STUDENTS' PERCEPTION OF ARTIFICIAL INTELLIGENCE TOOLS AND THEIR IMPACT ON STUDENTS' SELF-EFFICACY IN ACADEMIC WRITING

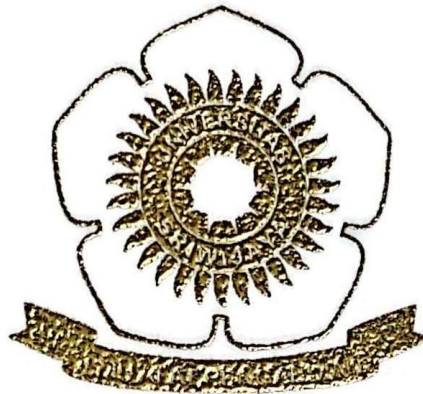**A THESIS**

by:

Nys. Nabilah Putri Erliani

Student Number: 06012682327024

Magister Program in Language Education

MAGISTER PROGRAM IN LANGUAGE EDUCATION

FACULTY OF TEACHER TRAINING AND EDUCATION

SRIWIJAYA UNIVERSITY

PALEMBANG

2025

STUDENTS' PERCEPTION OF ARTIFICIAL INTELLIGENCE TOOLS AND THEIR IMPACT ON STUDENTS' SELF-EFFICACY IN ACADEMIC WRITING

A THESIS

by:

Nys. Nabilah Putri Erliani

Student Number: 06012682327024
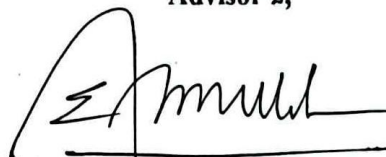
Magister **Program in Language Education**

Approved by:

Advisor 1,

Advisor 2,

Eryansyah, M.A., Ph.D.
NIP. 196907181995121001

Amrullah, M.Ed., Ph.D.
NIP. 196909142014091001

Certified by:

Head of Magister Program in Language Education

Sriwijaya University

Sary Silvhiany, M.Pd., M.A., Ph.D.
NIP. 197708112002122003

i

STUDENTS' PERCEPTION OF ARTIFICIAL INTELLIGENCE TOOLS AND THEIR IMPACT ON STUDENTS' SELF-EFFICACY IN ACADEMIC WRITING

A THESIS

by:

Nys. Nabilah Putri Erliani

Student Number: 06012682327024

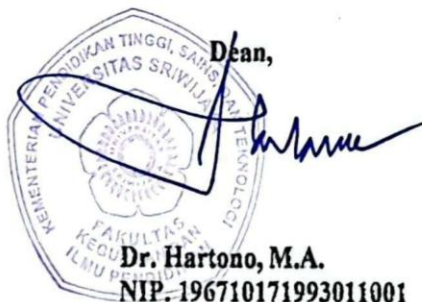*Magister* Program in Language Education

Approved by:

Advisor 1,

Eryansyah, M.A., Ph.D..
NIP. 196907181995121001

Advisor 2,

Amrullah, M.Ed., Ph.D.
NIP. 196909142014091001

Dean,

Dr. Hartono, M.A.
NIP. 196710171993011001

Head of Magister Program in
Language Education,

Sary Silvhiany, M.Pd., M.A., Ph.D.
NIP. 197708112002122003

ii

STUDENTS' PERCEPTION OF ARTIFICIAL INTELLIGENCE TOOLS AND THEIR IMPACT ON STUDENTS' SELF-EFFICACY IN ACADEMIC WRITING

A THESIS

by:

Nys. Nabilah Putri Erliani

Student Number: 06012682327024

Magister Program in Language Education

had been examined and passed on:

Day   : Wednesday

Date   : May 14th, 2025

EXAMINATION COMMITTEE

1. Chairperson   : Eryansyah, M.A., Ph.D.

2. Secretary   : Amrullah, M.Ed., Ph.D.

3. Member   : Prof. Soni Mirizon, M.A., Ed.D.

4. Member   : Dr. Rita Inderawati, M.Pd.

Palembang, May 14th, 2025
Approved by,
Head of Magister Program in Language Education

Sary Silvhiany, M.Pd., M.A., Ph.D.
NIP. 197708112002122003

DECLARATION

I, the undersigned,

Name   : Nys. Nabilah Putri Erliani

Student's Number   : 06012682327024

Study Program   : Magister Program in Language Education

Certify that the thesis entitled "Students' Perception of Artificial Intelligence Tools and Their Impact on Students' Self-Efficacy in Academic Writing" is my work, and I did not do any plagiarism or inappropriate quotation against the ethics and rules commended by the Ministry of Education of Republic of Indonesia Number 17, 2010 regarding plagiarism in higher education. Therefore, I deserve to face court if I am found to have plagiarized this work.

