



## Artificial Intelligence Tools in Developing English Writing Skills: Bangladeshi University EFL Students' Perceptions

Afrida Lubaba Khan<sup>1</sup>, Md. Mahadhi Hasan<sup>2\*</sup>, Md Nakibul Islam<sup>3</sup>, Md Sharif Uddin<sup>4</sup>

*Fellow, Teach for Bangladesh (Dhaka, Bangladesh)<sup>1</sup>*

*Assistant Professor (Department of English and Humanities, University of Liberal Arts Bangladesh, Dhaka, Bangladesh)<sup>2\*</sup>*

*Master's in Information Technology, (Washington University of Science and Technology, USA)<sup>3,4</sup>*

### Article Information

Received: October 28, 2024

Revised: November 13, 2024

Accepted: November 18, 2024

Published: December 02, 2024

### Keywords

Artificial Intelligence, Google Translator, ChatGPT, Grammarly, QuillBot, EFL Learners, University, English Writing Skills, Perceptions, Challenges, Bangladesh

### Correspondence

E-mail: mahadhi4bd@gmail.com

### ABSTRACT

Artificial intelligence technologies are advancing rapidly, and this advancement led to the infiltration of AI tools in various educational sectors worldwide, influencing teaching methodologies and learning experiences. Bangladeshi tertiary-level EFL students, the demographic being Bangladesh due to the educational and technological landscape, encounter unique challenges and a multitude of perceptions. This study aims to address the gap in factual investigations concerning AI tools' effectiveness and acceptance among Bangladeshi tertiary-level EFL students. Previous studies focused on language learning at a general level and put limited attention on the usability of AI in improving writing skills and even less on the Bangladeshi context. Therefore, this study addresses this gap by exploring Bangladeshi tertiary-level EFL students' perceptions of the usage and the challenges concerning the usability, accessibility, and integration of AI tools in developing their writing skills. The study employs a mixed method, quantitative and qualitative methods, which comprehensively analyze students' attitudes and experiences, as these approaches provide numerical data and contextual insights. The findings of the survey and the in-depth interviews reveal that AI tools have various effects on students' English writing skills. Although the data strongly support the assistance of AI as an invaluable resource in the educational context, several barriers were also identified, including technical issues, the potential for plagiarism, prevalent misconceptions, and encompassing critical thinking skills. The findings contribute to the ongoing discourse of AI integration in language learning and provide suggestions on the usability of AI tools as complimentary aids rather than as replacements for traditional learning methods.

## INTRODUCTION

Writing skills play a vital role in a student's academic life in order to bring out satisfactory results at the tertiary level of education. Acquiring a second language is a challenge for people whose first language is completely different; Bangladeshis are no exception, particularly when it comes to expressing themselves in English, as their mother tongue is Bangla (Hasan & Labonya, 2016b; Hasan & Alam, 2016; Hossain, Hasan, & Meraj, 2015; Rahman, Abidin, & Hasan, 2018). However, Bangladeshi tertiary-level students often find themselves in academic

environments where lectures are delivered in English, and they are expected to submit their written work in English as well. Therefore, this language barrier can hinder their writing ability effectively and clearly, resulting in less satisfactory academic outcomes (Mridha & Muniruzzaman, 2020; Hasan & Ibrahim, 2017; Hasan & Labonya, 2016a; Hasan, 2014).

In Bangladesh, technological advancement is increasing day by day and also the influence of these advancements in every sector (Hasan et al., 2018; Hasan & Ibrahim, 2017); therefore, the perceptions of AI in the educational sphere are important, especially among students (Hasan & Labonya, 2016b; Hasan & Alam, 2016; Hossain, Hasan, & Meraj, 2015; Rahman, Abidin, & Hasan, 2018). The students use AI tools for developing or mending their thoughts into words, and therefore the alignment of the tools with the students' expectations and cultural context is essential as well. However, the relevance of AI in regard to the acceptance and implication of language learning is a comparatively new frontier. In tertiary-level EFL classrooms, traditional learning methods are effective, but students face challenges in larger classrooms where individualized attention is limited. AI writing assistants offer a unique opportunity to bridge this gap, as "AI can provide feedback on grammar, spelling, and syntax by analyzing essays, reports, and other written assignments" (Owan et al., 2023, p. 3). AI language learning also encompasses adaptive learning systems that change based on the user's needs, hence ensuring personalized learning. AI tools also learn from examples by spotting patterns, making decisions, and updating over time (Marr, 2019, p. 326). The effectiveness of AI tools in developing tertiary EFL students' writing skills depends on their technical capabilities and also their ways of perceiving and utilizing the tools.

AI changes students' writing. It transformed industries and upgraded education technology. The research by Shahriar and Laboni (2023) explained that Grammarly develops grammar accuracy and writing skills. Likewise, Seraj and Oteir (2022, Pp. 14-16) suggested, "AI-based instruction develops trust, self-confidence, and critical thinking among students." Kurniati and Fithriani (2022) found that QuillBot enhances academic writing in postgraduate English students. Shahriar and Laboni (2023) recorded that Google Translate helped achieve learning

in the areas of vocabulary, sentence structures, and spelling, among others. Hasan et al. (2020) and Huang et al. (2023) have shown evidence of how technology and AI can help address language learning issues. The tertiary students in Bangladesh are introduced to AI writing tools for academic and personal use.

However, there is limited research on using technology-powered AI as a digital tool to improve the writing skills of Bangladeshi tertiary-level EFL students. Moreover, previous studies such as Alharbi (2023), Roe et al. (2023), Imran and Almusharraf (2023), Nazari et al. (2021), Shahriar (2023), Shahriar and Laboni (2023), Huang et al. (2023), Kurniati and Fithriani (2022), and AbdAlgane and Othman (2023) have extensively examined the effectiveness of AI tools in language education, focusing primarily on their technical capabilities and the overall improvement in language proficiency. Furthermore, these studies predominantly center around the technical and pedagogical aspects of AI and often overlook the subjective experiences and perceptions of the learners themselves, which is the main target of this research. Therefore, this research aims to minimize the notable gap in understanding how AI is perceived by tertiary-level learners, particularly in the context of writing in non-English-speaking countries like Bangladesh. Hence, an investigation should be conducted to evaluate the effects of AI tools on the writing development of EFL tertiary-level students, offering new insights into the acceptance and challenges of AI. The findings of this research will be beneficial to a broad range of contributors, primarily educators, and curriculum developers, as they can gain insights into the students' perceptions of how they are integrating the AI tools for their writing tasks and the effective integration of these tools into language learning programs. Following this, policymakers can utilize these perceptions to guide decisions on educational technology investments and implementations of AI tools. Following this, the provided information can be used by the technology developers to refine AI tools to better meet the needs of EFL learners. Finally, the students themselves will benefit from the improved AI tools and methodologies that are more closely aligned with their writing preferences and challenges. The study posed two research questions: What are the perceptions of Bangladeshi tertiary-level EFL students about the use of AI in developing their writing

skills? And what challenges do tertiary-level EFL students face when utilizing artificial intelligence tools for English writing tasks?

