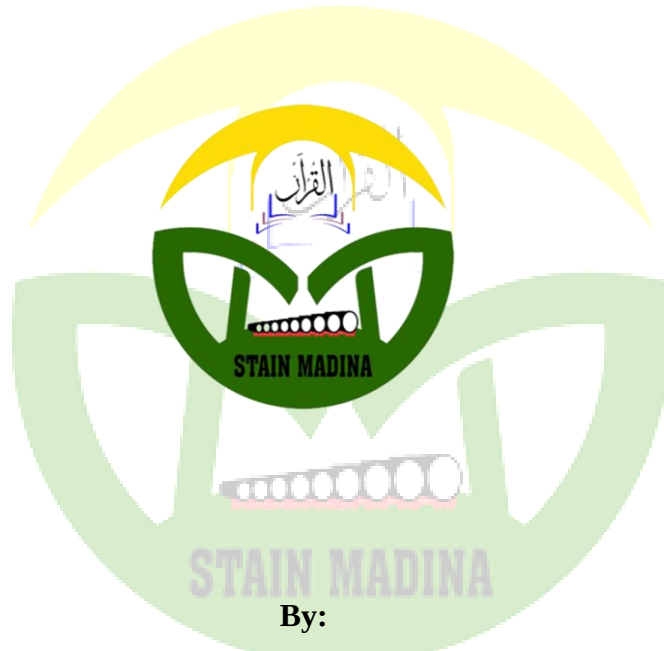


**AN ANALYSIS OF AI BASED TRANSLATION TOOLS IN
STUDENTS' WRITING ACCURACY (CASE STUDY ON
ENGLISH LANGUAGE EDUCATION STUDY
PROGRAM OF STAIN MADINA)**

THESIS

Submitted to the Departement of English Language Education In a
Partial Fulfillment of Requirements for the degree of Strata I
(Bachelor of Education) in English Language Education



By:

RISKA RAHMADANI

NIM: 21130008

**DEPARTMENT OF ENGLISH EDUCATION STUDY
STATE COLLEGE OF ISLAMIC STUDIES
MANDAILING NATAL**

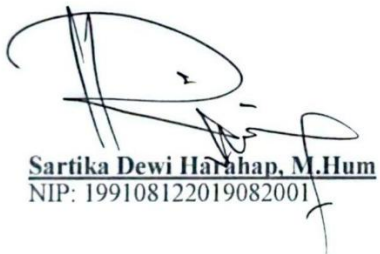
2026

ADVISORS' APPROVAL SHEET

This thesis entitled "**An Analysis Of Ai Based Translation Tools In Students' Writing Accuracy (Case Study On English Language Education Study Program Of Stain Madina)**" written by Riska Rahmadani, Student Registration Number (NIM) 21130008, has been examined and approved by the Examiners and is eligible to proceed to the Thesis Defense Examination.

Panyabungan, September 2026

Advisor I



Sartika Dewi Harahap, M.Hum
NIP: 199108122019082001

Advisor II

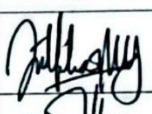


Muhammad Hasvimsyah Batubara, M.Hum
NIP: 198311182014031002



ENDORSEMENT SHEET

This thesis entitled “An Analysis of AI Based Translation Tools In Students’ Writing Accuracy (Case Study On English Language Education Study Program Of STAIN MADINA).” Written by Riska Rahmadani, Student Registration Number 21130008 Departement Of English Language Education, has been examined and defended in front of the board of thesis examiners on Friday, 17 September 2026. The thesis has been accepted and declared to have fullfilled one of requirement for the degree of “S.PD” (Bachelor Of Arts) In Language Education.

