Investigating AI Usage in English Language Learning: Frequency, Preferences, and Perceived Effectiveness on Speaking and Writing Skills

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Abstract

Inspired by the different usage patterns, preferences, and perceived effectiveness of AI tools to support English productive skills, the study provides their comparative analysis among students in Indonesia and Russia. The study used a mixed-methods approach with a convergent parallel design to conduct the research. While the researcher employed online questionnaires containing ordinal scales using Likert-type items to collect quantitative data, interviews with open-ended questions were used to get qualitative data. There are 175 students from each country as the research sample. The study results confirm that Russian students access AI weekly or monthly, and Indonesian students use AI tools daily. Students in both countries admit that chatbots and language learning apps are their preferred AI tools. In terms of perceptions, while Indonesian students consider AI a beneficial tool to support their writing, Russian students classify AI tools as a valuable companion in speaking. They also stated their neutrality due to excessive accuracy and dependency. To develop AI tools, students highlighted the essence of more tailored, interactive, and attainable features. In conclusion, although AI tools support English productive skills, there is a need to incorporate pedagogical guidance and ethical considerations in their implementation.

Keywords: *Artificial Intelligence (AI), English Productive Skills, Comparative Analysis, Student Perceptions, Pedagogical Guidance*

Abstrak

Terinspirasi oleh pola penggunaan, preferensi, dan persepsi efektivitas yang berbeda terhadap alat kecerdasan buatan (AI) dalam meningkatkan keterampilan produktif bahasa Inggris, penelitian ini mengkaji analisis komparatif ketiga tersebut antara mahasiswa di Indonesia dan Rusia dengan menggunakan pendekatan campuran dengan desain konvergen paralel. Sementara itu, peneliti menggunakan angket secara daring berisi skala ordinal dengan item Likert untuk mengumpulkan data kuantitatif, serta wawancara dengan pertanyaan terbuka digunakan untuk mengumpulkan data kualitatif. Sebanyak 175 mahasiswa dari setiap negara menjadi sampel penelitian. Penelitian ini menunjukkan bahwa mahasiswa Rusia cenderung mengakses AI setiap bulan atau minggu, dan mahasiswa Indonesia menggunakan AI untuk tujuan sehari-hari. Dalam hal persepsi, mahasiswa Indonesia menganggap AI sebagai alat yang bermanfaat untuk mendukung kegiatan menulis mereka. Sedangkan, mahasiswa Rusia mengklasifikasikan AI sebagai panduan yang penting dalam mengembangkan keterampilan berbicara. Untuk mengembangkan alat AI, mahasiswa menekankan esensi pada fitur yang lebih sesuai kebutuhan, interaktif, dan mudah diakses. Dapat disimpulkan bahwa, meskipun AI mendukung keterampilan bahasa Inggris produktif, arahan pedagogis dan pertimbangan etis dalam implementasinya perlu dilibatkan.

Kata kunci: Kecerdasaan Buatan (AI), Keterampilan Produktif Bahasa Inggris, Analisis Komparatif, Persepsi Mahasiswa, Arahan Pedagogis

INTRODUCTION

AI has achieved considerable advancements across multiple domains, with its applications in education emerging as one of the most promising sectors (Ghafar et al., 2023; Jagede, 2024; Mavidi, 2025). Incorporating AI into language learning has garnered significant attention due to its numerous educational advantages (Mavidi, 2025). This study of Mavidi examines how learners utilize AI technologies in their language acquisition endeavors. Furthermore, using AI-driven platforms like chatbots, speech recognition software, and automated writing assistants has completely changed how language learners approach speaking and writing practice as language learning becomes more digital (Anugrah et al., 2024). However, despite the increasing availability of AI tools, little empirical study has been done on how frequently students use them, which AI apps they choose, and how effective they believe these tools are at enhancing their speaking and writing skills.

