

USING ARTIFICIAL INTELLIGENCE (AI) TO IMPROVE EFL STUDENTS' WRITING SKILL

Rizky Vita Losi¹, Eka Putra², Nurbaiti Ali³, Adinda Silvana Dewi⁴
University of Pembangunan Panca Budi, Medan, Indonesia, ^{1,2,3,4}

rizkyvitalosi@dosen.pancabudi.ac.id

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Abstract

When encouraged to write, students struggle to explain the idea in words. Writing skills force EFL students to use their imaginations to tell narratives or express opinions. In order to include modern technology into English language instruction, innovative approaches, materials, tools, frameworks, and procedures must be used. Digital writing tools powered by artificial intelligence (AI) have been shown through empirical studies to enhance students' written English competence. Specific technical instruments that could enhance students' writing are part of the use of AI and technology. This study used a library research methodology. Journals, books, papers, library research, theses, and proceeding journals were the sources of the information. The review claims that students may write academically in English more quickly and accurately by using a range of AI and technological tools. However, it becomes essential to integrate technology tools with the actual written skills of learners in order to effectively communicate the ideas. The purpose of tools is to assist, simplify tasks, and impart new knowledge to enable users write more academic English. In the end, by utilizing AI and technology, students can create academic English writing compositions that could help society as a whole while also developing their self-awareness, self-learning, and self-confidence.

Keywords— ChatGPT, Quillbot, Grammarly

Introduction

Technology is a forceful instrument that has a big impact on a lot of things in society, like education. Its ability to improve Indonesian education was acknowledged when the nation hosted the G20 meeting in 2022 (Syahril 2022). Thus, it is crucial that technology be included into education, particularly when it comes to teaching and studying English. Technology has become the main tool for facilitating the transmission of authentic content in English teaching (Huang et al., 2022). By incorporating teachers' and students' contributions, technology use can create better learning environments and situations (Audrain et al., 2021). Technology can facilitate English language instruction in a convenient way (Zulfa et al., 2023). The study was conducted using an internet connection to provide rich learning resources and authentic context in a mobile, practical, and flexible manner. It has been demonstrated that this greatest discovery significantly helps language learners in their English language acquisition by enabling them to engage in more enjoyable and productive learning activities (Losi, 2022).

The integration of modern technology into English language instruction involves the application of creative methods, resources, supplies, devices, frameworks, and techniques (Fitriani et al., 2023). This integration helps to accomplish goals that are expected of it and is closely related to English language training. As stated by (Prayudi et al., 2021), one of the most important factors in helping students acquire a language is the approach teachers take in the

classroom. Artificial intelligence (AI) has had a significant impact on the education sector in the current era of digital advancement, which has led to its remarkable development (Pratama & Hastuti, 2024).

Empirical studies have demonstrated that artificial intelligence (AI)-driven digital writing tools can improve students' written English proficiency (Coenen et al., 2021). When we talk about artificial intelligence (AI), we are talking about a branch of computer science that focuses on developing systems that mimic human intelligence. Since then, artificial intelligence (AI) has been applied to accomplish objectives in a number of industries, including education (Mahmud, 2023).

The use of AI and technology includes particular technological tools that could improve students' writing. Word processing, internet resources, mobile devices, and assistive technologies are examples of technological instruments that can be used in writing. E-writing can be used in the writing classroom by getting students to write using the right procedures. A number of writing software tools, including Grammarly, Turnitin, Microsoft Word, Google Docs, and Correct English, could help students with their writing. Furthermore, a lot of AI-based technologies may promote students' writing by making it easier to guide their work. The availability of numerous technological tools for academic writing, such as QuillBot, DeepL, Google Translate, ChatGPT, and others, has helped artificial intelligence (AI) gain popularity. In an academic writing classroom, English teachers and students could make use of appropriate technological tools. Thus, technology and AI help students write academically in English (Zulfa et al., 2023).

Writing effectively is a key indicator of academic success in college for students learning English as a foreign language (EFL) (Yunus, 2019; Ayu & Anggriani, 2023; Sari et al., 2020). But students find it difficult to write in academic English (Hamzaoui, 2021), especially EFL students. English as an Additional Language (EAL) learners face numerous and diverse obstacles when it comes to academic writing, including information structure (Flowerdew, 2019), grammar, lexis, and writing mechanics (Phuong, 2021), and genre conventions.

