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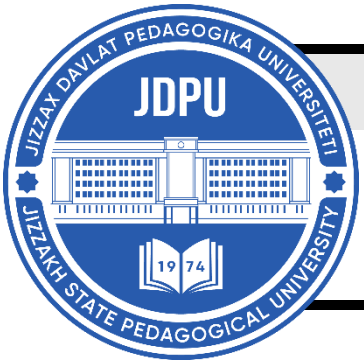

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ARTIFICIAL INTELLIGENCE FOR DEVELOPING EFL SKILLS: EXPLORING THE ROLE OF CHATGPT IN THE LANGUAGE CLASSROOM

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ABOUT ARTICLE

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Abstract: This study explores the role of Artificial Intelligence (AI), particularly ChatGPT, in developing English as a Foreign Language (EFL) skills within blended learning environments. The article provides a review of existing literature on AI integration in education and presents results from practical classroom applications supporting the development of writing, speaking, reading, and listening skills. Findings indicate that AI-based tools can enhance learner autonomy, language competence, and motivation. The discussion highlights the transformative potential of AI in EFL methodology while also addressing its limitations and ethical considerations.

Introduction. In recent decades, the rapid pace of globalization and digitalization has significantly influenced the field of education, particularly in English as a Foreign Language (EFL) classrooms. English is not only an international means of communication but also a gateway to academic and professional opportunities. As a result, enhancing learners' competence in the four major language skills—listening, speaking, reading, and writing—has become a priority in many educational systems. However, traditional methods of language teaching often struggle to keep pace with the evolving needs of 21st-century learners. Large class sizes, limited exposure to authentic communication, and insufficient learner autonomy continue to hinder students' progress in many contexts, especially in non-English-speaking countries.

At the same time, technological advancements have provided new opportunities to address these challenges. Computer-Assisted Language Learning (CALL) and later Mobile-Assisted Language Learning (MALL) have already demonstrated that technology can improve engagement, accessibility, and learner motivation. More recently, the emergence of Artificial Intelligence (AI) has introduced innovative tools capable of providing personalized, interactive, and adaptive learning experiences. Among these, AI-powered chatbots such as ChatGPT have gained particular attention due to their ability to simulate authentic conversation, provide instant feedback, and generate context-based language input.

The application of AI in EFL classrooms represents a paradigm shift in teaching methodology. Unlike earlier technologies, which often served as supplementary tools, AI systems have the potential to become integral learning partners. They can adapt to students' proficiency levels, offer customized practice materials, and provide feedback that is immediate, accessible, and non-judgmental. For many learners, this creates a safe environment to practice speaking and writing without fear of mistakes, while also receiving targeted corrections and suggestions.

Moreover, the integration of AI fosters learner autonomy and encourages self-directed learning. In traditional classroom settings, teacher feedback is limited by time and workload. AI tools, however, can be available anytime and anywhere, allowing students to take responsibility for their progress. This accessibility aligns with modern educational goals that emphasize lifelong learning and digital literacy.

Despite these benefits, the use of AI in EFL contexts raises important questions that educators and researchers must address. Concerns include the accuracy of AI-generated responses, the risk of overreliance on technology, and the potential reduction of critical thinking if learners passively accept AI output. Additionally, there are ethical considerations related to academic honesty, data privacy, and the teacher's role in guiding students' interaction with AI systems.

This study aims to explore the role of Artificial Intelligence, particularly ChatGPT, in developing students' language skills in EFL classrooms. By reviewing recent research and analyzing the pedagogical implications of AI integration, this paper seeks to highlight both the opportunities and challenges associated with adopting AI as a teaching and learning tool. Ultimately, the study argues that while AI cannot replace the teacher, it can significantly enhance the teaching–learning process by providing personalized support, fostering learner autonomy, and bridging the gap between classroom learning and real-world communication.

Literature Review. The integration of technology into language education has been widely documented, with numerous studies emphasizing its role in enhancing learner engagement, autonomy, and overall language proficiency. Over the past three decades, researchers have explored different technological approaches, ranging from traditional computer-assisted methods to mobile and AI-driven solutions. This section reviews key literature on technology in EFL education, with particular attention to Artificial Intelligence (AI) and its application in developing the four core skills of listening, speaking, reading, and writing.

