EXPLORING THE OPPORTUNITIES AND BARRIERS OF AI-DRIVEN TOOLS ON EFL STUDENTS' ACADEMIC PERFORMANCE: PERSPECTIVES OF EFL UNIVERSITY STUDENTS

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Abstract: Artificial Intelligence in education has revolutionized students' learning styles. This study explored EFL students' perspectives on how AI tools assist them in their academic performance. Eighty-two EFL students enrolled in the English Language Study Program at the University of Qomaruddin participated in the study. A survey method was adopted for this study through a series of questionnaires to collect feedback from the students. The result revealed that EFL students heavily rely on conversational AI tools like ChatGPT and machine translation. The study also highlighted the positive impact of AI on various aspects of language learning, including vocabulary acquisition, grammar proficiency, pronunciation practice, and academic writing refinement. However, the study identified concerns regarding the potential barriers to AI integration, such as over-reliance on technology, the risk of replacing human teachers, and the need for enhanced digital literacy skills.

Keywords: academic performance, artificial intelligence, barriers, opportunities

INTRODUCTION

Technology has become an integral part of the classroom. Technology integration in education has been a topic of discussion among scholars for several years (Chen et al., 2020). It has inspired teachers to create new learning strategies and methods and build a more successful classroom environment (Wulyani et al., 2024). Technology integration will make the teaching and learning process more engaging and push students to enhance their

comprehension (Pradana & Hestuti, 2024). Additionally, technology has expanded virtual learning, allowing teachers and students to keep their interactions outside the classroom (Wardani & Zakiah, 2021). Therefore, teachers are expected to use technology in teaching, as many studies have shown that learners tend to understand learning materials better integrated with technology (Al-Labadi & Sant, 2021).

Artificial Intelligence (AI) has recently emerged as a significant innovation among the various technologies integrated into classrooms. AI-driven tools have garnered much attention for their potential to transform the learning experience by providing personalized learning paths, automating grading, and enhancing student engagement. (Shoaib et al., 2024). AI-driven tools

also support professional development and learning management. (Diantama, 2023).

Artificial Intelligence refers to developing computer systems that can perform tasks that typically require human intelligence, such as learning, problem-solving, and decision-making. (Sarker, 2022). This includes chatbots, Machine Learning (ML), Natural Language Processing (NLP), smart tutoring systems, and more. These tools are designed to mimic human cognition and adapt to new information. Therefore, AI has brought new ways to solve complex problems in various domains including education. (Jose & Jose, 2024; Ouyang et al., 2022). AI has the potential to significantly enhance English language teaching instructions and foster students' language skills.

Scholars have integrated AI-driven tools in English language teaching for many years, and mixed findings have been yielded. A study by the University of Cambridge showed that students who used AI-powered resources to learn English scored significantly higher on standardized tests than those who did not use such tools. (Shahidi et al., 2023). An earlier study examined how AI technologies, particularly in NLP, offer the potential to improve English language teaching qualities in higher education. (Liu & Kong, 2021). Another study investigated how AI can enhance university students' critical thinking skills through human-computer interaction in ELT contexts. (Muthmainnah et al., 2022).

Some pros and cons of applying AI tools to higher learning education.

As AI enriches learning and better the results, its abuse weakens reasoning, cultivates dependency, and widens gaps caused by inequitable outcomes (Wardani et al., 2024). The increasing use of AI is also a concern among educators: dishonesty/plagiarism (Alam et al., 2024). Balancing AI integration with maintaining human guidance is essential, as some students increasingly rely on AI over teachers (Zeevy-Solovey, 2024). Educators must promote responsible AI use to maximize benefits while mitigating risks (Loock & Holt, 2024).

Indonesian EFL students gradually use AI for academic tasks, highlighting the urgent need to address the opportunities and challenges of AI. This paper examines the attitudes of English Department students at the University

of Qomaruddin toward AI tools. While previous research, such as Supangat et al. (2021) on AI's benefits, Ronsumbre et al. (2023) on AI's motivational impact, and Grájeda et al. (2024) on AI's influence on higher education, focused on non-English students, this study offers a "novel perspective" by addressing gaps and focusing on English Department students.

