

# Teachers' Experiences of Using AI-powered Technologies in Bangladeshi English Language Classrooms

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## Abstract

Artificial Intelligence (AI) tools can potentially revolutionize classroom practices. English as a Foreign Language or Second Language (EFL/ESL) classrooms in higher education (HE) are also privy to the transformative features of AI. However, there is limited research on Bangladeshi HE teachers' AI usage in teaching. This study, recognizing this gap, investigates Bangladeshi English teachers' experiences and perceptions of using AI tools at the tertiary-level English classes. Data were collected employing an open-ended qualitative survey distributed among 17 English teachers from various public and private universities in Bangladesh. A thematic analysis suggests that most participants regularly use Turnitin, ChatGPT, and Grammarly among other AI tools. While some teachers did not routinely integrate AI tools into classroom activities, most considered them an efficient auxiliary tool for improving writing, vocabulary, grammar, designing materials, and detecting plagiarism. The results also revealed teachers' concerns about their lack of AI readiness and students' malpractices using AI such as cheating and disinclination towards critical thinking. Based on the findings, the researchers discovered that effective integration of AI tools in learning can occur through a balance of human-led and AI-led instructions. The study recommended the need for teachers' capacity building and skills training as mediators for contextually relevant AI usage, predominantly in writing.

**Keywords:** Artificial Intelligence, generative AI, EFL classrooms, higher education, AI tools integration

## Introduction

Artificial Intelligence (AI) has revolutionized language pedagogy by transforming teaching and learning. From AI tools utilizing machine learning to Generative AI using large language models (LLMs), technology has become more capable of tracking, modeling, and predicting human behavior through datafication (Mayer-Schönberger & Cukier, 2013). Recent major developments in this field include multimodal GenAI products, notably OpenAI's ChatGPT, Google's Gemini, Microsoft's Copilot, and Grammarly, among others. These tools can generate texts, images, audio, videos, and code, while some offer self-paced and personalized learning opportunities. The pervasive use of such tools necessitated designing GenAI content detection technologies to maintain academic integrity. EFL classrooms, too, are uniquely positioned to benefit from text-based AI tools (Koraishi, 2023). Specifically, language skills education can be reconceptualized by the advancements in Technology Enhanced Language Learning (TELL) (Novawan et al., 2024). For example, AI-powered mobile applications can provide instructions considering learner needs, virtual assistants aid in practicing speaking and listening, and AI tools generate and proofread content to promote writing skills (Alharbi, 2023).

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A compelling argument for AI integration into education is that these technologies can automate certain aspects of teaching such as grading and providing learner-specific needs analysis, which enable teachers to concentrate on building students' critical thinking and interpersonal skills through mentorship (Pedro et al., 2019). However, it is important to consider educational contexts before incorporating these powerful tools into the classroom. Paralleling global practices, Bangladesh has quickly embraced AI advancements. Particularly, the University Grants Commission (UGC) and Bangladesh Research and Education Network (BdREN) have ventured into digitizing the HE sectors, offering teachers and students "access to digital libraries" and a "global knowledge network" (Tamanna & Sinha, 2024, p. 2). Teachers are now responsible for supervising students, so they do not become overly reliant on AI, while also safeguarding data privacy to maintain academic integrity. The proliferation of AI usage in this context and the researchers' teaching experiences provided the impetus for this study. The study investigates teachers' experiences and perceptions of AI usage to gain insights into effective and ethical AI integration into Bangladeshi HE EFL classrooms.

The study attempts to answer the following research questions:

1. How do Bangladeshi university teachers use AI tools in teaching?
2. How do they perceive their experience of using AI tools in teaching?

We, first, provide the underpinning theoretical framework and relevant research regarding AI in language education, followed by the research methodology adopted in this study. Then, we present the major findings and discuss teachers' use of AI in Bangladeshi higher education. Several implications were then drawn to denote the scope for future research.