Artificial Intelligence (AI) presents students and learners with innovative learning options in the field of English language teaching. Artificial Intelligence improves English language instruction by supporting communication and providing insightful feedback to learners. AI platforms offer a variety of interactive exercises with immediate feedback. AI additionally adapts explanations and course materials to meet the unique needs of each student or learner. The integration of artificial intelligence (AI) in language education can enable learners to advance at their own paces through individualized instruction, targeted feedback, and adaptive learning experiences. Furthermore, (Subiyantoro et al., 2023) investigated artificial intelligence's impact on English language instruction.

The purpose of this study is to explore the different technological tools that students utilize when writing academically in English. These technologies are introduced to the students as the new insight to improve their writing skill.

Literature Review

According to (Chassignol et al., 2018), digital technologies are undeniably seen as an integral element of our day-to-day existence. They are useful instruments for information retrieval, promoting interpersonal communication, and even improving interpersonal relationships. As a result, there have been massive developments in the sphere of education. The educational process is now more successful and engaging as a result of these improvements. In the educational system, a variety of interactive teaching tools have grown in popularity recently.

Instructors are becoming more aware of the use of alternative learning environments, like Moodle, Edmodo, Google Classroom, and Power School. For online learning, there are now a ton of Massive Open Online Courses (MOOCs), like coursera.com. Not to mention the multitude of educational establishments that employ Learning Management Systems (LMS) like Moodle. Applications of artificial intelligence (AI) are also employed as effective means of advancing education and facilitating learning (Abdalkader, 2022).

The importance of utilizing artificial intelligence systems in learning has been

highlighted by numerous studies recently. (Salas-Pilco et al., 2022) assert that artificial intelligence (AI) is now a crucial part of training and education. With the use of this technology, studying English may be more fun and uncomplicated. However, it can be seen as an inevitable development for digital media, as explained by (Karkera & Chamundeshawari, 2018), (Yoestara & Putri, 2019), who indicate out that before AI became widely used, learners tried a variety of digital media, including podcasts, YouTube, and radio apps, to enhance their language skills. AI enhanced the usefulness of these media by enabling features like self-correction and communication with native speakers that imitate humans (humanoids). At the moment, AI is categorized as educational entertainment, or edutainment (Abdalkader, 2022).

Research Method

The library research design was used in this study. The library research aimed to combine scientific information from many studies by doing multi-layered analysis related to the subject. Specifically, the purpose of this research method was to draw attention to the summary found in the diverse literature review, all of which contained publications. The methods used to get the data were diverse. It was broken down into multiple steps, including defining the general subject, gathering pertinent research, connecting to a wide range of sources, reviewing, evaluating, and refining into the final conclusions (Sare, 1980). As a result, every research design related to this study was created using previously collected data from journals, articles, books, library research, theses, and proceeding journals (Mulyanto et al., 2023).

In order to answer the research problems involved in the current study, the selected articles must first be published in reputable international journals, recognized national journals, and other relevant publications considered dependable (Losi et al., 2023). In order to provide a more recent viewpoint, the articles also need to have been published between 2018 and 2024. Third, several keywords were selected in order to enhance the search outcomes (Wijaya et al., 2021).

Results and Discussion

In order to make learning easier, artificial intelligence is commonly employed in education, particularly at schools with sufficient infrastructure. Students can improve their writing in various ways by using AI and technology in their academic English writing.

Using ChatGPT to improve students' writing skill

The most recent innovation that has generated a great deal of discussion is ChatGPT (Generative Pre-trained Transformer) from OpenAI. This artificial intelligence chatbot shows how digital gadgets may carry out jobs that are normally performed by intelligent beings. November 2022 saw the release of its prototype. It is capable of working with numbers, formulas, text, and program code.

Anything you ask of it, it produces. According to the chatbot's own description, it is one of the most potent AI models that can produce messages, create content, respond to inquiries, and carry out other NLP functions. Chat OpenAI - ChatGPT, <https://chat.openai.com>, is used by the writers. There are almost countless ways to use ChatGPT, and the technology itself may streamline tasks and boost worker productivity in nearly all sectors and industries now in existence. The education sector is not an exception.

The majority of researchers look into the benefits, drawbacks, and implications of using AI in classrooms and colleges while also examining instructors' attitudes toward the technology. The fact that different scholars came to different conclusions is noteworthy. For example, Gocen & Aydemir (2020) focused on the favorable views that instructors had of AI during the investigations, whereas Haseski (2019) mostly highlighted the negative feelings that teachers had about AI in the classroom. According to Picciano's research (2019), university instructors worry that the adoption of AI at the postsecondary level will cause them to lose their traditional responsibilities in education.

Several authors looked at some important AI words and ideas from the standpoint of education and found applications for AI in the future for things like adaptive learning,

personalized learning, intelligent training systems, and teaching and learning procedures. Manuscripts highlighting successful experiences with AI in teaching across the globe are also available (Kostikova et al., 2024).