Palembang, May 23rd, 2025

The Undersigned,

Nys. Nabilah Putri Erliani

NIM. 06012682327024

iv

DEDICATION

This thesis is lovingly dedicated to my dearest parents, who consistently supported, motivated, and made sacrifices for me, and this has been the most important foundation that helped me throughout my journey. Your endless patience, understanding, and faith in me have inspired me to stay on track and never give up, even in the face of challenges. I am deeply grateful for your unconditional love and guidance, which have shaped me into the person I am today. Without you, this achievement would not have been possible. Thank you for always believing in me.

MOTTO

"Every cloud has a silver lining"

- John Milton

ACKNOWLEDGMENTS

Bismillahirrahmanirrahim, the greatest praise and gratitude to Allah Subhanahu Wata'ala, the most Generous and the most Merciful, the Almighty, the Ruler of all creation, for bestowing upon the writer the ability to fulfil her educational responsibilities. The writer also presents greetings upon the Prophet Muhammad SAW., may peace and blessings be upon him.

This thesis was composed with the purpose of fulfilling one of the requirements for achieving a master's degree in the *Magister* Program in Language Education at Sriwijaya University. On this occasion, the writer also extends her utmost appreciation and profound gratitude to:

Eryansyah, M.A., Ph.D. and Amrullah, M.Ed., Ph.D., the writer's advisors, who provided comprehensive feedback and valuable advice throughout the entire process of writing this thesis.

Sari Silvhiany M.Pd., M.A., Ph.D., the Head of the Study Program, who provided guidance and support that helped the writer productive academic environment.

All lecturers and staff of the *Magister* Program in Language Education at Sriwijaya University, who have generously shared their knowledge, guidance, and encouragement throughout this academic journey.

Dr. Hartono, M.A., Dean of the Faculty of Teacher Training and Education at Sriwijaya University, for fostering an academic environment that supported the completion of this thesis.

Erwin Saputra and Yuliani, my parents, for their endless prayers, support, and love.

Palembang, May 14th, 2024
The writer,

Nys. Nabilah Putri Erliani

STUDENTS' PERCEPTION OF ARTIFICIAL INTELLIGENCE TOOLS AND THEIR IMPACT ON STUDENTS' SELF-EFFICACY IN ACADEMIC WRITING

ABSTRACT

The integration of Artificial Intelligence (AI) tools in education has transformed the landscape of academic writing, providing students innovative support mechanisms for improving their writing skills. This study investigated the types of AI-tools utilized by students, their perceptions of these tools, and the impact on their self-efficacy in academic writing within the English Education Study Program at Sriwijaya University. Utilizing a qualitative approach, data were collected from seventh-semester students through questionnaires and semi-structured interviews. The findings revealed that students frequently use AI-tools such as ChatGPT, Grammarly, and QuillBot to enhance grammatical accuracy, vocabulary, and writing clarity. While students generally viewed these tools as accessible and helpful for providing immediate feedback and reducing anxiety, their motivation and engagement with AI-assisted learning were more neutral. The findings indicated that AI-tools enhance writing proficiency and self-efficacy by simplifying tasks and offering support, yet students remain cautious about over-reliance and emphasize the importance of maintaining independent critical thinking. Importantly, students recognized that AI-tools serve primarily as scaffolding to support their writing efforts rather than as replacements for their own critical thinking and responsibility. These insights underscored the importance of using AI-tools thoughtfully in academic contexts and developing pedagogical strategies that promote both effective tool usage and the cultivation of independent writing skills. The implications informed educators, policymakers, and technology developers about optimizing AI usage to support student achievement in academic writing.

Keywords: students' perception; AI-tools; self-efficacy; academic writing.

A thesis by Magister Program in Language Education, Faculty of Teacher Training and Education, Sriwijaya University

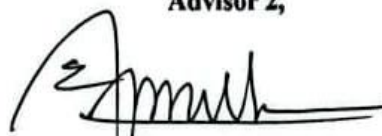Name   : Nys. Nabilah Putri Erliani
Student Number   : 06012682327024

Advisor 1,

Eryansyah, M.A., Ph.D.
NIP. 196907181995121001

Advisor 2,

Amrullah, M.Ed., Ph.D.
NIP. 196909142014091001

The Head of Magister Program in Language Education

Sary Silvhiany, M.Pd., M.A., Ph.D
NIP. 197708112002122003

TABLE OF CONTENTS

LIST OF TABLES

LIST OF APPENDICES

CHAPTER I
INTRODUCTION

This chapter discusses the background, the problems, the objectives, and the significance of the study

1.1 Background of the Study

Artificial Intelligence (AI) has been widely embraced and applied in education in a variety of ways (Nalbant, 2021). As it brings advanced technological capabilities into the educational field, students may use some AI apps and tools throughout their academic journey to improve their learning process in writing to learn directly. By offering recommendations, identifying errors, and producing code automatically, AI-tools can assist students in learning to code (Yilmaz & Yilmaz, 2023).

