

CHAPTER III

METHODOLOGY

This chapter presents the methodological aspects that have been conducted in the research. It covers research designs, site and participants of the research, data collection techniques, and data analysis of the research. The method is to find out the research question, how is the implementation of PjBL in teaching hortatory exposition text and how do high school students perceive the implementation of PjBL in learning hortatory exposition text.

3.1 Research Design

The main aim of this research was to investigate the implementation of PjBL in hortatory exposition text lessons. Another objective was to present an in-depth description of students' perceptions regarding their learning activities using the PjBL method. To consider these two aims, a case study has been conducted.

A case study was used in this research for several reasons. First, the research aimed to find a more profound interpretation of how the teacher implemented the PjBL. As Klein stated (2012), the best situations for using a case study are when the phenomenon being examined is in a real-world setting, and the research question is one of 'how' or 'why.' Case study research is effective at helping people comprehend a problematic problem or topic and can strengthen or extend the knowledge gained from previous studies.

Furthermore, In the topic of language and education, the case study approach is used to find out how language teachers employ presumptions and viewpoints to guide their activities (Faltis, 1997). Second, as indicated, this study examined how students perceived PjBL activities. A qualitative case study aims to comprehend detailed behavior, perception, and interpretation. Moreover, the reports on case studies, drawings, and stories are included in the naturalistic generalizations (Stake, 2006). Therefore, the qualitative case study method was the appropriate choice for conducting this research regarding teacher implementation and exploring students' perceptions of PjBL that could contribute to the development of the students.

Additionally, the primary tool in qualitative research is the researcher, who draws directly from the surroundings as a source of data (Bogdan & Bicklen, 1982). Similarly, Yin

(2003) and Alwasilah (2008) also argue that a case study's setting is natural because it occurs in a current phenomenon within particular surroundings from real life. Finally, as Creswell (2008) argues, a researcher can use various information sources to gather data to present an in-depth and detailed description of the reactions to an event (Creswell, 2008). Hence, this study also interviewed several participants as a source of information to obtain a detailed description of their experiences in learning hortatory exposition text using the PjBL approach.

3.2 Research Site and Participants

The eleventh-grade students and one English teacher of one senior high school in Bekasi were taken as participants in the research. The researcher chose this school because it implemented project-based learning as an approach to the learning process. Moreover, as participants in this study, the students consisted of 35 people. There were some reasons for conducting the research using the students as participants: firstly, the selection of the study and participants was based on purposeful sampling. According to Patton (2002) and Sugiyono (2013), purposeful sampling presupposes the researcher's willingness to understand, gain, and discover the most insightful information possible.

Secondly, hortatory exposition text was one of the teaching materials given to the students in eleventh grade. Thus, this research suits the material based on the syllabus. Thirdly, eleventh-grade students in this school had experienced learning through the PjBL approach in other subjects when they were in tenth grade, and the teacher who introduced them to the PjBL method in the previous grade was this English teacher. In accordance with that, this teacher was chosen to become their English teacher in eleventh grade due to the teacher having a couple of experiences implementing project-based learning approaches in learning activities.

Moreover, the teacher acknowledged the PjBL from several seminars and in-house training sessions held in school. Besides that, since this school has a learning community (Komunitas Cerdas Bernas), PjBL is frequently discussed with other teachers. Therefore, this discussion forum helped this English teacher increasingly comprehend the framework of PjBL methods. Nevertheless, during this investigation, the researcher did more than conduct research. The learning task did not involve any intervention from the researcher.

3.3 Data Collection Techniques

To achieve the best results, the researcher employed three data collection techniques: documentation of students' projects, observation, and interview. These three data were collected from October 17th to November 21st, 2023. It required much time because the learning activity initially expected to be conducted in four meetings could not be accomplished due to students' preparation for the project. A detailed description of the data resources is provided in the table below.

Table 3.1 Data resources and the instrumentation

No	Data Resource	Objective	Instrument
1	Observation (Classroom Observation)	To discover teacher implementation patterns of PjBL, especially the stages of PjBL that are implemented in teaching Hortatory Exposition text.	1. Classroom Observation checklist
2	Document	To support the data from classroom observation and interview	1. Students' worksheet 2. Students' project
3	Semi-structured Interview	1. To reveal focal students' responses and perceptions on how they think about the implementation of PjBL in the classroom 2. To strengthen unforeseeable findings from observation and document analysis	1. List of interview questions

3.3.1 Observation

In this research, the researcher observed how project-based learning was implemented in the teaching and learning of hortatory exposition texts. As Fraenkel et al. (2012) mentioned, having observation allows researchers to get a more precise overview of the participants' activity. In accordance with that, the researcher utilized a video camera to record the teaching and learning process. Fraenkel et al. (2012) suggested that the researcher could gain in three ways by using a video during the observations. The video file can be repeatedly played for further research and analysis. Second, specialists or other interested parties can hear or view what the researcher saw and provide their insights accordingly. Third, a permanent record should be acquired for comparison with later or different samples.