## **Theoretical Understanding and Relevant Research**

### **AI in Language Pedagogy**

Technology-Enhanced Language Learning (TELL) refers to technologies and approaches that can be leveraged to learn and practice language skills in engaging and interactive ways (Novawan et al., 2024). With the advent of AI, TELL has been transformed into Intelligent Technology-Enhanced Language Learning (ITELL) (Huang et al., 2023; Novawan et al., 2024). AI tools using machine learning (ML) and Natural Language Processing (NLP) capabilities such as chatbots, virtual assistants, translators, and text generation have a significant influence on students' language learning (Huang et al., 2023; Liang, et al., 2023). Various categories of AI tools exist. Baker et al. (2019) suggested Learner-facing AI (utilized by learners to learn something), Teacher-facing AI (utilized by teachers to reduce workload and save time), and System-facing AI (utilized by administrators for managerial tasks). Additionally, Generative Artificial Intelligence (GenAI), can produce multimodal contents such as audio, videos, texts, and images. It learns from the content created by humans and generates new content using "large language models (LLMs), art-based models, and video-based models" (Law, 2024, p.1). Researchers identified several popular AI tools in language pedagogy, including Automatic Evaluation Systems (e.g., Criterion, Pigai), Neural Machine Translation (e.g., Google Translate, Bing AI), Intelligent Tutoring Systems (e.g., Duolingo, Memrise), Automated Assessment tools (e.g., Grammarly, Turnitin), and newly developed GenAI models like ChatGPT and Gemini (Ahn & Lee, 2016; Garrel & Mayer, 2023; Law, 2024; Mohammadkarimi, 2023).

### **Technology Acceptance Model**

Using technology in language education closely aligns with the Technology Acceptance Model (TAM) proposed by Davis (1986), which suggests that technology use is dependent on user motivation and shaped by the tool's features and capabilities. Davis (1986) identified perceived usefulness (U), perceived ease of use (E), and attitude (A) as key factors for user motivation, that shape the behavioral intention (BI) of the user and lead to the actual use of the tool. Multiple extensions of TAM have emerged. Jang et al. (2021) proposed an extended TAM (eTAM) concerning AI use. The model acknowledges individual, social, and environmental aspects and suggests that teachers' AI use is driven by their knowledge of technology, pedagogy, content, social norms, and motivation. These factors define teachers' U and E regarding AI tools. Despite several interpretations, Davis's TAM remains a widely used framework for understanding technology use in language education.

### **AI and Language Skills**

Technology has been well-integrated in English classrooms due to the abundant resources on the internet. Several studies have investigated how language skills such as writing and speaking can be taught using AI in the classroom. Law (2024), for instance, noted the potential of GenAI tools for language skills development. Studies on automated writing assistance tools highlight that AI significantly improves students' writing skills, offering feedback on grammar, punctuation, and writing style (Alharbi, 2023). Ghali et al. (2018) opined that Intelligent Tutoring Systems improve reading comprehension by providing personalized materials. AI chatbots boost writing, listening, and speaking as highlighted by Adolphs et al. (2018). Qiao and Zhao (2023) further illustrated how AI-based language learning platforms improve students' speaking by analyzing individual data and suggesting more focused instructions. Other studies reported that AI tools enhance students' motivation and interest through personalized feedback and seamless interaction (Ahn & Lee, 2016; Ghali et al., 2018).

### **EFL Teaching Practices Using AI**

Using AI tools in EFL classrooms can supplement teaching practices and provide a holistic learning experience for students (Moybeka et al., 2023). These tools have simplified teachers' tasks to find resources, saving time for lesson planning. ChatGPT, in particular, assists EFL teachers in generating assignments, quizzes, and classroom activities (Koraishi, 2023) which reduce stress, increase productivity, and promote quality instruction (Law, 2024). AI offers personalized instructions that satisfy student needs (Kim et al., 2021), provides instant feedback, encourages active participation in class, and creates a more learner-centered environment (Moybeka et al., 2023; Seo, 2021).

Chounta et al. (2021) mentioned that Estonian K-12 teachers favored using AI for repetitive administrative tasks and adapting class materials. Similarly, Sumakul et al. (2022) reported teachers' agreeable responses towards AI because it enhanced EFL learning and teaching. To prevent potential risks of incorporating AI tools, Chiu (2023) emphasized that teachers should build the necessary skills. Chounta et al. (2021) also noted that inadequate skills training for effective AI integration was the key challenge encountered by teachers. To promote AI acceptance, it is important to alleviate teachers' "negative emotions" and introduce high-quality training opportunities through practicums and workshops incorporating diverse "EFL contexts" and "multiple teaching modes" (Jiang, 2022, p.5). Sumakul et al. (2022) suggested improving AI readiness by considering teachers' technological skills and specific classroom contexts.