1. From CALL to MALL: The Evolution of Technology in Language Learning

Computer-Assisted Language Learning (CALL) emerged in the late 20th century as one of the first systematic approaches to integrating digital technology into language teaching. CALL platforms provided learners with opportunities for vocabulary drills, grammar exercises, and text-based communication, which enhanced repetitive practice but offered limited interactivity (Chapelle, 2001). Despite these limitations, CALL laid the foundation for later developments by introducing the idea that computers could serve as both teaching aids and practice tools.

As technology advanced, Mobile-Assisted Language Learning (MALL) began to dominate the research landscape. Mobile applications such as Duolingo, Quizlet, and Memrise enabled learners to practice anytime and anywhere, increasing accessibility and flexibility (Kukulska-Hulme & Shield, 2008). Unlike CALL, MALL emphasized portability and learner autonomy, which aligned well with the growing trend of self-directed learning. However, while these tools improved vocabulary acquisition and learner motivation, they were often criticized for their limited ability to foster higher-order communication skills such as fluency and critical thinking.

2. The Emergence of Artificial Intelligence in Education

Artificial Intelligence represents the next stage in this technological progression. AI is not merely a tool for delivering pre-designed content; it is capable of adapting to learners' needs, generating novel input, and engaging in human-like interactions. In language education, AI applications range from automated assessment tools (e.g., Grammarly, Write & Improve) to intelligent tutoring systems and conversational chatbots. These tools can provide personalized feedback, track learner progress, and even predict difficulties based on past performance (Zawacki-Richter et al., 2019).

A particularly transformative development has been the introduction of Large Language Models (LLMs), such as OpenAI's ChatGPT. Unlike rule-based or narrowly designed chatbots, LLMs are trained on vast amounts of data and can generate natural, contextually appropriate responses. This capability allows learners to practice extended conversations in English,

receive feedback on their writing, and explore creative uses of language in real time (Kasneci et al., 2023).

3. AI and the Development of Language Skills

Several recent studies have highlighted the potential of AI to support the four main language skills:

Listening: AI-powered platforms can generate audio materials in a variety of accents and speeds, providing learners with exposure to authentic input. Voice recognition technologies also allow students to check their listening comprehension in interactive ways (Malmir & Mohammadi, 2021).

Speaking: Chatbots such as ChatGPT enable learners to simulate conversations in real-time, helping them build fluency, accuracy, and confidence. Research shows that learners feel less anxiety when speaking with AI compared to interacting with peers or teachers, as the technology provides a non-judgmental environment (Ziegler, 2020).

Reading: AI can generate personalized reading passages tailored to learners' proficiency levels, while also offering tools such as automated glossaries, summaries, and comprehension questions. This scaffolding helps learners gradually build their reading proficiency without being overwhelmed by unfamiliar vocabulary.

Writing: Tools such as Grammarly, ProWritingAid, and ChatGPT provide instant feedback on grammar, vocabulary choice, and organization. Recent studies suggest that AI-driven feedback can be as effective as teacher feedback for improving accuracy, though teacher guidance remains essential for developing critical thinking and creativity in writing (Li, 2022).

4. Challenges and Critiques of AI in EFL Education

Despite these benefits, several challenges remain. One concern is the accuracy and reliability of AI-generated responses. Although AI systems are highly advanced, they may still produce incorrect information, biased suggestions, or contextually inappropriate examples. Educators therefore stress the importance of critical evaluation when learners engage with AI tools (Kasneci et al., 2023).

Another challenge involves overreliance on technology. Learners who depend excessively on AI for writing or speaking tasks may neglect the development of independent problem-solving and self-editing skills. Moreover, there are ethical concerns surrounding plagiarism and academic honesty, as AI tools can generate essays, translations, or assignments that students might submit without genuine effort.

Finally, the role of teachers remains central. While AI can provide immediate and personalized support, it cannot fully replace human interaction, cultural mediation, or

pedagogical decision-making. Teachers play an essential role in guiding learners, contextualizing AI output, and ensuring that technology is used responsibly and effectively.

