

CHAPTER III

RESEARCH METHODOLOGY

A. Methodology of Research

This study utilized survey design. Creswell (2012) explains that survey designs are methodologies utilized in quantitative research where researchers distribute surveys to a sample or the entire population to elucidate the attitudes, opinions, behaviors, or characteristics of the population. Creswell further asserts that surveys are instrumental in pinpointing significant beliefs and attitudes held by individuals. Consequently, survey design was deemed the most suitable approach for this study and was selected for implementation.

The survey method has chosen for two main reasons. Firstly, it helped ensure that the data collected with comprehensive. Surveys were typically straightforward and used simple statistical tools to analyzed data (like descriptive statistics). They served to add more information to the research, making the final description of the findings thorough and convincing. Secondly, researchers might have found that they needed more comprehensive research results after collecting and analyzing initial data. Therefore, they might have chosen to conduct further research to gain a better understanding of the subject.

With this method, the author aimed to describe the student's perception of ChatGPT as a tool writing assignment in English study program at Baturaja University.

B. Operational Definition

The title of this study is “The Students’ Perception of ChatGPT as a Tool in Writing Assignment at English Study Program Baturaja University.” In this research, two key terms need to be explained clearly: the use of ChatGPT in the learning process and how students perceive it.

- 1) **Students’ perception:** Students' perception of ChatGPT as a tool in writing assignment have been operationally defined as the cumulative score derived from responses to a multi-Question questionnaire. This questionnaire is measured various dimensions of perception, including Perceived Usefulness, Perceived Ease of Use, Trust/Reliance, Perceived Superiority/Preference, and Enhanced Understanding of English Grammar Rules. Respondent to collected using a Likert-type scale (e.g., 1 = Strongly Disagree to 5 = Strongly Agree), where higher scores indicate a more positive perception towards ChatGPT's use in essay writing.
- 2) **ChatGPT as tool in writing assignment:** In this study, ChatGPT as a tool in writing assignment is operationally defined as the use of the ChatGPT application by students to support the completion of academic writing tasks. This definition is based on students’ self-reported engagement and interaction, which to measured through a closed-ended questionnaire. The aspects observed include the frequency of ChatGPT usage, the purpose of use, and students’ overall experience in using the tool. Frequency refers to how often students use ChatGPT during the writing process. The purpose of use covers various writing-related functions, such as grammar correction,

idea generation, sentence structure improvement, vocabulary selection, outline creation, and translation. Meanwhile, user experience reflects students' perceptions regarding ease of use, feature effectiveness, response clarity, and their level of satisfaction in using ChatGPT. All of these aspects from measured through questionnaire Questions using a Likert scale. The main focus of this variable is on how students actually apply ChatGPT in the practice of completing their academic writing tasks, without being limited to any specific language.

3) Place of Research

This research, researcher take place at Baturaja Univesity located on Jl. Ratu Penghulu Number 2301, Karang Sari, Baturaja, Tanjung Baru, Kec. Baturaja Timur, Kab. Ogan Komering Ulu, Sumatera Selatan.

B. Population and Sample

1) Population

According to Sugiyono (2017, p.117) population is a generalization area consisting of objects/subjects that have certain qualities and characteristics determined by the researcher to be studied and then conclusions drawn. The population is not only humans but also objects and other natural objects. The population is also not just the amount that exists in the object or subject under study, but includes all the characteristics / characteristics possessed by the subject or object.

The population of this research are the English students in faculty of Teacher Training and Education at Baturaja University with. So, the total population are 93 students. The details as follows:

Table 3.1
The population of the Research

No	Students of English Study Program at Baturja University	Number of Students
1	Semester 2	30
2	Semester 4	26
3	Semester 6	22
Total		78

Sources. faculty of Teacher Training and Education at Baturaja University 2025/2026

2) Sample

According to Sugiyono (2017, p.118) sample is part of the population that has the same characteristics as the population. The sample is part of the number and characteristics possessed by the population. If the population is large, and the population is not able to study everything in the population, for example due to limited funds, manpower and time, the researcher can use samples taken from that population. What was learned from the sample, the conclusion would be applicable to the population. For this reason, samples taken from the population had to be truly representative.

The sampling technique used in this research employs convenience sampling method. According to Sugiyono (2017, p.85), convenience sampling involves selecting respondents based on ease,

meaning those who are willing to fill out the questionnaire. Convenience in this context refers to respondents being chosen because they happen to be in the right place at the right time, and their willingness to complete the questionnaire.

