

CHAPTER III

RESEARCH METHOD

A. Research Design

This study applies a descriptive quantitative research methodology, which focuses on collecting and analyzing numerical data to describe characteristics, trends, and patterns within a population without manipulating any variables. The main aim is to present a statistical overview of the speaking proficiency of Mobile Legends players within the English Education Department, using measurable indicators. This research design does not seek to determine causality, but rather to quantify existing phenomena based on structured responses. Data in this study were collected through structured interview questionnaires, which consisted of closed-ended questions evaluated using a numerical scale.

Descriptive quantitative research is used to describe phenomena as they naturally occur, based on responses gathered from a defined population using standardized instruments. It focuses on identifying the level, frequency, or extent of variables under study through numerical data. This method is well-suited for educational contexts where the researcher aims to understand how a population performs in a specific area, in this case, speaking proficiency, by calculating statistical measures such as mean scores, percentages, and standard deviations. As the data are derived from structured interviews with standardized rating rubrics, the analysis remains

objective and quantifiable, fulfilling the core purpose of descriptive quantitative inquiry (Sugiyono, 2016).

Descriptive research does not involve hypothesis testing or variable manipulation but rather provides a clear depiction of the current conditions or practices based on quantitative data. It is particularly valuable when seeking to evaluate competencies, such as language skills, in real-life settings (Arikunto, 2010). Through this approach, researchers can document the speaking abilities of participants across various aspects, vocabulary, grammar, fluency, pronunciation, and comprehension, using structured instruments aligned with recognized frameworks such as (Brown, 2010) and (Europe, 2020). These theoretical foundations help ensure the reliability and validity of the speaking assessment conducted during the study.

This study employed a dual-instrument approach to collect data. For the vocabulary, grammar, and comprehension dimensions, a structured assessment was administered via Google Forms to ensure consistency and standardized responses among all participants. Meanwhile, to evaluate fluency and pronunciation, the study utilized audio recordings (voice notes), allowing for a direct and authentic analysis of the participants' oral performance. This combined methodology is particularly appropriate for assessing the diverse dimensions of speaking proficiency among Mobile Legends players in the English Education Department, as it enables efficient statistical processing while maintaining the depth of practical speaking assessment.

This study adopts a descriptive quantitative research design to systematically describe speaking proficiency levels across five targeted criteria: vocabulary, grammar, fluency, pronunciation, and comprehension among Mobile Legends users in the English Education Department. Rather than a traditional interview, this study utilizes a structured assessment consisting of an objective digital test and recorded oral performances. The use of standardized tasks facilitates objective data collection, reducing variability in respondent interpretation and enabling numeric scoring that supports rigorous statistical analysis. This research design is particularly effective for capturing measurable evidence of language skills, as evidenced by the instrument's high reliability (Cronbach's Alpha of 0.930) and validity (r-count values up to 0.970). Consequently, this approach ensures an accurate depiction of speaking abilities without manipulating variables, providing clear insights into the proficiency strengths and weaknesses of respondents within their specific educational context. Furthermore, snowball sampling was employed as the non-probability sampling technique to identify and reach the specific population of active Mobile Legends players within the department.

In this method, initial participants who meet the criteria are selected purposively and then asked to refer other potential participants who also meet the same qualifications. This process continues until the desired sample size is achieved. The method is likened to a snowball rolling down

a hill, gradually accumulating in size as it picks up more snow, in this case, more participants (Naderifar, Goli, & Ghaljaie, 2017).

The validity of research is significantly influenced by the appropriateness of sampling strategies, especially in applied linguistics (Brown, 2010). By carefully selecting participants through peer nomination within a defined social group, this study ensures that the data collected reflects the authentic experiences of English learners who are also Mobile Legends players. The decision to employ snowball sampling in this study is based on its suitability for reaching a specific and interconnected target population: students in the English Education Department who actively play Mobile Legends. This technique is considered relevant and effective because it enables the researcher to identify participants through social referrals, which is especially beneficial when the full population list is not readily available or accessible.

In the process, an initial participant (referred to as Participant A) is then asked to recommend other students who also meet the research criteria, such as Participants B, C, and D, who are known to be active Mobile Legends players. This chain-referral process allows the sample to grow naturally through established peer connections, which is a key feature of snowball sampling. Snowball sampling is useful when the sample frame is difficult to determine, and the population possesses specific characteristics. In this case, the required participants are not only English education students but also gamers, making the population somewhat limited and specialized.

