

CHAPTER III RESEARCH METHOD

The methodology used to conduct this research is presented in this chapter. This chapter is divided into the following four sections: research design, research site, data collection method, and data analysis.

3.1 Research Design

This research adopted a qualitative case study. A qualitative case study is an intensive examination of a single unit (Gerring, 2004; & Stake, 2008). The researcher decided to use a qualitative case study because a case study is important for a very in-depth and thorough understanding of a phenomenon (Lucas, et al., 2018). Consequently, case studies also offer the researcher a chance to obtain a comprehensive and deep grasp of the research topic, and they can aid in characterizing, comprehending, and elucidating a research problem or scenario (Baxter & Jack, 2008). Another reason for employing case study in this research is because the strength of a case study is to not only address the 'what' research issue but also to explore the 'how' which is in line with the research questions of this study that explores the 'how' and also 'what' (Baxter & Jack, 2008; Yin, 2009; & Lucas, et al., 2018). Therefore, a qualitative case study is the most suitable method to be applied in this study because the researcher intended to look deeper into how well the implementation of project-based learning on English lesson for tourism students and discover the advantages and challenges of the implemented project-based learning on English lesson for tourism students.

3.2 Participants

The participants in this study were the 11th grade students of a vocational high school in Bandar Lampung majoring in tourism. Their English teacher was also participating in this study.

Tourism major was selected to be investigated because the number of tourists visiting the city always increases every year, but there are only three public vocational high schools that offer tourism major in Bandar Lampung.

The 11th grade students were chosen to be the participants in this study because they

used the previous curriculum when they were in 10th grade and now, they are using the recent curriculum, which made them able to identify the differences of learning English using conventional method and project-based learning method. Other than that, 11th grade students are at an important stage of their academic journey. In other words, they are close to graduating. This means they likely have a clearer understanding of their future objectives, which can influence their perspectives on different learning approaches. These reasons make the 11th grade students the best fit for this study as they can provide valuable information based on their experiences.

3.3 Data Collection

The data in this study was collected through classroom observation, group interview, and individual interview. In the ensuing subsections, each technique will be described.

3.3.1 Classroom Observation

To investigate the implementation of project-based learning on English lesson for tourism students as well as its advantages and challenges, classroom observations was conducted. The observation was conducted in the beginning of the project, in the mid of project, and in the end of the project to know how the project is started, the process of the project, and the results of the project. The observation checklists were designed based on the theories written in the literature review. The theories used to design the checklists came from various sources , including the seven essential project design elements provided by Petrovic and Hoti (2020), the principles of project-based learning taken from Larmer et al. (2015), the stages of project-based learning stated by Stoller (2006), Hamidah et al. (2020), and Sufiyanto in Setiawan (2022), and the advantages and challenges of project-based learning adapted from Fleming (2000), Lehman (2016), Hamidah et al. (2020), and Sufiyanto in Setiawan (2022). These checklists were used to help the researcher observe the implementation of project-based learning and the advantages and challenges of it. An example of an observation checklist is provided below; the complete version is available in **Appendix 1**.

Table 3.1 *Example of classroom observation checklist*

No	Elements	Principles	Yes	No	Note
1	Challenging Problem or Questions	The questions are able to stimulate students in discovering the answers			
2	Sustained Inquiry	The inquiry process can promote students' critical thinking skills and problem solving, collaboration, and self-management			
3	Authenticity	<ul style="list-style-type: none"> - Authentic in project - Authentic in the activity and equipment used in the project - Authentic in the impact of project result 			
4	Student Voice and Choice	Students are able to express their ideas and make choices during the process of the project.			
5	Reflection	This element is aimed to observe the effectiveness of activities conducted in the inquiry process, to find out the problem faced during the project, and how to overcome those problems.			