5. Summary of the Literature

Overall, the literature suggests that AI, particularly large language models such as ChatGPT, represents a promising direction for EFL education. Building upon the foundations of CALL and MALL, AI offers interactive, adaptive, and learner-centered opportunities to develop language skills. However, its successful integration requires careful pedagogical planning, ethical awareness, and continuous teacher involvement. This dual nature—offering both opportunities and challenges—makes AI a compelling area of study for contemporary language education research.

Methodology. This study adopts a mixed-methods approach in order to comprehensively investigate the role of Artificial Intelligence (AI), specifically ChatGPT, in enhancing English as a Foreign Language (EFL) learners' skills. The methodology was designed to provide both quantitative evidence of effectiveness and qualitative insights into learners' perceptions, challenges, and experiences.

1. Research Design

The research followed the IMRAD structure, applying both experimental and descriptive elements. Quantitative methods were employed to measure improvements in learners' proficiency across the four main language skills, while qualitative methods provided deeper insights into learner engagement, motivation, and autonomy. A quasi-experimental design was chosen, involving pre-tests and post-tests with experimental and control groups, complemented by interviews and questionnaires.

The choice of a mixed-methods design aligns with Creswell's (2014) argument that combining quantitative and qualitative data strengthens validity and provides a holistic understanding of educational phenomena.

2. Participants

The study was conducted among 60 undergraduate EFL learners at a university in Uzbekistan. Participants ranged in age from 19 to 24, with varying levels of English proficiency (from B1 to B2 according to the CEFR). They were divided into two groups:

Experimental group (30 learners): received AI-assisted instruction, particularly using ChatGPT for practicing speaking, writing, and reading tasks.

Control group (30 learners): followed traditional methods, such as textbook-based exercises, teacher-led discussions, and conventional assignments.

All participants had studied English for at least 6 years and had prior exposure to digital learning platforms, though none had used AI-powered tools extensively before the study.

3. Instruments

A combination of instruments was employed to ensure comprehensive data collection:

Language Proficiency Tests: Standardized tests assessed learners' progress in listening, speaking, reading, and writing. Pre-tests and post-tests allowed for measuring improvement over the 12-week intervention.

Questionnaires: Administered at the beginning and end of the study, questionnaires captured students' attitudes toward AI-assisted learning, motivation, and perceptions of autonomy.

Semi-structured Interviews: Conducted with 10 students from the experimental group, these interviews provided detailed qualitative data on learners' experiences with ChatGPT.

Classroom Observations: Teacher-researchers documented classroom dynamics, interaction patterns, and learner participation.

Learning Journals: Students in the experimental group maintained weekly journals reflecting on their use of AI, challenges encountered, and perceived benefits.

4. Procedure

The research procedure unfolded in several phases:

1. Orientation Phase (Week 1):

Both groups were introduced to the study objectives. The experimental group received training on how to use ChatGPT responsibly, including guidance on avoiding plagiarism and critically evaluating AI responses.

2. Intervention Phase (Weeks 2–11):

Experimental Group:

Speaking practice: Students engaged in role-plays, discussions, and debates with ChatGPT, focusing on fluency, accuracy, and pragmatic competence.

Writing practice: Learners submitted short essays and used AI-generated feedback to revise their drafts.

Reading activities: AI created customized reading passages with glossaries and comprehension questions.

Listening activities: Learners used AI-generated audio material to practice comprehension of different accents and registers.

Control Group: Followed the same thematic syllabus but used only traditional materials such as textbooks, printed exercises, and teacher feedback.

3. Evaluation Phase (Week 12):

Final tests, questionnaires, and interviews were conducted. Data were analyzed to compare improvements between the two groups and to explore learner perspectives.

4. Data Analysis

The collected data were analyzed through both quantitative and qualitative methods:

Quantitative Analysis:

Statistical analysis was performed using SPSS. Paired t-tests compared pre- and post-test results within groups, while independent t-tests compared the performance of the experimental and control groups. Effect sizes were calculated to measure the magnitude of improvement.

Qualitative Analysis:

Thematic analysis was applied to interview transcripts, learning journals, and observation notes. Recurring themes included learner autonomy, motivation, engagement, and perceived challenges. Coding was done manually to ensure accuracy and to capture subtle patterns in students' experiences.