Therefore, starting with one or two known participants and expanding the sample through their recommendations ensures greater efficiency and relevance in data collection (Sugiyono, 2016).

Moreover, since gaming communities, especially in multiplayer online battle arena (MOBA) games like Mobile Legends, often operate within close-knit social networks, snowball sampling mirrors the organic structure of these communities. It provides a natural and strategic way to access individuals who are directly involved in the gaming environment and are therefore appropriate subjects for the research focus on speaking proficiency in English.

B. Research Setting

The study was conducted at the English Education Department (Tadris Bahasa Inggris), Faculty of Tarbiyah and Teacher Training, Universitas Islam Negeri (UIN) Antasari Banjarmasin. The institution is recognized as one of the leading Islamic universities in South Kalimantan and provides an academic environment that integrates Islamic values with contemporary educational practices. This study was carried out during the period from October to December 2025, involving students from various academic years within the department. The participants were chosen as they represent an active group engaged in both formal English instruction and informal English exposure through digital platforms.

The situational context of this research is influenced by the increasing popularity of Multiplayer Online Battle Arena (MOBA) games,

particularly Mobile Legends: Bang Bang, among university students. Many learners within the program actively participate in online gameplay where communication, coordination, and teamwork frequently occur in English through voice chat, text messages, and strategic interaction. This habitual engagement with an English-mediated gaming environment creates a relevant setting to examine speaking proficiency, especially in terms of spontaneous language use, fluency, and communicative strategies beyond the formal classroom context.

C. Population and Sample/Participants

The subjects of this research are students enrolled in the English Education Department (Tadris Bahasa Inggris) at the Faculty of Tarbiyah and Teacher Training, Universitas Islam Negeri (UIN) Antasari Banjarmasin. Participants were selected from across all academic cohorts, without restriction to a specific year of entry, to allow broader representation of the department's student population.

1. The first criterion required that all respondents be officially registered students of the English Education Department (Tadris Bahasa Inggris) at UIN Antasari Banjarmasin, regardless of their academic cohort. This broader inclusion allows the study to capture a more comprehensive representation of students within the department, each of whom shares a similar disciplinary orientation in English language studies.
2. The inclusion of 28 participants from the English Education (TBI) Department who have played Mobile Legends for at least one year is

essential to this study. This specific criterion ensures that participants have had sufficient exposure to the game's interactive communication features, such as team chats, strategic coordination, and English gaming terminology. Such prolonged engagement over at least a year allows these communicative interactions to serve as more reliable indicators of the students' speaking proficiency within the context of language learning.

D. Data

To assess the speaking proficiency levels of students who play Mobile Legends, this study utilizes a comprehensive assessment as the primary research instrument. This instrument evaluates three aspects: vocabulary, grammar, and comprehension, through a questionnaire, while fluency and pronunciation are evaluated through recorded oral performances. These oral performances allow for a direct assessment of the participants' actual speaking abilities, which are then measured using a standardized scoring rubric.

The primary source of data in this research consists of firsthand information obtained directly from the participants. The data were collected. Given that all participants are enrolled in the English Education Department, it is assumed that they have obtained essential instruction and practice in speaking, providing a sufficient basis for assessing their speaking proficiency. Their responses served as the main foundation for analyzing

the relationship between online game usage and speaking proficiency through a descriptive quantitative approach.

E. Technique of Data Collection

This study employs a descriptive quantitative approach to investigate the speaking proficiency levels of English Education students who actively play Mobile Legends. Data were collected using a structured speaking test comprised of integrated objective items for vocabulary, grammar, and comprehension, along with oral performance tasks specifically designed to measure fluency and pronunciation. The instrument was administered using a Google Form to ensure standardized delivery and to provide a clear, structured format for participant responses. To evaluate fluency and pronunciation, the assessment included oral performance tasks where participants provided voice recordings sent directly to the researcher, ensuring an authentic and direct measurement of their speaking abilities. This digital platform also enabled respondents to easily request clarification regarding any items they found unclear, thereby supporting the consistency and accuracy of the data collection process. The steps are described below:

1. Recruit students from all academic cohorts of the English Education Department (Tadris Bahasa Inggris) at UIN Antasari Banjarmasin who voluntarily participate in the study.
2. Participants are kindly requested to complete the online speaking proficiency assessment, which is provided via Google Form.

