

CHAPTER III

RESEARCH METHODOLOGY

This chapter outlines the research technique employed in the current study, including the research design, sites and participants, data collection techniques, data analysis, testing validity and concluding remarks.

3.1 Research Design

This study aims to investigate the implementation of game-based learning method in the teaching of English for students with intellectual disability. Additionally, it seeks to identify the challenges encountered by teachers when implementing that method. The current study is focused on two research questions: (1) How does the English teacher implement Game-Based Learning in teaching English for students with intellectual disability and (2) What challenges are faced by teachers in implementing Game-Based Learning in teaching English for students with intellectual disability.

In connection with the aforementioned research questions, the current study utilized a qualitative research method to investigate and address the research questions. The selection of this approach was determined by the concept of qualitative research, prompting the researcher to personally evaluate and identify a description that accurately represents the scenario or themes that encompass the main categories of content (Creswell & Poth, 2018). This research design aimed to investigate the implementation of the game-based method in EFL instruction and identify the problems faced during its implementation. Furthermore, as stated by Merriam and Grenier (2019), qualitative research seeks to understand events through the lens of teachers in order to communicate the researcher's specific attention on the investigation issue.

The current study employed a case study approach, where the researcher's main focus was on seeing, interpreting, and comprehending the actions taken by the teacher (Yin, 2018). Yin (2018) highlights that the case study method allows researchers to comprehensively and

meaningfully capture real-life experiences. Researchers can utilize case studies to elucidate, depict, or investigate phenomena or events within their distinct contextual frameworks. The object of scrutiny is a system with clearly defined limits, which can include a person, a program, an entity, a society, or a community. Moreover, a notable advantage of case studies is their ability to monitor the impact of events in authentic settings, acknowledging that the surrounding circumstances have a significant role in influencing both the causes and outcomes (Cohen, et al., 2007). The rationale for this decision is grounded in the attributes of case study research. The following elements are examined, together with the justification within the context of the present investigation.

The utilization of a qualitative case study methodology is suitable for this research. Further investigation should be conducted to elucidate the methods by which teachers might enhance the efficacy of game-based learning in teaching English to the learners with intellectual disability, therefore impacting the overall success of GBL implementation. This can be accomplished by qualitatively observing teaching and learning processes. Qualitative case studies are appropriate for examining the process of implementing GBL in the Indonesian setting, particularly because qualitative research is currently lacking in this area. The research participants consist of English teachers who instruct this specific student. A single case is necessary for this research, as the example is unique and provides a substantial addition to the advancement of information and theory in the literature on the utilization of GBL for teaching English to the learners with intellectual disability. Case study research is typically distinguished by a delimited system. The activity is carried out within a real-life setting and is subject to limitations in terms of time and physical space (Hancock et al, 2021). Nevertheless, the case typically remains consistent with the context (Yin, 1994). Consequently, researchers must establish the limits of each cases to gain a comprehensive comprehension of the subject being investigated.

Furthermore, the study design is influenced by the nature of the research problems. The primary aim of the current study is to examine the research questions that relate to the methods and content of investigation. Yin (2003) suggests that a case study is suitable for investigating research issues related to the processes, factors, and reasons behind a phenomenon. The objective of this study is to examine the implementation of GBL in EFL instruction for students with intellectual disability and identify potential challenges that might come up during its

implementation. A case study allows a researcher to examine how many variables have interacted to shape the distinct characteristics of the subject being studied (Bahanshal, 2013).

3.2 Research Site and Participants

This research is limited to a special school in Parepare City, Indonesia. There are two special schools in this city and based on preliminary research and direct observations carried out by researchers, this research was carried out at one of that special school in Parepare. There are several reasons why this school was chosen as a research location.

First, this special school is one of the schools in Parepare city that uses Emancipated curriculum and the only special school in Parepare city that uses this curriculum. This research aims to find out the process of teaching English in schools, and English lessons are one of the mandatory subjects in Emancipated Curriculum. Therefore, this school also teaches English as one of its compulsory subjects and is a suitable place to conduct this research with the aim of investigating EFL teaching process.

