CHAPTER III

METHODOLOGY

Chapter three provides the methodology for conducting the research and a description of the research procedure to find out the answers to the research questions stated in Chapter I. This chapter presents eight main parts of the investigation: research design, participants and methods of selection, access to the research, research procedure, techniques of collecting data, and data analysis and the criteria of success.

3.1 Research Design and Method

This study utilized qualitative research with a case study design. Examining an issue, establishing an in-depth knowledge of a phenomenon, gathering information based on words, and determining the greater significance of the findings are all characteristics of the qualitative method (Creswell, 2013). This case study design applies to the research purpose, as the researcher intended to investigate the current study process in depth. Furthermore, there are other reasons why a case study was selected to address research questions. First, a case study is defined as research that genuinely investigates a scheme of several people to gain in-depth knowledge of the action that we are interested in investigating (Creswell, 2009 as cited in Mohajan, 2018). In this case, the researcher taught one class consisting of 21 students. Second, it allows for multiple types of data collection, including observation, document, an open-ended questionnaire and administered by the researcher (Lodico et al., 2010). Furthermore, the issues addressed in this study may remain relevant in the future. As a result, the study was required to provide a clear description of the current situation in the field.

3.2 Research Site and Participant

This research was carried out in one junior high school in Bandung, West Java. The researcher selected the school as the setting for the research because the researcher intended to conduct a study in a place where it provided teaching English subjects with all the integrative skills which included teaching reading skills. Furthermore, the researcher considered the place suitable because it was accessible, and the participants involved were eager to participate in this research by providing the time and information needed. The researcher was able to access the site without

facing any difficult. The researcher was also familiar with the learning environment since the researcher was pre-service at the site. Thus, the school was the ideal setting for conducting the research.

To complete this study, the chosen participants were eight- grade students. As for the students who participated, the researcher chose the students with the help of the teacher. The researcher gave the authority to the teacher to choose the class. The research took place in VIII-A. The class consisted of 21 students, 9 males, and 12 women. Furthermore, the students had not experienced non-digital gamification in reading comprehension. This reason helped the researcher get easy access to the research site, thus, supporting the feasibility of the research (Sugiyono, 2012).

3.3 Data Collection Techniques

The research employed some procedures and instruments to gather the data needed. Classroom observation, questionnaires, and interviews were used.

3.3.1 Classroom Observation

Classroom observation was conducted to find out how non-digital gamification was implemented in teaching-learning reading comprehension. The behavior, actions, and communication patterns are observed and documented in greater detail (Hamied & Malik, 2014). It was also supported by Arikunto (2002), who stated that systematic observation includes an observation guide that includes a list of activities that were observed and serves as a picture of behavioral patterns, actions, and patterns of interaction from the study participants.

In this study, the researcher acted as a complete observer for two weeks, taking notes on what occurred during each classroom meeting to enrich the data (Sugiyono, 2012). The researcher observed what the students did, listened to their responses, and actively participated in their reading (Sugiyono, 2012). To prevent missing details from the research, the researcher utilized observation field notes while implementing non-digital gamification to record the data directly (Hancock & Alqozzine, 2006). During the observation process, an observation sheet (Appendix 1) was used to learn about attitudes, activities, and behaviors during the reading teaching-learning process by utilizing non-digital gamification in the classroom. The observation field note is shown in the table below:

Table 3.1 The Observation's Instruments

The Aspects	Students' Activities
1. How are the students' activities during the teaching-learning situation?	
2. How does the student respond when the gamification element is implemented?	

3.3.2 Document

The documentation that the researcher used in this case was the students' tasks. The task was the students' reading comprehension test that was given during the lesson. the test instrument is a sheet with question items on it. The variables measured by the researcher are represented by the statements submitted in the test instrument. A test is defined as an instrument used to find or measure a specific object based on given rules (Arikunto, 2012, p. 67). Students' ability to interpret words from the reading text and identify key ideas were assessed by answering the questions using short answers. In this study, the students were instructed to read the entire text. Then, the researcher gave them a task that students had to answer the questions based on the text. The answer results were analyzed by the researcher.