In addition, since the researcher was only observing the learning classroom's activity without participating in the participants' activities, the researcher also used classroom observation checklists to support unrecorded data. According to Kozleski (2017), researchers can characterize individual events in educational settings by using well-considered and thoughtful field notes and video recordings, which enable them to access a wealth of data.

In order to determine whether or not the project-based learning implementation used in this class followed the steps, the researcher adopted the Buck Institute Education (2019) framework of project-based learning's four stages as the reference. The four stages are 1) launching the project, 2) building knowledge, understanding, and skills, 3) developing and critiquing products, and 4) presenting products. In addition, this research also discovered that the teacher applied the seven elements of project-based learning that refer to the gold standard of project-based learning as stated by Larmer and Margendoller (2015), which was developed by the Buck Institute of Education in 2022. According to them, all seven factors must be used to ensure that a project is successful and optimizes student learning and engagement. In summary, the steps for collecting the data in this study can be seen in the following table.

Table 3.2 Timeline of observing the learning activity

Period	Learning Activity besides the Stages of Project-Based Learning	Stages of Project-Based Learning according to	Activities
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		Buck Institute of Education (2019)	
Week 1	Choosing a project (Introduce kind of text that would be learned by students)	-	<ol style="list-style-type: none"> 1. Explaining the definition, structure, and language features of hortatory exposition text 2. Creating a group for executing the project-based learning
Week 2	-	Launching project: entry event and driving question	<ol style="list-style-type: none"> 1. Introducing students to the project by using worksheet 1. Presenting the driving question 2. Guiding the students
Week 3-4	-	Building knowledge, understanding, and skills to answer the driving question (s)	<ol style="list-style-type: none"> 1. Creating the project in group of four to five students 2. Helping students in finding the resources for their project
Week 5-6	-	<ol style="list-style-type: none"> a) Developing and critique products and answers to the driving question (s) b) Presenting product (s) and answer to the driving question (s) 	<ol style="list-style-type: none"> 1. Facilitating feedback on students' project 2. Helping students evaluate their work 3. Facilitating students to reflect on the process and learning

3.3.2 The Students' Project

Students' projects were utilized as the data to support the data from classroom observation and interviews. Documentation involves gathering the information and records required for the research problem and then reviewing the evidence for an event and its credibility. When observational data and interviews are backed up with research-related records, they become more reliable and believable (Satori, 2009). Project-based learning requires students to produce a project outcome or final product reflecting their ideas and opinions (Goodman & Stivers, 2010).

The students created various final products in this learning activity, such as infographics, fitness equipment, and healthy food. Furthermore, to make the process of discussing the project with the group effective, the teacher provided a worksheet consisting of the background of the project-based learning activity and a couple of questions that led the students to organize their ideas. This worksheet was also used for data collection since it plays a crucial role in one of the project-based learning stages.

3.3.3 Interview

The third data collection technique used in this study was an interview with the three students participating in this study. The interview data in this study was utilized to determine students' responses and perceptions of their thoughts toward implementing project-based learning in their learning activity. In addition, this interview also aimed to strengthen unforeseeable findings from observation and document analysis. According to Stake (2006), an interview is utilized by a qualitative researcher to get unique information or interpretation from the individual being interviewed and to uncover data that was not anticipated and could not be observed immediately.

The researcher used individual semi-structured interviews as the most beneficial use of this type of interview is to gather data to test a specific hypothesis that the researcher has in mind (Fraenkel et al., 2012) with open-ended questions. As Abkary (2022) stated, open-ended questions aimed to explore students' opinions, behavior, and experience; thus, students could express themselves in their own way. In this interview, the researcher arranged the interview appointments and facilitated a quiet environment where interruptions could be avoided.

Moreover, the interviews were mostly conducted using Indonesian to avoid misunderstandings. Since this semi-structured interview contained open-ended questions and discussions developed, the researcher recorded the interview process and later transcribed this tape analysis. As suggested by Dornyei (2007) and Yin (2014), using tapes or recorders will give a more accurate account of any interview instead of taking notes.

The interview questions were adapted from Affandi (2015). The questions had three indicators (Appendix 2): 1) students' experience in learning hortatory exposition text using project-based learning, 2) the advantages and disadvantages that students experienced in learning hortatory exposition text using project-based learning, and 3) students' personal feelings in using PjBL.

3.4 Data Analysis

The researcher conducted data analysis and collected the data from observations, documentation of students' projects, and interviews. To analyze the stages of project-based learning that were carried out in this study, the data analysis employed the Buck Institute of Education's (2019) project-based learning framework and the gold standards by Larmer (2015) developed by the Buck Institute of Education (2022) for classroom observation data and students' projects.

In addition, interviews and analyses of students' projects were conducted at the end of the analysis process. This was intended to cross-check, ensure, and prove the resulting data from an observation regarding students' reflection and perception. The thematic analysis (Braun & Clarke, 2006) was utilized to analyze the interview data.