### ***Theoretical Framework***

Cognitive theory about learning emphasizes the writing process; therefore, "planning (pre-writing)" and "revising (re-writing)" are crucial stages of the cognitive approach to writing (Hayes & Flower, 1981, p. 367). Translation and review also involve evaluation and revision. It hypothesizes that "writing interacts with the writer's goals, the needs of the audience, and the text" (Hayes & Flower, 1981, p. 378). It is also postulated to support the fact that writing itself is not a linear process; "writers may spend more time in planning at the beginning" (Hayes & Flower, 1981, p. 375). A good planner actually takes the writer through planning in writing in the generation of ideas, organization, setting of a goal, translation of ideas into text, and review of the final product. The whole process involves juggling constraints, and in most cases, communication is the most difficult one. Writing is described as an incredibly intricate cognitive task that in itself involves memory retrieval, problem-solving, and critical thinking. Thus, for non-native speakers, the challenge is in planning and idea translation, while for advanced writers, refinement, and organization are the greatest challenges. AI tools weaken the cognitive load of a writer, according to Nawal (2018), as cited by Gayed et al. (2022). Grammar checkers enhance writing skills by way of grammar suggestions, brainstorming prompts, and outlines, states Alharbi (2023). A tool like this helps in releasing writer's block, hence promoting cognitive learning theory since it focuses on the generative aspect of writing. They help writers complete sentences, improve vocabulary, and correct grammar (Roe et al., 2023). AI tools evaluate texts and provide suggestions for clarity, style, and tone (Alharbi, 2023). They indicate where changes have to be done yet leave the user's entries intact for the control of cognitive acts of "reviewing" and "revising" (Hayes & Flower, 1981).

## LITERATURE REVIEW

The relevant literature on the use of AI in developing writing skills is critically discussed here.

### *Writing Challenges of the EFL Students at the Tertiary Level*

Academic writing skills are an essential part of study for any student at any level: primary, secondary, and tertiary. English being the medium of instruction at the tertiary level, necessitates proficiency in writing for academic success. In Bangladesh, English is a compulsory subject at different levels of education; however, even at the tertiary level, students' writing skills could be more satisfactory. So, the importance of addressing the difficulties faced by students couldn't be ignored in order to overcome and help future generations. According to Patwary et al. (2023, p. 30), "Writing English smartly like English-speaking people is underscored in the tertiary level, besides learning some grammatical rules." Moreover, she addressed the limited time for English classes in secondary and higher levels, which eventually hinders Bangladeshi students whose first language is Bangla from comprehending the necessary number of grammatical rules, vocabulary, and other general skills that the learners need to acquire a second language (Hasan et al., 2018). Kayum and Khan (2015) found that there are some basic skills that learners need to develop in their writing, such as organization of "vocabulary," "correct spelling and structure," "punctuation," "paraphrasing," "presentation and style" of language, and "coherence" (p. 32). However, in the private universities of Bangladesh, the semesters are confined to four months, and teachers get only a week or two to provide extensive feedback. Patwary et al. (2023) stated that students' writing skills can be developed by "identifying and correcting errors. Lastly, she mentioned that at the tertiary level, the focus on developing writing abilities lessens as students become preoccupied with their major courses. Therefore, writing qualifications become less important in such major courses, which hinders the scope for developing writing skills (Hasan et al., 2020).

### ***Perceptions of Tertiary-Level Students Regarding AI***

The study by Lee et al. (2024) explored the perceptions of tertiary-level students regarding the adoption and impact of artificial intelligence (AI) tools in higher education, with a particular focus on a private university in Latin America. According to Lee et al. (2024, p. 13), students have generally positive perceptions of AI tools across all dimensions; they somewhat agree that the tools have impacted their learning and teaching. They mentioned that AI tools have the potential to enhance academic experiences by “enhance[ing] comprehension, productivity, and creativity” (Lee et al., 2024, p. 2). This study, moreover, explored the viewpoint and understanding of high and low AI-generated content, which beneficially suggested a need for improvements in AI literacy among learners and educators. Furthermore, the survey data from the study revealed that AI tools in terms of learning experience are seen as beneficial, hence reflecting their acceptance and utility in academic settings.

### ***The Contribution of AI in Writing Development***

The paper by Shahriar and Laboni (2023) has relevance in the context of EFL education, and the authors found with real-time data that Grammarly, as an AI writing assistant, contributes to the improvement of writing skills. Moreover, they found that the AI tool has helped the tertiary-level students who are studying at the Daffodil International University by correcting their “grammatical structure,” “spelling mistakes,” “punctuation mistakes,” and “capitalization errors” (Shahriar and Laboni, 2023, p. 68). The participants of this study agreed that Grammarly, which is an AI tool, has positive effects on developing students’ writing skills. Furthermore, Shahriar and Laboni (2023, p. 72) highlighted the positive implications of using AI for language learning, as in boosting EFL students’ “confidence” and increasing their “motivation” to write “complex” and “compound” English sentences. Again, this study explored the contribution of AI in language learning and examined the localized impact of such technologies in enhancing English writing skills among Bangladeshi tertiary-level students. Overall, this paper is related to the idea of the perceptions of tertiary-level EFL students concerning the usage of AI in developing their writing skills.

Additionally, Barrot (2023) presented in a study that the AI, ChatGPT's role in developing writing skills for EFL learners is crucial as it engages the learners in natural, interactive experiences. Moreover, the paper also explored the positive effects of ChatGPT on generating necessary language input and output, which aids language learners in developing language skills. Furthermore, Barrot reflected that AI tools specifically assist in developing writing skills and are accessible on devices like computers and mobiles. He also mentioned positive aspects such as the natural and human-like interactive experience, contextual relevance, and differentiated feedback according to the user's input question. In addition, the research explored tertiary-level students' perceptions of machine translators, specifically Google Translate, in facilitating English language learning (Shahriar, 2023). The findings revealed that students utilize Google Translate for understanding academic and non-academic texts, translating between English and Bengali. It underscored the tool's effectiveness in learning new vocabulary, sentence structures, spelling, and pronunciation (2023, p. 77). In Bangladesh, the need for English language competence for tertiary-level students is a must, as it is used extensively in the syllabus.