Numbers of AI-tools like ChatGPT, Bard, Perplexity and Bing have been frequently used recently. These AI-tools enable students to engage themselves in realistic conversational contexts and develop their language skills in real-time through interactive dialogues (Malik et al., 2023). There are also Grammarly, ProWritingAid, Smodin.io and QuillBot which offer assistance with grammar, vocabulary, and even generating content to make the writing process more accessible and efficient. While these tools provide benefits in areas like clarity and grammatical accuracy, questions arise about its influence on student agency and self-reliance. Students become overly reliant on AI to identify and fix grammatical errors, neglecting the chance to improve their own critical thinking and language skills (Rane et al., 2023). This overdependence might cause them to lose confidence, making them feel less capable of tackling writing challenges on their own. When students constantly rely on AI-tools to fix their mistakes, they are able to start doubting their own proficiency and feel less capable of accomplishing writing challenges independently (Bok & Cho, 2023). Their willingness to take risks and explore their creative potential may be limited by because of their lack of confidence, which may also negatively impact their writing performance.

Moreover, many students still struggle to acquire proficiency in academic writing, particularly in organizing the idea coherently, applying grammatical rules, choosing the right vocabulary and making citation properly. As claimed by Lin and Morrison (2021), most of writers find it hard to write in English academically, even for English as a second language (L2) or a foreign language, such as English as the foreign language (EFL). In addition, research by Fauzan et al. (2022) who did study at UINSI Samarinda and got involved the eighth-semester students English Education Department of UINSI Samarinda found that the students often struggle to construct a coherent paragraph and incorporate essential writing elements when composing the research background section of an undergraduate thesis proposal. Similarly, a study by Yusuf et al. (2021) which involved the students of *kelas akeselerasi* in one of the well-known high schools in Banda Aceh indicated that many students exhibit frequent grammatical mistakes and a limited range of vocabulary, which hinder their ability to express complex ideas effectively. Furthermore, a study by Sajjad et al. (2021) who did study at Khawaja Fareed University of Engineering and Information Technology (KFUEIT) in Pakistan and got involved in 50 students, found that the students' difficulties in academic writing such as grammar proficiency, language usage, vocabulary limitation and quotation.

Traditional methods of writing instruction employ manual feedback from instructors, automation can take too much time and resources (Baskara, 2023). Although it is evident that AI tools have a lot of potential in developing writing skills (Gayed et al., 2022), it is essential to understand the way students view and interact with technologies and how these technologies influence their self-efficacy. Self-efficacy, is crucial, as it plays a role in students' achievement. Self-efficacy significantly impacts students' motivation, persistence, and performance in academic writing (Alhadabi & Karpinski, 2020). Students with high self-efficacy tend to engage in writing tasks, seek out feedback, and persist through challenges, leading to improved writing outcomes (Chung et al., 2021). In short, fostering self-efficacy in academic writing can lead to improved outcomes for students, both in terms of the quality of their writing and their overall academic success.

Previous studies have highlighted the role of self-efficacy in academic achievement, noted that students with higher self-efficacy are more motivated,

persistent, and successful in their writing tasks (Alhadabi & Karpinski, 2020; Chung et al., 2021). Additionally, the study by Bouzar et al. (2024) discussed the integration of ChatGPT usage and self-efficacy in academic writing and the result showed that there were positive relation between self-efficacy and ChatGPT integration in students' writing. It also highlighted the potential of ChatGPT in enhancing writing self-efficacy by providing continuous feedback and fostering a sense of accomplishment. Moreover, a study by Erito (2023) explored how students perceived of AI to promote students' self-efficacy in English writing skill and the finding showed that the students thought AI would have a significant impact on their self-efficacy as well as increase their motivation, lower their anxiety, make it easier for them to access writing feedback quickly and with better recommendations, and offer interactive learning to help students' English writing skills become consistent.

In the context of Indonesia, there has been drawing interest in using AI-tools in education, although the research is still emerging. A study by Zulfa et al. (2023) investigated the impact of AI writing assistants in Islamic University students' perspectives in Jakarta and it was found that those students agreed that these tools could significantly improve students' writing skills, especially in grammatical and vocabulary acquisition. Furthermore, Utami et al. (2023) explored Indonesian high schools students' perspectives in Semarang of using AI technology in academic writing. However, these studies primarily focused on the functional benefits of AI-tools and the user perspectives. Additionally, those did not specifically explore the impact of AI-tools on students' self-efficacy. Meanwhile, Yelliza et al. (2024) explored the impact three of AI generative tool such as Diffit, Brisk, and Mendeley on university students' writing views and motivation. This study highlighted the advantages of AI-tools and emphasized self-efficacy as a crucial factor affecting writing development with limited AI-tools. Moreover, Suharno et al. (2025) investigated the perceptions and experiences of AI integration in English Language Teaching through the perspectives both students and teachers. This study highlighted that the students had positive attitude toward artificial intelligence, especially in their eagerness and confidence.