No	Name of examiners	Position	Signature date of approval	Date of approval
1.	Zulfikar M.A.,TESOL Nip. 198809292019031011	Examiners I		22 Sept 2026
2.	Muhammad Ari Saputra, M.Pd Nip. 199105252019082001	Examiners II		22 September 2026 .
3.	Sartika Dewi Harahap, M.Hum Nip. 199108122019082001	Examiners III		24 / 09 / 26
4.	Muhammad Hasyimsyah Batubara, M.Hum Nip. 198311182014031002	Examiners IV		23 September 2026

Mandailing Natal , September 2026
Chairman of State College
For Islamic Studies Mandailing Natal


Dr. Mura Samin Lukis, M.Ed
NIP. 197305012003121004

STATEMENT OF AUTHENTICITY

By signing this form I

Nama : RISKHA RAHMADANI

Student Registration Number : 21130008

Place And Date : Pidoli Lombang, 11 Juni 2003

Status : Student

Addres : Pidoli Lombang

Certify that this skripsi entitled: **"AN ANALYSIS OF AI BASED TRANSLATION TOOLS IN STUDENTS' WRITING ACCURACY (CASE STUDY ON ENGLISH LANGUAGE EDUCATION STUDY PROGRAM OF STAIN MADINA) "** is original and representing my own work, except all sources that i have used been properly and clearly acknowledged.

If someday, it is proven as duplication, imitation, plagiarism, or made by others partly or entirely, i understand that my skripsi and academic title will be cancelled due to the law.

Panyabungan, 27 Agustus 2026



RISKHA RAHMADANI

Nim. 21130008

ABSTRACT

Riska Rahmadani, 2026.*An Analysis Of Ai Based Translation Tools In Students' Writing Accuracy (Case Study On English Language Education Study Program Of Stain Madina)*

This study aims to investigate students' responses towards the use of AI-Based Translation Tools in writing accuracy among students of English Education Department at STAIN Mandailing Natal. This research employed a descriptive qualitative method. The instruments used were questionnaires, reading tests, and interviews. The subjects of the study were TBI students of STAIN Madina selected through purposive sampling technique. The data were analyzed using Miles and Huberman model consisting of data reduction, data display, and conclusion drawing. The results show that students have positive responses towards the use of AI-Based Translation Tools such as ChatGPT and Deep L. AI tools help students improve grammatical accuracy, vocabulary, and sentence structure. However, there are also negative responses that students become dependent on AI and AI still lacks context understanding. Therefore, it is suggested that students use AI wisely as a learning assistant and lecturers provide guidance on the ethical and effective use of AI in the classroom.

Keywords: *AI-Based Translation Tools, writing accuracy, Students', Perceptions*

ABSTRAK

Riska Rahmadani, 2026.*Analisis Penggunaan Alat Penerjemahan Berbasis AI terhadap Ketepatan Menulis Mahasiswa (Studi Kasus pada Program Studi Pendidikan Bahasa Inggris STAIN Madina).*

Penelitian ini bertujuan untuk mengetahui respon mahasiswa terhadap penggunaan *_AI-Based Translation Tools_* dalam *_writing accuracy_* pada mahasiswa Program Studi Pendidikan Bahasa Inggris STAIN Mandailing Natal. Penelitian ini menggunakan metode kualitatif deskriptif. Instrumen yang digunakan adalah kuesioner, tes membaca, dan wawancara. Subjek penelitian adalah mahasiswa TBI STAIN Madina yang dipilih dengan teknik *_purposive sampling_*. Data dianalisis menggunakan model Miles dan Huberman yaitu reduksi data, penyajian data, dan penarikan kesimpulan. Hasil penelitian menunjukkan bahwa mahasiswa memiliki respon positif terhadap penggunaan *_AI-Based Translation Tools_* seperti ChatGPT dan DeepL. Alat AI membantu mahasiswa dalam meningkatkan akurasi tata bahasa, kosa kata, dan struktur kalimat. Namun, terdapat juga respon negatif yaitu mahasiswa menjadi ketergantungan terhadap AI dan AI masih lemah dalam memahami konteks. Dengan demikian, disarankan agar mahasiswa menggunakan AI secara bijak sebagai alat bantu belajar dan dosen memberikan bimbingan dalam penggunaan AI yang etis dan efektif.

Kata Kunci: *AI-Based Translation Tools, writing accuracy, persepsi Mahasiswa,*

MOTTO

وَأَنلَيْسَ لِلْإِنْسَانِ إِلَّا مَا سَعَى

"And that there is not for man except that [good] for which he strives."