### ***Students' Perceptions of the Effects and Potentials of AI***

Alharbi (2023) conducted a systematic review to explore the effect of AI writing tools in educational settings and underscored the fast-progressing image of these tools. This study also showed AI tools' effects in enhancing students' writing abilities. He analyzed 104 peer-reviewed papers from the Scopus database and categorized these AI tools into four groups, such as automated writing evaluation (AWE), automated writing corrective feedback (AWCF), machine translators, and automated text generators (GPT-3) (pp. 7-9). According to Alharbi (2023), "incorporating these tools into the language classroom has been controversial" (p. 2). Moreover, the research showed that AI digital writing tools go beyond "vocabulary" and "grammar," instead they offer "human-like" help, and for this reason, language educators and researchers encounter problems in recognizing authentic writing submitted by students (Alharbi, 2023, p. 2).

Also, Nazari et al. (2021) showed that the integration of artificial intelligence (AI) in educational settings can help enhance English academic writing skills among non-native postgraduate students. The study explored the effect of an AI-powered writing tool on English second postgraduate students' engagement, self-efficacy, and emotional states. The findings showed that among 120 students, compared to the non-equipped AI (NEAI) group, the students who use AI tend to improve multiple dimensions of engagement, e.g., behavioral, emotional, and cognitive, as well as in self-efficacy for writing, positive emotions, and a reduction in negative emotions. This study highlighted the role of immediate feedback and review (revision) in enhancing students' engagement and writing skills. Moreover, the study underscored the fact that "self-evaluation and review" are aligned with "writing proficiency and higher writing scores" (Nazari et al., p. 7). Furthermore, writing assistance like Grammarly has shown the potential to improve English as a Foreign Language with competencies and also highlighted the effects of AI tools on enhancing engagement and writing proficiency. Additionally, Nazari et al. (2021, pp. 7-8) pointed out the pedagogical challenges when AI tools are integrated into educational aspects, which included the "lack of support for teachers," the importance of "competencies," limited AI literacy, and technological support (Aktar et al., 2022).

According to Roe et al. (2023, p. 27), the fast-developing digital writing tools have varied usage for academic purposes within educational sectors, primarily for language learning. The authors explored multiple AI writing aids that go beyond traditional tools such as spell correctors and grammar checkers. Moreover, it is found from the study that machine translators, digital writing tools, and automated paraphrasers have "pedagogical uses" in the language learning classroom. Furthermore, the rapid technological advancement and the enhanced usage of these AI tools might outdo the implementation of academic integrity policies in educational institutions. Hence, the misalignment regarding the ethical use of AI tools potentially leads to uncertainty, confusion, and a general lack of awareness among the stakeholders, including educators, students, and administrative bodies. The study showed that MTs and DWAs are valuable for "ESL learners and can assist all students to write in line with



academic integrity principles” (Roe et al., 2023, p. 27). The paper also categorized large language model-based (LLM) tools apart from ChatGPT, which served as a basis for discussion, focusing on distinct features and potential pedagogical impacts of each category.

## **RESEARCH METHOD**

### ***Research Design***

This study identified the perceptions of Bangladeshi tertiary-level EFL students about using AI to develop writing skills. By using both quantitative and qualitative methods, the study has been done.

### ***Population and Scope***

For this study, the target population was defined as the EFL students of tertiary-level studying in Bangladeshi private universities who are being introduced to new AI writing tools, eventually developing their writing skills. The study covers different private universities in Dhaka. This is very expensive and unfeasible to use the study's total population (Saunders et al., 2009). Therefore, the proper sampling technique is acknowledged next.

### ***Sampling Technique and Sample Size***

In this study, a simple random sampling technique is used by the researcher for the collection of quantitative data. The researcher employed simple probability sampling so that each member of the population gets the same chance of being chosen. For the qualitative data, a purposive sampling technique has been used. The tertiary EFL students from different private universities in Bangladesh are the samples of the study. Following Krejcie and Morgan (1970), the sample size in this study is 138 EFL students, and the interview population size is 4, who are residents of Bangladesh and are studying in Bangladesh at the tertiary level. This sample size is appropriate because it covers other tertiary-level EFL students who are using AI writing tools. A total of 138 students from both the Bachelor's and Master's programs of different universities participated in the survey. Moreover, an in-depth interview was conducted among four interviewees to gather individual perspectives. 107 participants from

the University of Liberal Arts Bangladesh, 10 from BRAC University, 6 from North South University, 4 from Independent University, and 7 from other universities combined were taken as samples.

### ***Instruments***

A questionnaire was used to determine the perspective and challenges related to the usability, accessibility, and integration of AI into tertiary-level students' writing development. The questionnaire contains 25 items: the first section is the demographic profile, the second part is perceptions about AI in developing writing skills, and the last section has questions about the challenges in utilizing AI for English writing. The survey used a 5-point Likert scale ranging from strongly disagree to strongly agree. The in-depth interview was composed two sections, each containing three open-ended questions to ascertain perspectives on AI writing tools and the challenges associated with using them for writing development. This survey instrument had four major parts: First, past research on the relevant variables; second, comparisons with related studies; third, measures by meaning for each construct; and lastly, observations of the EFL students when using AI tools while writing. The guiding principles of wording by Cooper and Schindler (2001) guided the design of the questionnaire. The researcher made this very simple to put the respondents at ease. Closed-ended questions were used to reduce biases and enhance the response rate. A holistic approach combined practical realities with theoretical insights for maximum impact. This questionnaire takes less than 10 minutes to complete. This interview protocol adopts literature and adapts questions from Alharbi (2023) and Kurniati and Fithriani (2022). Statistical analysis was conducted to assess reliability, with Cronbach's alpha used to measure internal consistency. This comprehensive strategy reinforced the credibility and robustness of the findings.

### ***Data Collection Process***

The data collection procedure is fully online-based due to the ease of reaching the participants. The survey is shared with the respondents through email and other social media platforms. The survey data was collected from 138 participants to fill out the Google Forms

questionnaire. The participants who voluntarily took part in the survey would enter the link provided in the email. The data collection method online is very convenient for the participants. As smartphones are available to everyone, the respondents can answer the survey easily anytime and anywhere. The respondents need to complete all questions to submit the survey before they exit, as all questions were set with the function required. This is also to avoid incomplete responses in the survey. The qualitative data was collected through face-to-face and online interviews.

