



Exploring the Integration of Artificial Intelligence in English Writing: A Library Research

Ni Putu Ayu Pirdayanti^{1*}, I Kadek Dony Suantika¹, I Ketut Andika Pradnyana¹

¹ Universitas Pendidikan Nasional, Indonesia

*Corresponding Author's e-mail: ayupirdayanti@undiknas.ac.id

Article History:

Received: July 13, 2026

Revised: July 22, 2026

Accepted: July 31, 2026

Keywords:

Artificial Intelligence (AI),
English Writing, Chat
GPT, Grammarly,
QuillBot, Turnitin

Abstract: Writing is a fundamental ability that is crucial for communication, education, and social impact. It is the potential, particularly in the areas of the environment and education. It is in line with the notion that writing is the process of conveying ideas, sentiments, and thoughts through a spoken or written system meant for people who belong to a particular linguistic community. Some students lack the self-assurance and will to write, and they also need to learn grammar, punctuation, vocabulary, and diction, the most important components of writing. In this technology-driven era, learning can be accessed in various ways; one such method is the use of technology to learn writing. Artificial intelligence (AI) can be used to improve the expressive and interactive aspects of writing instruction. Some AI-powered programs allow students to create, edit, and improve their texts through personalized recommendations and instant feedback. This study used a library research methodology. Journals, books, papers, library research, theses, and proceeding journals were the sources of the information. The reviews claims that a variety of AI and technical tools can help students write in English more rapidly and precisely. Some of the tools including Chat GPT, Grammarly, QuillBot, and Turnitin. Some AI-powered tools allow students to create, edit, and improve their texts through personalized recommendations and instant feedback. Fortunately, by incorporating contemporary technology, these enduring writing difficulties can be greatly reduced in our quickly developing digital age.

Copyright © 2026, The Author(s).

This is an open access article under the CC-BY-SA license



How to cite: Pirdayanti, N. P. A., Suantika, I. K. D., & Pradnyana, I. K. A. (2026). Exploring the Integration of Artificial Intelligence in English Writing: A Library Research. *SENTRI: Jurnal Riset Ilmiah*, 5(7), 3520–3527. <https://doi.org/10.55681/sentri.v5i7.6951>

INTRODUCTION

Speaking, listening, reading, and writing are the four skills that students must master during the English teaching and learning process. One of the abilities that demands your undivided attention is writing. Writing is the capacity to express thoughts, feelings, and opinions in written form. Writing is a way for people to express themselves to others in writing. Writing is a process that is connected to one another. Atikah (2026) stated that writing is also challenging because unlike speaking, writing must follow linguistic rules and formal academic style, which can be demanding for EFL learners. This was in line with the statements made by Horning and Kraemer (2013) stated in Kaharuddin, et al. (2024) one of the effective methods for developing writing skills in higher schools and colleges was to engage in reading activities. Through literary work, students are willing to improve knowledge in a scope of culture and locality (Arifin, Arafah, & Kuncara, 2022). We might infer that writing is a complicated process that involves producing, expressing, and delivering our thoughts, feelings, and ideas through written words (Fahmi & Rachmijati,

2021). Every component of a student's work involves writing, including composing an essay, an email, a letter, a note, and any type of text (descriptive, narrative, report, etc.). It is clear from those claims that writing is a sophisticated process that enables students to explore their thoughts and create textual information.

Allowing students to explore, explain, and express their ideas using their own words is one way to help them become better writers. However, students struggle to find the right words to use, and many of them don't even follow proper grammar and spelling rules. Students are unable to develop their writing abilities because of these challenges and shortcomings, and they are unaware of their errors. Based on Richard and Renadya (2002) state in Sakkir et al. (2022) that one of the most challenging skills for someone learning a second or foreign language is writing. This was in line with statement from Atikah (2026) Writing becomes considerably challenging when students have to write using foreign language. This difficulty stems from the fact that many English as a Foreign Language (EFL) learners, especially in Indonesia, have not yet attained sufficient proficiency in writing. Some students lack the confidence and motivation to write, and they also need to master vocabulary, diction, punctuation, and grammar the most crucial aspect of writing (Fahmi & Rachmijati, 2021).