While prior research have examined the general benefits of AI in education and the importance of self-efficacy, this study uniquely aims to bridge these areas by investigating students' perceptions of various AI-tools and how these perceptions influence their confidence and performance in writing tasks. Moreover, investigating students' perceptions of AI-tools in the context of academic writing can provide important information about how these technologies are incorporated into the students' writing process and how they impact students' self-efficacy beliefs. By understanding students' experiences, attitudes, and preferences regarding AI-tools, educators and developers can decide on their design and implementation, ultimately enhancing the effectiveness of instruction in higher education, especially in academic writing field.

1.2 The Problems of the Study

Concerning the background of the study, the problems are formulated into the research questions as follows:

1. What AI-tools do seventh-semester students of English Education Study Program at Sriwijaya University use to improve their academic writing?

2. What are the perceptions of seventh-semester students of English Education Study Program at Sriwijaya University regarding the use of AI-tools in their academic writing?

3. What are the impacts of the using AI-tools on the self-efficacy of seventh-semester students of English Education Study Program at Sriwijaya University in their academic writing?

1.3 The Objectives of the Study

Referring to the research problem, the objective of the study are as follows:

1. To find out the AI-tools seventh-semester students of English Education Study Program at Sriwijaya University use to improve in their English academic writing process.

2. To investigate the perceptions of seventh-semester students of English Education Study Program at Sriwijaya University regarding the use of AI-tools in their writing skill.

3. To explore the impact of using of AI-tools on the self-efficacy seventh-semester students of English Education Study Program at Sriwijaya University in their academic writing.

1.4 Significance of the Study

The significance of this thesis refers to the contribution of understanding and practical applications in education, particularly in academic writing and the integration of AI-tools. By investigating students' perceptions of AI-tools in academic writing, this study adds valuable information about the way technology is viewed and applied in educational contexts, informing educators, policymakers, and technology developers on effective integration strategies. Through understanding students' attitudes, this research is able to inform the development of tailored pedagogical interventions directed in enhancing writing self-efficacy, thereby improving overall writing proficiency. Moreover, this thesis contributes to a comprehensive understanding of technology's role in supporting students' writing development.

REFERENCES

Al-Abyadh, M. H. A., & Azeem, H. A. H. A. (2022). Academic achievement: Influences of university students' self-management and perceived self-efficacy. *Journal of Intelligence*, *10*(3), 1–18. https://doi.org/10.3390/jintelligence10030055

Alam, A., & Mohanty, A. (2023). Educational technology: Exploring the convergence of technology and pedagogy through mobility, interactivity, AI, and learning tools. *Cogent Engineering*, *10*(2), 1–37. https://doi.org/10.1080/23311916.2023.2283282

Alhadabi, A., & Karpinski, A. C. (2020). Grit, self-efficacy, achievement orientation goals, and academic performance in University students. *International Journal of Adolescence and Youth*, *25*(1), 519–535. https://doi.org/10.1080/02673843.2019.1679202

Alharbi, W. (2023). AI in the foreign language classroom: A pedagogical overview of automated writing assistance tools. *Education Research International*, *2023*(1), 1–15. https://doi.org/10.1155/2023/4253331

Ariyanto, M. S. A., Mukminatien, N., & Tresnadewi, S. (2021). College students' perceptions of an automated writing evaluation as a supplementary feedback tool in a writing class. *Jurnal Ilmu Pendidikan*, *27*(1), 41–51. https://doi.org/10.17977/um048v27i1p41-51

Aumann, A., Grassinger, R., & Weitzel, H. (2024). Exploring the influence of vicarious experiences in teaching with digital technology on pre-service science teachers' digitalization-related affective-motivational dispositions. *Education Sciences*, *15*(1), 1–22. https://doi.org/10.3390/educsci15010015

Bandura, A. (1977). Self-efficacy: Toward a unifying theory of behavior change. *Psychology Review*, *84*, 191–215.

Baskara, F. R. (2023). Integrating chatGPT into EFL writing instruction: Benefits and challenges. *International Journal of Education and Learning*, *5*(1), 44–55. https://doi.org/10.31763/ijele.v5i1.858

Benbya, H., Davenport, T. H., & Pachidi, S. (2020). Artificial intelligence in organizations: current state and future opportunities. *MIS Quarterly Executive*, *19*(4), 1–15.