### ***Data Analysis***

The collected data were remodeled, transformed, and revised to attain the purpose of the study. The researcher used both quantitative and qualitative methods to collect the data. Descriptive statistics have been used to conduct the study. The data obtained through the survey were analyzed by means of percentages. At first, the responses of the participants were tabulated using Google spreadsheet as the outcome of Google Forms. Secondly, the percentage of each item from all dimensions was resolute to represent the general picture of the tertiary EFL students' perspective of the usage of AI in writing development. Thirdly, the percentage of each dimension was further examined for use as the main basis of conclusion drawing. The percentages presented in the tables were used to determine the criteria to conclude whether the AI writing tools are developing the tertiary-level EFL student's writing skills or not. The survey questionnaire is attached in the Appendix. The in-depth interviews have been analyzed thematically following Uddin et al. (2020) and Hashimov (2015).

## **FINDING AND DISCUSSION**

The findings from the survey and in-depth interview are presented here.

### ***Findings from the Survey***

#### ***Demographic Profile of the Students***

Table 4.1 presents the demographic profile of the participants. The majority of the respondents were female; 42.6% were male and 56.6% were female. Following this, 94.20% of the

participants were undergraduate students (Bachelor Program), and 5.80% of them were from the Master's Program. Hence, reflecting the survey had more participants from the Bachelor program.

### *Perceptions of EFL Students Regarding AI for Writing Development*

It was found that 81.6% of the respondents agreed that AI tools, such as Google Translator, ChatGPT, Grammarly, and QuillBot, have been helpful in improving their English writing proficiency. To be specific, 37.5% strongly agreed that the tool is helpful. In addition, it was found that 72.8% agreed that AI has been effective for vocabulary development. Further, 35.3% reported they were more confident in writing with the intervention of AI, while 30.9% believed that AI was helpful for the development of better ideas. On grammar and punctuation, 80.1% identified Grammarly as effective. More than half, 52.2%, agreed that AI tools are fundamental for non-native speakers to improve their writing skills. 65.4% of the participants recognized time that could be saved by AI for writing academic assignments. Another 58.8% showed that frequent use of this tool would have a positive effect on their academic performances; thus, AI simply supported them in making their performances better in terms of writing. The findings are mentioned in Table 1.

**Table 1.**

*Perceptions of Tertiary-level EFL Students Regarding AI for Writing Development*

<b>Items</b>	<b>SA</b>	<b>A</b>	<b>N</b>	<b>D</b>	<b>SD</b>
I recognize the usefulness of Artificial Intelligence (AI) tools such as Chat GPT, Google Translator, Grammarly, and QuillBot that help to improve English writing skills.	37.5%	44.1%	16.2%	1.5%	0.7%
I believe that AI tools have the potential to significantly improve my vocabulary.	27.2%	45.6%	18.4%	6.6%	2.2%
I find confidence in my English writing using AI.	24.3%	35.3%	24.3%	14%	2.2%
Writing and editing with AI tools such as the Chat GPT supports my writing skills.	30.9%	42.6%	20.6%	4.4%	1.5%
Grammarly helps to correct my grammar and punctuation in writing.	37.5%	42.6%	16.9%	0.7%	2.2%
AI tools like Google Translator help me understand complicated phrases and idioms.	29.4%	41.2%	18.4%	6.6%	4.4%
Quill Bot is a helpful AI tool to paraphrase my academic writing more professionally.	20.6%	40.4%	30.1%	5.9%	2.9%
AI tools play a vital role for non-native English speakers acquire better proficiency in writing.	18.4%	52.2%	20.6%	6.6%	2.2%

AI tool has the potential to reduce the time to complete academic writing assignments.	25.7%	39.7%	22.1%	8.8%	3.7%
AI assistance over traditional methods such as books and tutoring are preferable for improving my writing skills.	25.7%	27.9%	25.7%	15.4%	5.1%
AI tools can create more interest in practicing English writing because of their flexible usage.	23.5%	34.6%	26.5%	11.8%	3.7%
The regular usage of AI tools can positively impact my academic writing performance.	23.5%	35.3%	26.5%	10.3%	4.4%
The feedbacks from AI-generated tools tend to be more accurate and helpful.	20.6%	44.1%	27.9%	5.9%	1.5%
The AI-generated answers can be further discussed with peers or instructors to improve my learning.	22.1%	38.2%	26.5%	11%	2.2%

### *Challenges in Utilizing AI for English Writing*

The survey pointed to several challenges that students face with the use of AI writing tools. Among the concerns was that it could lead to over-reliance; 67% of those who took part argued that they would be hooked on these tools. Problems in user-friendliness were noted to exist, as 47.1% said they had problems with interfaces like that of ChatGPT and QuillBot. The issue of academic integrity came out strongly, with 74.3% agreeing that AI writing tools could encourage plagiarism. Also, 66.9% realized that suggestions provided by AI could be incorrect and might cause misunderstandings. Limitations of tools like Google Translator in maintaining language and cultural expressions were realized by 71.3% of participants. In terms of using AI suggestions with their writing style, 58.8% found it difficult to preserve their personal voice. When asked if, in the long run, this tool would be effective, 46.3% did not believe in the effectiveness of these AI tools in order to be able to write better continuously. Of those, 66.9% identified a lack of the needed training for the effective use of AI for writing tasks, marking a big gap in the support for students. The findings thus identified key areas where improvements need to be made with respect to the usability and integration of AI writing tools. The findings are mentioned in Table 2.

