CHAPTER III
RESEARCH METHOD

1.1. Research Design

This research utilized a mixed methods approach. This research is a stage of study that combines two previously existent types of research: qualitative research and quantitative research. The survey method is a useful research methodology that can be utilized as a systematic data-gathering instrument in large-scale studies (Borg and Gall, 1989; Smith et al., 1994). Individual interviews and questionnaires are both survey instruments. Such strategies frequently yield quantitative results (Borg and Gall, 1989).

This study utilizes mixed methods, with quantitative data collected and analyzed in the form of a questionnaire, which is used to answer the first question, and qualitative data collected through deep interviews to identify language barriers and solutions to language barriers.

Question one utilizes surveys for quantitative research. A survey is a research strategy that gathers data from a predetermined group of respondents to gather knowledge and insights into various topics of interest. Surveys are frequently used in many disciplines, including social sciences, marketing, public health, and education, to collect quantitative data by administering speech tests and qualitative data by conducting interviews. The second question employs qualitative research methods, specifically interviews.

1.2. Population

The respondents used a group of respondents with the ability to use Roblox with a respondent of 32, and then 5 random respondents from 32 will give interviews.

This study used a purposive sampling strategy. A purposeful sample is obtained by taking participants rather than focusing on a specific goal. Purposive sampling is a sample determination technique with certain considerations in Sugiyono, (2016: 85). The reason for using this purposive sampling technique is

that it is suitable for use in quantitative research, or research that does not carry out generalizations according to Sugiyono, (2016: 85).

Criteria used as a research sample include students regularly active in Roblox's communities. Students learning English as a second language, students who have been using Roblox for at least 3 months, and students from Senior High School who have gained knowledge about the topic of Nature and Culture phenomena (Elvy Usmirawati, 2021)

1.3. Data Collection

Data Collection According to Donald Ary (2002:435), qualitative research may also use written records to acquire comprehension of the topic under investigation. There are several methods for collecting data, including interviews and questionnaires. In this study, the writer collects data using a Questionnaire and interview.

3.3.1. Questionnaire

To answer question number 1, the researcher use an instrument in the form of a questionnaire which is prepared by providing complete answer choices so that respondents only choose one of the answers provided. This questionnaire was given to 32 respondents. The purpose of this questionnaire is to find out how students perceive Roblox games to enhance the English language of students.

The questionnaire contains instructions for filling out, number one asks the respondent to write their identity in the column provided, number two, from the five answer choices available, choose the one that suits the condition and opinion of the respondent (each statement can only be filled in with one answer). Number three put a tick or cross in the answer column provided with the alternative answers provided (alternative answers include 1, 2, 3, 4, 5). The identity of the respondent will be kept confidential.

Before replying to a list of questions or assertions. First, respondents must provide their entire name and school of origin. The respondent must next read and understand the questionnaire before selecting a tick in the answer column that

corresponds to actual reality. This questionnaire was created based on the player's understanding of utilizing Roblox.

The questionnaire contains 20 questions for respondents. The content consists of several indicators, including relevance to learning, Improving English Language Skills, Perseverance, Independent Learning, and motivation. Each questionnaire has five alternative answers which include Strongly Agree, Agree, Undecided, Disagree, and Strongly Disagree. The answer score of the five alternatives moves from a score of 1 to 5. For positive statements, the answer is a Strongly Agree score of 5, Agree score of 4, Neutral score of 3, Disagree score of 2, and Strongly Disagree score of 1. Giving scores to respondent's answers is intended to facilitate data processing. Next, it is arranged in the form of a positive statement with alternative answers.

3.3.2. Interview

An interview is a data-gathering technique in which two parties engage in a conversation with a specified objective, the interviewer as the questioner and the interviewee as the answer to the question. The author will follow regular interview guidelines. Interviews occurred to collect data and complete the questionnaire instrument. It is intended that applying this technique will result in direct, flexible, and open communication, allowing for the collection of more information.

Interviews section, the researchers may ask similar questions to individuals from the intended sample. The questions given to respondents included limited proficiency, misunderstanding, technical language, and cultural differences. This helps to identify any uncertainties, misunderstandings, or issues and solutions toward the language barrier to answering the second question about language barrier. Then, during the interview, collect in-depth information directly from participants using open-ended and flexible questions. This aids in the identification of linguistic obstacles among responders in question 2.

3.4. Data analyze

Before describing data about students using the Roblox game to enhance their English language, a requirements test is first carried out, namely the validity and reliability of the questionnaire.

3.4.1. Validity of the Questionnaire

The validity of the Questionnaire is a measure that determines the level of validity of an instrument. A valid instrument has high validity. An instrument is considered to be valid if it can measure the required value.

To do a validity of the questionnaire using the SPSS application. Bivariate Pearson is a common testing approach used by researchers to assess validity. This analysis is performed by comparing each item's score to the total score. The total score is the sum of all things.

3.4.2. Reliability of the Questionnaire

The reliability of the Questionnaire is an important step in verifying that a questionnaire consistently assesses what it was designed to measure. It evaluates how well a test or instrument generates stable and consistent findings across multiple applications.

To do a Reliability questionnaire using the SPSS application. Cronbach's alpha is a common testing approach used by researchers to assess Reliability. Cronbach is the test most commonly used to determine the reliability value of questionnaires. Cronbach's is a number between 0 and 1. An acceptable reliability score is > 0.6 (Heale & Twycross,2015) Goal of reliability of the questionnaire is to know if the questionnaire is reliable or not.

3.4.3. Interview result

The data collected will be processed by the author using a qualitative approach, the author will analyze the data obtained from the interview and then analyze it. The methods used to analyze the data are as follows:

a. Inductive analysis

It involves examining specific data or events to derive general conclusions or patterns. It's a bottom-up approach where

observations are made, and then broader conclusions are drawn based on that observation.

Researchers gather data from specific cases or events, often through observation, interviews, surveys, or experiments. They then analyze this data to identify recurring patterns, themes, or trends. From these observations, they formulate broader theories, hypotheses, or generalizations.

b. Deductive analysis

involves starting with general principles, theories, or hypotheses and then testing them against specific data or observations. It's a top-down approach where researchers begin with established theories or hypotheses and then gather data to confirm or refute them.

Researchers begin with a theory or hypothesis based on existing knowledge, literature, or conceptual frameworks. They then collect data to test this theory or hypothesis. The analysis involves comparing the collected data with the expected outcomes predicted by the theory. The goal is to determine whether the data supports or contradicts the initial hypothesis.

c. Comparative analysis involves examining multiple data sets, opinions, or existing information to identify similarities, differences, or patterns. It focuses on understanding relationships and contrasts between different data points or viewpoints.

Researchers gather data from multiple sources or contexts and analyze them side by side. They look for commonalities, differences, trends, or relationships between the data sets. The goal is to gain insights into how various factors influence outcomes or behaviors.