3.3.3 Questionnaire

The data for the study was collected using an open-ended questionnaire by distributing google forms. Open-ended questions are those for which the researcher does not provide response options; instead, participants respond to the questions on their own (Creswell, 2012).

The objectives of this technique were to assess their perceptions of the utilization of gamification in the classroom to teach reading comprehension. In this study, open-ended questions (*Appendix 2*) were used because the researcher did not provide an optional answer. As a result, students responded to the questions with their thoughts. This form consisted of five questions. The item of questions was written in Bahasa Indonesia for better comprehension. The distribution of the questionnaire was conducted on September 16th, 2022, at noon. The questionnaire

was distributed to 18 students who agreed to fill it out after finishing all of the teaching sessions. Below shows the questions in the questionnaire:

1. Apa yang kamu suka dari sistem gamifikasi? Apakah karena *Leaderboard/Point* (stamps)/*Role (boss, secretary* dan *staff)/Rewards/Quests*(hal-hal yang harus dilakukan agar mendapatkan *stamps*)?

   (What do you like about gamification? Is it the Leaderboard/Points/Role/Rewards/Quests?)

2. Jelaskan mengapa kamu menyukai *Leaderboard/Point (stamps)/Role (boss, secretary* dan *staff)/Rewards/Quests* (hal-hal yang harus dilakukan agar mendapatkan *stamps*)?

   (Explain why you like Leaderboards/Points/Roles/Rewards/Quests (you can choose one).

3. Bagaimana perasaanmu sesudah belajar *reading comprehension* menggunakan gamifikasi?

   (How did you feel after learning reading comprehension by using gamification?

4. Apa kesulitan yang dihadapi saat belajar reading comprehension dengan menggunakan gamifikasi?

   (What were the difficulties faced when learning reading comprehension by using gamification?

5. Menurutmu, apakah gamifikasi cocok untuk pembelajaran reading comprehension? Mengapa?

   (Do you think gamification is suitable to be used for reading comprehension learning? Why?)

3.3.4 Interview

The researcher interviewed three students with different perceptions of the implementation of non-digital gamification in teaching reading. This interview was conducted on July 7th, 10th, and 14th 2023 to obtain specific details about their responses to the open-ended questionnaire. This interview occurred via WhatsApp call since the students were still on holiday. Furthermore, semi-structured interviews were employed in this study to gather information through interview

questions that permitted students to express their perspectives in their native language (Wilkinson & Birmingham, 2003). This instrument can be utilized to examine individual experiences in-depth and allow researchers to add questions to the process of explanation and elaboration (Percy et al., 2015). The interview was conducted with three students who represented three perspectives on the use of non-digital gamification in teaching reading comprehension: agree, neutral, and disagree.

3.4 Research Procedures

In this case, the researcher acted as complete observer. The procedures of this research were gathered by several steps that can be described as follows:

1. The researcher designed the lesson plan. The materials were adopted from the school teaching syllabus which was about the announcement text. In this case, the researcher divided the materials into four meetings. The meetings took place twice a week. The first and second meetings were held on September 8th and 9th, 2022. In addition, the third and fourth meetings were held on September 14th and 15th, 2022. The method of teaching that the researcher used was a genre-based approach which has four stages (Halliday, 1985 as cited in Burns, 2001). There are building knowledge of the field, modeling of the text, joint construction of the text, and independent construction of the text. This method was suitable since the genre of the text was announcement text. Also, this method has clear stages that helped the researcher to make the quest for both team and individual. The team quests that the students had to be active to discuss and do the task on time with their group were given on joining the construction of the text. Besides that, the students had to do individual quests such as answering and asking questions about the text building knowledge of the field, modelling of the text, and independent construction of the text. The table explained the lesson plan that was made as follows:

Table 3.1. The Lesson Plan

Meeting	Activities

First	The researcher gave the students context by presenting the announcement poster and gave the students a chance to ask about the text. Then, the researcher asked broad questions about the text. (*Building knowledge of the field*) After that, the researcher explained the definition, the differences, and the function of the obligation verbs. Using the same poster, the researcher explained the function of the obligation verb that is used on the poster. (*Modelling of the text*) The researcher asked students to work in groups and discuss the use of obligation verbs in the other announcements that they read or heard at school. Then, they had to mention another example of the obligation verb based on its function. (*Join construction of the text*) The researcher asked students to do an individual task about obligation and its function. (*Independent construction of the text*)
Second	The researcher gave the students context by asking the students to listen to the announcement and write it down. Then, the researcher asked them to read aloud in front of the class and ask broad questions about the text. (*Building knowledge of the field*) After that, the researcher explained the definition, the social function, the structure, the message, and the example of the announcement. Using the same announcement, the researcher explained the function and the structure of it. Then, the researcher asked questions about the message of the announcement. (*Modelling of the text*) The researcher presented another announcement and asked the students to work in groups. The students had to analyze the social function and the structure. Then, the researcher

	asked questions about the information in the announcement. (*Join construction of the text*)
	The researcher presented another announcement and asked the students to do the same task individually. (*Independent construction of the text*)
Third	The researcher gave the students context by presenting an announcement video. Then, asked the students about the message of the announcement. (*Building knowledge of the field*)
	The researcher explained the characteristics and structure of the announcement text. Using the same announcement, the researcher with students analyzed the characteristics and the structure of the announcement text. The researcher asked questions about the message of the announcement. (*Modelling of the text*)
	After that, the researcher presented another announcement and asked the students to work in groups. They had to analyze the characteristics and structure of the announcement text. They had to answer the questions based on the results of the discussion. (*Join construction of the text*)
	The researcher presented another announcement and asked the students to analyze the characteristics and the structure of the announcement text individually. (*Independent construction of the text*)
Fourth	The researcher gave the students context by presenting two different announcement posters. Then, the researcher and the students read the text. The researcher asked about the message of the announcements. (*Building knowledge of the field*)
	The researcher with students determined the differences and similarities between the two announcement posters. (*Modelling of the text*)

	After that, the researcher presented another announcement and asked the students to work in groups. They had to analyze and determine the differences and similarities between the two announcement posters. They had to answer the questions based on the results of the discussion. (*Join construction of the text*)
	The researcher presented another announcement and asked the students to analyze and determine the differences and similarities between the two announcement posters individually. (*Independent construction of the text)*

After designing the lesson plan, the researcher designed the teaching activities by using gamification. The type of game that the researcher chose was courses without internet access or non-digital gamification (Dicheva & Dichev, 2015). The researcher adopted the steps developed by Huang & Soman (2013) namely recognizing the target group and context, identifying the learning objectives, creating the structure of the experiences, identifying the source, and performing the gamification element. These steps were elaborated as follows:

Recognizing the target group and context
In this phase, identifiable elements in terms of age group, learning capacity, present abilities, and others are identified through the analysis of targets (Huang & Soman, 2013). Since the researcher chose eight grade students who are 13-14 years old, the researcher decided to teach reading the materials as their material in their first semester. There were four sessions of classroom teaching, so the system must be created based on these sessions.
The first session was used for explaining the rules of gamification and reviewing what they have learned before. In this case, the researcher asked the students whether played a game and what the element of game they found. All of them shared their experiences of playing a game.

Quests, levels, and leaderboards were the most popular answer. Then, the researcher introduced how to participate in gamification in the classroom by showing the rules which included how to get points, to do quests, and to get rewards. Since they understood, gamification was used on the first day.

Identify learning objective

In this phase, every program that is created must have a clear purpose for learning objectives to be met at the end of the course (Cugelman, 2013). Two learning objectives should be achieved, which are course objectives and classroom objectives (Hidayat, 2017).

First, course objectives, which were related to the knowledge of the materials. These objectives were taken from the syllabus. There were four-course objectives to be achieved as follows:

1. Students were expected to identify the linguistic elements (obligation verbs; must, has/have to, and should) of the announcement text based on the situation and differentiate the functions of obligation verbs.

2. Students were expected to be able to identify the social function of the announcement text and to identify information from the announcement text based on its context.