**Table 2.**

*Challenges Faced by Tertiary-level EFL Students Regarding AI for Writing Development*

Items	SA	A	N	D	SD
Over-relying on AI tools for writing tasks can be a concerning approach.	22.1%	44.9%	23.5%	7.4%	2.2%
Some AI writing tools such as Chat GPT and Quill Bot's interface tend to be less user-friendly.	14%	33.1%	29.4%	19.9%	3.7%

AI tools highly encourage plagiarism in terms of academic writing.	33.1%	41.2%	19.9%	5.1%	0.7%
AI-generated suggestions tend to be inaccurate which may cause misunderstandings.	21.3%	45.6%	21.3%	11%	0.7%
AI tools such as Google Translator tend to lose Language and cultural expressions.	30.9%	40.4%	24.3%	3.7%	0.7%
The corrections and suggestions by AI tools sometimes conflict with the advice from my instructors.	19.9%	48.5%	25.7%	5.9%	0%
While incorporating AI suggestions I tend to lose my personal voice and face difficulties.	17.6%	41.2%	33.8%	5.1%	2.2%
I find it difficult to recognize the potential of AI tools to improve my writing skills over a long-term period	16.9%	29.4%	33.8%	14.7%	5.1%
I feel that among peers and instructors there lies a stigma in using AI tools for learning.	17.6%	44.1%	32.4%	5.1%	0.7%
Due to technical issues with AI tools, my learning process was disrupted.	14%	39%	31.6%	10.3%	5.1%
Insufficient training is available on the ways to maximize the benefits of AI tools for English writing.	22.8%	44.1%	26.5%	5.1%	1.5%

### ***Findings from In-depth Interviews***

The findings from the in-depth interview with four participants are mentioned under certain themes. Two participants are male and from Bachelor program and the other two are female and from Master's program. Here pseudonyms have been used to specify the quotes derived from the interviewees.

#### ***Instrumental Role of AI***

One interviewee highlighted the instrumental role of AI writing tools such as Grammarly and ChatGPT in improving grammatical accuracy, stating, “*AI writing tools correct grammatical errors such as subject-verb agreement and punctuation mistakes while suggesting synonyms for repetitive words to enrich vocabulary*” (Ruma). Therefore, this reflects assistance of AI tools in offering real-time corrections and suggestions, which helps in facilitating a more effective learning process. Moreover, another interviewee underscored the importance of Google Translator and ChatGPT in his writing. As he stated, “*Whenever I struggle to find any meaning of a sentence, I use Google Translator first, as I can find the synonymous words with examples that help me to understand and organize my thoughts better.*” He also focused the role of AI tools in refining and generating ideas for academic writing by saying, “*ChatGPT*

*helps me generate new ideas and refine the scattered ideas"* (Nihan). On the contrary, one of the students thought that AI could be used as an assistant, but users mostly lost the authenticity of their own voice. As she said, *"AI definitely helps expand vocabulary to a certain extent. However, I do not think it contributes to the overall composition because they do not have the 'authentic' intelligence factor. The word is 'artificial'"* (Rupa).

#### *Understanding and Application of English Writing Concepts*

An interviewee shared a pivotal experience that illustrated the effect of AI in understanding and applying English in writing. He recounted his struggle with comma placement in complex sentences, a common challenge for many learners, and how AI writing tools in browser extensions played a crucial role in overcoming this challenge. The interviewee stated, *"Using Grammarly and ChatGPT, I received real-time suggestions on where to add or remove commas, which helped me formulate the rules better and apply them accurately in my writing"* (Ruma). Another student regarding this theme said, *"I use ChatGPT to gather more ideas on any topic for my course assignments. Even with AI assistance, I paraphrase my ideas to upgrade my English writing style"* (Nihan).

#### *Altering Traditional Methods of Learning English Writing Skills*

Artificially intelligent writing tools could revolutionize the teaching of English. Whereas traditional teaching methods are based on periodic assessments, AI provides students with continuous, personalized learning. As one participant attested, *"AI tools provide continuous support and let students study at their learning pace and work on the needed areas of improvement"* (Ruma) The observation thus suggests a shift in educational paradigm, emphasizing that the integration of technology would serve to impact diverse learning needs and styles. One student then pointed out, *"Traditional English writing skills enhanced writing through integrated reading. There was direct communication to clear doubts. Now, AI has removed that communication, and feedback has gone online"* (Rupa). One interviewee has mentioned that AI is going to change how EFL learners acquire the skill of writing in English: *"We used to rely on books by famous authors and dictionaries; now it is almost entirely*

*different. We do not seem to use dictionaries anymore to learn a new word or to correct the spelling of a word, rather finding it a hassle to do so" (Abrar).*

#### *Understanding and Implementing AI-Generated Recommendations*

As highlighted by an interviewee, *"Sometimes, AI-generated recommendations may not align with the context or style of the writing, requiring careful evaluation before acceptance"* (Abrar). This points to the critical balance users must maintain between utilizing AI support and preserving their unique voice and creativity. She also pointed out that technical issues such as *"compatibility or connectivity issues can obstruct the integration of AI tools into the writing process"* (Ruma). Moreover, another participant's feedback highlighted a significant limitation of AI writing tools, which is their occasional inability to *"comprehend complex queries, leading to incorrect responses or admissions of ignorance on specific topics"* (Nihan). A participant also reflected, *"I think there is a specific way to search and learn information from AI tools, as once I searched for information from AI, the piece of information I received was opposite to what I had learned from the class. I found it quite difficult to get an exact answer, which I expected. Moreover, it often gives some additional information that is not needed, which is also bothersome"* (Abrar).

#### *Balancing Coherence with Personal Style*

Maintaining originality (your own voice) in writing while using AI tools requires a conscious effort. According to an interviewee, *"It is essential to balance the assistance provided by AI with personal creativity and expression to ensure the authenticity of the written work. By critically evaluating AI suggestions and utilizing them thoughtfully, EFL writers can preserve their unique style and voice"* (Ruma). Additionally, one of the students shared her thoughts on using AI and also maintained her original work by keeping *"keywords and the main concept intact."* Also, she said, *"I eliminate irrelevant parts and use synonyms to retain my originality"* [Rupa].



### *Misconceptions about AI Writing Tools*

A participant clarified a prevalent misconception, stating, *“One of the main misconceptions I came across is that using AI in assignments is plagiarism, which is not if the use is limited to just learning pieces of information. I understand that some use AI with wrong intentions, but not everyone uses it to plagiarize. AI can be used as a great tool as the internet if we learn how to make proper use of it. Till now most of us are not aware of the uses of this tool and have a wrong understanding revolving around the AI sensation”* (Abrar). Additionally, a participant countered a common concern among peers, asserting, *“Some of my friends think that using AI will reduce human creativity or comprehension. But I believe the users can enhance their performance by judiciously incorporating AI into their work”* (Nihan). This statement highlighted a misunderstanding regarding the impact of AI on cognitive abilities.

### **Discussion**

The perceptions of the students about artificial intelligence tools have been interpreted here.