In line with that, speaking and writing are two fundamental productive abilities in language acquisition, allowing learners to articulate their thoughts, ideas, and feelings actively (Grabowski, 2013; Javier & Moorhouse, 2024; Kuiken & Vedder, 2013). In contrast to receptive skills like hearing and reading, productive skills necessitate language creation, requiring superior linguistic proficiency and fluency (Golkova & Hubackova, 2014). Speaking involves real-time verbal communication (Herda et al., 2024; Nugroho et al., 2024; Pandharipande & Kopparapu, 2011); learners must produce accurate language and manage pronunciation, intonation, and spontaneity. Conversely, writing affords additional time for planning and refining language, although learners must systematically organize their thoughts, utilize suitable vocabulary, and construct sentences accurately (Clark, 2003; Hyland, 2019). Both abilities are essential for proficient communication in any language, and enhancing them requires ongoing practice and feedback, frequently supported by interactive tools or technology that may replicate real-life communication situations.

The application of AI tools in educational practice is being actively researched in higher education. In particular, systemizing AI tools involves assessing tools' complexity from the perspective of technical skills they require, ethical issues they raise, and discipline areas in their function (Sumakul et al., 2022; Bonner & et al., 2023; Bannister et al., 2024, Tafazoli, 2024). AI tools and the study of their application in a multilingual environment are considered scarce (Sumakul et al., 2022). Some studies focus on AI tools in the field of academic writing, where they are intended to simulate a reader: native language editor and expert (Safitri & Fithriani, 2024, Wang, 2024). Fewer studies are dedicated to oral speech practice (Chen & Huang, 2021; Alshumaimeri & Alshememry, 2024). However, most consider the practice within a specific national educational context (Demir & Kayao, 2022; Safitri & Fithriani, 2024). The previous research papers on AI tools for EFL practice do not normally address the cross-cultural analysis of AI tools for enhancing productive skills in EFL courses. Comparative procedures of the higher education context in Indonesia and Russia explain the relevance and novelty of this study.

Recently, the integration of AI has changed how speaking and writing abilities are acquired and used in the digital age. Personalized, on-demand support provided by AI-powered technologies such as speech recognition software, language modeling programs, and automated writing assistants helps students practice and enhance their productive skills anywhere, anytime. With real-

time grammar, writing style, and pronunciation feedback, these technologies help students improve their skills by utilizing quick corrections and advice (Jagede, 2024; Sabili et al., 2024). Through conversational chatbots and virtual tutors, they replicate real-life interactions and inspire students to participate in interactive dialogues. AI also enables immersive language learning experiences. Learners, thus, have access to many tools and chances to improve their speaking and writing abilities, which are usually more dynamic and effective than conventional approaches. Notwithstanding these developments, there are still difficulties assuring the authenticity and quality of AI-generated comments and addressing the possibility of over-reliance on technology in place of personal engagement.

By concentrating on qualitative and quantitative data, this study fills these gaps by attempting to identify usage trends and learner perceptions of AI's function in language acquisition. It is imperative to comprehend these elements to create more individualized learning experiences and more effective AI-driven educational systems. Particularly in speaking and writing, the fast growth of artificial intelligence has provided fresh opportunities for improving language acquisition (Ajabshir, 2023). Artificial intelligence technology promises personalized, instantaneous, and scalable methods to practice language abilities (Evenddy, 2024; Herda, 2024), including automated writing feedback systems (Herda et al., 2024) and speech recognition tools. Though these technologies are becoming increasingly common, issues concerning their real influence on students' competency and participation still exist. This study investigates the frequency with which artificial intelligence tools are utilized, notes which AI applications students prefer, and investigates how well these technologies help learners improve their speaking and writing skills. Thus, this study aims to provide a comprehensive understanding of how AI can assist language learners in developing critical speaking and writing skills by analyzing the frequency of AI usage, learners' preferences for various AI tools, and their perceptions of AI's effectiveness in enhancing these skills.

RESEARCH METHODS

The researcher chose a mixed-method study with a survey research design to investigate college students' experiences and perceptions of using AI tools to develop their English writing and speaking skills. The research took place in two different universities located in Indonesia and Russia. To distribute equal representation of respondents, 350 students were involved, including 175 Indonesian and 175 Russian students. The study used a purposive sampling technique to select respondents exposed to AI usage to improve their writing and speaking skills. This study employed a convergent parallel design (Creswell & Plano Clark, 2011). Both quantitative and qualitative data were gathered separately but simultaneously. All data were collected and examined separately and independently to guarantee unbiased and corroborated interpretations of research results. Research findings were incorporated during the interpretation phase to gain in-depth comprehension of students' experiences.