3. The Google Form contains 12 objective items representing vocabulary, grammar, and comprehension.
4. To evaluate fluency and pronunciation, participants were given a specific oral performance task. In this task, they were required to record their speech while describing their favorite hero in Mobile Legends, explaining the hero's abilities (skills), and sharing a strategic approach on how they utilize that hero to win a team fight.
5. All participants are required to complete the full set of items in the form.
6. Data are collected through Google Form responses and oral recordings, which are then compiled for scoring and statistical analysis.
7. Objective responses are scored automatically, and oral tasks are assessed using a standardized rubric to maintain objective results.
8. Each assessment aspect is weighted at 20 points, contributing to a total maximum score of 100. The objective items are scored automatically, while the oral performances are evaluated based on a standardized speaking rubric.
9. To accomplish the research purpose, the collected scores are processed to calculate the mean (average) speaking competence level of Mobile Legends-playing students, both in terms of total score and individual speaking aspects.
10. Collected scores are tabulated, and descriptive statistics (mean, standard deviation, frequency distribution) are computed for each aspect and overall proficiency.

11. Score categories are interpreted according to (Europe, 2020) descriptors and adapted levels (Brown, 2010).

F. Research Instrument

In this study, the primary instrument used to gather data was a structured speaking proficiency assessment, specifically designed to evaluate five key components: vocabulary, grammar, fluency, pronunciation, and comprehension. The instrument comprised 12 objective items to assess vocabulary, grammar, and comprehension, along with oral performance tasks to evaluate fluency and pronunciation. This assessment was aligned with the theoretical frameworks of (Brown, 2010) and CEFR (Europe, 2020). The purpose of the test was to assess the participants' speaking proficiency in a measurable and systematic manner, particularly in relation to their involvement with the Mobile Legends game.

1. The instrument was developed by the researcher to evaluate the five speaking components through a combination of objective items and oral performance tasks that elicited spontaneous responses. The item validity was examined using Corrected Item–Total Correlation analysis, which confirmed that all items were valid for this study. To ensure objective scoring, the objective responses were scored automatically, while the oral performances were assessed using a standardized analytical rubric.

Table 3.1 Scoring Rubric Questionnaire

Category	Number of Items	Scoring per Item	Max Raw Score	Weightage/Conversion	Max Section Score
Vocabulary	4 Items	1 point correct answer	4	x5	20
Grammar	4 Items	1 point correct answer	4	x5	20
Comprehension	4 Items	1 Point correct answer	4	x5	20
Total Objective	12 Items		12		60

Table 3.2 Scoring Rubric Oral Performance

Fluency	Pronunciation	Converted score = x4
Speech is very fluent, with no unnatural pauses;	Pronunciation is highly accurate; intonation is	20

the description flows effortlessly.	appropriate and very easy to understand.	
Speech is fluent with minor pauses (1-2 times) that do not interfere with the message.	Pronunciation is clear; minor local accent is present but remains very easy to understand.	16
Speech is somewhat hesitant; there are several fillers (e.g., "uhm", "err") during thought processing.	Pronunciation is generally clear, though a few words may be mispronounced.	12
Frequent long pauses; repetitive words; the description is fragmented and disconnected.	Numerous pronunciation errors; requires extra concentration from the listener to understand.	8
Very hesitant; unable to complete sentences or finish the hero description.	Pronunciation is highly inaccurate, making the speaker's intent difficult to comprehend.	4

2. The scoring rubric included five performance bands ranging from 1 (Very Poor) to 5 (Excellent) for each component. A total score was calculated by summing the scores from all five aspects, with

classification levels ranging from Very Poor to Excellent, providing a descriptive summary of each participant's speaking proficiency level.

3. This instrument not only allowed for consistent data collection across participants but also ensured that the analysis could be conducted quantitatively using descriptive statistics, in line with the descriptive quantitative approach of the study.

G. Data Analysis

This study employs a descriptive quantitative approach to analyze the speaking proficiency levels of English Education students who actively play Mobile Legends. The data were collected through a structured assessment and analyzed using a rubric that evaluates five key aspects: Vocabulary, Grammar, Fluency, Pronunciation, and Comprehension. The instrument consists of 12 objective items and oral performance tasks, with each of the five aspects weighted equally to reach a maximum score of 100.