3. Students ought to be capable to recognize the characteristics and structure of announcement text based on the context of use.

4. Using a table, students were expected to identify the differences and similarities between some short and simple announcements/notices. These objectives can be fulfilled by developing and implementing an effective lesson plan.

Second, classroom objectives, which were related to the student's behavior in the class to achieve the goals. These objectives can be fulfilled by creating the structure of the experiences. There are at least six objectives; how to encourage students more active in the class, encourage teamwork, discipline pupils, and consider the class

more enjoyable. These objectives can be accomplished by properly designing and implementing the experience structure.

Create the structure of experiences

After identifying the classroom objectives, the researcher designed the structure of experiences based on them (Hidayat, 2017). These classroom objectives were completed as follows:

1. Objective: Increase the knowledge about the announcement.

   How to complete:

   The researcher asked general questions about the announcement such as where the students usually see the announcement, what the purpose of the announcement is, and so on

2. Objective: Increase students' engagement in the class.

   How to complete:

   The researcher pasted stamps on their books whenever pupils participate in class, even if they asked, made any comments, or responded to questions both about the texts and opinions.

3. Objective: Encourage teamwork

   How to complete:

   The researcher gave the pupils some group tasks to complete.

4. Objective: Encourage leadership

   How to complete:

   The researcher gave the students three points as a reward for the students who were brave to be a leader.

5. Objective: Discipline pupils

   How to complete:

   The researcher pasted stamps on their books as points for completing various tasks related to discipline, including their tasks.

6. Objective: Consider the class more enjoyable

   How to complete:

   Implementing games in the class. In this case, the researcher used game elements and traditional games such as Hangman.

To achieve these objectives, some of them were explicitly written on the quests that they had to complete every meeting, such as students' engagement, leadership, and discipline. For other objectives, the researcher applied them during the teaching-learning process.

Identify the source

The sources are the mechanics that can help teachers monitor the level of student achievement and what reward they get when they complete the quests. Tracking mechanisms, rules, levels, and feedback are the source that should be implemented to help the researcher to form current classroom instruction into a game-like composition (Hidayat, 2017). These sources were elaborated as follows:

1. Tracking mechanism

The researcher employed a leaderboard to find things simpler to display leveling to students (*Figure 3.1*). The leaderboard which had the name of the students on it is taped on the wall. Thus, pupils would be able to monitor their level each week, and they comprehended their improvements by looking at the leaderboard. Every week, students must collect the stamps as points. The total of points was counted and used for a role.

Figure 3.1 The Illustration of The Leaderboard
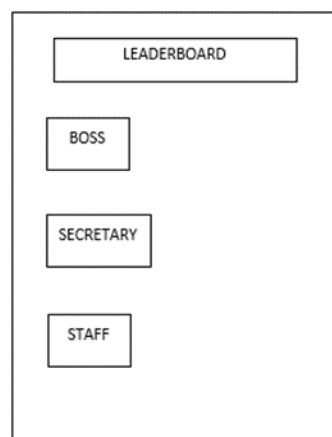
2. Rules

In addition to the course rules, several additional rules were applied. The researcher has designed several rules:

1. Each student had a different level. Everyone began the class at level 1 and worked their way up to the highest level, in this case, level 9.

2. Each section of the level that they achieved has a name as a role. Levels 1-4 are for staff, levels 5-8 are for secretaries, and levels 9 are for the bosses (*Table 3.2*).

3. To create the gamification more attractive, the researcher made several game quests that the students had to do (*Table 3.3*), which were separated into individual and collaborative quests.

4. Each quest had a point. To level up, pupils must collect stamps by finishing quests as much as possible.

5. Each student had to complete at least three daily quests in one meeting.

6. At the end of the sub-topic (announcement), the researcher would give a prize as an award for the best of the three.

3. Level

The researcher utilized stage levels in the gamification system to make sure that the students got the right role. Each student had their level, so they competed with their own latest level. Each role has the ability that the students can use when they needed help or wanted to get more points by helping others. The system is elaborated as follows:

Table 3.2 Levels and Roles

Level	Bonus	Roles	Ability
1	0	Staff	Do not have any special ability.
2	3 stamps		
3	6 Stamps		
4	9 stamps		
5	13 stamps	Secretary	Choose one friend who can help you.
6	17 stamps		
7	21 stamps		
8	25 stamps		

9	30 stamps	Boss	Can help your friend who has a "staff" role. The best of the three will get a reward.