Bok, E., & Cho, Y. (2023). Examining korean EFL college students' experiences and perceptions of using chatGPT as a writing revision tool. *STEM Journal*, *24*(4), 15–27. https://doi.org/10.16875/stem.2023.24.4.15

Bouzar, A., EL Idrissi, K., & Ghourdou, T. (2024). ChatGPT and academic writing self-efficacy: Unveiling correlations and technological dependency among postgraduate students. *Arab World English Journal*, *1*(1), 225–236. https://doi.org/10.24093/awej/ChatGPT.15

Brace, I. (2004). *Questionnaire Design: How to plan, structure and write survey material for effective market research*. Kogan Page.

Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, *3*(2), 77–101.

Chen, X., Zou, D., Xie, H., & Cheng, G. (2021). Twenty years of personalized language learning. *Educational Technology & Society*, *24*(1), 205–222.

Chung, H. Q., Chen, V., & Olson, C. B. (2021). The impact of self-assessment, planning and goal setting, and reflection before and after revision on student self-efficacy and writing performance. *Reading and Writing*, *34*(7), 1885–1913. https://doi.org/10.1007/s11145-021-10186-x

Cohen, N., & Arieli, T. (2011). Field research in conflict environments: Methodological challenges and snowball sampling. *Journal of Peace Research*, *48*(4), 423–435. https://doi.org/10.1177/0022343311405698

Conijn, R., Kahr, P., & Snijders, C. (2023). The effects of explanations in automated essay scoring systems on student trust and motivation. *Journal of Learning Analytics*, *10*(1), 37–53. https://doi.org/10.18608/jla.2023.7801

Creswell, J. W. (2009). *Research design: Qualitative, quantitative, and mixed methods approaches* (3rd ed.). SAGE Publicatios, Inc.

Creswell, J. W. (2012). *Educational Research: Planning, Conducting and Evaluating Quantitative and Qualitative Reseacrh* (4th ed.). Pearson Education Inc.

Creswell, J. W. (2013). *Qualitative inquiry & research design: choosing among five approaches* (3rd ed.). SAGE Publicatios, Inc.

Dangin, D., & Hikmah, I. (2024). The potential uses and missuses of AI-powered writing skills on academic writing: Students' side. *Journal on Education*, *7*(1), 8593–8598. https://doi.org/10.31004/joe.v7i1.7709

Davis, F. (1989). Technology acceptance model: TAM. *Information Seeking Behavior and Technology Adoption*, *105*(219), 1–36.

Erito, S. N. P. (2023). Exploring ESP students' perception toward the potential of artificial intelligence to promote students' self-efficacy in english writing skill. *Journal of English Language Learning*, *7*(2), 457–464. https://doi.org/10.31949/jell.v7i2.7598

Fauzan, U., Hasanah, N., & Hadijah, S. (2022). The undergraduate students' difficulties in writing thesis proposal. *Indonesian Journal of EFL and Linguistics*, *7*(1), 175–192. https://doi.org/10.21462/ijefl.v7i1.515

Fitri, A. R., & Dewi, U. (2024). Undergraduate students' preference and perceptions on the use of quillbot and grammarly as paraphasing tools. *Indonesian EFL Journal*, *10*(2), 167–174. https://doi.org/10.25134/ieflj.v10i2.9868

Fitria, T. N. (2024). Using Wordtune as an AI-Powered Writing Tool How is the Performance in Rewrite and Rephrase English Writing? *Jurnal Pendidikan Bahasa Inggris Proficiency*, *6*(1), 117–149. https://doi.org/10.32503/proficiency.v6i1.4135

Fitria, T. N. (2021). Artificial intelligence (AI) in education: Using AI tools for teaching and learning process. *Proceeding Seminar Nasional & Call For Papers*, 134–147.

Gayed, J. M., Carlon, M. K. J., Oriola, A. M., & Cross, J. S. (2022). Exploring an AI-based writing assistant's impact on English language learners. *Computers and Education: Artificial Intelligence*, *3*, 1–7. https://doi.org/10.1016/j.caeai.2022.100055

Gliner, J. A., Morgan, G. A., & Leech, N. L. (2011). *Research Methods in Applied Settings*. New York: Routledge. https://doi.org/10.4324/9780203843109

Górriz, J. M., Ramírez, J., Ortíz, A., Martínez-Murcia, F. J., Segovia, F., Suckling, J., Leming, M., Zhang, Y.-D., Álvarez-Sánchez, J. R., Bologna, G., Bonomini, P., Casado, F. E., Charte, D., Charte, F., Contreras, R., Cuesta-Infante, A., Duro, R. J., Fernández-Caballero, A., Fernández-Jover, E., … Ferrández, J. M. (2020). Artificial intelligence within the interplay between natural and artificial computation: Advances in data science, trends and applications. *Neurocomputing*, *410*, 237–270. https://doi.org/10.1016/j.neucom.2020.05.078