Second, based on preliminary research, it is known that there is only one English teacher at this school. This school is in accordance with this research which uses a case study approach. The case study itself is required to determine the boundaries of the case to develop an in-depth understanding of the problem under study (Hancock et al, 2021). Given the limitation of participants in this school, which only has one English teacher, it is hoped that choosing this school can provide good results in more depth regarding the matter being researched.

Third, based on a preliminary interview conducted with the teacher, she explained that she had implemented game-based learning methods as an approach of teaching English in her class. She explained that the game-based method is one of the best methods for teaching English to the learners who have disabilities. Therefore, the data obtained shows that EFL teachers at this school have implemented GBL in their teaching. So, by conducting research at this school, researchers are sure that they will get appropriate data to answer the research questions in this research.

Additionally, in the education system for students with special needs in Indonesia, there are several types of students with special needs. In order to obtain more specific and in-depth

research results, this study will focus on EFL teaching to students with Intellectual Disabilities (ID). EFL teaching to students with ID is chosen for several reasons. Based on preliminary research, it is known that in this special school there are four types of students with special needs (Students with Intellectual disabilities, Deaf students, Blind students, and Students with Autism Spectrum Disorder) and Students with ID are the most prevalent type of students with special needs compared to the other three types. Furthermore, based on statistical data from the Ministry of Education and Culture of the Republic of Indonesia in 2021, the total number of students with special needs in Special Schools (SLB) throughout Indonesia amounted to 144,621 people, with the largest proportion being intellectual disabilities, which is 80,837 students (Ministry of Education and Culture, 2021). In other words, intellectual disabilities are the most common case in special schools in Indonesia. By focusing this research on students with intellectual disabilities, it is hoped that it can have a more significant impact on English language learning for students with special needs in the future.

To conclude, considering the aforementioned explanations, this research conducted at this special school in Parepare with the research participant being the EFL teacher who has implemented game-based learning to teach English to students with intellectual disability. The selection of the present research participant was also in accordance with the concept of Relevance Sampling, which is often used in a case study. Relevance Sampling is a specialized sampling technique distinguished by its specific considerations (Krippendorff, 2019).

3.3 Data Collection Techniques

3.3.1 Instrumentation

The present study utilized a range of instruments to address its research questions. These instruments included observations, interviews and analysing documents such as document analysis (examining lesson plans). This section details the types of instruments employed for data collection, their respective purposes, and their sources. Moreover, with the utilization of a diverse range of instruments, in collection the data, this study applied triangulation and members check to fulfil the validity of the research.

3.3.1.1 Observation

An observation is employed to closely monitor and record the events and activities occurring around the respondent (Heigham & Crocker, 2009). Additionally, conducting observations benefits from obtaining a more accurate indication of the subject's (teacher's) activities (Fraenkel et al., 2012). During the observation process, researchers conducted two types of observations: observation checklists and observation field notes. The observation checklist stage is carried out concurrently with the teaching practices performed by the teacher. The indicators utilized in the observation checklist are derived from modifying the stages in the game-based learning method introduced by Hardianto and Irwan (2018). To further support or augment the data obtained through the observation checklist, the researcher also took notes (field notes) and recorded videos while observing the teacher's activities. After each observation, the researcher engaged in an informal conversation with the teacher about the class. These conversations were included in the field notes. Observations were conducted over two weeks, encompassing two meetings.

The present study, the observations focused on the teacher's activities while teaching English in the classroom. They were conducted to obtain data for the first research question on the teacher's performance in the classroom related to the game-based learning method, particularly to investigate the teacher's practice of teaching English to the learners with intellectual disabilities by implementing game-based learning. The form of observation notes and checklists were modified from Hardianto and Irwan (2018), as shown in the table below:

Table 3.1 Observation guideline (modified from Hardianto and Irwan, 2018)