(Wibowo et al., 2023) state that Chat GPT is a tool for problem-solving of all kinds, helping office workers and students alike with challenging assignments. Additionally, Chat GPT can be used to respond to instructor assignments and inquiries while also offering a more individualized viewpoint and responses, making it a further information-gathering option to Google and Wikipedia. But it's crucial to keep in mind that Chat GPT's results should be examined because the language model still has flaws (Nurhuda et al., 2023). OpenAI created the generative language model known as Chat GPT. With an enormous quantity of text and code as training data, this language model is quite huge. The ChatGPT model is utilized for a number of tasks, such as text generation, language translation, and providing useful answers to requests.

The use of Chat GPT technology in education, namely in the teaching and learning of English. The study discovered that by simulating human-like interactions, Chat GPT has the potential to improve language learning experiences. The study also found useful instructional strategies and pedagogical approaches that may be used to optimize Chat GPT's educational advantages (Zulfikasari et al., 2024). Furthermore, a study focused on the use of ChatGPT technology in Libya and the obstacles faced by computer science instructors in higher education revealed that these difficulties range from technological limitations to cultural adaptations. Additionally, a study sought to create a Teaching-Learning support model for the use of AI-based learning help systems in universities, integrating Chat GPT technology. Finally, a training course was held to improve teachers' abilities to create artificial intelligence-based learning materials, especially with Chat GPT (Kaswar et al., 2023).

Based on the findings and discussion, ChatGPT can have a good impact on the field of education and learning because of its capacity to deliver results based on the keywords that the user enters. It's important to acknowledge, nevertheless, that not all of these resources have a positive influence on students' acquisition of various learning competencies, including creative writing abilities (Shidiq, 2023). Therefore, it is crucial that educators devise a plan that goes beyond the use of internet-based learning, which students could misuse for assignment completion. One tactic that may be used is the use of printed material as a medium as a kind of process management and assessment while gathering assignments linked to creative writing.

Using Quillbot to improve students' writing skill

An alternate method for teaching languages is called QuillBot, which combines AI-based language detection with tools for summarizing and paraphrasing. According to (Dale, 2020), QuillBot stands for one of the most widely used free paraphrase programs. A product from QuillBot suggests paraphrases using artificial intelligence (AI). Multiple approaches to deep learning and natural language analysis are combined in AI methods. To generate new sentences, automatically remove, add, and modify words (Fitria, 2021b). It's simple to use this tool. By entering or pasting text and selecting the paraphrase option, QuillBot can rewrite text.

One of Quillbot's most frequently utilized tools is the paraphrasing tool. This is due to the fact that a lot of writers create inauthentic writing by basing their arguments on quotes from other people's words. Furthermore, the lack of plagiarism is a must for publishing high-quality content (Amanda et al., 2023). Therefore, we need a tool that can quickly change sentences to help us. Seven characteristics in the paraphrasing tool are helpful and offer numerous advantages. These characteristics include: 1. Standard Mode. Text can be slightly altered by using this feature. Using this option makes the text we enter appear real. 2. Mode of Fluency. Fluency Mode is a feature that applies appropriate syntax in accordance with English grammar rules to make text appear more natural. With this feature, the text only undergoes slight modifications without losing its original meaning. 3. Formal Approach. Text formatting can be formalized with the help of this tool. When it comes to producing academic papers and articles, this is the approach that works the best. 4. Easy Mode. This mode, according to its name, converts the text into a basic text with short sentences. 5. The Creative Mode. You can change the phrasing as much as you'd like with this function. The text's overall context is impacted by this feature, which modifies the text's original form. To make the necessary changes, idioms

from the original text are used. 6. The Expand Mode. The user can add words to the text by using the expand mode option. 7. Reduce the Mode. The user can remove as much text as they'd like in this mode. However, this function maintains the text's meaning rather than changing it.

There have been positive as well as negative impacts of technology on students' academic writing abilities. The first viewpoint holds that QuillBot improves students' academic writing. Students can use more academic words to improve their essays, learn about new word sets they may not have known before, and use paraphrasing tools to save time when writing academic essays. By using QuillBot tools, students can also become more studious when writing their academic writing. Additionally, QuillBot has a favorable impact on students' academic writing in other areas as well, such as helping with formality, objectivity, complexity, and hedging. In other situations, QuillBot is negative. When students use QuillBot extensively, they become lazy and reliant on technology, which has a negative psychological influence on them. They also become addicted to QuillBot.