### *Altering Traditional Methods of Learning English Writing Skills*

Artificially intelligent writing tools could revolutionize the teaching of English. Whereas traditional teaching methods are based on periodic assessments, AI provides students with continuous, personalized learning. As one participant attested, *“AI tools provide continuous support and let students study at their learning pace and work on the needed areas of improvement”* (Ruma) The observation thus suggests a shift in educational paradigm, emphasizing that the integration of technology would serve to impact diverse learning needs and styles. One student then pointed out, *“Traditional English writing skills enhanced writing through integrated reading. There was direct communication to clear doubts. Now, AI has removed that communication, and feedback has gone online”* (Rupa). One interviewee mentioned that AI is going to change how EFL learners acquire the skill of writing in English: *“We used to rely on books by famous authors and dictionaries; now it is almost entirely different. We do not seem to use dictionaries anymore to learn a new word or to correct the spelling of a word, rather finding it a hassle to do so”* (Abrar).

### *Perceptions of the Tertiary-level EFL Students of Utilizing AI Writing Tools*

The data collected from the survey on Bangladeshi tertiary-level EFL students' perception of using AI tools for writing development showed a generally positive view with notable enthusiasm for the role of these tools, such as Google Translator, Grammarly, Quill Bot, and ChatGPT. However, there is concern about the usage of these AI writing tools among the participants. Among the participants, the majority of them emphasized the factors of AI writing tools, such as enhancing vocabulary, generating ideas, correcting grammar, giving feedback, and boosting confidence in writing. Despite these benefits, the participants also agreed that they face challenges using AI writing tools as they expressed their thoughts regarding interface features of AI tools, encountering misunderstandings for AI-based incorrect suggestions and the loss of language differences and cultural expressions. A study by AbdAlgane and Othman (2023) found that "Through the utilization of digital writing tools, these students [Saudi Arabia's] were able to improve their English academic writing skills." However, the context is different from this study, and the challenges that the students face vary as well. Approximately two-thirds of the students in this survey were concerned about over-relying on AI for writing tasks and their potential to encourage plagiarism. Therefore, the survey reflected the need for traditional pedagogical reevaluation in the tertiary-level EFL writing classes while integrating AI tools. According to the participants, as AI can offer immediate feedback and support, hence, its role should be complementary to ensure the students' engagement in the writing process while also developing their critical thinking skills and maintaining their unique voices. Educators can facilitate this dual approach and are adept at blending AI tools with traditional learning methods, eventually enriching the learning experience without making the students overly rely on the tools.

### *Implementing AI in Developing Writing Skills*

The findings from the survey reflected that the majority of participants and interviewees supported Grammarly as an effective tool for correcting grammar and punctuation, which refers to the strong reliance on AI for mechanical aspects of writing. Moreover, implementing AI has been proven by the survey to boost non-native English speakers' confidence. More

than half of the respondents felt more confident while writing English after using the AI tools. This enhanced confidence acts as an important factor in encouraging continuous learning and practice among the students. A significant number of students perceived a positive effect of AI tools on their academic performance, but the implementation of AI tools does not stand as crucial for achieving proficiency in English as overdependency might affect the fundamental learning process.

Related literature has shown that the implementation of developing AI tools “has the potential to change how students approach their academic fields” (Shidiq, 2023, p. 355), therefore, aligning with the survey result of this research. Also, this research contributes new insights into the specific effects of implementing AI tools for developing the writing proficiency of non-native tertiary-level speakers, which is an area that was less covered in previous studies. Moreover, from the interview, it can be indicated that by implementing AI tools into writing classes, a blended learning environment can be promoted while also focusing on critical thinking and creativity in students.

#### *Existing Misconceptions Related to AI*

The survey and interview data indicate that AI writing tools are a relatively new topic for Bangladeshi students, hence many concerns and misunderstandings. While AI is great in its potential, 74.3% of the respondents showed concern for plagiarism, showing actually how little they know about the real scope of AI to support and not replace student work. That means a general fear exists of losing academic integrity because students will over-rely on AI. It also came out from the interviews that while AI can suggest formulations and improve vocabulary, it does not replace the students' capacity for analysis. Moreover, 22.8% reported a lack of training in the ethical integration of AI, which suggests some knowledge gap that may restrain responsible use. Another point is that 39.7% showed apprehensions that AI would affect creativity, while these tools were actually created to supplement and not replace human ingenuity. A full 71.3% realized that nuances are lost when translation tools are used; it called for enhanced AI models that help in carrying out linguistic and cultural contexts. Until this is

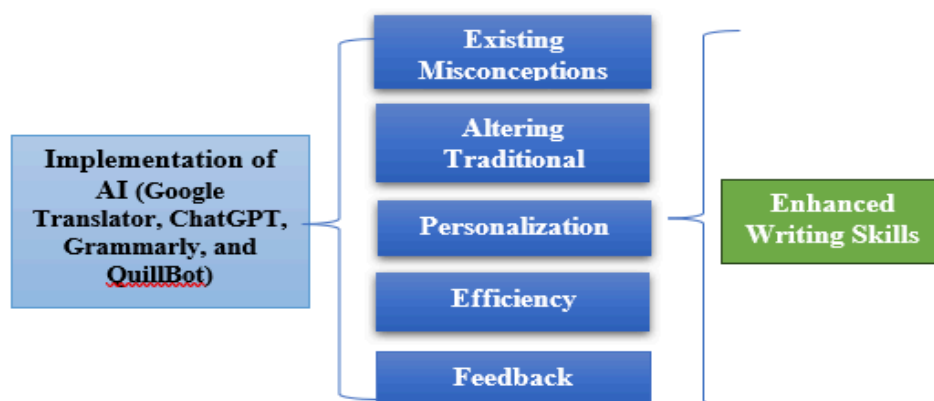
fully accepted, this reluctance to give AI its rightful place as a valid educational resource hampers constructive discussions on its potential in learning and creativity enhancement.

### *Altering Traditional Learning Methods*

The survey and interview data showed the enhancement of writing capabilities with the help of AI tools, with 25.7% of the participants expressing their preference for AI over traditional learning methods like books and tutoring. Therefore, highlighting the potential benefits offered by AI in terms of accessibility and personalized learning experience. The stigma rooted in traditional educational values emphasizes human interaction and the conventional role of teachers as knowledge providers, and for this, the acceptance of AI is lesser, even though the benefits are higher (Aktar et al., 2022). In addition, 70% of the respondents from the survey felt the insufficient gap between technology and how people perceive it and also the training on how to maximize the benefit of AI writing tools. Furthermore, one of the interviewees critiqued that using AI tools limited their direct communication as the feedback is provided online. Therefore, the shift from traditional pedagogical interactions might affect learners' ability to interact in real-time, and this shift suggests the reduction of the discursive nature of language learning, which traditionally relied on dialogue and face-to-face feedback. Also, the interview data revealed a decreased reliance on physical dictionaries and books, pointing to the active role of AI tools in online learning. This shift also showed that even if the traditional learning methods are set aside, the basic goal of mastering language learning remains intact. Based on the discussion of both qualitative and quantitative findings, the researchers propose a model (Figure 1) for AI implementation in developing writing skills at the tertiary level.