No	Indicators	Meetings		Teacher's Activities	Students' Activities
		I	II		
1	Concept Explanation			The teacher introduces the core material, providing students with a conceptual understanding that serves as a foundation for the upcoming	

		game (Hardianto and Irwan, 2018)
2	Rule Explanation	The teacher detailing the rules that students need to follow during the game, including the technical aspects of gameplay (Hardianto and Irwan, 2018)
3	Playing the game	Teachers accompany and guide students when learning through game (Huizenga et al., 2017).
4	Knowledge Summarization	Teachers and students summarize the knowledge they gained or jot down essential points related to the material. (Hardianto and Irwan, 2018)
5	Reflection	Teachers and students reflecting on the learning outcomes achieved through the game-based learning experience (Hardianto and Irwan, 2018)

3.3.2.2 Interview

The interview is a social interaction that is centered around a conversation (Rubin & Rubin, 2012; Warren & Xavia Karner, 2015). Brinkmann and Kvale (2015) define an interview as a dynamic interaction between the interviewer and the interviewee, where knowledge is actively constructed. Interviews were conducted to gather data for the second study question about the challenges encountered by teachers while implementing Game-based Learning in teaching English to the learners with intellectual disability. Furthermore, these interviews were used to enhance the data gathered from observations, which addressed the first research question. Interviews allow

researchers to obtain a more profound comprehension of how people see and interpret a phenomenon, which cannot be achieved from observation alone (Gay et al., 2009). In addition, Yin (2014) asserted that interviews might offer insights into an individual's attitudes, perceptions, interests, emotions, concerns, and values regarding a certain subject or situation. Hence, interviews were done to acquire further information pertaining to the research questions with utmost clarity.

The study utilized semi-structured personal face-to-face interviews as a means of gathering data from the informants (Kim et al., 2017). Semi-structured interviews are particularly valuable for gathering data to validate a certain hypothesis that the researcher has formulated (Fraenkel et al., 2012). Interview questions can be divided into two stages. The initial stage interview questions were used to gain the teacher's verification and additional information about her instructional practices. To clarify, the main objective of the initial stage interviews is to strengthen the collected data from the observations. These interviews are also conducted to investigate the initial research problems. Meanwhile, the second stage interviews were conducted to identify the challenges encountered by the teacher in implementing game-based learning. The interview questions utilized in the study were modified from Setiawan's (2016) work. The guidelines for the first stage and second stage of the interview process can be found in the tables below.

Table 3.2 Interview guideline stage 1

Code	Categories	Questions
A	EFL Teaching Practices to students with Intellectual Disability	A1, A2, A3, A4, A5, A6, A7, A8, A9, A10, A11, A12

Table 3.3 Interview guideline stage 2

Code	Categories	Questions
B	Teacher's challenges in implementing game-based learning	B1, B2

3.3.3.3 Document Analysis

The document analysis in this study focuses on the lesson plans created by the teacher. The data, in the form of lesson plans, is gathered from the teacher consistent with the current curriculum. Document analysis will be employed to collect a wide range of clear data. These

resources are valuable for encompassing a significant duration, several occurrences, and diverse environments. In addition, as stated by Yin (2014), document analysis serves three primary functions. Initially, documents serve the purpose of elucidating ambiguous data. Next, documents have the ability to furnish precise particulars that support and validate information obtained from alternative sources. Lastly, documents play a crucial role in providing direction for the researcher when making inferences.

This study employed lesson plans to collect supplementary data on the implementation of the game-based learning approach into the English classroom. According to Richards (2008), a lesson plan serves the purpose of comprehending the procedure of establishing goals, choosing and arranging learning experiences, and defining evaluation standards.

3.3.2 Data Collection Procedure

The following subsection offers comprehensive information on the methodologies employed to collect the three distinct classifications of data. The techniques employed include observations, interviews, and document analysis specifically focused on lesson plans.

3.3.2.1 Data Collection Procedure for Observation

The data were obtained by physically visiting the classroom and using a method called non-participant observation. In non-participant observation, the researcher abstains from engaging with participants as they engage in their usual activities, such as teaching and studying (Heigham & Crocker, 2009). Data was collected during classroom observations using field notes, which included observation notes and checklists. The researcher recorded their verbal, visual, sensory, and reflective experiences in field notes while collecting data. Observations and checklist items were recorded immediately during the activities to ensure accuracy. These notes are essential as they document observations when they are still fresh in memory (Sumbayak, 2014).