### **Ethical Considerations for EFL Teachers**

As university learning is autonomous, students are often required to demonstrate critical thinking and originality in their work. GenAI tools such as ChatGPT raised concerns among teachers as students submit AI-generated answers without fact-checking or incorporating critical reflections (Yan, 2023). The ethical challenges teachers face in incorporating these tools range from plagiarism to overreliance on AI tools. The availability of GenAI thus sparked concerns among university teachers regarding students' academic integrity (Mohamed, 2023; Mohammadkarimi, 2023). Many renowned universities around the world are currently using plagiarism detection tools that can detect GenAI-generated texts (Yan, 2023). Students may become dependent on AI tools for critical thinking and research by generating answers from prompts (Mohamed, 2023). Such over-reliance can also hamper their communication skills (Moybeka et al., 2023). It is, therefore, pertinent for teachers to understand how AI algorithms and their data privacy policies work so that they can make informed decisions. Addressing this, Nguyen (2023) recommended enforcing ethical guidelines in EFL classrooms, while Moybeka et al. (2023) underscored supervising students' AI usage and "maintaining a balance between AI-driven and human-led instruction" (p. 5).

### **AI in Bangladeshi Context**

Despite the global agenda promoting AI for education (Pedro et al., 2019), there is limited evidence on Bangladeshi teachers' readiness, willingness, and attitudes toward AI integration (Khan et al., 2021; Sumakul et al., 2022). Tamanna and Sinha (2024) highlighted several challenges faced by Bangladeshi students and teachers, including data privacy concerns, limited knowledge of AI tools, issues regarding consent and plagiarism, and disruptions in the teacher-student dynamic. Pande et al. (2024), too, noted the growing use of AI in Bangladeshi academic settings, stressing the importance of balanced integration to avoid misuse and ethical risks.

As the literature review highlights, despite the various potential of AI technologies to enhance EFL teaching, the concerns are unanimous. The limited research in Bangladesh and extensive use of AI by students and teachers demand an extensive understanding of teachers' experiences with these tools in classroom settings. To bridge this gap and understand effective AI practices in local teaching, this study attempts to explore how Bangladeshi HE teachers perceive and implement AI in English language classrooms.

## **Methodology**

### **Research Design**

Adopting an interpretivist paradigm, the study followed a qualitative approach to explore Bangladeshi English teachers' AI usage. The interpretive paradigm views the "world from participants' eyes" and considers "knowledge as socially constructed" (Tracy, 2013, p. 41). Hence, the qualitative data sought to comprehend teachers' AI usage by considering social and experiential aspects of their experience (Tracy, 2013). Since teachers' perspectives may vary depending on teaching practices and educational contexts, this approach seemed appropriate to answer the research questions.

### **Data Collection and Instrument**

Data were collected through a qualitative survey consisting of 13 open-ended questions (see appendix). The survey had five types of questions. The first type, consisting of two questions, collected participants' demographic information

regarding teaching experiences and taught courses. Two questions (1,2) were on participants' familiarity and reasons for using various AI tools. Eight were about their teaching practices, among which, four (3,4,5,6) were on teaching language skills and four (7,8,9,10) were on AI's impact on students' learning. The last three (11,12,13) questions inquired about challenges faced by the teachers and recommendations that they make. The survey was designed using Google Forms and circulated through social media platforms like LinkedIn, Facebook, and WhatsApp.

### Participants

Since the study explores university teachers' AI usage, 17 English teachers (11 female and 6 male) from various universities in Dhaka were selected for the study (see Table 1). Participants from both public (5 teachers) and private universities (12 teachers) were purposefully sampled to comprehend the phenomenon more comprehensively. Moreover, 12 participants are early career teachers with less than 4 years of experience while the rest have 6-17 years of teaching experience.

Demographic Information of the Participants			
Participant No.	Gender	Work Experience (in years)	Institution
1	Female	2	Private
2	Female	7.5	Private
3	Male	2	Public
4	Female	2	Private
5	Female	1.5	Private
6	Female	3.5	Public
7	Male	0.5	Private
8	Male	1	Private
9	Male	7	Private
10	Female	10	Private
11	Female	0.4	Private
12	Female	6	Public
13	Male	17	Public
14	Female	2.5	Private
15	Female	1	Private
16	Male	15	Public
17	Female	1	Private

Table 1: Participants' Demographic Information

### Data Analysis

A thematic analysis was employed to analyze the data. Following Braun and Clarke (2006), the researchers first familiarized themselves with the dataset, generated initial codes (inductive and deductive), organized them to identify themes, refined the themes corresponding to the codes, and lastly reported the data to address the research questions. Google Docs and Excel were used for coding and analyzing data. The

codebooks were then exchanged between the researchers to minimize bias and ensure intercoder reliability.