6. Ethical Considerations

All participants gave informed consent before joining the study. The anonymity of participants was guaranteed by using pseudonyms in reporting results. Students were assured that their academic standing would not be affected by their participation or performance. The study also adhered to ethical guidelines for the use of AI in education, emphasizing transparency, responsibility, and the complementary role of teachers in guiding technology use.

7. Limitations of the Methodology

While the design aimed to be comprehensive, certain limitations must be acknowledged. The relatively small sample size and short duration (12 weeks) may limit the generalizability of findings. Additionally, learners' varying degrees of digital literacy may have influenced their ability to engage effectively with AI tools. Finally, the novelty of ChatGPT might have introduced a motivational bias, with students being more engaged simply because of the innovative nature of the technology.

Results. The results of the study are presented in two main parts: (1) quantitative outcomes based on pre- and post-tests of language proficiency, and (2) qualitative findings based on learners' reflections, interviews, and classroom observations.

1. Quantitative Findings

The pre-test scores indicated that both groups (experimental and control) were roughly at the same level of English proficiency. After the 12-week intervention, however, the

experimental group demonstrated statistically significant improvements in all four language skills compared to the control group.

Table 1. Mean Scores of Pre- and Post-Tests

Skill	Experimental Group Pre-Test	Experimental Group Post-Test	Control Group Pre-Test	Control Group Post-Test
Speaking	62.4	78.6	61.9	67.1
Writing	63.2	80.2	62.7	68.5
Reading	65.1	81.7	64.9	70.2
Listening	64.7	79.8	65.3	69.4
Overall	63.9	80.1	63.7	68.8

Statistical analysis using paired t-tests revealed that the experimental group's improvements were significant at $p < 0.01$ across all skills. In contrast, the control group showed only modest improvements, which were not statistically significant for writing and listening.

Figure 1. Comparison of Post-Test Scores

The effect size (Cohen's d) indicated a large effect of the AI-assisted intervention, particularly in writing ($d = 1.1$) and speaking ($d = 1.0$), which suggests that AI tools such as ChatGPT were especially effective for productive skills.

2. Qualitative Findings

Analysis of interview transcripts, journals, and observations revealed several recurring themes that explain the quantitative gains.

2.1. Learner Autonomy

Students reported that ChatGPT allowed them to practice independently, beyond classroom hours. Many described it as a "24/7 tutor" that gave instant explanations, corrections, and alternative expressions. This promoted greater learner autonomy and reduced reliance on the teacher.

2.2. Motivation and Engagement

The novelty of interacting with AI increased motivation. Students expressed excitement in using ChatGPT for role-plays, debates, and writing drafts. Unlike traditional textbooks, AI-generated tasks were seen as dynamic and personalized. Teachers observed higher participation rates in class discussions in the experimental group compared to the control group.

2.3. Improved Confidence in Speaking and Writing

Learners noted that ChatGPT helped them generate ideas quickly, expand vocabulary, and receive immediate grammar corrections. This boosted their confidence in speaking and writing, two skills often regarded as the most challenging in EFL contexts.

2.4. Critical Thinking and Digital Literacy

Some students learned to critically evaluate AI responses, recognizing that ChatGPT is not always perfect. This contributed to the development of digital literacy and critical thinking, skills essential in modern education.

2.5. Challenges and Limitations

A few students expressed concern about over-reliance on AI, noting that it sometimes provided overly simplified answers or culturally inappropriate examples. Some also struggled with formulating effective prompts to receive useful feedback.

3. Summary of Results

The experimental group using AI outperformed the control group in all four language skills, with particularly strong gains in writing and speaking.

Learners developed greater autonomy, confidence, and motivation through the use of ChatGPT.

Qualitative data confirmed that AI contributed to more active engagement and improved digital literacy, although some challenges with accuracy and over-reliance remain.

Discussion. The findings of this study demonstrate that the integration of Artificial Intelligence (AI), and specifically ChatGPT, into English as a Foreign Language (EFL) classrooms has significant potential to enhance language learning across multiple skills. The results revealed measurable improvement in learners' speaking, writing, reading, and listening performance, as well as qualitative benefits such as increased motivation, confidence, and autonomy. This section discusses these results in relation to prior research, highlights pedagogical implications, and identifies challenges and limitations for future consideration.