This study aimed to explore EFL students' perspectives on the opportunities and challenges of AI tools, identify their preferred AI applications for improving academic performance, and raise awareness of AI's benefits and drawbacks

METHODOLOGY

This study utilized a survey research method to investigate the perspectives of EFL students at the University of Qomaruddin on the role of AI-driven tools in enhancing their academic performance. Surveys effectively gather quantitative data and understand participants' attitudes and experiences (Story & Tait, 2019). The data was collected using a questionnaire distributed to EFL students at the University of Qomaruddin via Google Forms. A total of 82 participants shared their perspectives through their responses.

RESULTS AND DISCUSSION

The results showed that students relied on various AI tools to assist them in their academic performances. These tools could be categorized into: general AI tools and specialized tools designed to enhance

their English language skills as can be seen in Figure 1 and Figure 2 below.
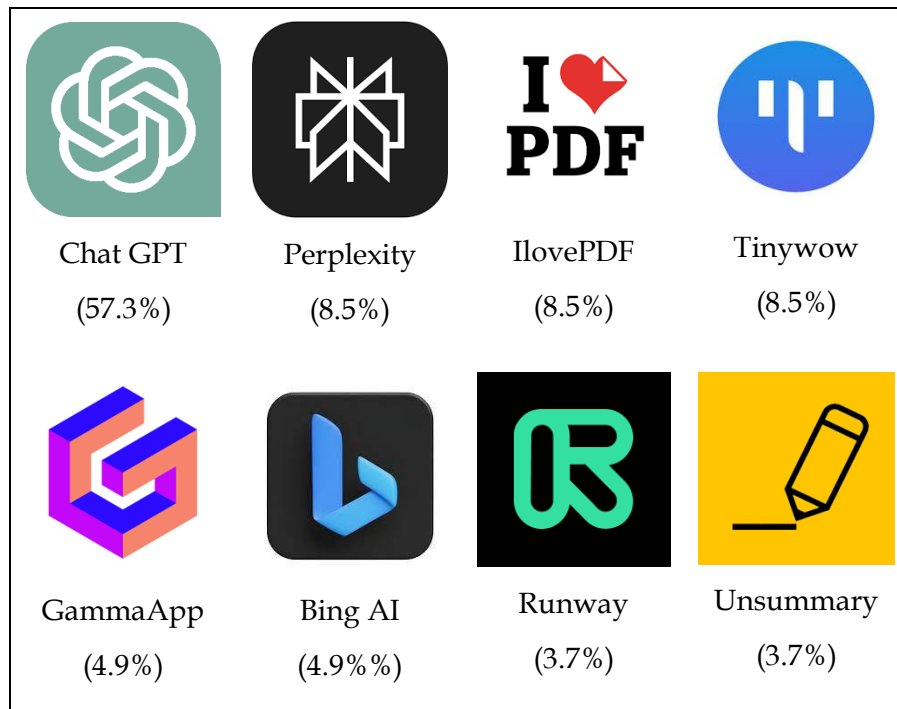
Figure 1. The General AI Tools Commonly Used by the EFL Students
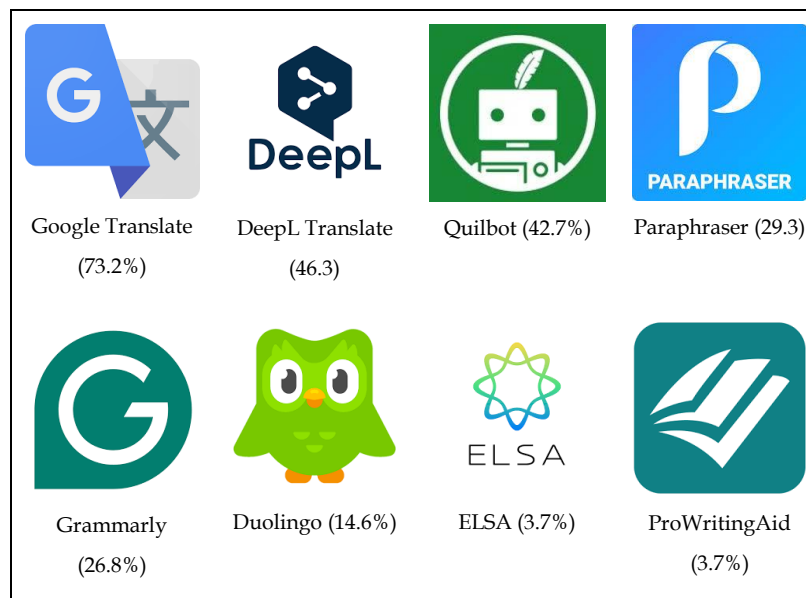
Figure 2. The Specific AI Tools Used by The EFL Students to Enhance Their English Abilities