### Ethical Considerations

The research was conducted by following established research ethics criteria. Informed consents from all participants were taken and they were reminded of the research purpose in the survey form. Confidentiality of their responses and personal information was ensured. The data were anonymized by assigning numbers to each participant.

### Findings

We present the findings in response to the research questions. In the report, P1 will indicate Participant 1, and so on.

### Teachers Use of AI Tools in Teaching

The first research question investigated how teachers integrated AI technologies into teaching. Four themes were discovered: teaching language skills, detecting plagiarism, designing materials, and building student- and teacher-agency. The figure below shows teachers' usage of different AI for professional purposes.

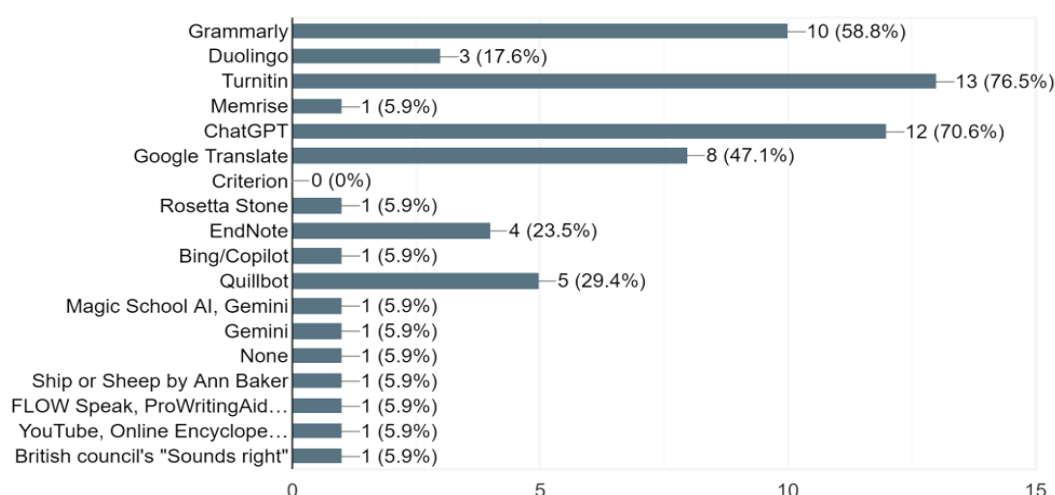


Figure 1: Teachers' use of AI tools

The commonly used AI technologies for professional practices are Turnitin, ChatGPT, Grammarly, and Google Translate. Since the participants could choose multiple AI technologies, there are overlaps in these responses. Notably, 13, 12, 10, and eight participants reported using Turnitin, ChatGPT, Grammarly, and Google Translate respectively. A few new tools were listed including Gemini (P1, P5), Magic School AI (P1), FLOW Speak (P15), Speechify (P15), and ProWritingAid (P15). P12 responded that she has not used AI in her teaching.

### Teaching Language Skills Using AI Tools

With regards to teaching various language skills, participants reported primarily using AI tools primarily for writing, grammar, and vocabulary. Eight considered ChatGPT useful for teaching basic language skills, including grammar because of its ability to generate "unique, creative" (P7) and "different exercises" (P8). For "grammatical improvements" (P6) such as "identifying inconsistencies and common grammar mistakes" (P9), Grammarly use was reported by seven participants. Three participants

found Duolingo invaluable for exercises on vocabulary and “basic sentence structure” (P4). However, P12, P14, and P16 revealed never using AI tools for teaching language skills.

### **AI-generated Content Detection**

The results demonstrate that 10 participants addressed students’ cheating using AI tools. Seven reported using Turnitin regularly to inspect students’ works for plagiarism. Whereas P17 stated that using Turnitin makes her “more conscious of students’ weaknesses in writing paragraphs/ essays,” P7 noted that it “is not 100% foolproof in identifying AI-generated content.” Some teachers devised creative solutions by using “secondary AI-detection tools” (P6) and initiating student training with tools like Quillbot and Turnitin to “enhance writing skills” and “check plagiarism” before final submission (P1).

### **Materials Designing and Lesson Planning**

The findings also show teachers’ (10) use of AI for planning lessons, generating content, and curating activities. P7 used ChatGPT, BingAI, and Copilot “to create interesting study materials” and others used ChatGPT to “create activities” (P5, P14) and “make lessons more helpful” (P2, P16). Tools such as Gemini were employed to “prepare class materials, lectures, and slides” (P5). P7 and P13 highlighted using AI tools to select suitable materials for learners’ age groups. P13 bought AI tool subscriptions to “provide various materials” while P7 uses AI for “analyzing tasks” and “finding the best tasks for their age level.”