The researcher made quests to combine the academic materials with game elements. In implementing gamification on courses without internet access, when students accomplish the task or goal of learning, badges and rewards can be made by using stickers or paper (Matera, 2015). In this case, the students had to complete some activities and get a stamp as a point to achieve the level and role. These quests were used for each meeting. These quests also encouraged students to collaborate through pair or group projects (Alsawaier, 2018; Kim, et.al, 2018) since the activities were divided into individual and teams. These quests were made to help students achieve the classroom objectives which were related to the students' behavior.

Besides that, giving the students the quests helped the researcher to implement the reading strategies. In this case, the reading strategies that the researcher used were questioning, skimming, and scanning. In the quests, the students had to do the questioning about the text and answer the questions based on the text by skimming and scanning. Then, the researcher gave a stamp to the students for doing the activities. Also, the researcher named the quests to attract the student. The quests were explained as follows:

Table 3.3 Quests

Types of Quests	Quest Name	Bonus	Quest Details
Individual Quests	"I've been here"	Daily quest + 1 stamp	Attend the class

		Be a big guy	+ 3 stamps (Bonus)	Be the team leader. Each class will be divided into 4-5 teams, so there will be 4-5 team leaders.
		I am the explorer	Daily quests + 1 stamp / for each question	Asking questions about the materials (announcements).
		Smart guy	Daily quests + 1 stamp / for each question	Answering the questions about the materials (announcements).
		Helpful friend	Daily quests + 1 stamp / each helping	Help a friend who does not have a clue about the answer to the materials (announcements).
		I am the flash	Daily quests + 1 stamp / for each assignment	Done every assignment. Whether it is in class or homework.
	Team Quest	Best team	Daily quests + 1 stamp / each student	Each student in the team acts in the class.
		Discipline guy	Daily quests	Each student in the team finishes the task on time.

		+ 2 stamps / for each student	

4. Feedback

When a student failed to complete certain "quests", the teacher gave them feedback by asking other students to give alternative answers. If no one give alternative answers correctly, the teacher gave feedback on why they failed and gave them another chance on completing the quests all over again.

Performing Gamification Element

PBLs (Points, Badges, Leaderboards) seem to be effective, functional, and meaningful gamification elements (Werbach & Hunter, 2012). Each of these components is defined as follows:

1. Points are the link between the gamification elements and the course. Students could earn points by completing quests, according to the designed gamification. The quests contained both individual and group tasks (*Table 4.3*).

2. Badge. It was related to the students' accomplishments or roles. In this case, the researcher gave the students' roles as a badge. Each role had a unique ability. It also demonstrated the students' advancement to an advanced level position in the class (*Table 4.2)*

3. Leaderboard. Pupils could find out their place in the class, while there were no particular positions where they would be able to evaluate how they compared to other pupils in the class in broad (*Figure 4.1*).

2. The researcher implemented the previously planned teaching scenario after all planning was completed. Pre-activities, main activities, and post-activities were the three main sections of the classroom activity, which are discussed further below. Pre-activities were used to begin teaching reading comprehension. The pre-activities were designed to increase students' prior knowledge of the announcement. During the pre-activities, the researcher

asked broad questions about the materials. Each session's pre-activities lasted about 10 minutes. The main activities explained the announcement including the structure, vocabulary, characteristics, and so on. Individual tasks and reflections were assigned by the researcher at the end of each session during post-activities. Also, the researcher observed the process of teaching-learning reading comprehension by using the observation's field notes. This stage of observation was needed to find out how gamification could be implemented in teaching-learning comprehension without internet access. All the activities from the beginning until the end of the class were recorded in the form of video recordings and the data from the observations were analyzed using the rubric that can be seen in Appendix I.