QS. An-Najm: 39

وَلَا تَهِنُوا وَلَا تَحْزَنُوا وَأَنْتُمْ الْأَعْلَوْنَ إِنْ كُنْتُمْ مُؤْمِنِينَ

"So do not weaken and do not grieve, for you will be superior if you are [true] believers."

QS. Ali 'Imran: 139

يَرْفَعُ اللَّهُ الَّذِينَ آمَنُوا مِنْكُمْ وَالَّذِينَ أُوتُوا الْعِلْمَ دَرَجَاتٍ

"Allah will raise those who have believed among you and those who were given knowledge, by degrees."

QS. Al-Mujadilah: 11

STAIN MADINA

DEDICATION

This thesis is dedicated to:

- My beloved parents, for their unconditional love, endless prayers, and both moral and financial support throughout my academic journey. Your sacrifices and encouragement are the reason I am able to stand at this point today. I can never repay all your kindness.
- My honorable advisors, lecturers, and examiners, who have generously shared their knowledge, time, and guidance during the process of writing this thesis. Your valuable corrections and suggestions have greatly improved this work and myself as a learner.
- All my friends of English Education Department 2021 of STAIN Madina, for the togetherness, motivation, and memorable experiences we have been through. Thank you for always being there in joy and difficulty until we finally reached this final stage together

ACKNOWLEDGEMENT

First and foremost, all praises and gratitude are due to Allah SWT, the Most Gracious and the Most Merciful, for His countless blessings, health, strength, guidance, and patience that have been given to me, so that I, Riska Rahmadani, could finally complete this thesis entitled "An Analysis of AI-Based Translation Tools in Students' Writing Accuracy at STAIN Mandailing Natal". This thesis is submitted as a partial fulfillment for the degree of Sarjana Pendidikan (S.Pd.) in English Education Department. Sholawat and Salam may always be upon our beloved Prophet Muhammad SAW.

On this special occasion, I would like to express my deepest and sincerest gratitude to all those who have helped, supported, and prayed for me during this long journey:

1. Dr. Mara Samin Lubis, M.Ed as the head of STAIN Mandailing Natal, for the leadership, support, and opportunities provided throughout the researcher's academic journey.
2. Dr. Amrizal, M.Pd and Rica Umrina, M. Hum the head, and secretary of the English Department, allowed and guided the researcher to carry out the research.
3. My respected advisors, **Mrs. Sartika Dewi Harahap, M.Hum** as my First Advisor and **Mr. Muhammad Hasyimsyah Batubara, M.Hum** as my Second Advisor. Thank you so much for your patience, kindness, valuable time, insightful guidance, and constructive corrections that have greatly improved this thesis.
4. My honorable examiners, **Mr. Zulfikar, M.A., TESOL** and **Mr. Muhammad Ari Saputra, M.Pd.** Thank you for your valuable suggestions, knowledge, and kind guidance to make this thesis better.
5. My beloved parents, my father **Dahrul Lubis** and my mother **Rodiah**. Thank you for your unconditional love, endless prayers, sincere encouragement, and for all the sacrifices that can never be repaid. You are the reason I am standing at this point today. This degree is for you
6. My dearest friends who have become my second family: **Dina Khairani, Arda Lestari, Nur Haira, Hapisoh, and Renda Zulkasih**. Thank you for the beautiful

memories, laughter, tears, togetherness, and for always supporting each other from the very first semester until the end. I will never forget our struggle together.

7. My special person and my best support system, **Rahul Setiawan**. Thank you for your endless patience, love, encouragement, and for always being there to calm me down and cheer me up when I was tired, stressed, and almost gave up. Your support means everything to me.
8. Finally, I would like to thank myself, **Riska Rahmadani**, for being strong, for never giving up, for believing in myself even on the hardest days. Thank you for working hard until this final chapter is completed.

I realize this thesis is still far from perfect. Therefore, any constructive suggestions and criticism are highly expected. I hope this thesis will be beneficial for the future development of English education.