When conducting the observations, a video recording was employed to document the teaching process. As recommended by Fraenkel et al. (2012), incorporating video into observations offers three advantages. Initially, the video footage can be reviewed multiple times to facilitate ongoing study and analysis. Secondly, experts or individuals interested in the research can examine

the recorded content to provide relevant insights. Lastly, the utilization of video ensures a permanent record for future comparisons with other samples. Additionally, the video recordings were utilized to capture images of the classroom's physical environment, which were included in the study's appendix.

The procedure for data collection through observation involved several structured steps to ensure comprehensive and systematic data capture (Ciesielska et al., 2018). Firstly, preparation of necessary tools such as field note instruments and checklists was crucial. Secondly, prior notification was given to the teachers to enter the classroom for observation purposes. Thirdly, the positioning of video recording equipment was strategically arranged to capture all classroom processes and learning activities effectively. Fourthly, the researcher selected an optimal location for taking field notes and using checklists without interfering with the teacher's instructional process. Finally, during the observation session, the teacher engaged in the teaching process while the researcher actively conducted observational activities.

3.3.2.2 Data Collection Procedure for Interview

The interview took place in the staff room, selected for its peaceful ambiance, which enabled the teacher to contemplate without disturbance. Throughout the interview, both questions and answers were meticulously recorded. Following Yin's recommendation (2014), audio tapes or a recorder was utilized to ensure a precise representation of the interview, surpassing the accuracy of personal note-taking. Furthermore, interview protocols guided the information-gathering process, featuring a heading, interviewer instructions, and inquiries concerning the teacher's processes and challenges while teaching English to learners with intellectual disability by implementing game-based learning.

3.3.2.3 Data Collection Procedure for Document Analysis

Prior to the teacher's implementation of the teaching method, the researcher requested a document analysis of the teacher's lesson plans. The examined lesson plans were the ones used by teachers to instruct English learners with intellectual disabilities for a duration of two weeks (consisting of two meetings) on the topic of "Mengenal Nama Buah" (Fruit Names). These plans

focused on the implementation of game-based learning techniques in English language teaching for students with intellectual disabilities.

3.4 Data Analysis Procedure

The present section offers an elaborate overview of the procedure included in figuring out data acquired through observations, interviews, and document analysis. The last part pertains to the assessment of the study's validity. The specifics of each data analysis are outlined below:

3.4.1 Data Analysis Procedure for Observation

The analysis of observation data entailed the examination and assessment of the field notes and checklists following the completion of classes. Subsequently, the data was examined and categorized according to teaching activities, specifically emphasizing the Game-Based Learning method. The data obtained from observations were categorized into five stages of Game-Based Learning activities: (1) Concept Explanation, (2) Rule Explanation, (3) Playing the game, (4) Knowledge Summarization, and (5) Reflection. The following activities have been altered based on the work of Hardianto and Irwan (2018).

Next, the observations were summarized, displayed, and then concluded in accordance with the recommendation of Hamilton and Corbett-Whittier (2012). At last, the data analyses were carried out by drawing conclusions. The data were analyzed to investigate how the English teacher implements Game-Based Learning in teaching English to children with intellectual disability. Creswell (2018) proposes that the interpretation of observational data can be elucidated through verbal explanations, thereby offering solutions to research questions.

3.4.2 Data Analysis Procedure for Interview

In order to address all research questions, the data from an interview with a teacher were analyzed using the procedures of transcribing, categorizing (coding), and interpreting, as stated by Creswell (2018). Coding facilitates the researcher's comprehension of textual data and its categorization into thematic patterns (Creswell, 2012). As mentioned in section (3.3.2.2) addressing the interview, there were two distinct categories of interviews. Consequently, the

interviews were transcribed and categorized promptly following data collection, aligning with each stage of the interview process. Coding involves the generation of codes for each interview response (Setiawan, 2016).

The teacher's replies in the initial interview were utilized to verify the conclusions obtained from the observations. Next, a comparison was made between one category and another in order to get similar findings, which will subsequently be chosen as the conclusions. Therefore, the teacher was able to provide clear and proven answers to the first and second research questions. Subsequently, the teacher's feedback during the second-stage interview was utilized to pinpoint the challenges encountered in using game-based learning method for English teaching to students with intellectual disability.