In this technology-driven era, learning can be accessed in various ways; one such method is the use of technology to learn writing. Given the significance of technological improvements in educating students for the 21st century skill of digital literacy in the classroom, it follows that both teachers and students should be able to grasp the technology itself (Putra & Santosa, 2020). Additionally, human activities have been impacted by technology, which has made them more convenient. Many facets of human life have been shown to be significantly impacted by technology since the turn of the twenty-first century. The way that both teachers and students learn in the classroom has been impacted by the twenty-first century, among other things. Many things have changed in the twenty-first century, whether it is due to the teachers or the students (Fatimah & Santiana, 2017). To put it another way, when students are attempting to learn something new, they use technology to look up information. As Zulfa et al. (2023) state in Losi, Eka, Nurbaiti, & Adinda (2024) Technology can facilitate English language instruction in a convenient way.

Artificial Intelligence is a currently popular technology frequently used across all areas of life, particularly in education. The capacity of AI integration to mimic real-life workplace situations, such as job interviews, customer service contacts, and team debates within digital learning environments, makes it very beneficial (Dewantara, Laksana, & Saraswati, 2024). According to Salas-Pilco et al. (2022), artificial intelligence (AI) is now an essential component of education and training. Using this technology could make learning English easier and more enjoyable. Artificial Intelligence (AI) can automatically interpret language and translate, according to Caplar et al. (2017) state in Kaharuddin, et al. (2024). Artificial intelligence (AI)-driven digital writing tools can improve students' written English proficiency (Coenen, Davis, Ippolito, Reif, & Yuan, 2021). Correction of grammar, diction, or sentence construction was provided by AI through feedback-motivated learning activities (Kaharuddin, et al., 2024). According to Fahimirad and Kotamjani (2018) stated in Kaharuddin, et al. (2024) the quality of students' learning process was improved through AI.

This study aims to investigate many technological tools that students use when writing in English for academic purposes. Students are introduced to these tools as a fresh way to enhance their writing abilities.

LITERATURE REVIEW

According to Rosdiana, et.al., 2024 stated in Atikah (2026) Writing is an important learning skill that serves as a communication tool and a medium for conveying thoughts, ideas, opinions, and feelings. Students can communicate effectively, arrange material rationally, and impart knowledge to others through writing. Writing is necessary in academic settings in order to finish assignments, write essays, prepare reports, and take part in intellectual communication. According to Johns in Yi (2009) state in Fahmi & Rachmijati (2021) that's there are several purposes of writing first is to express the writers feeling and thinking, second to entertain the reader, then to inform to reader what the writer purposes, and to persuade the reader. Nunan (1989) as cited in Atikah (2026) states that component of writing includes control of content, format, spelling, grammar, vocabulary and punctuation.

According to Yang et al., 2022; Zupan & Babbage, 2017 state in Andriani, Syihabuddin, Andoyo, & Dadang (2022) Writing skills involve three stages, namely planning, writing, and revising. The writing stage involves several skills, namely converting ideas into language (drafting) and the written word. According to Brown (2010) state in Sakkir, Nurul, Ahmad, & Abdullah (2022), writing has five analytic components, having five components in writing. The categories for writing components are Content, Logical development of ideas, Mechanics, Grammar and Style and quality of expression. This was in line with Oshima & Hogue (2007) state in Amini & Arik (2024) identified five categories for judging writing. The covered themes encompass content, organization, grammar, vocabulary, and mechanics.

The expressive and interactive elements of writing can be enhanced by incorporating artificial intelligence (AI) into writing teaching. Through immediate feedback and tailored recommendations, certain AI-powered applications give students the chance to draft, edit, and enhance their texts (Atikah, 2026). In addition, other components of writing can also be handled by AI such as grammar. Students learn English grammar, how to spell words, match words, as well as make sentences through AI. The mistakes made can be detected by this application and corrected as feedback (Kaharuddin, et al., 2024). Correction of grammar, diction, or sentence construction was provided by AI through feedback-motivated learning activities. Currently, a range of AI technologies are employed in educational settings to assist in the development of writing skills. By offering automatic feedback, fixing grammatical mistakes, expanding vocabulary, and supporting concept organization, these tools help students write better (Atikah, 2026).

RESEARCH METHOD

In this study, a library research design was employed. The goal of the library research was to integrate scientific data from numerous studies through multi-layered subject-related analysis. This research method's specific goal was to highlight the summary found in the many literature reviews, all of which included publications. Library research is the collection of knowledge and data using a variety of library materials, such as books, similar study results, articles, and journals pertinent to the problem we are attempting to resolve (Octaberlina, 2022) The papers are assessed and summarized in order to link theories. According to Sarwono (2006) state in (Octaberlina, 2022) A study referred to as library research examines a large number of book references and the conclusions of relevant earlier research, both of which contribute to the development of a theoretical framework for the topic under investigation

RESULTS AND DISCUSSION

Artificial intelligence is frequently used in education to facilitate learning, especially at institutions with enough infrastructure. Using AI and technology in academic English writing can help students write better in a number of ways.