### **Building Agency among Students and Teachers**

AI has been reported (11 teachers) to increase teachers’ and learners’ agency by saving time, reducing workload, providing quick feedback, and enhancing engagement. P8 noted that these tools make teachers “more accurate, better facilitators, and more creative.” P13 agreed, saying AI made them “more efficient” and reduced “class preparation time.” P7 confirmed that it allows “more focus on higher-level tasks like discussions and personalized learning.”

Participants also reported using these tools to engage learners (P15) and improve their awareness. P15 highlighted FLOW Speak’s “tracking progress” and “virtual dialogues with the chatbot” features for this purpose. Teachers preferred AI tools for “enhancing correctness” (P3) and providing “quick feedback” (P1). Additionally, they noted that AI boosts students’ independent learning through tasks like “peer review using ChatGPT” (P10). Teachers also utilized AI to “shift the code for better understanding” (P11), showcasing how it enhances both teacher and student agency.

### **Teachers’ Perceptions of Their AI Experience**

Teachers’ perceptions of using AI technologies have been collated under four themes: AI in teaching and designing materials, student learning and performance, challenges, and recommendations.

### **AI in Designing Materials and Teaching**

Participants generally viewed AI as highly effective for class preparation. They appreciated its role in locating suitable content, creating engaging materials, simplifying lectures, and supporting outside-classroom learning through user-friendly interfaces. Many considered AI as an “auxiliary tool” (P7) that enhances teaching by making lessons more interactive (P15) and achieving teaching goals efficiently (P13). Teachers noted that AI boosted their self-efficacy and enabled more personalized

learning experiences (P7). Additionally, AI's ability to provide timely feedback (P1) and improve lecture clarity by simplifying language (P3) was valued. Overall, teachers expressed a positive attitude towards AI's effectiveness in enhancing teaching practices.

### **Student Learning and Performance**

Participants expressed a positive view of AI's role in enhancing students' learning and performance. AI tools provided students with opportunities for self-correction and improved their language skills both inside and outside the classroom. For example, P6 noted that by using Grammarly to self-correct, students "gain more control over their writing." Teachers observed that AI tools' interactive features and "game-like design" (P4) enhance student engagement and motivation while supporting their self-learning journey and improving overall performance.

### **Limitations of AI Usage**

A key finding was participants' concerns about students' misuse of AI technologies. Many teachers perceived that AI's widespread use discouraged students from being diligent and learning independently (P6, P12). P5 noted, "Students often rely solely on AI tools, failing to learn from their assignments." Additionally, the availability of AI tools raised issues of data integrity and increased plagiarism (P2, P5). Teachers expressed dissatisfaction with students' unethical use of these tools and their lack of awareness in verifying AI-generated information (P4).

Concerns also emerged about AI's limited ability to make complex moral decisions and provide accurate information (P8). Participants observed that AI tools sometimes produce irrelevant or overly complex language (P6), and the "limited access to variegated sources" (P4) affects their relevance. Some tools detect generic sentences as plagiarism, making AI judgments dubious (P5). Teachers have adapted by modifying online materials to fit student levels (P16) and reported infrastructural challenges, such as electricity and internet issues (P12, P14). Thus, the findings highlight the need for careful selection of AI tools and awareness of their limitations in teaching.

### **Discussion**

The findings indicate that English language teachers favored GenAI tools for teaching writing and grammar, confirming Huang et al. (2023), Law (2024), and Liang et al. (2023), who noted the advantages of ChatGPT for language teaching for its natural language processing (NLP) capabilities. Participants' praise for Grammarly supports Alharbi's (2023) claim that automated writing tools enhance writing with feedback and proofreading. However, the findings on speaking skills are different from Adolphs et al. (2018), Law (2024), and Qiao and Zhao (2023). Participants seemed to have focused less on speaking and listening, warranting further investigation into whether this stems from unfamiliarity with AI tools.

Teachers' concerns about the rise in plagiarized and AI-generated content echo Mohamed (2023) and Mohammadkarimi (2023). Yan (2023) reiterated this, in relation to students' use of ChatGPT. Despite preferences, participants questioned Turnitin's accuracy and suggested secondary tools. Teachers regarded AI-related cheating seriously, offering students guidelines to ensure ethical AI usage, reinforcing the importance of teacher supervision (Moybeka et al., 2023; Nguyen, 2023). Additionally, teachers' wide use of AI for lesson planning and material designing aligns with Koraishi (2023).