6	Critique and Revision	The critique and revision are given by teachers or other groups in order to facilitate students to find inappropriate matters in a project result and revise them accordingly			
7	Public product	Students present their project in front of the class or broader environment			

The table above shows the key elements and principles of project-based learning taken from Larmer et al. (2015); Hamidah et al. (2020); and Petrovic and Hoti (2020). The table is arranged with extra columns called "Yes," "No," and "Notes" in order to properly record the observation. During the observation, if the researcher identified that a particular element or principle was implemented in the classroom, they would tick the corresponding "Yes" column. Conversely, if the element or principle was not observed, the "No" column would be ticked. The "Notes" column serves as a space for the researcher to provide additional details or context. For example, in one instance, the researcher observed that the first element—asking a challenging question—was implemented by the teacher. As a result, the "Yes" column was ticked for that element, and the researcher noted the specific challenging question used in the "Notes" column to offer more context for understanding how the concept was implemented in the classroom.

From the paragraph above, it can be seen that the procedures used to perform the classroom observations were thorough and carefully organized. First, the researcher defined the aims of the classroom observation, which were to examine the implementation of project-based learning in the classroom, its advantages, and challenges. Then, the researcher designed the classroom observation checklists based on theories in the literature review. After the classroom observation checklists were fixed, the researcher made appointments with the teacher to schedule observations at three critical stages of the project: the beginning, midpoint, and end.

Then, the researcher conducted the classroom observation. The observation focused both on the teacher and the students. By focusing on both parties; teacher and students, the researcher can observe the advantages of project-based learning implemented on both parties, as well as the challenges both parties encountered. During the observation, the researcher filled the classroom observation checklists, made some notes, and took the field notes.

3.3.2 Group Interview

A group interview is one of the best methods for gathering qualitative data (Dilshad & Latif, 2013). When compared to other methods, group interview can produce several viewpoints and a common understanding of a subject (Ennis & Chen, 2022; & Dilshad & Latif, 2013). Thus, a group interview was considered necessary to be employed in this research in order to gain in depth information about the advantages and challenges of the implemented project-based learning from students' viewpoint.

Semi-structured interview was applied in this study. Semi-structured interviews take place informally, but the researcher employs a set of questions from an interview guide to focus on particular topics (Bryman, 2016). The interviewee is still free to respond in any manner they choose. Additionally, a series of similar (or the same) questions are addressed to all respondents, so the answers across interviews are more comparable than in unstructured interviews (Bryman, 2016). Furthermore, the order of questions may alter, and new questions may be added as probes in reaction to what an interviewee says (Bryman, 2016; & Morris, 2018). From the explanations of Bryman (2016), the researcher decided to have several guiding questions, but in order to clarify the students' answers, the researcher was able to ask new questions as well.

The selection of students for the interview was based on their varying proficiency levels—strong, intermediate, and weak—to capture a diverse range of experiences and opinions on the implementation of project-based learning. This choice was made to explore how students with different levels of English proficiency perceive the advantages and challenges of the project-based learning, considering that their experiences are likely to differ significantly. For instance,

students with higher proficiency levels might find the project challenging yet manageable, allowing them to focus on the deeper learning opportunities it offers. In contrast, students with lower proficiency levels might face more significant difficulties, which could shape their views on the challenges and perhaps even overshadow potential benefits. By including participants across this spectrum, the researcher aimed to gain a holistic understanding of how project-based learning affects students differently, depending on their language skills.

To accurately identify students within these proficiency categories, the researcher consulted with the teacher, who provided information on the students' previous final English scores. Those who had the highest scores were categorized as strong, those with mid-range scores were labeled as intermediate, and those with the lowest scores were considered weak. This method of selection ensured that the participants were appropriately representative of the varying proficiency levels within the classroom, thus enhancing the relevance and reliability of the findings in relation to the research question. By capturing the perspectives of students at different levels, the researcher was able to provide a more comprehensive analysis of the effectiveness and challenges of project-based learning.