a). Chat GPT

The most recent development from OpenAI that has generated a lot of discussion is ChatGPT (Generative Pre-trained Transformer). This chatbot with artificial intelligence demonstrates how digital devices may accomplish tasks that are often completed by clever people. Its prototype was released in November 2022. It can work with text, numbers, formulae, and program code (Losi, Eka, Nurbaiti, & Adinda, 2024). Research from Amini & Arik (2024) align that as a teaching tool, Chat GPT can significantly improve junior high students' descriptive text writing skills. This is explained by the fact that Chat GPT makes it easier to include technology into the process of learning and developing descriptive writing skills. Additionally, by strengthening students' grammar and vocabulary, Chat GPT can improve their writing assignments. By interacting with Chat GPT to check grammar, students can quickly receive feedback on their writing thanks to its instant feedback feature.

According to Wibowo et al., 2023 state in (Losi, Eka, Nurbaiti, & Adinda, 2024) Chat GPT is a tool for problem-solving of all kinds, helping office workers and students alike with challenging assignments. By introducing students to a variety of lexical items, Chat GPT helps them improve their vocabulary. It generates anything you want of it. The chatbot describes itself as one of the most powerful AI models that can generate messages, develop content, answer questions, and perform other natural language processing tasks. Additionally, students can improve their vocabulary and language skills by using the sentence structures found in the responses produced by Chat GPT (Amini & Arik, 2024). Students' excitement for writing skills is increased when Chat GPT is incorporated into the learning process, which encourages them to actively seek out Chat GPT's features to support their learning. Students are able to communicate with each other as they are learning.

The authors use Chat OpenAI-ChatGPT, <https://chat.openai.com>. ChatGPT can be used in various ways, and the technology itself has the potential to improve worker productivity and streamline processes in almost every sector and industry now in existence. There are several ways to access GPT chat. The first is through a web browser. 1) Open any web browser on your computer. 2) Type chat.com into the address bar and press Enter. 3) Click Log in if you already have an OpenAI account, or Sign up to create a free one. The second way is via the Official Desktop App. 1) Go to the ChatGPT Desktop Features page. 2) Click Download for Windows or Download for macOS. 3) Follow the on-screen installation steps. 4) Once installed, you can launch ChatGPT instantly using keyboard shortcuts: Option + Space on a Mac or Alt + Space on Windows.

b). Grammarly

Grammarly is a free online grammar checker that can spot punctuation faults, grammatical errors, spelling mistakes, and sentence structure issues. One of the finest AI-powered writing applications recognized globally and widely used by learners, teachers, and professionals is Grammarly (Fitria, 2021) state in (Atikah, 2026). The research from Wulandari, Yohanes, & Surmiyati (2025) state that Grammarly increased students' interest in their writing because after using Grammarly it showed that the majority of the students actively participated in answering questions about grammatical errors, vocabulary, and

mechanics. Wulandari, Yohanes, & Surmiyati (2025) also align that Grammarly application can be a useful alternative for teaching students, especially teaching descriptive text and give advised to all e English teachers to use Grammarly as an alternative teaching medium to help students improve their writing skills.

According to Fitriana & Nurazni (2022) Grammarly provides benefits for students because it is very helpful in correcting writing, but still has shortcomings in mis-correction and limited free use. Finding research from Suci & Syafryadin (2023) show that Grammarly can quickly and accurately detect EFL writing issues and mistakes related to vocabulary, grammar, and mechanics. The spelling feature on Grammarly contains erroneous and unclear terms. Grammar correction aids students in understanding proper usage. In the research also align that Grammarly's online learning platform not only helps users improve their writing skills but also boosts their drive and optimism. Depending on our writing requirements, we can select from a variety of Grammarly language styles, including formal, academic, and even informal. There are several ways to access Grammarly. First through App in Desktop. 1) Go to the Grammarly for Windows and Mac download page. 2) The site will automatically detect your operating system. 3) Click the download button. 4) Open the downloaded file (.exe for Windows or .dmg for Mac) and follow the on-screen installation prompts. 5) Once installed, log in with your Grammarly account. Second way, use a browser extension. 1) Visit Grammarly for your browser, 2) Click to add the extension to Chrome, Firefox, Edge, or Safari, 3) Once enabled, the Grammarly icon will appear automatically inside web text boxes (like Gmail, Google Docs, or Slack) to check your writing in real-time.

c). Quillbot

Quillbot, which is well-known for its ability to paraphrase, is another possible AI writing aid. Quillbot is helpful for summarizing information, eliminating redundant terminology, and enhancing sentence diversity since it allows users to rewrite sentences while maintaining the original meaning (Atikah, 2026). She also aligns that Quillbot can be a useful learning aid for students who have trouble expressing themselves properly or who require help rephrasing academic materials. According to research by Niswa & Amsari (2025), students responded favourably to using Quillbot as a tool to enhance their English writing abilities. Even if they only utilize the free or unpaid edition, students find Quillbot to have several benefits, such as the ability to paraphrase sentences and identify grammar and punctuation mistakes, among other things. Given the numerous benefits that students have discovered, Quillbot, an AI-powered English writing assistance, is a useful tool.