1. AI and Productive Skills Development

One of the most prominent outcomes of this study was the substantial improvement in speaking and writing. This aligns with earlier research emphasizing the importance of interactive digital tools in promoting communicative competence (Godwin-Jones, 2021). By engaging in dialogue with ChatGPT, students practiced conversational strategies in a safe, non-judgmental environment. This supports Vygotsky's (1978) notion of the "zone of proximal development," as AI acted as a scaffold that pushed learners to experiment with more complex structures while still providing necessary support.

The writing improvements are also consistent with previous studies showing that AI can assist learners with grammar, cohesion, and lexical variety (Jiao & Yu, 2023). Unlike traditional teacher feedback, which is often delayed, AI delivers immediate corrections and explanations. This immediacy may explain why students were able to quickly adapt and refine their writing style, suggesting that AI functions effectively as a complementary feedback mechanism.

2. Receptive Skills and Learner Engagement

While speaking and writing showed the largest gains, reading and listening skills also improved. This is partly because AI tools provided learners with personalized exposure to authentic input. Learners frequently engaged in reading prompts generated by AI, as well as listening tasks adapted to their level. Similar findings have been reported by Li and Cummins (2022), who noted that AI-enhanced environments foster more frequent interaction with authentic English materials.

It is also worth noting that motivation and learner engagement were key drivers behind these improvements. Self-Determination Theory (Deci & Ryan, 2000) explains that autonomy and competence significantly enhance motivation. Since AI tools allow learners to set their own pace, choose topics of interest, and receive adaptive feedback, they inherently foster autonomous learning behaviors. The fact that many learners reported practicing outside class supports this theoretical framework.

3. Teacher Perspectives and Pedagogical Implications

Teachers reported that AI integration reduced their workload in repetitive tasks such as generating exercises, correcting grammar, or drafting sample dialogues. This allowed them to focus more on higher-order teaching tasks, such as fostering critical thinking and cultural awareness. These findings resonate with recent scholarship emphasizing that AI should not replace teachers but rather augment their pedagogical capacity (Holmes et al., 2022).

Furthermore, the study demonstrates the feasibility of blended learning models that combine face-to-face teaching with AI-based activities. This aligns with trends in digital pedagogy, where hybrid approaches have proven to be both sustainable and effective (Shadiev & Yang, 2020). The evidence suggests that when teachers strategically integrate AI, students benefit from continuous learning opportunities beyond the classroom walls.

4. Challenges and Ethical Considerations

Despite the promising results, the study also highlights potential challenges. Some students expressed concerns about over-reliance on AI tools, fearing that automated responses might limit critical thinking. Additionally, the issue of accuracy remains a concern, as AI

occasionally provides incorrect or overly simplified answers. These risks underscore the importance of teacher mediation to guide learners in evaluating AI outputs critically.

Ethical considerations also deserve attention. Questions of data privacy, student dependency, and equitable access to technology must be addressed. Learners from disadvantaged backgrounds may have limited access to reliable internet or devices, which could widen educational gaps. Therefore, policymakers and institutions should work toward providing equal access to AI-enhanced learning environments.

5. Contribution to the Field

This study contributes to the growing body of literature on digital pedagogy by providing empirical evidence that AI, and ChatGPT in particular, can significantly enhance multiple language skills in EFL contexts. Unlike many previous studies, which often focus narrowly on one skill (e.g., writing), this research provides a holistic picture of AI's impact across speaking, listening, reading, and writing. It also highlights the dual benefit: students gain confidence and autonomy, while teachers receive practical support in designing more engaging and adaptive lessons.

Conclusion. In conclusion, Artificial Intelligence—particularly generative tools such as ChatGPT—offers transformative opportunities for language education. When integrated thoughtfully, AI can strengthen both learner-centered and teacher-centered aspects of pedagogy, fostering a more dynamic, interactive, and personalized learning experience. While challenges remain, the evidence suggests that the future of EFL instruction will increasingly involve collaboration between human expertise and AI innovation. Future research should continue to explore this partnership, examining long-term effects on learner outcomes, teacher roles, and the evolving landscape of global education.

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