Figures 2 and 3 highlight the most popular AI tools among EFL students. ChatGPT leads with 57.3%, valued for providing general information, followed by Tinywow, IlovePDF, and Perplexity at 8.5% each. GammaApp and Bing AI share third place with 4.9%, while Unsummary and Runway are fourth at 3.7%. For translation and language enhancement, Google Translate is the top choice (73.2%), followed by Deepl Translate (46.3%), Quilbot (42.7%), and Paraphrase (29.3%). Grammarly (26.8%) and Duolingo (14.6%) follow, with ELSA and ProWritingAid tied at 3.7%.

This result aligns with previous research by Castillo et al. (2023) which reported that 71.3% of Peruvian university students regularly used ChatGPT for its quick responses and accurate answers.

Similarly, Chauke et al. (2024) found that South African postgraduate students often used ChatGPT to refine their academic writing. In addition, Valova et al. (2024) noted that most Bulgarian students considered ChatGPT extremely useful.

Students' preferences for ChatGPT may be attributed to several factors such as its flexibility, satisfactory results, and ease of access. ChatGPT is an alternative source of valuable information, often providing more satisfactory results than other search engines. (Allam et al., 2023; Hung & Chen, 2023). Its ease of access and speed in delivering information make it a potential tool for enhancing student motivation. (Karataş et al., 2024).

The dominance of Google Translate and DeepL Translate in the

specific category suggests their high utility in translation tasks and comprehending English materials. This finding aligns with some prior studies reported that most Indonesian students perceive Google Translate as a useful tool to translate English texts and comprehend English materials (Mastang et al., 2024; Nurhayati & Lahete, 2024; Perdana & Arifani, 2024). This underscores the importance of such tools for Indonesian EFL students to provide them with instant translation. While user-friendly, both tools should be used cautiously, as their multilingual performance is unreliable and requires further validation (Brewster et al., 2024). Students should use AI thoughtfully to support, not replace, their learning.

After responding to various AI tools that they regularly utilized,

respondents were asked to list the advantages of AI in learning English and completing assignments, as can be seen in Figure 3 below.
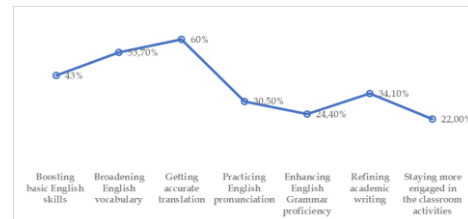
Figure 3. Advantages of AI in learning English

Figure 3 highlights the key benefits of AI for EFL students, with 60% citing accurate translations for better understanding and communication. AI also helps expand vocabulary (53.7%), improve basic skills (43%), refine academic writing (34.1%), and enhance pronunciation practice (30.5%). Additional benefits include improved grammar proficiency (24.4%) and increased classroom engagement (22%), making learning more interactive.

Although there is a concern that the current AI models exhibit weaknesses, including semantic

distortion, loss of context, cultural misinterpretation, and linguistic errors (Doshi, 2024), a prior study has explored the advancements in AI-driven machine translation and its potential to achieve more accurate and expressive translations across diverse languages and cultures (Aldawsari, 2024). Furthermore, some AI tools are designed with vocabulary features like synonyms and concise word explanations, which can significantly improve vocabulary acquisition (Silitonga et al., 2024). Utilizing these AI tools leads to students' vocabulary enrichment compared to traditional methods of English vocabulary learning (Alharbi & Khalil, 2023; Chingakham & Tamuk, 2024). Therefore, integrating AI tools in vocabulary learning positively impacts students' learning outcomes

and effectively enhances vocabulary learning efficiency (Wang et al., 2024).