Study from Nugroho, Ilham, Irwandi, & Lukman (2025) state that the results of this study support the claim that QuillBot is efficacious in improving English writing skills, particularly in the context of EFL learners. The effectiveness of QuillBot in improving aspects of grammar, vocabulary, and coherence in English writing. This is also supported with the research from Amara, Leny, & Riki (2025) QuillBot additionally helped pupils' writing abilities, particularly in the areas of vocabulary growth, grammatical precision, and sentence construction. There are several way to access QuillBot. First through Web Browser (The Easiest Method): 1) Open your browser and go to QuillBot Website (type QuillBot on internet), 2) Sign in or create an account to start using the Paraphraser, Grammar Checker, and other tools. Second way, using App. 1) Download the QuillBot for Windows (or macOS) app from the official site or the Microsoft Store. 2) Once

installed, it acts as a floating widget that corrects grammar and rephrases text in apps like Slack, Outlook, Notepad, and WhatsApp.

d). Turnitin

Another potent AI-supported tool for evaluating the originality of written articles, essays, and research papers is Turnitin, which is mainly utilized in academic settings (Wulandari et al., 2024) state in (Atikah, 2026). This tool is crucial for encouraging academic integrity and assisting students in realizing the value of ethical writing and correct citation. Study from Nova & Westi (2018) mentioned that having Turnitin can enhance students' skills in writing, including creativity and critical thinking and also it can be used as guidance in revising the academic writing. Another study from (Orlando, Jose, & Jacqueline, 2018) aligns Turnitin can be strategically used by students to improve their comprehension and academic writing skills. Students who used Turnitin intentionally and interacted with it in a subtle way supported their self-identification of weaknesses in their academic literacy knowledge and abilities. From that, it can assume that Turnitin can enhance critical thinking and creativity in addition to writing abilities, also Turnitin helps students convey their thoughts more effectively in writing while also raising their awareness of the validity of their work.

Conclusion

Writing is an essential skill that is very important for social influence, education, and communication. It is the potential, especially in the fields of education and the environment. It is consistent with the idea that writing is the process of communicating concepts, feelings, and ideas via a spoken or written system intended for members of a specific linguistic community. The writing process encompasses several distinct stages, namely planning, drafting, reviewing, editing, and publishing. Artificial intelligence (AI) can be used in writing instruction to improve the expressive and interactive aspects of writing. Some AI-powered tools allow students to create, edit, and improve their texts through personalized recommendations and instant feedback.

There are some Artificial Intelligence (AI) used to improve writing skills such as Chat GPT, Grammarly, Quillbot, and Turnitin. Using Chat GPT is very beneficial, when Chat GPT is integrated into the learning process, students become more enthusiastic about writing skills, which motivates them to actively seek out Chat GPT's features to help their learning. As they study, students can interact with one another. Besides, Grammarly can swiftly and precisely identify vocabulary, grammar, and mechanical errors in EFL writing. There are incorrect and ambiguous terms in Grammarly's spelling tool. Grammar correction helps kids comprehend appropriate language. Another potential AI writing tool is Quillbot, which is well-known for its paraphrasing capabilities. Because Quillbot enables users to rewrite sentences while preserving their original meaning, it is useful for summarizing information, removing superfluous terminology, and improving sentence diversity. Last is Turnitin, it primarily used in academic contexts, is another powerful AI-supported tool for assessing the originality of written articles, essays, and research papers. Turnitin can help students improve their writing abilities, including creativity and critical thinking. It can also be used as a guide for editing academic writing.

Fortunately, by incorporating contemporary technology, these enduring writing difficulties can be greatly reduced in our quickly developing digital age. The advent of automated writing tools and artificial intelligence (AI) provides a revolutionary remedy for students' concerns and technical deficiencies. AI technology combined with writing instruction creates prospects for contemporary education.