3.4.3 Data Analysis Procedure for Document Analysis

Through document analysis, the researcher gained insight into how game-based learning was planned for implementation in alignment with the current curriculum. This was achieved by evaluating the teacher's lesson plans specifically designed for game-based learning. An analysis was conducted on the lesson plans to ascertain the correlation between the planning and implementation phases. The process of conducting the document analysis involves the following steps: (1) Acquiring the necessary tools, (2) requesting the required documents (lesson plans), and (3) running the analysis. The procedure of assessing the data was indistinguishable from the other data obtained through the observation techniques. The lesson plans' data was gathered and organized then analyzed using the themes and codes produced from the theories employed.

3.5 Testing Validity

Testing the validity of the data is essential for determining its dependability. The extent to which qualitative data accurately represent the phenomenon being measured is referred to as validity in qualitative research (Gay et al., 2009). Similarly, according to Fraenkel et al. (2012), validity in qualitative research is used to authenticate the researcher's findings and prevent any potential misinterpretations. Two methods, triangulation and member checks, were employed in this study to assess validity.

3.5.1 Triangulation

Triangulation, as described by Gay et al. (2009: 208), is a fundamental method employed by qualitative researchers to validate the trustworthiness of their data. Creswell (2018) further explains that by triangulating various sources of data, researchers can analyze evidence from multiple perspectives to construct a coherent rationale. In essence, the study's findings are considered reliable when data obtained from observation, interviews, and document analysis (lesson plans) exhibit consistency.

The triangulation technique used in this research is triangulation with methods (Suparman, 2020). This technique involves reviewing all the data obtained in this research, such as class observations (checklists and field notes), interviews with teachers, and documents (lesson plans). This is done to validate the accuracy and reliability of the document analysis, as well as to assess the compatibility of the results with the findings from all data collection methods.

3.5.2 Member Check

For confirmation of the research's accuracy and dependability, Member check was performed after interpreting all the data. Member checking, as defined by Creswell (2018), ensures that the findings are consistent with the participant's feedback. The teacher was supplied with the final conclusions for member checking. This procedure entails the participant examining the researcher's work to confirm its precision and comprehensiveness, as proposed by Fraenkel et al. (2012). Hence, the conclusive results derived from the participant constitute genuine data. According to Setiawan (2016), member checking is important for obtaining authentic data and for distinguishing irrelevant information. During the process of member checking, the data or findings were provided to the participant (teacher) for the purpose of verifying her accuracy. Member checking was utilized in this study by providing the teacher with the transcription of the interview data for the purpose of verification and validation. This procedure was undertaken to verify the precision of the data and prevent any erroneous transcription or misinterpretation.

In this research, member checking was systematically employed to validate the accuracy of observation, interview, and document analysis data. After conducting data analysis, the

researcher presented the observation transcripts and findings to the teacher to confirm that they accurately reflected the teacher's actions and interactions during the learning process. Similarly, the researcher provided the interview transcripts and analysis to the teacher, allowing her to amend any discrepancies or add additional information that might have been omitted during the initial interview and analysis process. If the teacher agreed with the content of the transcripts, no further changes were required. However, if discrepancies were noted, the researcher made the necessary corrections based on the teacher's feedback before proceeding with the next steps in the research process. To ensure the validity of the document analysis, particularly the lesson plans, the researcher described and analyzed the reports and then permitted the teacher to review and verify the accuracy of the interpretations. The teacher provided feedback on whether any additions or deletions were necessary. This member checking process was conducted over several days to give the teacher more time to read carefully and provide feedback if needed. As a result, member checking confirmed that the transcripts of the observations and interviews, as well as the analysis of the lesson plans, were accurate and agreed upon by the teacher.

3.6 Concluding Remarks

This chapter has revealed the methodology of the current research and how the data is going to be analyzed. It contains the research design, the research site, and participant, the data collection techniques, and the data analysis techniques. The qualitative research design will be employed in this study and the data collected from this study will be gathered from multiple sources through observation, interview and document analysis. The data will be analyzed using the basic principle of qualitative data analysis from several experts.