Panyabungan, September 2025

Riska Rahmadani

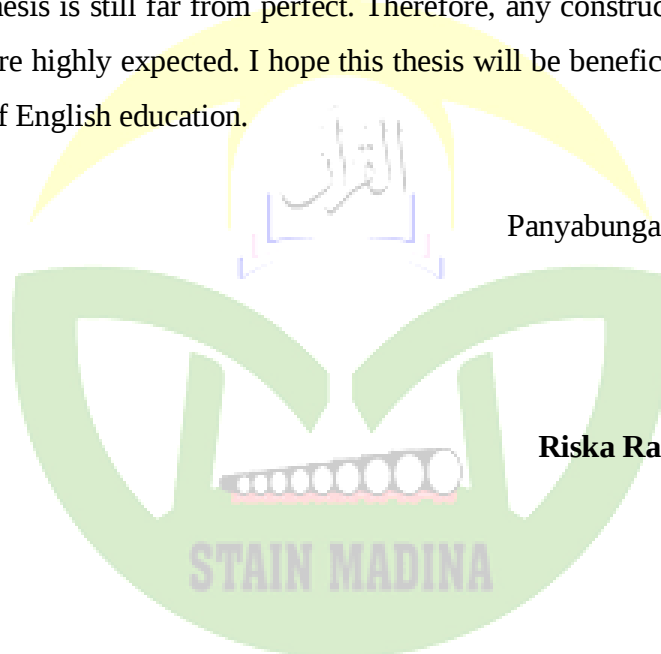


TABLE OF CONTENTS

ADVISORS' APPROVAL SHEET	i
ENDORSEMENT SHEET	ii
STATEMEN OF AUTHENTICITY	iii
ABSTRACK.....	iv
ABSTRAK.....	v
MOTTO	vi
DEDICATION	vii
ACKNOWLEDGEMENT	viii
TABEL OF CONTENTS.....	x
CHAPTER I INTRODUCTION	1
A. Background of the study.....	1
B. Formulation of the study.....	5
C. Objectives of the study.....	5
D. Significances of the study.....	6
E. Keyterms	6
F. Research Systematics	7
CHAPTER II REVIEW OF LITERATURE.....	9
A. Review of Related Theories.....	9
B. Review of Relevant Previous Studies	19
C. Theoretical Framework	21
CHAPTER III RESEARCH METHODOLOGI	24
A. Types of Research	24
B. Location and Time of Research	24
C. Source of Data	25
D. Technique of Data Collection	26
E. Technique of Validating the Data.....	27
F. Technique of Data Analysis	28
CHAPTER IV DISCUSSION.....	29
A. Data Description	29
B. Discussion of Research Results	41

CHAPTER V CONCLUSION AND SUGGESTION.....	55
A. Conclusion	55
B. Suggestion	56
REFERENCE.....	57
APPENDIX.....	60



CHAPTER I

INTRODUCTION

A. Background of the Study

Technology is the result of advances in human knowledge and innovation designed to simplify various aspects of life. In the field of education, particularly in foreign language learning, technology has become an essential tool that enhances the quality and effectiveness of the teaching and learning process. The use of such technology offers numerous benefits, especially for students majoring in language studies, as it broadens their linguistic knowledge and encourages critical thinking in understanding meaning and cultural differences between languages. However, technology should be used wisely to ensure that it does not diminish students' analytical skills or creativity. It should serve as a supportive in the learning process rather than a replacement for the active role of individuals in deeply understanding and mastering a language.

According to Aranditio et al, (2023) The development of information and communication technology has brought about major changes in the world of education, especially in the process of learning foreign languages. One of the innovations that is now widely used by students is the use of artificial intelligence (AI) based translation tools. Tools such as Google Translate, Deep L Translator, and ChatGPT have become part of the academic life of students, especially those who study languages, such as students of the English Language Education Study Program at STAIN Mandailing Natal (STAIN Madina).

Muhammad Ari Saputra et al, (2025) Through digital media such as learning applications, interactive videos, online platforms, and artificial intelligence-based tools, students can learn in a more engaging, flexible, and personalized way. Digital media also helps enhance learning motivation and provides easy access to various authentic learning resources from around the world. However, some students believe that the use of digital media should be balanced with guidance from lecturers to

ensure that learning remains well-directed and does not lead to excessive dependence on technology.