In this research the students that the sample are from semester 2,

4. The details as follows:

Table 3.2
Sample of the Research

<i>No</i>	<i>Students of English Study Program at Baturaja University.</i>	<i>Number of Students</i>
1	Semester 2	30
2	Semester 4	26
Total		56

Sources. faculty of Teacher Training and Education at Baturaja University 2025/2026

C. Validity of the Instrument

To ensure that the research instrument accurately measured the intended variables, the researcher conducted a content validity assessment through expert judgment. Content validity refers to the degree to which the items in an instrument adequately represent the construct being measured (Cohen, Manion, & Morrison, 2018). In this study, the instrument was a Likert-scale questionnaire designed to explore students' perceptions of ChatGPT as a tool in writing assignments.

The questionnaire was adapted from Zebua and Katemba (2024) and structured according to the Technology Acceptance Model (TAM) proposed by Davis (1989), which includes three core indicators:

Perceived Usefulness, Perceived Ease of Use, and Trust/Reliance on ChatGPT for Grammar and Writing Accuracy.

This theoretical framework was chosen due to its wide application in educational technology research and its relevance in measuring user interaction with digital tools.

To assess the instrument's content validity, the researcher consulted two qualified experts in English education from Baturaja University:

- Dr. Nurhasannah, M.Pd
- Merie Agustiani, M.Pd

Both experts were selected based on their academic background, experience in language teaching, and expertise in educational evaluation. Each expert independently reviewed the questionnaire items for their relevance, clarity, and suitability for the target population—students in the English Study Program.

To ensure the robustness of the instrument, the validation process also considered the following four essential aspects, as recommended in educational research instrument development:

1. Research Objectives

According to Cohen, Manion, & Morrison (2018), a valid research instrument must align with the research objectives to accurately capture the intended constructs. In this study, the questionnaire items were designed specifically to address the research goal: to explore students' perceptions of ChatGPT in writing assignments. Each item in the questionnaire corresponds to a measurable dimension of this objective—namely,

usefulness, ease of use, and trust/reliability—ensuring that the instrument directly supports the aims of the study.

2. Theoretical Alignment

Valid instruments must be grounded in a strong theoretical framework. This study adopted the Technology Acceptance Model (TAM) by Davis (1989), which emphasizes perceived usefulness, perceived ease of use, and trust as critical variables in technology adoption. The questionnaire items were constructed and categorized according to these TAM dimensions and adapted from validated studies such as Zebua & Katemba (2024). This alignment ensures that the constructs being measured have a solid theoretical foundation, enhancing the credibility of the instrument.

3. Clarity of Language

Clarity is crucial for respondent understanding and accurate data collection. As suggested by Creswell (2012), ambiguous or complex language can distort results and reduce validity. Based on expert feedback, minor revisions were made to simplify wording and eliminate potentially confusing terminology. This ensures that the questions are accessible, especially to undergraduate students, and that responses reflect genuine perceptions rather than misunderstandings of the item content.

4. Appropriateness for the Target Respondents

An effective instrument must be suitable for the demographic and academic level of its respondents. The questionnaire was tailored to English Study Program students at Baturaja University, considering their familiarity with

writing tasks and basic use of AI tools. The language level, response format (Likert scale), and content relevance were carefully reviewed by expert judges to ensure cultural, contextual, and linguistic appropriateness for the student population (Creswell, 2012)

Expert Feedback and Suggestions

- Dr. Nurhasannah, M.Pd stated that the items were conceptually valid and aligned with the theoretical constructs. She recommended simplifying complex sentence structures in some items to enhance student understanding and eliminate ambiguity.
- Merie Agustiani, M.Pd affirmed the coherence and relevance of each indicator. She advised revising the phrasing of certain Likert-scale options for consistency and suggested improving the introductory section of the questionnaire to ensure clear instructions for respondents.

Researcher's Response and Final Decision

In response to the experts' suggestions, the researcher made minor modifications to the questionnaire:

- Simplified the wording of selected items to enhance clarity
- Standardized the Likert-scale terminology
- Revised the introduction to provide clearer guidance for respondents

These revisions were implemented without altering the core content or theoretical alignment of the questionnaire. Therefore, the instrument was considered valid in terms of content, as it met the criteria set by experts for relevance, clarity, and representativeness.

Justification for Using Expert Judgment

The use of expert judgment was deemed essential in this research to ensure that the instrument was theoretically grounded and practically appropriate. As Creswell (2012) emphasizes, expert validation is a critical step in developing research instruments, especially in educational studies, where clarity and construct alignment significantly influence data accuracy and interpretation. Through expert review, the questionnaire was strengthened in both form and function, thus ensuring the validity of the data collection process.

D. Technique for Collecting the Data

According to Sugiyono (2017, p.193), data collection techniques are one of the most important steps in research, as the main goal of research is to obtain accurate and relevant data. In this study, the data were collected using a questionnaire. A questionnaire is a data collection technique conducted by distributing a set of written questions to respondents to be answered independently (Sugiyono, 2017, p.199). Questionnaires are widely used in educational research because they allow for the collection of large amounts of data in a relatively short time.