Guo, Y., & Wang, Y. (2025). Exploring the effects of artificial intelligence application on EFL students' academic engagement and emotional experiences: A mixed-methods study. *European Journal of Education*, *60*(1), 1–15. https://doi.org/10.1111/ejed.12812

Hassani, H., Silva, E. S., Unger, S., TajMazinani, M., & Mac Feely, S. (2020). Artificial intelligence (AI) or intelligence augmentation (IA): What ss the future? *AI*, *1*(2), 143–155. https://doi.org/10.3390/ai1020008

Hua, Y., Wang, D., Luo, X. (Robert), Chang, F.-K., & Xie, Y. (2024). Discovering the juxtaposed affordances in digitally transformed live streaming e-commerce: a mixed-methods study from a vicarious learning Perspective.

European Journal of Information Systems, *33*(4), 469–500. https://doi.org/10.1080/0960085X.2023.2178978

Igbokwe, I. C. (2023). Application of artificial intelligence (AI) in educational management. *International Journal of Scientific and Research Publications*, *13*(3), 300–307. https://doi.org/10.29322/IJSRP.13.03.2023.p13536

Inamura, T. (2023). The Impact of the Order of Vicarious and Self Experiences in a VR Environment on Self-Efficacy. *International Conference on Human-Agent Interaction*, 422–424. https://doi.org/10.1145/3623809.3623948

Khaleel, M., Ahmed, A. A., & Alsharif, A. (2023). Artificial intelligence in engineering. *Brilliance: Research of Artificial Intelligence*, *3*(1), 32–42. https://doi.org/10.47709/brilliance.v3i1.2170

Kim, J., Yu, S., Detrick, R., & Li, N. (2025). Exploring students' perspectives on generative AI-assisted academic writing. *Education and Information Technologies*, *30*(1), 1265–1300. https://doi.org/10.1007/s10639-024-12878-7

Krajka, J., & Olszak, I. (2024). "AI, will you help?" How learners use Artificial Intelligence when writing. *XLinguae*, *17*(1), 34–48. https://doi.org/10.18355/XL.2024.17.01.03

Kuleto, V., Ilić, M., Dumangiu, M., Ranković, M., Martins, O. M. D., Păun, D., & Mihoreanu, L. (2021). Exploring opportunities and challenges of artificial intelligence and machine learning in higher education institutions. *Sustainability*, *13*(18), 1–16. https://doi.org/10.3390/su131810424

Kumar, E. (2008). *Artificial Intelligence*. New Delhi: International Publishing House.

Lee, Y.-J., Davis, R. O., & Lee, S. O. (2024). University students' perceptions of artificial intelligence-based tools for English writing courses. *Online Journal of Communication and Media Technologies*, *14*(1), 1–11. https://doi.org/10.30935/ojcmt/14195

Leong, W. Y., & Bing, Z. J. (2025). AI on academic integrity and plagiarism detection. *ASM Science Journal*, *20*(1), 1–9. https://doi.org/10.32802/asmscj.2025.1918

Lin, L. H. F., & Morrison, B. (2021). Challenges in academic writing: Perspectives of engineering faculty and L2 postgraduate research students. *English for Specific Purposes*, *63*, 59–70. https://doi.org/10.1016/j.esp.2021.03.004

Liu, C., Hou, J., Tu, Y.-F., Wang, Y., & Hwang, G.-J. (2023). Incorporating a reflective thinking promoting mechanism into artificial intelligence-supported English writing environments. *Interactive Learning Environments*, *31*(9),

5614–5632. https://doi.org/10.1080/10494820.2021.2012812

Liu, Y., Park, J., & McMinn, S. (2024). Using generative artificial intelligence/ChatGPT for academic communication: Students' perspectives. *International Journal of Applied Linguistics*, *34*(4), 1437–1461. https://doi.org/10.1111/ijal.12574

Luo, Q., Chen, L., Yu, D., & Zhang, K. (2023). The mediating role of learning engagement between self-efficacy and academic achievement among chinese college students. *Psychology Research and Behavior Management*, *Volume 16*(1), 1533–1543. https://doi.org/10.2147/PRBM.S401145

Malik, A. R., Pratiwi, Y., Andajani, K., Numertayasa, I. W., Suharti, S., Darwis, A., & Marzuki. (2023). Exploring artificial intelligence in academic essay: Higher education student's perspective. *International Journal of Educational Research Open*, *5*(1), 1–11. https://doi.org/10.1016/j.ijedro.2023.100296