Sartika Dewi Harahap et al, 2025 Technology plays a crucial role in English Language Teaching (ELT) by providing innovative tools and resources that enhance the learning experience. It has revolutionized the way students learn languages. TELL (Technology Enhanced Language Learning) refers to the utilization of computers as a technological advancement to present multimedia, supporting and enhancing the teaching methods used by language instructors. The development of language learning apps, virtual reality, digital libraries, Artificial Intelligence (AI) online courses, and language exchange platforms, it has become easier than ever to learn a new language.

These tools provide students with a more interactive and engaging experience, allowing them to practice speaking, listening, reading, and writing skills in a more immersive way. According to AI states that technology can personalize the learning experience adaptively learning algorithms, and students can receive customized lessons and practice activities based on their strengths and weaknesses.

Along with the advancement of technology, especially artificial intelligence (AI), the world of education is undergoing a significant transformation. The use of AI-based translation tools is starting to be widely adopted in the language learning process, including in developing students' writing skills. According to Riyadi, et al (2007) These AI-powered tools are seen as being able to make a positive contribution in helping students develop their writing skills independently, without always relying on face-to-face guidance from lecturers.

According to Hapsari et al, (2022) the application of AI in the context of EFL learning reflects a paradigm shift in higher education that was previously dominated by an instructor-centered learning model, now shifting towards a more student-centered approach. AI technology not only increases the effectiveness of the learning process, but also opens up space for students to be more active,

independent, and creative in improving their language skills, including in terms of writing accuracy.

Research on the integration of AI in language learning, particularly in writing skills, shows that this technology has great potential as a personalized and adaptive learning tool. According to Lazuardiyyah, L., et al (2023) As stated by, AI is a complex entity that is able to imitate human thinking and decision-making, so its use in education can have a transformative impact on the way students learn and interact with language.

According to Rosita, et al (2021) ai-based translation tools offer convenience in understanding foreign language texts, constructing sentences in English, and enriching vocabulary. Students can quickly translate texts from Indonesian to English and vice versa, which is certainly very helpful in completing academic tasks. On the one hand, this convenience supports the learning process and increases efficiency. However, on the other hand, there are concerns that dependence on AI-based translation tools can hinder in-depth language mastery, especially in terms of writing skills.

According to Istianingsih, et al(2020)in addition, the rapid development of AI-based translation tools now not only functions as a translation medium, but is also equipped with features that can improve sentence structure, grammar, and provide suggestions for more appropriate word choices according to context. These features make AI not just a translation tool, but also a companion in developing academic writing skills. Some students even use AI as the main reference in writing essays, reports, or final assignments. This shows that AI has become an integral part of the learning process, especially in the aspect of writing skills in English.

According to Riyadi, et al (2007) However, it should be emphasized that although AI makes writing easier, there are not many studies that have thoroughly evaluated the extent to which the accuracy of students' writing is influenced by the tool. The aspect of accuracy in writing

includes not only grammatical correctness, but also coherence, cohesion, and the ability to convey ideas logically and systematically. Therefore, it is important to conduct research that focuses on the relationship between the use of AI-based translation tools and the level of accuracy of students' writing, so that the use of this technology can be directed optimally in the language learning process in higher education, especially at STAIN Madina.

According to Hasibuan, R., & Nurbaidah et al, (2022) English writing skills require mastery of sentence structure, grammar, and proper vocabulary selection. When students rely too much on AI translation tools, it is feared that they will no longer develop critical thinking skills in composing writing independently. As a result, accuracy in writing may be technically assisted by the tool, but conceptual understanding of language structure becomes weak.

State Islamic College (STAIN) Mandailing Natal is one of the state Islamic higher education institutions in North Sumatra, focusing on the development of Islamic sciences and students' professional skills, including in foreign languages such as English. One of the study programs that actively fosters students' language skills is the English Education (Tadris Bahasa Inggris) Program. This program aims to produce future English educators who are not only competent in language proficiency but also capable of integrating Islamic values into the learning process.

In recent years, the advancement of digital technology and artificial intelligence (AI) has expanded into various fields, including education. One notable application is the use of AI-based translation tools such as Google Translate, Deep L, Grammarly, and Bing Translator, which are widely used by students as aids in completing English writing assignments. This trend is also observed within the academic environment of STAIN Madina, particularly among students of the English Education Program, who often utilize such tools to improve the quality of their written work.