The findings establish the importance of AI tools in enhancing students' interest and motivation (Kim et al., 2021; Law, 2024). Teachers discovered that the



user-friendly interfaces of these tools offer an alternative to traditional lecture-based classes, supporting Davis's (1986) TAM, Ahn and Lee (2016), Ghali et al. (2018), and Moybeka et al. (2023). While AI supports engagement, Moybeka et al. (2023) and Seo (2021) suggest balancing AI with human-led instruction for student-centered teaching. Teachers also affirmed that AI makes them more efficient facilitators, as echoed by Chounta et al. (2021), Koraishi (2023), and Pedro et al. (2019). Baker et al. (2019) categorize these tools as teacher-facing AI due to their ability to assist educators.

However, a recurring issue regarding AI was its tendency to generate content lacking creativity and originality, restating the concerns of Garrel and Mayer (2023). This is partly due to AI's fundamental characteristic of learning from existing language models (Law, 2024). Participants were aware of this limitation, resulting in a cautious attitude toward AI. Following Yan (2023), teachers recommended verifying and critically analyzing AI-generated content. The over-reliance on AI tools by both teachers and students, as observed in Mohamed (2023) and Mohammadkarimi (2023), may hinder critical thinking and original research (Moybeka et al., 2023). Teachers may also be ensnared in the "uncritical use" of AI tools (Garrel & Mayer, 2023) which raises concerns about academic integrity and necessitates further investigation.

In retrospect, participants advocated for a contextual, pedagogical, and ethical use of AI tools, emphasizing self-awareness and adding a personal touch. Nguyen (2023), too, highlighted the importance of enforcing ethical guidelines, while Chiu (2023) and Sumakul et al. (2022) recommended developing teachers and students' AI literacy. Consistent with the literature (Chounta et al., 2021; Davis, 1986) and participants' insights, developing teachers' readiness and necessary skills for AI integration into language classes is essential.

## Implications

Several implications can be drawn from this study:

First, although teachers' extensive use of AI tools for writing, feedback, and detecting plagiarism was discovered, there was inadequate data regarding speaking and listening. Following Adolphs et al. (2018), Law (2024), and Qiao and Zhao (2023), further investigation regarding Bangladeshi HE teachers' use of AI technologies in teaching these skills would benefit teachers and educators in designing effective materials for classroom practice.

One of the major concerns against using AI was its failure to produce creative and original content. As both teachers and students are exposed to such unethical uses, exploring the creative implementation of these tools and their affordances would ensure comprehensive understanding before integrating them into education. Students' perceptions of ethical AI usage would also provide implications for AI awareness and preferences.

Moreover, AI literacy was deemed crucial for both students and teachers. Although a few teachers refrained from using AI tools, they still acknowledged their potential. Hence, institutional measures including professional development workshops and trainings are imperative to develop AI literacy at the beginning of a semester. However, any professional development must align with the pedagogical needs and contextual use of these tools (Chiu, 2023; Chounta et al., 2021; Sumakul et al., 2022). It would further benefit to examine teachers' AI readiness and AI's sustainable use in HE before implementing these technologies.

## Recommendations

The last finding highlights participants' strategies to address the challenges of integrating AI into education. Given AI's pervasive role, they recommended its use as a supplementary tool rather than a primary resource. Similar to P16, P7 advised against allowing chatbots to "formulate the text itself," stressing that conclusions and arguments should be developed by the author independently.

To promote ethical use, participants advocated for raising students' awareness about proper source acknowledgment and avoiding plagiarism (P14, P9). They also recommended involving students in selecting appropriate tools and fostering "open-mindedness" (P2). Providing training on effective AI usage (P4) and guiding students to maximize their benefits (P6) were also emphasized to navigate the challenges and enhance learning.

## Limitations and Conclusion

This research attempted to offer insights into the affordances of AI technologies for EFL education. Language teachers have acknowledged its advantages while indicating challenges for student learning and performance. Participants agreed that AI technologies bring variety and versatility to teachers' instructional practices, allow access to helpful resources, and increase learners' interest in classes. Recognizing the benefits of AI as an auxiliary tool in teaching, teachers gained awareness of their role as mediators to ensure balanced and ethical AI integration into students' academic activities. A crucial step, therefore, can be building capacity through training opportunities that enhance teachers' and students' AI literacy for a pedagogically sound AI implementation.