Quantitative data was collected through an online questionnaire via Google Forms. The questionnaire consisted of Likert-type items on an ordinal scale ranging from various responses, including "very effective" to "not effective". The Likert-type items on the ordinal scales were constructed to record the quantitative responses about the frequency of students using AI tools and their subjective effectiveness. To obtain qualitative data, open-ended questions were administered, allowing respondents to share their reflections and recommendations to enhance AI implementation in EFL instruction. Microsoft Excel examined the quantitative data taken from Likert-type items on the ordinal responses. The percentage of data distributions became the focus of analysis to find out the patterns of similarity and difference between Indonesian and Russian students. On the other hand, thematic analysis was used to analyze the responses to open-ended questions. Thematic analysis helps the researcher uncover patterns in data related to participants' lived experiences, opinions, perspectives, and behaviors (Clarke & Braun, 2014). The researcher reread the answers from the students multiple times to understand the content, coded the written responses systemically,

discovered the recurring themes, and synthesized the results to emphasize both similarities and distinct points of view from Indonesian and Russian students.

RESULTS AND DISCUSSION

The survey results, which used an online questionnaire, provide information related to Russian and Indonesian students' usage patterns, effectiveness, and perceptions of AI tools to enhance their English speaking and writing skills. The responses gathered from the survey offer a comparative analysis of Russian and Indonesian students related to their frequency of accessing AI tools, the types of AI tools they favor, the perceived effectiveness of AI tools, and the suggestions to improve the tools.

Frequency of Using AI

The contrastive data emphasize the frequency of Indonesian and Russian respondents accessing AI tools for language learning. Indonesian respondents (29%) were reported to use AI tools daily, while only 12% of Russians do the same. On the other hand, Russians hold a higher percentage (20%) for weekly usage than Indonesians (9%). Similarly, monthly usage was more common for Russian participants (25%) than for Indonesians (13%). Both groups showed high percentages for rare usage, with 49% of Indonesians and 43% of Russians indicating that they rarely use AI tools. As given in Table 1, the data suggests that Indonesians frequently use AI tools daily, whereas Russians use them weekly or monthly.

Table 1.

Frequency of using AI outside the classroom	Indonesian Students (%)	Russian Students (%)
Daily	29	12
Weekly	9	20
Monthly	13	25
Rarely	49	43

Frequency of using AI outside the classroom

Preferred Type of AI

The findings compare the AI tools used by Indonesian and Russian students. Chatbots emerge as the most commonly used tool in both groups, with 42% of Indonesian students and a slightly higher 49% of Russian students utilizing them. Language learning applications are the second most popular, used by 36% of Indonesian and 37% of Russian students, indicating a similar preference. The use of virtual tutors shows a minor difference, with 11% of Indonesian students and 9% of Russian students reporting their use. Speech recognition tools are equally utilized by both groups, with 9% of students from each country engaging with this type of AI. Lastly, 2% of Indonesian and 5% of Russian students reported using other AI tools. Overall, the data in Table 2 suggest that while the preferences between the two groups are generally aligned, Russian students use AI tools more frequently across most categories.

Table 2.
Preferred type of AI

Types of AI	Indonesian Students (%)	Russian Students (%)
Chatbots	42	49
Language Learning Apps	36	37
Virtual tutors	11	9
Speech recognition tools	9	9
Others	2	5

The Perceived Effectiveness of AI Tools

The findings reveal the perceived impact of AI tools on speaking and writing skills among Indonesian and Russian students. Regarding speaking skills, the data in Table 3 confirms that 28% of Indonesian students found AI tools very helpful, compared to 11% of Russian students. Meanwhile, 42% of Russian students considered AI tools somewhat helpful, far exceeding the 3% of Indonesian students who shared the same opinion. A significant proportion of students in both countries remained neutral, with 46% of Indonesians and 35% of Russians expressing neither positive nor negative views. Additionally, 23% of Indonesian and 12% of Russian students reported that AI tools did not help improve their speaking skills.