The instrument used in this research was a structured Likert-scale questionnaire, consisting of 20 closed-ended items that measured students' perceptions of ChatGPT in writing assignments. The questionnaire was adopted from Zebua and Katemba (2024) and developed based on the Technology

Acceptance Model (TAM) proposed by Davis (1989), covering three key indicators:

- Perceived Usefulness of ChatGPT
- Perceived Ease of Use of ChatGPT
- Trust/Reliance on ChatGPT for Grammar and Writing Accuracy

To ensure that the instrument was valid and theoretically sound, the questionnaire underwent a content validity check through expert judgment. Two expert lecturers from the English Education Study Program at Baturaja University evaluated the instrument:

- Dr. Nurhasannah, M.Pd
- Merie Agustiani, M.Pd

These experts assessed each item based on its relevance to the research objectives, theoretical alignment, clarity of language, and appropriateness for the target respondents. Their suggestions were incorporated to improve the quality of the questionnaire. This validation process strengthened the instrument's content validity and confirmed that it accurately measured the constructs intended in the study.

The final version of the questionnaire was created using Google Forms and distributed to students via WhatsApp group links. Students were asked to respond by selecting their answers on the digital form provided. This method was chosen for its efficiency in reaching a wide range of respondents and its

practicality in data collection, especially in the context of online academic environments.

Table 3.3
Specification of Questionnaire

Objective of Study	Indicator	Question Number	Total
Identify how students view ChatGPT as an educational tool, how they make use of it to support their English writing, and what attitudes they hold toward its usefulness, relevance, and potential integration in academic activities.	Perceived Usefulness of OpenAI ChatGPT	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11	11
	Perceived Ease of Use of OpenAI ChatGPT	12, 13, 14, 15, 16	5
	Trust/Reliance on OpenAI ChatGPT for Grammar and Writing Accuracy	17, 18, 19, 20	4
Total			20

Sources: Adopted from Zebua and Katemba (2024)

E. Technique for Analyzing the Data

The researcher formulated questions based on indicators of the use of ChatGPT as a tool in writing assignments to gauge the perceptions of English students at Baturaja University. The collected categories were measured using a Likert scale, where each answer assigned a score ranging from 1 to 5, represented by the following words according to Sugiyono (2017, p.152). The table below shows the score for each rating scale.

Table 3.4
Score for each Likert Scales

No	Scale	Score
1	Strongly Agree	5
2	Agree	4
3	Neutral	3
4	Disagree	2
5	Strongly Disagree	1

In this study, the data were analyzed quantitatively using descriptive statistical methods. The purpose of this analysis was to determine students' perceptions of the use of ChatGPT in completing writing assignments. The analysis involved calculating the mean score and percentage for each indicator in the research questionnaire.

1. Calculating the Mean Score

To determine the level of student perception for each indicator, the researcher used the following formula:

$$mean = \frac{Total\ Score}{Number\ of\ Responden \times Number\ of\ Item}$$

Explanation:

- Total Score is the sum of all scores from all respondents for a particular indicator.
- Number of Respondents refers to the total number of participants in the study.

- Number of Items refers to the total number of statements under each indicator.

The resulting mean score is used to assess the extent of students' perceptions of ChatGPT based on the three key indicators: Perceived Usefulness, Perceived Ease of Use, and Trust/Reliance on ChatGPT for Grammar and Writing Accuracy.

2. Calculating the Percentage of Each Response Option

In addition to calculating the mean, the researcher also calculated the percentage of each response category to analyze the distribution of responses across all questionnaire items. The following formula was used:

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

Explanation:

P = The result of Percentage

F = The total score of students' answer

N = Maximum score of students' answer

This formula helps determine the distribution of responses across the five Likert scale categories: Strongly Agree (SA), Agree (A), Neutral (N), Disagree (D), and Strongly Disagree (SD).

3. Interpretation of Likert Scale Scores

To interpret the mean scores, the researcher used the following five-point Likert scale intervals:

Table 3.5

The Criteria to Determine the Result of the Students' Score

Classification	Responses	Score
Strong Positive Perception	Strongly Agree	4.20 – 5.00
Positive perception	Agree	3.40 – 4.19
Neutral Perception	Neutral	2.60 – 3.39
Slightly Negative Perception	Disagree	1.80 – 2.59
Negative Perception	Strongly Disagree	1.00 – 1.79

Source: Sugiyono (2017)

This interpretation is based on the guidelines provided by Sugiyono (2017), who states that mean scores are commonly used in descriptive analysis to measure trends in attitudes or perceptions based on Likert scale responses.