The study has several limitations. First, a few participants identified several less familiar AI tools, which remained underexplored due to inadequate responses. The influence of these tools on language classrooms could be investigated with carefully designed instruments and classroom observations. Moreover, skills such as listening, reading, and speaking received less attention due to our limited dataset. Hence, longitudinal research on AI in Bangladeshi HE classrooms might provide a comprehensive understanding of the sustainable integration of these tools. Overall, the study advocated for a balanced approach toward AI integration into HE EFL learning considering its auxiliary role in teaching, pedagogical and contextual needs, and ethical usage.

## References

- Adolphs, S., Clark, L., & Dörnyei, Z. (2018). Digital innovations in L2 motivation: Harnessing the power of the Ideal L2 Self. *System*, 78, 173-185.
- Ahn, T. Y., & Lee, S. M. (2016). User experience of a mobile speaking application with automatic speech recognition for EFL learning. *British Journal of Educational Technology*, 47(4), 778-786.
- Alharbi, W. (2023). AI in the foreign language classroom: A pedagogical overview of automated writing assistance tools. *Education Research International*, 2023, 1-15.
- Baker, T., Smith, L., & Anissa, N. (2019). *Education rebooted? Exploring the future of artificial intelligence in schools and colleges*. Nesta Foundation. [https://media.nesta.org.uk/documents/Future\\_of\\_AI\\_and\\_education\\_v5\\_WEB.pdf](https://media.nesta.org.uk/documents/Future_of_AI_and_education_v5_WEB.pdf)
- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2), 77-101.
- Chiu, T. K. F. (2023). The impact of Generative AI (GenAI) on practices, policies, and research direction in education: A case of ChatGPT and Midjourney. *Interactive Learning Environment*, 1-17. <https://doi.org/10.1080/10494820.2023.2253861>

- Chounta, I., Bardone, E., Raudsep, A., & Pedaste, M. (2021). Exploring teachers' perceptions of artificial intelligence as a tool to support their practice in Estonian K-12 education. *International Journal of Artificial Intelligence in Education*, 32(3), 725-755.
- Davis, F. (1986). *A technology acceptance model for empirically testing new end-user information systems: Theory and results*. Unpublished Doctoral Dissertation, MIT Sloan School of Management, Cambridge, MA.
- Garrel, J. & Mayer, J. (2023). Artificial intelligence in studies—use of ChatGPT and AI-based tools among students in Germany. *Humanities and Social Sciences Communications*, 10(1), 1-9.
- Ghali, A., Ayyad, A. A., Abu-Naser, S. S., & Laban, M. A. (2018). An intelligent tutoring system for teaching English grammar. *European Academic Research*, IV(9), 7743-7757.
- 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.
- Jang, J., Ko, Y., Shin, W. S., & Han, I. (2021). Augmented reality and virtual reality for learning: An examination using an extended technology acceptance model. *IEEE Access*, 9, 6798-6809.
- Jiang, R. (2022). How does artificial intelligence empower EFL teaching and learning nowadays? A review of artificial intelligence in the EFL context. *Frontiers in Psychology*, 13. doi: 10.3389/fpsyg.2022.1049401
- Khan, H., Soroni, F., Mahmood, S. J. S., Mannan, N., & Khan, M.M. (2021). Education system for Bangladesh using augmented reality, virtual reality, and artificial intelligence. Conference: *IEEE World AI IoT Congress (AIIoT)*, doi:10.1109/AIIoT52608.2021.9454247
- Kim, H. S., Cha, Y., & Kim, N. Y. (2021). Effects of AI chatbots on EFL students' communication skills. *Korean Journal of English Language and Linguistics*, 21, 712-734.
- Koraishi, O. (2023). Teaching English in the age of AI: Embracing ChatGPT to optimize EFL materials and assessment. *Language Education & Technology (LET Journal)*, 3(1), 55-72.
- Law, L. (2024). Application of generative artificial intelligence (GenAI) in language teaching and learning: A scoping literature review. *Computers and Education Open*, 6, 1-13.
- Liang, J. C., Hwang, G. J., Chen, M. R. A., & Darmawansah, D. (2023). Roles and research foci of artificial intelligence in language education: An integrated bibliographic analysis and systematic review approach. *Interactive Learning Environments*, 31(7), 4270-4296.
- Mayer-Schonberger, V., & Cukier, K. (2013). *Big Data: A revolution that will transform how we live, work, and think*. Houghton mifflin harcourt. Boston, New York.
- Mohamed, A. (2023). Exploring the potential of an AI-based chatbot (ChatGPT) in enhancing English as a foreign language (EFL) teaching: Perceptions of EFL faculty members. *Education and Information Technologies*, 29(3), 3195-3217.
- Mohammadkarimi, E. (2023). Teachers' reflections on academic dishonesty in EFL students' writings in the era of artificial intelligence. *Journal of Applied Learning and Teaching*, 6(2), 1-9.
- Moybeka, A.M., Syariatn, N., Tatipang, D.P., Mushthoza, D.A., Dewi, N.P., & Tineh, S. (2023). Artificial intelligence and English classroom: The implications of AI toward EFL students' motivation. *Edumaspul: Jurnal Pendidikan*, 7(2), 2444-2454.
- Nguyen A, Ngo, H. N., & Hong Y. (2023). Ethical principles for artificial intelligence in education. *Education and Information Technologies*, 28(4), 4221-4241.
- Novawan, A., Walker, S. A., & Ikeda, O. (2024). The new face of technology-enhanced language learning (TELL) with artificial intelligence (AI): Teacher perspectives, practices, and challenges. *Journal of English in Academic and Professional Communication*, 10(1), 1-18.
- Pande, S., Moon, J. S., & Haque, M. F. (2024). Education in the era of artificial intelligence: An evidence from Dhaka International University (DIU). *Bangladesh Journal of*