Regarding writing skills, the data in Table 4 suggests that 15% of Indonesian and 12% of Russian students found AI tools helpful. A notable contrast is observed in the "somewhat helpful" category, where only 1% of Indonesians but 44% of Russians selected this option. Neutral responses were reported by 42% of Indonesians and 33% of Russians. In the final analysis, a higher proportion of Indonesia students (42%) admitted that AI tools did not support their writing skill development, while only 11% of Russian students gave the same responses. Despite the substantial level of neutrality of both groups, Russian students commonly perceived AI tools as more supportive, especially for writing enhancement.

Table 3.
Perceived effectiveness of AI tools on speaking skills

Effectiveness	Indonesian Students (%)	Russian Students (%)
Very helpful	28	11
Somewhat helpful	3	42
Neutral	46	35
Not helpful	23	12

Table 4.
Perceived effectiveness of AI tools on writing skills

Effectiveness	Indonesian Students (%)	Russian Students (%)
Very helpful	15	12
Somewhat helpful	1	44
Neutral	42	33
Not helpful	42	11

Students's Suggestions on AI Tools

Respondents from two countries proposed significant recommendations to develop AI tools in language learning. Some points, including more precise and detailed error correction, especially in grammar and pronunciation, and better speech recognition capabilities, became the concerns of Russian students. Moreover, they also expected more customized learning programs to cater to personal styles and levels, and captivating content, such as gamification and engaging features.

Accessibility emerged as another issue, as students requested more open-access materials and convenient access to AI tools. On the other hand, Indonesian respondents offered concrete suggestions for writing and speaking skills. In terms of writing, the students expected AI to present real references, provide real-world materials, and construct more fluent translation products. For speaking, students hoped AI would provide responsive feedback by comprehending the implicit messages in the conversations, clarifying pronunciation mistakes, and presenting colloquial phrases to enhance cultural sensitivity. These recommendations emphasize a common goal for more precise, tailored, engaging, and accessible AI-supported learning experiences.

DISCUSSION

Using artificial intelligence by Indonesian and Russian students exposes different trends in how AI technologies are included in language acquisition. This study highlights significant cross-cultural differences in how Indonesian and Russian students use AI tools to develop productive language skills, specifically speaking and writing. In line with prior assertions that AI technologies can offer scalable, personalized support in language learning (Ajabshir, 2023; Sabili et al., 2024), the findings show that Indonesian students integrate AI more consistently into their daily educational routines. Their frequent use of AI-driven platforms, from automated writing assistants to conversational chatbots, suggests a higher level of digital adoption and openness to integrating technological tools into language practice. This trend strongly aligns with the notion that AI enhances fluency, accuracy, and real-time feedback in language production, as theorized in the introduction (Jagede, 2024; Herda et al., 2024).

On the other hand, Russian students say they use AI tools less often, with many saying they use them once a week or even once a month. This could be because people are more cautious or conservative about using AI in schools, or because the digital infrastructure, curricular integration, or teacher training are different. These results support what other research has found: that the way AI is used and seen in language learning is greatly affected by the educational system in each country (Demir & Kayao, 2022; Safitri & Fithriani, 2024). They also stress the need for culturally appropriate and localized tactics when using AI in EFL instruction. The disparity in AI usage between the two student groups also echoes the broader challenge raised in the introduction regarding the uneven application of AI tools across countries and the relative scarcity of cross-cultural empirical data (Sumakul et al., 2022). Although both groups acknowledge the potential of AI tools to boost productive language skills, Indonesian students seem to employ these technologies primarily for real-time writing improvement and speech practice using tools such as speech recognition and virtual dialogue systems. This corroborates the hypothesis that students are more inclined to enhance their speaking and writing skills when technology provides instantaneous, interactive feedback (Evenddy, 2024; Mavidi, 2025).

This trend suggests a more cautious or selective attitude to artificial intelligence use, whereby students may occasionally use these tools for particular tasks or needs instead of including them in their regular language learning activities. The inclination of both groups to indicate limited utilization of AI tools points to the fact that, although highly appreciated, these technologies are not generally depended upon. This could result from personal choices, the availability of other learning strategies, or the supposed efficiency of artificial intelligence systems for improving language competency (Ghafar et al., 2023). Ultimately, these variations represent different opinions about technology and its part in language acquisition in the two nations.