The group interview was conducted via video conference app and was recorded. The interview was also conducted in the participants' native language to provide them better opportunities to vocalize their answers and ideas (Cortazzi et al., 2011). Below is the detail of the interview questions:

Table 3.2 *Interview Questions For Students*

Types of the Interview	Online		
Topics	Stages of Project-Based Learning	Advantages of Project-Based Learning	Challenges of Project-Based Learning
Leading Questions	1. What are the steps that you do with your	1. Do you think project-based learning enhances	1. What are the challenges that you encounter

	group members to complete your project?	your motivation to learn English? Why do you think so? 2. What are the advantages that you get from project-based learning?	during the process of project-based learning?
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3.3.3 Individual Interview

An individual interview is the most often utilized method for gathering primary qualitative data (Taherdoost, 2021). Individual interviews are used to collect detailed information about the point of view, culture, and views of key informants and participants regarding the research issue (Rutledge & Hogg, 2020; & Ennis & Chen, 2022). In this study, individual interview was conducted to the English teacher that teaches the tourism students. Individual interview was implemented in this study in order to understand more about the advantages and challenges of project-based learning that has been implemented from the teacher's viewpoint.

A semi-structured interview was used in this interview since the researcher had a set of leading questions but was also free to ask additional questions in order to get a better understanding of the teacher's responses, which is in accordance with (Fox, 2000), who claimed that semi-structured interviews are based on open-ended questions rather than closed ones, but they are comparable to structured interviews in that the subjects or questions to be asked are prearranged. The interview was conducted online through a video conference app and was recorded. The interview was conducted in the participant's native language to help them deliver their ideas better.

Below is the detail of the interview questions:

Table 3.3 *Interview Questions for Teacher*

Types of the Interview	Online			
Topics	Familiarity with Project-Based Learning	Stages of Project-Based Learning	Advantages of Project-Based Learning	Challenges of Project-Based Learning
Leading Questions	1. How often do you implement project-based learning in your classroom?	1. What do you think are the correct stages of conducting project-based learning? 2. What are the steps that you taught your students to complete their project?	1. What are the advantages that you and your students have experienced throughout the implementation of project-based learning?	1. What are the challenges that you encounter during the implementation of project-based learning? 2. How do you manage those challenges?

3.4 Data Analysis

To analyze the data, first, the researcher prepared the data for analysis by organizing it. In order to do this, interviews must be transcribed, field notes must be typed, and the data must be sorted and organized into various sorts based on the information's sources (Cresswell, 2014).

Second, the researcher read or examined all the information. At this point, the researcher begins to jot down broad observations about the data in the margins of transcripts or observational field notes. The next step is to identify the topics and describe in advance how they will be portrayed in the qualitative narrative. For the observational data, the

researcher began to label the observation checklists and field notes. For instance:

Notes:

At 8.28 AM, the teacher started asking several questions related to rules in public places, such as “Can you take pictures in a museum?”. The students said “No!” as a response. The teacher then asked the students “What are the things that should or should not be done in public places?”, and told the students that was the challenging question they required to answer. The teacher also translated the question into Bahasa Indonesia, to make sure the students understood the question they needed to address. The teacher stated “this topic was chosen because it is related to your major”.

From the notes above, the researcher was able to discover two key elements of project-based learning, namely: challenging question and authenticity. The researcher also labelled several activity types or stages in project-based learning, which includes introducing the topic to the students and asking the challenging question. However, the notes above did not reveal any advantages or challenges from project-based learning. This way of analysis helped the researcher to note the stages of project-based learning implemented in the classroom and identify the advantages and challenges encountered during the project-based learning from the observational data. As for the interview data, the transcripts were identified into several categories that relate to the research question (Cresswell, 2008). Below is the example of the categorization:

Question: What are the advantages that you get from project-based learning?

Categories: collaborative skills, confidence, library skills, problem-solving skills, creative thinking skills, self-awareness.

After breaking the data down and analyzing the details, the researcher synthesized the data, moving the data from being descriptive to more interpretative (Bruscia, 2005). Then, the researcher began to make an interpretation of the findings or outcomes. In this stage, the researcher triangulated the data from different sources to make the results valid and reliable. The interpretation of data did not come from the researcher’s own ideas (Ary et al., 2006; & Gay & Airasian, 2003). Instead, it was followed and strengthened by the previous theories from the literature review. In summary, the researcher conducted data analysis with the aim of comprehending the information, scrutinizing the data, contrasting and linking the data, and finally interpreting the data.