Maphoto, K. B., Sevnarayan, K., Mohale, N. E., Suliman, Z., Ntsopi, T. J., & Mokoena, D. (2024). Advancing students' academic excellence in distance education: Exploring the potential of generative AI integration to improve academic writing skills. *Open Praxis*, *16*(2), 142–159. https://doi.org/10.55982/openpraxis.16.2.649

Marzuki, Widiati, U., Rusdin, D., Darwin, & Indrawati, I. (2023). The impact of AI writing tools on the content and organization of students' writing: EFL teachers' perspective. *Cogent Education*, *10*(2), 1–17. https://doi.org/10.1080/2331186X.2023.2236469

Matthews, C. R., & Smith, B. (2024). *The Craft of Interviewing*. https://doi.org/10.51224/SRXIV.458

McCarthy, J. (2007). From here to human-level AI. *Artificial Intelligence*, *171*(18), 1174–1182. https://doi.org/10.1016/j.artint.2007.10.009

Mishra, S. (2023). Enhancing plagiarism detection: the role of artificial intelligence in upholding academic integrity". *Library Philosophy and Practice*, *1*(1), 1–11.

Mitra, S., Lakshmi, D., & Govindaraj, V. (2023). Data Analysis and Machine Learning in AI-Assisted Special Education for Students With Exceptional Needs. In *AI-Assisted Special Education for Students with Exceptional Needs.* (pp. 67–109). https://doi.org/10.4018/979-8-3693-0378-8.ch004

Nalbant, K. G. (2021). The importance of artificial intelligence in education: A short review. *Journal of Review in Science and Engineering*, *2021*, 1–15.

Noviyanti, Pratiwi, D., & Apriani, S. (2024). The impact of AI writing tools on academic writing: the perspective of higher education students in Indonesia.

The International Academic Forum (IAFOR), 1–14.

Nurchurifiani, E., Maximilian, A., Ajeng, G. D., Wiratno, P., Hastomo, T., & Wicaksono, A. (2025). Leveraging AI-powered tools in academic writing and research: Insights from English faculty members in Indonesia. *International Journal of Information and Education Technology*, *15*(2), 312–322. https://doi.org/10.18178/ijiet.2025.15.2.2244

Ozfidan, B., El-Dakhs, D. A. S., & Alsalim, L. A. (2024). The use of AI tools in English academic writing by Saudi undergraduates. *Contemporary Educational Technology*, *16*(4), 1–13. https://doi.org/10.30935/cedtech/15013

Pasenta, P., & Chakim, N. (2024). EFL students' perceptions and practices of using artificial intelligence (AI) in writing thesis proposal. *Yavana Bhasha : Journal of English Language Education*, *7*(2), 90–99. https://doi.org/10.25078/yb.v7i2.3937

Patton, M. Q. (2002). *Qualitative research & evaluation methods* (3rd ed.). SAGE Publicatios, Inc.

Rad, H. S., Alipour, R., & Jafarpour, A. (2024). Using artificial intelligence to foster students' writing feedback literacy, engagement, and outcome: a case of Wordtune application. *Interactive Learning Environments*, *32*(9), 5020–5040. https://doi.org/10.1080/10494820.2023.2208170

Rane, N. L. (2025). Education 4.0 and 5.0: integrating Artifcial Intelligence (AI) for personalized and adaptive learning. *Journal of Artificial Intelligence and Robotics*, *1*(1), 29–43. https://doi.org/10.61577/jaiar.2024.100006

Rane, N. L., Choudhary, S. P., Tawde, A., & Rane, J. (2023). ChatGPT is not capable of serving as an author: ethical concerns and challenges of large language models in education. *International Research Journal of Modernization in Engineering Technology and Science*, *5*(10), 851–874. https://doi.org/10.56726/IRJMETS45212

Sajjad, M. M., Rasheed, M., Farooq, W., Yasmin, F., Niaz, S., & Yaqub, T. (2021). Recent updates on molecular detection of H9N2 as low pathogenic strain of avian influenza virus from poultry farms of Lahore, Pakistan. *Agrobiological Records*, *5*(1), 15–20. https://doi.org/10.47278/journal.abr/2020.029

Salas-Pilco, S. Z., & Yang, Y. (2022). Artificial intelligence applications in Latin American higher education: A systematic review. *International Journal of Educational Technology in Higher Education*, *19*(1), 1–20. https://doi.org/10.1186/s41239-022-00326-w

Saldana, J., & Omasta, M. (2017). *Qualitative Research: Analyzing Life*. Thousand Oaks: SAGE Publicatios, Inc.

Sapci, A. H., & Sapci, H. A. (2020). Artificial intelligence education and tools for

medical and health informatics students: Systematic review. *JMIR Medical Education*, *6*(1), 1–14. https://doi.org/10.2196/19285

Sari, N. A. P. (2025). Using artificial intelligence in writing an academic essay: A literature review. *PROJECT (Professional Journal of English Education)*, *8*(2), 448–461.