Furthermore, some students have challenges when utilizing QuillBot, pertaining to internal and external barriers that exist within them as well as exterior barriers that are present outside of them. The challenges encompass an unreliable network, ambiguous guidelines for acquiring the upgraded edition, and modifications to the infrastructure that powers QuillBot (Jaladara et al., 2023).

In conclusion, QuillBot AI has the potential to greatly improve students' writing abilities, especially when used with hortatory exposition materials. QuillBot AI can help students write better by providing better word suggestions, changing sentences, and improving sentence structure. QuillBot AI offers a range of writing improvement tools to help students at different phases of the writing process. These resources contain spelling and grammar checkers, style recommendations, and vocabulary builders. With the help of these tools, students can proofread their work for accuracy and coherence as well as spot and fix mistakes. The capacity of QuillBot to rewrite and paraphrase text is one of its noteworthy qualities. It is especially helpful for student who might find it difficult to put ideas into their own words or who wish to stay away from plagiarism (Amyatun & Kholis, 2023).

Using Grammarly to improve students' writing skill

(Fahmi & Rachmijati, 2021) state that Grammarly is an online tool that is used to verify English writing and grammar. It offers a number of benefits, including comprehensive grammar capabilities. These tools, which are available for free, include Grammar Checker, Plagiarism Checker, and Proofreading. Grammarly can help students learn more effectively by helping them comprehend every writing error they have made. Furthermore, (Fitria, 2021a) noted that millennial students benefit from the advantages of using Grammarly technology in the classroom, which makes studying more innovative and current. (Ghufron & Rosyida, 2018) assert that Grammarly is among the top grammar checkers available. Students who wish to increase their writing and vocabulary in English will find it really helpful, and the plagiarism detector can also assist prevent the negative consequences of writing only from other sources. Grammarly is an application that teachers can use in the classroom to fix incorrect writing components. This happens naturally as Grammarly gains popularity among educators and students, particularly those studying English. According to (Ambarwati, 2021), Grammarly is compared to a booster for kids to acquire English to the fullest extent possible at the senior high school level (Octaberlina, 2023).

Grammarly offers its users a number of benefits. To begin with, Grammarly offers input that is both direct and indirect. Direct feedback can be given using the correction and explanation card, while indirect feedback can be given using the underlined error. Students can fix their own mistakes and have a better knowledge of grammar rules when they receive thorough feedback. Second, Grammarly could easily fix typos in written work. Users will thus save time by utilizing this tool. Additionally, several Grammarly features are free to use with the free version. Students seem to prefer the free service, despite the fact that the premium version has more features. Lastly, users can boost their confidence when writing. They personally proofread for mistakes to encourage consumers to submit and receive comments from other people.

Despite Grammarly's complexity, users ought to go over each recommendation that this program makes very carefully. It also has certain drawbacks, including Grammarly's input not always aligning with the user's intention. People may think about whether to accept or reject the input as a result. Secondly, it is not possible to change the name, title, or article in the reference list. However, this program recognizes the creation of reference lists. Third, Grammarly ought to evaluate how consistent and coherent the text is. Nevertheless, this application lacks a feature that determines the connection between two sentences. Additionally, there is a lack of control over input from instructors, which lowers motivation and produces less authentic work. Finally, in order to use this program, users must have connections. The usage of Grammarly is impacted when there is a problem with the connections (Oktaviani et al., 2022).

In conclusion, Grammarly presents both benefits and drawbacks. Grammarly's features are easy to grasp and it offers faster correction. These are its advantages. It can identify small mistakes that pupils need to make. However, Grammarly's drawbacks include the fact that it is unable to identify the tenses that students are using at any one moment or within a paragraph, and that using all of Grammarly's premium capabilities requires payment.

Conclusion

The development of AI and technology makes it easier for students to investigate technological resources that enhance academic writing in English and help them become more proficient writers. Every technological instrument has a unique set of features that students can use to produce academic English writing. The most well-liked AI-based technological products that offer automated feedback, correction, and recommendations are ChatGPT, QuillBot, and Grammarly. Additionally, students encounter various situations when using technology for academic English writing, but they also benefit from improved writing support and continuity for future use. Students' progress influences their academic English writing by enhancing their language skills and yielding higher-quality writing.

Students have access to a variety of AI and technology tools that can facilitate their academic writing in English more quickly and precisely. But in order to convey the concepts, it becomes essential to combine technological tools with the writing skills of the actual students. Tools are only there to help, to make things easier, and to teach us new things so that they can write more academically in English. By providing numerous advantages that might help students notice their writing progress, the use of AI and technology could improve students' academic writing abilities in English. Students who struggle with word choice, grammar, spelling, and other aspects of writing can practice their writing and use technological tools to produce academic writing in English that is respected (Zulfa et al., 2023).

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