1. The assessment of participants' speaking performance was based on an analytical scoring rubric adapted from (Brown, 2010) and (Europe, 2020). The rubric evaluated five key components of speaking: Vocabulary, Grammar, Fluency, Comprehension, and Pronunciation.
 - a. 5 – Excellent
 - b. 4 – Good
 - c. 3 – Fair
 - d. 2 – Poor
 - e. 1 – Very Poor

2. The maximum possible score a participant could achieve was 100 (each aspect received a score of 5). Based on the cumulative score, the proficiency level of each respondent was categorized into the following bands:

Table 3.3 Cumulative Score

Skor Total	Level
90-100	Excellent
75-89	Good
60-74	Fair
45-59	Poor
0-44	Very Poor

To address the research objectives, the collected data were analyzed using descriptive statistical analysis processed through IBM SPSS Statistics version 25. Raw scores from the objective items and oral performance tasks were calculated and converted into a 100-point scale. These scores were then categorized into proficiency levels to determine the participants' average speaking proficiency.

3. To determine the general level of students' speaking proficiency, the mean score of the participants is calculated. According to the statistical theory proposed by (Sugiyono, 2019). The formula used is: **Mean (\bar{x}) = $\Sigma x / n$** Where:

Figure 3.1 Mean Formula

$$\bar{x} = \frac{\sum x}{n}$$

\bar{x} : The average score.

$\sum x$: The sum of all individual scores.

n : The total number of participants.

4. To categorize the students into their respective proficiency levels, the percentage formula is utilized. The percentage of the data is calculated using the following formula (Sudjino, 2018):

Figure 3.2 Percentage formula

$$P = \frac{f}{n} \times 100\%$$

P : Percentage.

f : The frequency of students in a specific category.

n : The total number of participants

5. To ensure the accuracy of the research instrument, the validity of the items is assessed before the data is further analyzed. The Point-Biserial Correlation formula is employed to measure the relationship between each item and the total score. According to (Arikunto, 2010), the calculation is performed using the following formula:

Figure 3.3 Formula of Point-Biserial Correlation

$$r_{pbi} = \frac{M_p - M_t}{\sigma_t} \sqrt{\frac{p}{q}}$$

rpbi: Point-biserial correlation coefficient.

Mp: Mean total score of participants who answered the item correctly.

Mt: Mean total score of all participants.

σt: Standard deviation of the total scores.

p: Proportion of participants who answered correctly.

q: Proportion of participants who answered incorrectly (1 – p).

6. The use of descriptive quantitative analysis provides a clear picture of students' current speaking abilities without manipulating any variables, in line with the non-experimental nature of this research.

H. Technique of Data Validity

To ensure the accuracy, credibility, and reliability of the data collected in this study, data validity procedures were applied to the research instrument. Validity refers to the degree to which an instrument accurately measures what it is intended to measure (Sugiyono, 2016).

The validity of the objective items in this study was examined using empirical validity testing, specifically the Corrected Item–Total Correlation technique through SPSS. For the oral performance tasks, validity was ensured through the application of a standardized scoring rubric based on established theoretical frameworks. These approaches were chosen to

ensure that each component of the instrument effectively measures the students' speaking proficiency.

In this procedure, each item in the questionnaire and oral performance was correlated with the total score of its respective construct. According to (DeVellis, 2016) and (Sugiyono, 2019), To determine the validity of the research instrument, the corrected item-total correlation value is compared with the *r*-table critical value. For a sample size of $n=28$ at a significance level of 5%, the *r*-table value is identified as 0.374. Consequently, an item is considered valid when the corrected correlation value is 0.374 or higher, indicating that the item contributes meaningfully to measuring the intended variable.

Table 3.4 Item Validity Decision Criteria for $n=28$

Correlation Value (rcount)	Critical Value (rtable)	Decision
≥ 0.374	0.374	Valid
< 0.374	0.374	Invalid

The use of Corrected Item–Total Correlation aligns with standard practices in quantitative educational research, as it provides evidence of construct validity based on actual participant responses. This approach is particularly suitable for descriptive quantitative studies utilizing non-probability sampling techniques such as snowball sampling, where empirical validation helps ensure that the retained items accurately represent the constructs being measured.

Additionally, to support the overall validity and reliability of the assessment process, the scoring rubric used in the study was adapted from established frameworks, including (Brown, 2010) and (Europe, 2020). These sources are widely recognized in language assessment and provide theoretically grounded criteria for evaluating speaking performance, thus strengthening the construct validity of the instrument.

By applying empirical validity testing through SPSS and utilizing internationally recognized assessment rubrics, the researcher ensured that the instrument met academic standards and produced trustworthy data for subsequent analysis.