Importantly, this study also reveals learner perceptions about the effectiveness of AI. Indonesian students often view these tools as reliable sources of feedback and language modeling, potentially substituting or complementing traditional teacher-led instruction. On the other hand, Russian students express a more cautious optimism, recognizing the benefits of AI while also noting limitations in authenticity, interactivity, and the depth of feedback. The literature also addresses these concerns (Ajabshir, 2023; Tafazoli, 2024). These differences reinforce the argument that AI-

driven language learning is not uniformly experienced and highlight the importance of understanding user preferences and contexts to design more effective, inclusive AI applications. The study addresses the highlighted research gap by offering comparative insights into AI's perceived and fundamental roles in developing productive skills across two unique higher education systems. It underscores the need to analyze how learners utilize and evaluate AI tools, considering not just their frequency and kind but also the impact of these tools on their confidence, competence, and engagement in language production activities.

The analysis of preferred AI tools highlights similarities in usage patterns between Indonesian and Russian pupils. The most frequently employed AI tool in each country is chatbots, which are the primary preference of both groups. This suggests a shared preference for interactive and conversational language practice. Chatbots are likely to appeal to learners because they allow them to practice speaking and writing in a dynamic, low-pressure environment by simulating real-life conversations (Mavidi, 2025; Mohebbi, 2025; Soon et al., 2024). Furthermore, both groups demonstrate a comparable level of interest in language learning applications, which offer structured lessons and exercises to enhance various language skills. This parallel preference suggests that these instruments are beneficial for improving the language skills of Indonesian and Russian students.

Despite these similarities, some minor distinctions exist when applying other AI tools. For instance, a slightly higher proportion of Indonesian students than Russian students utilize virtual instructors, which provide personalized feedback and guidance. This difference aligns with the notion stated by Mavidi (2025) and Jagede (2024) that AI offers scalable, personalized learning support, especially for enhancing productive skills like speaking and writing. Indonesian students' consistent use of AI-driven virtual tutors suggests integrating AI as a real-time language feedback system, reflecting both their openness to digital tools and more supportive educational structures that normalize AI use in daily academic practice. Both groups also report comparable use of voice recognition software, though the overall frequency is still relatively low. This confirms the findings of Herda et al. (2024) and Sabili et al. (2024), who noted that although AI technologies provide immersive and interactive experiences, their actual application in oral language practice is still limited, possibly because of usability problems or the perception that speech feedback lacks authenticity. The two groups generally exhibit similar preferences for AI tools; however, Russian students appear to employ a broader spectrum of AI tools more frequently, which may indicate a greater interest in or access to various technological resources.

The results regarding the perceived efficacy of AI tools in improving speaking skills indicate significant disparities between Indonesian and Russian students. Indonesian students predominantly had a more favorable perception of AI technologies, with a greater percentage deeming them highly beneficial for enhancing their speaking skills than Russian students. This indicates that Indonesian learners may perceive AI tools as providing superior assistance or more efficient direction for speaking practice. A substantial segment of both groups conveyed indifference, suggesting that numerous students did not perceive AI tools as significantly beneficial or detrimental to their speaking skills (Wu et al., 2025). However, a significant proportion of Indonesian students perceived AI tools as unhelpful in this context, a position echoed by a smaller group of Russian learners.

Additionally, the two groups have a significant disparity in the judgments of writing talent. Russian students were more inclined to view AI tools as "somewhat helpful" for writing, suggesting they recognized some utility in utilizing AI to enhance their writing abilities despite the tools not being regarded as entirely efficient. This perspective was nearly nonexistent among Indonesian students, with relatively few indicating that AI tools were somewhat beneficial. This viewpoint was virtually absent among Indonesian students, with a limited number suggesting that AI tools were slightly advantageous. The disparities can be understood by Ajabshir's (2023) and Mavidi's (2025) claim that the efficacy of AI writing tools relies on both accessibility and learner perception within the instructional context. The moderate support of AI's utility for writing among Russian students may

indicate a transitional stage of digital integration, wherein learners rely on conventional education while being receptive to utilizing AI as an ancillary resource for feedback or language modeling. Both groups exhibited a significant degree of neutrality, indicating that AI tools are not generally perceived as essential for enhancing writing skills. A significant proportion of Indonesian students believed that AI tools did not contribute to the improvement of their writing skills, in contrast to a smaller percentage of Russian students who held this opinion. These distinctions underscore that, although both cohorts may utilize AI for language acquisition, Russian students generally see these technologies as more beneficial, particularly with writing enhancement.