Sharma, M., & Biros, D. (2021). AI and its implications for organisations. In *Information Technology in Organisations and Societies: Multidisciplinary Perspectives from AI to Technostress* (pp. 1–24). Emerald Publishing Limited. https://doi.org/10.1108/978-1-83909-812-320211001

Slattery, E. L., Voelker, C. C. J., Nussenbaum, B., Rich, J. T., Paniello, R. C., & Neely, J. G. (2011). A practical guide to surveys and questionnaires. *Otolaryngology–Head and Neck Surgery*, *144*(6), 831–837. https://doi.org/10.1177/0194599811399724

Song, C., & Song, Y. (2023). Enhancing academic writing skills and motivation: Assessing the efficacy of chatGPT in AI-assisted language learning for EFL students. *Frontiers in Psychology*, *14*, 1–14. https://doi.org/10.3389/fpsyg.2023.1260843

Striepe, M. (2021). Combining concept mapping with semi-structured interviews: adding another dimension to the research process. *International Journal of Research & Method in Education*, *44*(5), 519–532. https://doi.org/10.1080/1743727X.2020.1841746

Sumandal, A. H. (2023). Teachers' self-efficacy with artificial intelligence (AI) based educational tools. *Ignatian International Journal for Multidisciplinary Research*, *1*(1), 1–10. https://doi.org/https://doi.org/10.17613/7qv1-0g04

Thatkar, P. V., Dase, R. K., & Wadagale, A. V. (2025). Citation management in social science research: strategies, tools, and best practices. In *Digital Transformations: Integrating Technology in Multidisciplinary Research*. Infinity Publications. https://doi.org/10.25215/1300652535.30

Tossell, C. C., Tenhundfeld, N. L., Momen, A., Cooley, K., & de Visser, E. J. (2024). Student perceptions of chatGPT use in a college essay assignment: Implications for learning, grading, and trust in artificial intelligence. *IEEE Transactions on Learning Technologies*, *17*(1), 1069–1081. https://doi.org/10.1109/TLT.2024.3355015

Utami, S. P. T., Andayani, A., Winarni, R., & Sumarwati, S. (2023). Utilization of artificial intelligence technology in an academic writing class: How do Indonesian students perceive? *Contemporary Educational Technology*, *15*(4), 1–13. https://doi.org/10.30935/cedtech/13419

Warschauer, M., Tseng, W., Yim, S., Webster, T., Jacob, S., Du, Q., & Tate, T.

(2023). The affordances and contradictions of AI-generated text for writers of english as a second or foreign language. *Journal of Second Language Writing, 62*(1), 1–24. https://doi.org/10.1016/j.jslw.2023.101071

Wijaya, K. F., & Mbato, C. L. (2020). Graduate students' perceptions on their self-efficacy in writing academic papers. *ELT Worldwide: Journal of English Language Teaching, 7*(1), 31–41. https://doi.org/10.26858/eltww.v7i1.13010

Wu, H., Li, S., Zheng, J., & Guo, J. (2020). Medical students' motivation and academic performance: the mediating roles of self-efficacy and learning engagement. *Medical Education Online, 25*(1), 1–9. https://doi.org/10.1080/10872981.2020.1742964

Yelliza, Siska, Ikhsan, M. K., & Satria, W. (2024). Students' writing ability by using AI generative tools; diffit, brisk, mendeley. *JURNAL JILP (Jurnal Ilmiah Langue and Parole), 8*(1), 58–64.

Yilmaz, R., & Yilmaz, F. G. K. (2023). The effect of generative artificial intelligence (AI)-based tool use on students' computational thinking skills, programming self-efficacy and motivation. *Computers and Education: Artificial Intelligence, 4*(1), 1–14. https://doi.org/10.1016/j.caeai.2023.100147

Yin, R. K. (2009). *Case study research: Design and Methods* (4th ed.). Thousand Oaks: SAGE Publicatios, Inc.

Yuan, Y., Li, H., & Sawaengdist, A. (2024). The impact of ChatGPT on learners in English academic writing: Opportunities and challenges in education. *Language Learning in Higher Education, 14*(1), 41–56. https://doi.org/10.1515/cercles-2023-0006

Yusuf, Y. Q., Mustafa, F., & Iqbal, R. M. (2021). An inquiry into grammatical errors in writing committed by high achieving EFL students. *International Journal of Language Studies, 15*, 1–22.

Zulfa, S., Dewi, R. S., Hidayat, D. N., Hamid, F., & Defianty, M. (2023). The use of AI and technology tools in developing students' English academic writing skills. *The Annual International Conference on Education*, 47–63.