AI tools facilitate oral and written communication through online comments, grammar checkers, and writing style suggestions. ELSA offers pronunciation features from various accents (Vančová, 2023) to enhance pronunciation ability in personalized learning settings (Shafiee Rad & Roohani, 2024). Similarly, Grammarly can effectively improve students' proficiency in English grammar (Lipalam et al., 2023), while tools like Perplexity and ProWritingAid help students improve academic writing by generating outlines, synthesizing literature, and refining content. However, students must address challenges like plagiarism,

inaccuracies, and citation issues (Xu & Jumaat, 2024).

Additionally, AI's capacity to help students explore new information more deeply can enhance their motivation and involvement in learning (Persulessy et al., 2024). Students with greater confidence in using AI demonstrated better AI knowledge and performed more effectively in classroom activities. (Ng et al., 2024). This highlights AI's role in boosting students' confidence and enhancing their AI literacy, which increases their active participation.

At the end of the questionnaire, respondents shared their views on the opportunities and barriers of AI tools as summarized in Table 1.

Table 1
Opportunities and Barriers to Utilizing AI-Driven Tools

Opportunities		Barriers	
AI is highly advantageous in teaching and learning English	57.30%	AI can foster dependency, hindering students' development	35.40%
AI helps students overcome learning difficulties	52.40%	AI might stifle students' creativity	31.70%
AI provides opportunities to acquire knowledge	39%	AI may replace the roles of educators	26.80%
AI provides access to diverse and up-to-date references	4.90%	AI demands a certain level of digital literacy skills	24.40%
AI aids students in exploring career opportunities	3.70%	AI may produce inaccurate results	8.50%
		Unequal access to technology can create disparities in learning experiences.	3.70%
		AI sometimes displays bias when providing data or information.	2.40%

Table 1 presents EFL students' views on AI's impact on learning. While 57.3% find AI highly beneficial for learning English, 52.4% use it to overcome difficulties, and 39% see it as a source of endless knowledge. Additional benefits include diverse references (4.9%) and career exploration (3.7%). Concerns include dependency (35.4%), stifling creativity (31.7%), replacing educators (26.8%), and the

need for digital literacy (24.4%), along with issues like inaccuracy (8.5%), unequal access (3.7%), and AI bias (2.4%).

Although EFL students show a positive attitude toward AI due to its usefulness and ease of use, some students have concerns about plagiarism, misinformation, biased information, and the risks of AI overuse and overreliance (Pang et al., 2024). Despite its significance, it is crucial to make educational adjustments to prevent overreliance on AI (Araújo et al., 2024). Therefore, students require support to strengthen their digital literacy skills and harness the positive roles of AI (Zheng et al., 2024).

Students' concerns about AI's capacity to replace the roles of educators in the classroom contrast with some prior studies that emphasize the irreplaceable role of educators in guiding students. Human educators remain essential because they possess exceptional qualities like critical thinking, creativity, and emotional intelligence that set them apart from AI (Chan & Tsi, 2023; Ironsi, 2024). AI-driven tools help educators in the classroom, but the roles of educators in educating, guiding, and shaping students' characters can only be effectively fulfilled by humans (Fitria, 2023). AI-driven tools are designed to empower educators, enhance instructional practices, and foster professional growth, so resisting AI may lead to significant disadvantages, such as increased workload, inefficient time management, and restricted professional development (Giray, 2024).

Overall, this study presents a positive perception among EFL students regarding the roles of AI in enhancing their learning experiences. Students utilize various AI tools, reflecting their heavy reliance on these platforms for academic support. Additionally, more than half of the respondents expressed satisfaction that AI tools have assisted them in getting accurate translations and broadening their vocabulary. The EFL students not only recognize the opportunities of AI but also express concerns about its barriers.

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CONCLUSION

AI-driven tools offer great potential to enhance EFL students' learning outcomes, but they also pose challenges such as impacts on teaching roles, self-confidence, creativity, and over-reliance. While students view AI positively, these concerns highlight the need for educators to balance its benefits and limitations. This study serves as a resource for integrating AI effectively into teaching practices to improve EFL students' learning experiences.

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