It can be concluded that AI has demonstrated its value in improving students' performance in language acquisition by offering personalized, adaptive learning experiences tailored to individual requirements. Through AI-powered tools like chatbots, language apps, and virtual tutors, learners can receive immediate feedback and targeted practice, enabling them to address specific weaknesses and improve their skills more effectively. These tools assist students in developing confidence, especially in speaking and writing, by providing a non-judgmental environment for practice and facilitating repeated targeted activities. Furthermore, AI can monitor success over time, pinpointing areas for enhancement and adjusting educational material to facilitate ongoing development (Demartini et al., 2024; Yadav & Shrawankar, 2025). By promoting self-directed learning and providing customized assistance, AI systems can markedly enhance students' motivation and competence (Chiu et al., 2024; Wang et al., 2022; Yadav & Shrawankar, 2025), resulting in improved overall outcomes in language acquisition.

While AI can be helpful, students must use these tools ethically, avoiding over-reliance or employing AI to finish tasks. Educators should encourage their students to use AI as a supplement rather than a replacement for their effort, which develops accountability and a better understanding of language knowledge. Educators can help to retain honesty by establishing explicit boundaries on how AI should be used, encouraging self-reflection, and highlighting the value of individual learning. Furthermore, Educators can guarantee that AI enhances rather than undermines the cultivation of authentic communicative ability. These factors are especially crucial in cross-cultural environments such as Indonesia and Russia, where differing degrees of digital adoption and learner autonomy affect the perception and utilization of AI tools. Consequently, the progression of AI-assisted language learning necessitates both technology accessibility and pedagogical approaches that uphold integrity, learner autonomy, and enduring skill enhancement.

CONCLUSION

AI tools today have become firmly established in the field of education. This is reflected in students' growing interest in using such tools and teachers' and researchers' study of their effectiveness. The contradiction that teachers and AI researchers face is that although AI tools were created to help students study foreign languages, in some cases, these tools can confuse or even provide false information. This paper describes the course of the study conducted in two higher education institutions in Indonesia and Russia to identify Indonesian and Russian students' attitudes towards using AI tools to develop speaking and writing skills and determine how effective these tools are, according to the students. Regarding the frequency of AI usage, the study results show that daily interaction with AI technologies is significantly more frequent for Indonesian students than for Russian students. The findings highlight that Russian students use AI tools weekly or monthly, while Indonesian students use them daily. This tendency is explained by the fact that Indonesians are more accustomed to using artificial intelligence in their language and use it consistently to facilitate many aspects of their educational process. Studying the students' preferences in specific tools, the most frequently used AI tool in each country is chatbots, which are the primary preference of both groups. This preference is explained by chatbots allowing students to practice speaking and writing in a dynamic, low-pressure environment, simulating real conversations. In addition, Indonesian and Russian students indicate limited use of AI tools, which means that although these technologies are

highly appreciated, they are not usually considered reliable enough. The reasons are personal choice, other learning strategies, or the perceived effectiveness of AI systems in improving language skills. Additionally, the effectiveness of using AI tools was considered. The students' suggestions toward AI tools indicate significant differences between Indonesian and Russian students' opinions. A higher percentage of Indonesian students consider AI technologies to be beneficial in improving their speaking skills than Russian students. Moreover, a significant proportion of Indonesian students believe that AI tools do not help improve their writing skills compared to a smaller percentage of Russian students who share the same opinion. Nonetheless, this study possesses certain methodological constraints. As a cross-sectional study, it captures a snapshot in time rather than showing changes or improvements over a more extended AI tool use. Therefore, for future research, the researchers suggest adopting a longitudinal design to examine how continued use of AI tools influences language development over time. To support the integration of AI in the classroom context, practitioners could also examine how integrating AI tools with classroom instruction influences learner outcomes and teacher practices.

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