**Figure 1.**

*Proposed Model for AI Implementation in Developing Writing Skills*



## LIMITATIONS

The present research is seriously limited with regard to Bangladeshi EFL students' perceptions of AI tools: samples of small sizes from specific institutions are certain to omit the different experiences of EFL students throughout the entire country. Thus, it is not representative of all tertiary students across the country. However, targeting only one city affects the scope of insight. Further research with a larger and more diversified sample from various universities would greatly increase the understanding of perceptions regarding AI writing tools and their impact on the skills of writing. The study does not take into consideration rapid advances in AI, something that may make the findings less relevant as the tools continue to evolve. However, the limitations do not undermine the claims made in the study. It underlines the necessity of continuous research in the development of technologies and an adjustment of views on AI tools in education.

## **RECOMMENDATIONS**

It becomes important to explore the Bangladeshi tertiary EFL students' perception of AI use for writing in English, especially when the economic dependence on proficiency in English is increasing day by day. Sample sizes in future research should be expanded to include diverse universities and student demographics throughout the country, thereby helping to better understand the use of AI writing tools in a variety of educational contexts. Longitudinal methods are therefore recommended for the assessment of the long-term effects of these tools on the students' English writing skills. A combination of quantitative and qualitative methods with more participants would yield better insights into students' experiences and challenges with AI writing tools. These would also serve to map effective educational strategies and enhance understanding of AI tools in improving English writing skills.

## **CONCLUSION**

In conclusion, this thesis examined Bangladeshi tertiary EFL students' views on using AI tools for enhancing their English writing skills. Most participants value AI for vocabulary building, grammar correction, and the generation of ideas; on the other hand, most of them are concerned about over-reliance, accuracy, loss of voice, and plagiarism in writing. Practice implications include the integration of AI tools into the language curriculum to support and enhance rather than replace traditional approaches. Besides that, students and instructors must be trained to maximize effectiveness while maintaining academic integrity. Although limited by the small number of representatives and sole reliance on self-reporting data, this research contributes to deepening the understanding of the current place of educational technology in foreign language learning, writing skills in particular. Future research should be expanded to diverse academic settings with more participants for better insight into how students are interacting with their AI writing tools. The current study thus intends to determine the meaning of technology integration in education. These findings are in a position to enrich language learning and teaching once explored and applied, rendering these activities more relevant and functional in the modern digital world.

## RESEARCH ETHICS

To maintain confidentiality, the researcher did not use names in the subsequent sections. This procedure provided a real capture of data since the participants felt secure and open to academic ethics regarding AI writing tools.

## ACKNOWLEDGEMENT

The authors acknowledge all the participants of this study.

## REFERENCES

- AbdAlgane, M., & Othman, K. A. J. (2023, March). *Utilizing Artificial Intelligence Technologies in Saudi EFL Tertiary Level Classrooms*. SSRN. <https://ssrn.com/abstract=4565768>
- Aktar, T., Maniruzzaman, M., Khan, H. R., & Hasan, M. (2022). Teachers' narratives From Initial Virtual Classrooms And Professional Development During The Covid-19 Pandemic In Developing Bangladesh. *Turkish Online Journal of Distance Education*, 23(3), 230-245. <https://doi.org/10.17718/tojde.1137293>
- Alharbi, W. (2023). AI in the Foreign Language Classroom: A pedagogical overview of Automated Writing Assistance Tools. *Education Research International*, 1–15. <https://doi.org/10.1155/2023/4253331>
- Cooper, D.R. and Schindler, P.S. (2001) *Business Research Methods*. McGraw-Hill Higher Education, London.
- Hayes, J. R., & Flower, L. (1981). *Uncovering cognitive processes in writing: An introduction to protocol analysis*. ERIC Clearinghouse.
- Gayed, J. M., Carlon, M. K., 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, 100055. <https://doi.org/10.1016/j.caeai.2022.100055>
- Hasan, M. M., Al Younus, M. A., Ibrahim, F., Islam, M., & Islam, M. M. (2020). Effects of New Media on English Language Learning Motivation at Tertiary Level. *Advances in Language and Literary Studies*, 11(5), 17-24. Retrieved May 22, 2024, from <https://eric.ed.gov/?id=EJ1287254>
- Hasan, M. M., Ibrahim, F., Mustapha, S. M., Islam, M. M., & Al Younus, M. A. (2018). The use of YouTube videos in learning English language skills at tertiary level in Bangladesh. *Infrastructure University Kuala Lumpur Research Journal*, 6(1), 27-36. Retrieved May 22, 2024, from