3. The researcher conducted an open-ended questionnaire with the students after finishing the teaching-learning process. Open-ended questionnaires aimed to match the data from the observations with the students' experiences, and also to investigate whether the students faced difficulties in the implementation of gamification in teaching-learning reading comprehension. The Open-ended questionnaires were held for no longer than thirty minutes with five questions for each student.

4. After all the data from open-ended questionnaires were gathered, the answers from the participants were broken down into several categories based on the major themes. The open-ended questionnaire's questions and answers can be seen in Appendix 2. Then, the researcher conducted a semi-structured interview with three students who represented three perspectives on the use of non-digital gamification in teaching reading comprehension: agree, neutral, and disagree to gain data in more detail.

3.5 Data analysis

In this research, observation, and questionnaire were elaborated.

3.5.1 Classroom Observation

Starting on September 8th, 2022, and lasting until September 15th, 2022, the teaching and learning took place four times. The data collected through observations was converted into an observation sheet and examined to determine the students' attitudes when gamification was implemented in teaching reading

comprehension. Activities and behaviors related to the learning process are evaluated through their responses. Due to its well-matched characteristics and suitability for use, particularly when the research participants were young students, qualitative data analysis was found to be the more appropriate application in this study (Holland, et.al, 2010). Furthermore, there were quests that students had to complete when implementing non-digital gamification. This assessment rubric's student learning activeness scoring system included at least one item for each quest. The students had to get a minimum of 4 points. Individual indicators of learning activity included asking questions, responding/answering to questions, assisting a friend, and completing the task on time. There were also team quests such as participating in group discussions and completing tasks on time.

Table 1 Table 3. Research Outcome Indicators for Student Activity

High	75% -100%
Medium	51% - 74%
Low	25% - 50%
Very low	0% - 24%

(Source: Arikunto, 2017)

3.5.2 Questionnaire

Open-ended questionnaire procedures were used to analyze the data, implying What, How, Where, When, Why, and Who for each questionnaire and each answer will be evaluated. Thematic analysis was employed thoroughly and methodically to analyze the data. Thematic analysis is a technique for identifying, analyzing, and reporting data patterns (themes) (Clarke & Braun, 2013). In general, qualitative data analysis can be divided into five steps: compiling, disassembling, reassembling, interpreting, and concluding (Sutton & Austin, 2015). First, the researcher must familiarize herself with the data by compiling it (Clarke & Braun, 2013). Following the collection of data, the researcher attempted to become acquainted with it by reading and comprehending the meaning of the student's responses. Second, the researcher disassembled the data and created meaningful groupings (Castleberry & Nolen, 2018). The researcher did a process through coding during this phase. The researcher extracted and examined all data related to that code across the entire data. For example, the students responded "like" by

saying "enjoy, excited". Third, the researcher reassembled the data that was placed in context with each other to establish themes. (Castleberry & Nolen, 2018). The researcher paired several codes into a single theme during this phase. For example, students who responded with "it is more enthusiastic, fun, and exciting" were allocated to "excitement." Fourth, the data must be interpreted by the researcher. (Castleberry & Nolen, 2018). The researcher emphasized analytical results from the data presented as codes and themes during this phase. Last, the researcher concluded. Conclusions are the response to the research questions (Yin, 2015).

3.5.3 Interview

The researcher used a descriptive analysis procedure to analyze the interview (Lodico et al., 2010, Sugiyono, 2012). The analysis of interview data was carried out in stages. First, the voice recording was converted to text and the students' names were concealed as pseudonyms. The transcript was subsequently verified with the students to ensure that it was the same as what they said and meant. This was done to ensure the transcription's accuracy (Cresswell, 2013). Then, the transcript was translated into English and classified based on the chosen theme.

3.6 Concluding Remark

The framework of problems, research design, site and participants, data collection techniques (classroom observation, questionnaire, and interview), and research procedure are all clarified in this chapter. The data analysis from the classroom observation, open-ended questionnaire, and interview are also covered in this chapter. The research findings and discussions will be discussed in the following chapter.