However, the use of these AI translation tools raises questions

regarding the accuracy of the resulting texts. Does the use of such technology truly help students write with correct structure and grammar, or does it lead to overreliance that ultimately weakens their manual writing skills? At STAIN Madina, this phenomenon has become a relevant issue to examine, considering that writing proficiency in English is one of the core competencies targeted by the program.

Seeing this phenomenon, it is important to examine the extent to which the use of AI-based translation tools has an impact on “*Analysis Ai-Based Translation Tools On Students' Writing Accuracy*”. Do these tools really improve the quality of students' writing significantly, or do they actually create a dependency that hinders active learning? This study aims to analyze the positive and negative impacts of the use of AI-based translation tools, as well as provide input on strategies for using technology wisely in the process of learning to write English in higher education environments.

B. Formulation of the Study

1. How do AI-based translation tools affect the writing accuracy of students at the English Language Education Study Program of STAIN Madina in terms of grammar, vocabulary, and sentence structure?
2. How do students of the English Language Education Study Program of STAIN Madina perceive the use of AI-based translation tools in relation to their writing accuracy?

C. Objectives of the Study

The purpose of this research is to:

1. To examine how AI-based translation tools affect the writing accuracy of students at the English Language Education Study Program of STAIN Madina in terms of grammar, vocabulary, and sentence structure.
2. To analyze the students' perceptions of the use of AI-based translation tools in relation to their writing accuracy at the English Language

D. Significances of the Study

This research is
expected to provide the following benefits:

1. Theoretical Benefits

This research is expected to contribute to the development of theories on the use of technology, especially AI-based translation tools, in English language learning. The results of this study can enrich the literature on the impact of technology on students' writing skills.

2. Practical Benefits

This study is expected to provide insight for English course lecturers to understand the positive and negative impacts of using AI translation tools on students' writing skills, so that it can be suggested to be used wisely in the learning process. In addition, the results of this study can be a reference for students in choosing effective tools to improve the quality of their writing and avoid excessive dependence on technology.

3. Policy Benefits

This research can also be a consideration for universities, especially STAIN Madina, in designing policies for the use of AI translation tools in English language learning and developing students' writing skills in the future.

E. Keyterms

1. AI-Based Translation Tools

AI-based translation tools refer to digital applications or software that utilize artificial intelligence technology to translate text from one language to another automatically. These tools, such as Google Translate, Deep L, or Microsoft Translator, use machine learning and neural network algorithms to improve translation accuracy and linguistic fluency over time.

2. Writing Accuracy

Writing accuracy refers to the correctness of a student's written text in terms of grammar, vocabulary, spelling, punctuation, and sentence structure. It indicates how well the writing adheres to the linguistic rules of the target language, particularly English.

3. Translation Process

The translation process is the act of converting text from a source language into a target language while maintaining meaning, context, and grammatical integrity. In this research, the process focuses on how AI-based tools assist students in translating their ideas into accurate written English.

4. Students' Writing Skills

Students' writing skills refer to the ability of learners to express ideas, thoughts, and information effectively and coherently in written form. It includes aspects such as grammar, vocabulary use, organization, and clarity of expression.

5. Analysis

Analysis in this study refers to a systematic examination of how AI-based translation tools influence students' writing accuracy. It involves identifying patterns, evaluating results, and interpreting the extent to which these tools affect the quality of students' written output.

F. Research Systematics

To provide a clearer, simpler, and more understandable overview, the writer presents the outline of each chapter as follows:

1. Chapter I: This chapter serves as the introduction, consisting of the background of the study, formulation of the problem, research objectives, research benefits, definition of terms, and the systematic organization of the discussion.
2. Chapter II: This chapter presents the literature review, which includes theoretical studies and relevant previous research findings.
3. Chapter III: This chapter explains the research methodology,

consisting of the type of research, research location and time, data sources, data collection techniques, data validity techniques, and data analysis techniques.

4. Chapter IV: This chapter contains the research findings and discussion.
5. Chapter V: This chapter presents the conclusion and suggestions based on the research results.