- <https://iukl.edu.my/rmc/wp-content/uploads/sites/4/2019/08/4.-Md-Mahadhi-Hasan.pdf>
- Hasan, M. M., & Ibrahim, F. (2017). Effects of blog, wiki and Google docs in learning English language: A study of Bangladesh at tertiary level. *Research Journal (IUKLRJ)*, 5(1), 39-49. Retrieved May 22, 2024, from [https://iukl.edu.my/rmc/wp-content/uploads/sites/4/2019/01/B5\\_IUKLRJ17\\_Full-1.pdf](https://iukl.edu.my/rmc/wp-content/uploads/sites/4/2019/01/B5_IUKLRJ17_Full-1.pdf)
- Hasan, M. M., & Labonya, N. A. (2016a). Using Facebook in ELT: Higher secondary teachers' perspective in Bangladesh. *International Journal of English Language Teaching (IJELT)*, 4(9), 86–100. <https://doi.org/10.37745/ijelt.13>
- Hasan, M. M., & Labonya, N. A. (2016b). Identifying the challenges of teaching speaking skill in undergraduate level: a study at tertiary level in bangladesh. *Hypothesis*, 4(4). Retrieved July 11, 2024, from <http://journalofelt.kypublications.com/4.4.16/28-33%20Md.%20MAHADHI%20HASAN.pdf>
- Hasan, M. M., & Alam, M. A. (2016). Impacts of BRAC teacher training for secondary school English language teachers on classroom. In *IUKL International Postgraduate Colloquia (IIPC 2016)* (p. 323). Retrieved July 22, 2024, from <https://iukl.edu.my/rmc/wp-content/uploads/sites/4/2018/03/e-proceedings-IIPC-20-July-2016full-paper26061542.pdf#page=331>
- Hossain, M. M., Hasan, M. M., & Meraj, A. A. (2015). Redefining Bangladeshi variety of English: Print and electronic media perspective. *International Journal of Advanced Research*, 3(6), Retrieved July 22, 2024, from 1280-1286. [https://www.journalijar.com/uploads/231\\_IJAR-6247.pdf](https://www.journalijar.com/uploads/231_IJAR-6247.pdf)
- Hasan, M. M. (2014). *Motivational strategies for teaching English language skills: a study of tertiary level teachers* (Master's dissertation, BRAC University). Retrieved July 22, 2024, from <https://dspace.bracu.ac.bd/xmlui/handle/10361/4643>
- Hashimov, E. (2015). Qualitative data analysis: A methods sourcebook and the coding manual for qualitative researchers. *Technical Communication Quarterly*, 24(1), 109-112. 10.1080/10572252.2015.975966
- Huang, X., Zou, D., Cheng, G., Chen, X., & Xie, H. (2023). Trends, Research Issues and Applications of Artificial Intelligence in Language Education. *Educational Technology & Society*, 26(1), 112–131. <https://www.jstor.org/stable/48707971>
- Imran, M., & Almusharraf, N. (2023). Analyzing the role of ChatGPT as a writing assistant at Higher Education Level: A systematic review of the literature. *Contemporary Educational Technology*, 15(4). <https://doi.org/10.30935/cedtech/13605>
- Kayum, M. A., & Khan, M. E. I. (2015). Progression Of Writing In Teaching And Learning For Secondary And Higher Secondary Education: Bangladesh Context. *Manarat International University Studies*, 4(1), 176-183. Retrieved July 22, 2024, from <https://mius.manarat.ac.bd/download/Issue-04/19.pdf>
- Krejcie, R. V., & Morgan, D. W. (1970). Determining sample size for research activities. *Educational and psychological measurement*, 30(3), 607-610.



- Kurniati, E. Y., & Fithriani, R. (2022). Post-graduate students' perceptions of Quillbot Utilization in English academic writing class. *Journal of English Language Teaching and Linguistics*, 7(3), 437. <https://doi.org/10.21462/jeltl.v7i3.852>
- 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), e202412. <https://doi.org/10.30935/ojcm/14195>
- Livberber, T., & Ayzav, S. (2023). The impact of artificial intelligence in academia: Views of Turkish academics on chatgpt. *Heliyon*, 9(9). <https://doi.org/10.1016/j.heliyon.2023.e19688>
- Marr, B. (2019). *Artificial Intelligence in Practice: how 50 successful companies used artificial ... intelligence to solve problems*. JOHN WILEY & Sons.
- Mridha, M., & Md. Muniruzzaman, S. (2020). Developing Speaking Skill: Barriers Faced by the Bangladeshi EFL Learners. *Englisia: Journal of Language, Education, and Humanities*, 7(2), 116-131. <http://dx.doi.org/10.22373/ej.v7i2.6257>
- Muthmainnah, Ibna Seraj, P. M., & Oteir, I. (2022). Playing with AI to investigate human-computer interaction technology and improving critical thinking skills to pursue 21st Century Age. *Education Research International*, 2022, 1–17. <https://doi.org/10.1155/2022/6468995>
- Nazari, N., Shabbir, M. S., & Setiawan, R. (2021). Application of artificial intelligence powered digital writing assistant in higher education: Randomized controlled trial. *Heliyon*, 7(5). <https://doi.org/10.1016/j.heliyon.2021.e07014>
- Owan, V. J., Abang, K. B., Idika, D. O., Etta, E. O., & Bassey, B. A. (2023). Exploring the potential of artificial intelligence tools in educational measurement and assessment. *Eurasia Journal of Mathematics, Science and Technology Education*, 19(8), em2307. <https://doi.org/10.29333/ejmste/13428>
- Patwary, M. N., Reza, M. M., Akhter, H., & Chowdhury, S. (2023). Exploring Academic Writing Proficiency of Tertiary EFL Learners of Bangladesh: A Pedagogical Implication. *Integrated Journal for Research in Arts and Humanities*, 3(5), 89-102. <https://doi.org/10.55544/ijrah.3.5.8>
- Rahman, A., Abidin, N. S. Z., & Hasan, M. M. (2018). Factors Affecting Employees' Motivation At Infrastructure University Kuala Lumpur. *South East Asia Journal of Contemporary Business, Economics and Law*, 17(2), 2289-1560. Retrieved July 22, 2024, from <https://seajbel.com/wp-content/uploads/2019/01/BUS-114-Asyiqur.pdf>
- Roe, J., Renandya, W. A., & Jacobs, G. M. (2023). A review of AI-powered writing tools and their implications for academic integrity in the language classroom. *Journal of English and Applied Linguistics*, 2(1). <https://doi.org/10.59588/2961-3094.1035>
- Saunders, M., Lewis, P., & Thornhill, A. (2009). *Research methods for business students*. Pearson education.
- Shahriar, A. (2023). The Effectiveness of Machine Translation Using “Google Translate” in English Language Learning in Bangladesh. *Pedagogy: Journal of English Language Teaching*, 11(1), 75-88.
- Shahriar, A., & Laboni, F. (2023). *Potential Success in English Writing Skills Using Artificial Intelligence “Grammarly,”* 10, 57–75.

- Shidiq, M. (2023). The Use of Artificial Intelligence-Based Chat-Gpt and Its Challenges for The World of Education; From The Viewpoint Of The Development Of Creative Writing Skills. *Proceeding Of International Conference on Education, Society and Humanity*, 1(1), 353-357. Retrieved from <https://ejournal.unuja.ac.id/index.php/icesh/article/view/5614>
- Uddin, M. K., Uzir, M. U. H., Hasan, M. M., Hassan, M. S., & Sahabuddin, M. (2020). A Scientific Novel Way of Article and Thesis Writing: Findings from a Survey on Keyword, Sequence, and Importance (KSI) Technique. *Univers J Educ Res*, 8(12A), 7894-904. 10.13189/ujer.2020.082578