*Multidisciplinary Scientific Research*, 9(1), 7-14.

- Pedro, F., Subosa, M., Rivas, A., & Valverde, P. (2019). *Artificial intelligence in education: Challenges and opportunities for sustainable development*. UNESCO, France.
- Qiao, H., & Zhao, A. (2023). Artificial intelligence-based language learning: illuminating the impact on speaking skills and self-regulation in Chinese EFL context. *Frontiers in Psychology*, 14, 1-15.
- Seo, K., Tang, J., & Roll, I. (2021). The impact of artificial intelligence on learner–instructor interaction in online learning. *International Journal of Educational Technology in Higher Education*, 18, 1-23.
- Sumakul, D. T. Y., Hamied, F. A., & Sukyadi, D. (2022). Artificial intelligence in EFL classrooms: Friend or foe? *LEARN Journal: Language Education and Acquisition Research Network*, 15(1), 232-256.
- Tamanna, M., & Sinha, B. (2024). A conceptual analysis of artificial intelligence (AI) on academic opportunities and challenges: A case study based on higher educational institutions in Bangladesh. *Quality Assurance in Education*, Volume ahead of print, 1-19. <https://doi.org/10.1108/QAE-03-2024-0050>
- Tracy, S. J. (2013). *Qualitative research methods: Collecting evidence, crafting analysis, communicating impact*. John Wiley & Son.
- Yan, D. (2023). Impact of ChatGPT on learners in an L2 writing practicum: An exploratory investigation. *Education and Information Technologies*, 28, 13943–13967.

## Appendix

### Survey Questionnaire

#### Demographic Information

1. Please mention your teaching experience (in years)
2. Please name some of the courses you have previously taught (e.g. language skills, academic writing, professional English)
3. Please mention the university/organization you are affiliated with

#### Survey Questions

1. Please select the Artificial Intelligence (AI) technologies you have used for professional purposes from the list below. You can also add tools you used that are outside this list by clicking "Other". (Multiple options can be selected)
2. What were your reasons/ rationale for using those tools?
3. In your experience, which of these AI tools helped you the most in teaching the four language skills: reading, writing, listening, and speaking?
4. How did these tools help you teach the four language skills? Please explain.
5. In your experience, which of these tools did you find most beneficial for grammar, vocabulary or pronunciation practices?
6. How did these tools help you in teaching vocabulary, grammar, and pronunciation in class? Please explain.
7. What exercises/activities/tasks have you incorporated into your classroom that directly involve AI-powered technologies? Please explain and provide examples.
8. To what extent do you think AI tools and chatbots impact student performance and student learning in your classes? Please elaborate.
9. What do you do when you receive AI-generated assignments from the students?
10. Have you ever chosen activities for your classes using suggestions from AI tools? Why and how?
11. What challenges (if any) did you encounter while using these AI tools?
12. How did you minimize those challenges?
13. What recommendations do you have for teachers willing to integrate AI tools in language teaching?