is key to synthesizing complex narratives and drawing meaningful inferences from diverse data sources.

c. Drawing and Verifying Conclusions:

Conclusions are developed by interpreting the recurring patterns, relationships, and themes across the data. To ensure the robustness of the findings, the researcher applies verification strategies such as triangulation, member checking, and peer debriefing. This stage not only answers the research questions but also allows for revisiting earlier data to confirm or refine interpretations. As Muthmainna & Siroj, (2025)

emphasize, this cyclical validation process is central to establishing the credibility of qualitative insights.

H. Trustworthiness of the Data

In qualitative research, trustworthiness is a crucial aspect to ensure that the findings are credible, valid, and academically rigorous. According to Yvonna S. Lincoln and Egon G. Guba (1985), trustworthiness consists of four essential criteria: credibility, transferability, dependability, and confirmability. To fulfill these criteria, this study applies triangulation as a primary strategy to enhance the credibility and accuracy of the data.

a. Source Triangulation

Source triangulation was conducted by comparing and cross-checking information obtained from different participants. In this study, the data were collected from:

1) English teachers as primary informants
2) Eleventh-grade students as supporting informants
3) Instructional documents such as lesson plans, students' project outputs, and assessment rubrics

Data obtained from teachers regarding the implementation of Project-Based Learning (PjBL) were compared with students' interview responses and classroom observation findings. This comparison ensured that the information was not based on a single perspective

but verified through multiple viewpoints, thereby increasing the consistency and credibility of the findings.

b. Method Triangulation

Method triangulation was applied by using multiple data collection techniques to examine the same phenomenon. The techniques employed in this research include:

1) Classroom observation
2) Semi-structured interviews
3) Documentation analysis

For example, data concerning students' engagement in project-based reading activities were observed directly during classroom implementation. These findings were then confirmed through interviews with both teachers and students, and further supported by the analysis of students' project reports and reflective journals. The comparison of data obtained through different techniques minimizes bias and strengthens the validity of the research findings.

c. Time Triangulation

Time triangulation was implemented by collecting data at different points during the research process. Observations and interviews were conducted across several meetings throughout the implementation of PjBL. This approach aimed to ensure that the data reflected consistent instructional practices rather than temporary or incidental classroom situations.