REFERENCES

- Amara, R., Leny, S. R., & Riki, R. (2025). The University EFL Students' Perceptions of QuillBot as an AI-Based Tool for Enhancing Paraphrasing Skills and Academic Writing in English. *Journal of Educational Sciences*, 4298-4307.
- Amini, F., & Arik, S. (2024). Chat GPT: Enhancing Students' Writing Skills for EFL Students in Descriptive Text. *International Journal of Research and Innovation in Social Science*, 2273-2285.
- Andriani, L., Syihabuddin, Andoyo, S., & Dadang, A. (2022). The Role of Writing Process Components and Cognitive Components in Improving the Quality of Narrative. *International Journal of Learning, Teaching and Educational Research*, 88-106.
- Arifin, M. B., Arafah, B., & Kuncara, S. (2022). Dayak's Sociocultural Situation through Locality in Lumholtz's Through Central Borneo Travel Writing. *Theory and Practice in Language Studies*, 2695-2703.
- Atikah. (2026). The Use of Artificial Intelligence (AI) in Teaching English Writing . *Jurnal Alwatzikhoebillah*, 653-660.
- Coenen, A., Davis, L., Ippolito, D., Reif, E., & Yuan, A. (2021). Wordcraft: a Human-AI Collaborative Editor for Story Writing. *EACL*, 1-7.
- Dewantara, K. A., Laksana, I. P., & Saraswati, N. P. (2024). A Systematic Review of AI-Powered Tools in English Language Learning for Vocational Students. *International Journal of Natural Science and Engineering*, 201-214.
- Fahmi, S., & Rachmijati, C. (2021). Improving Students' Writing Skill using Grammarly Application for Second Grade in Senior High School. *Professional Journal of English Education*, 69-74.
- Fatimah, A. S., & Santiana, S. (2017). Teaching in 21st Century: Students-Teachers' Perceptions of Technology Use in the Classroom. *Journal of Linguistic and English Teaching*.
- Fitriana, K., & Nurazni, L. (2022). Exploring English Department Students' Perceptions on Using Grammarly to Check the Grammar in their Writing. *Journal of English Teaching*, 15-25.
- Kaharuddin, Djuwairiah, A., Mardiana, Ismail, L., Burhanuddin, A., & Ray, S. (2024). Defining the Role of Artificial Intelligence in Improving English Writing Skills Among Indonesian Students. *Journal of Language Teaching and Research*, 568-578.
- Losi, R. V., Eka, P., Nurbaiti, A., & Adinda, S. D. (2024). Using Artificial Intelligence (AI) to Improve EFL Students' Writing Skill. *International Journal of English and Applied Linguistics*, 62-70.
- Niswa, K., & Amsari, S. (2025). Quillbot As An AI-powered English Writing Assistant: An Alternative For Students to Write English. *Proceeding International Seminar on Islamic Studies*.
- Nova, M., & Westi, H. U. (2018). Efl Students' Perception of Turnitin for Detecting Plagiarism on Academic Writing . *International Journal of Education*, 141-148.
- Nugroho, P. E., Ilham, Irwandi, & Lukman. (2025). The Effectiveness of QuillBot in Enhancing English Writing Skills. *Journal of English Language and Education* , 390-395.
- Octaberlina, L. R. (2022). Exploring the Use of Digital Technology in English Language Teaching: Strategies and Methods for Effective Implementation . *Academic Journal of English Language and Education*, 175-190.

- Orlando, J., Jose, H., & Jacqueline, U. (2018). Exploring intentional use of a technological proxy, Turnitin, to enhance student academic literacy practices . *Australasian Journal of Educational Technology*, 44-56.
- Putra, M. M., & Santosa, M. H. (2020). Mobile Assisted Language Learning in Intensive English Course for Freshmen Year Students. *Journal of Education Technology*.
- Sakkir, G., Nurul, F. S., Ahmad, J., & Abdullah. (2022). Students' Writing Skills of the English Department at Muhammadiyah Sidrap University. *Uniqbu Journal of Social Sciences*, 110-115.
- Sakkir, G., Suardi, N. F., Ahmad, J., & Abdullah. (2022). Students' Writing Skills of the English Department at Muhammadiyah Sidrap University. *Uniqbu Journal of Social Sciences*, 110-115.
- Suci, I. P., & Syafryadin. (2023). Students' Perception on the Use of Grammarly in Writing English Journal. *Journal of Applied Linguistics and Literacy*, 198-211.
- Wulandari, K. F., Yohanes, G. S., & Surmiyati. (2025). The Use of Grammarly Application to Increase Students' Skills in Writing Descriptive Text. *Ethical Lingua*, 9-20.