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AI-ASSISTED ENGLISH LANGUAGE TEACHING: OPPORTUNITIES AND PEDAGOGICAL CHALLENGES

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ABSTRACT. The rapid advancement of Artificial Intelligence (AI) is significantly impacting English language teaching (ELT). AI applications, such as chatbots, intelligent tutoring systems, and adaptive learning platforms, enhance language acquisition and instructional effectiveness. This study explores the pedagogical opportunities and challenges of integrating AI into ELT, focusing on linguistic competency development, personalized instruction, autonomous learning, and teacher-student interactions, using a qualitative literature-based analysis of recent studies and theories in AI-supported language education.

The results show that AI technologies can improve students' writing and speaking abilities, boost learner motivation, enable personalized learning experiences, and offer prompt corrective feedback. However, their integration brings up significant pedagogical issues, such as over-reliance on technology, false information produced by AI, academic dishonesty, data privacy, digital inequality, and the possible decrease in meaningful human interaction. The study makes the case that rather than taking the place of qualified language instructors, AI should be viewed as an additional pedagogical tool. Appropriate teacher preparation, critical AI literacy, ethical standards, and learner-centered teaching techniques are necessary for successful implementation. The study adds to the continuing conversation about how to responsibly incorporate new technologies into modern English language instruction.

Keywords: artificial intelligence, English language teaching, generative AI, language acquisition, digital education, personalized learning, pedagogical challenges, EFL, educational technology, teacher–student interaction.

INTRODUCTION

In the current globalization process, the education system is developing rapidly compared to other areas. In particular, the emergence of artificial intelligence technologies is fundamentally changing the learning process. English is now recognized as the language of international communication, business, science and culture, and its study is becoming increasingly effective for all young people and adults. As a result, the need for new methods in learning this language arises.

In this regard, programs based on artificial intelligence are becoming one of the most effective tools for teaching English. The purpose of the article is to analyze the role, advantages and disadvantages of artificial intelligence technologies in learning English, and to highlight the achievements of these tools in the education system.

Artificial intelligence is a software system that imitates the activity of human intelligence. It has the ability to learn, analyze and make decisions. In the field of education, AI technologies are widely used to determine the level of knowledge of students, create individual lesson plans, automatically correct grammatical errors, and improve pronunciation. With the help of such modern technologies, even young people are achieving independent success.

English has become an essential means of international communication, academic cooperation, scientific exchange, and professional development. Consequently, the demand for effective English

language instruction continues to increase across educational institutions worldwide. Traditional teaching methodologies, although valuable, may not always provide sufficient opportunities for individualized practice, immediate feedback, and continuous interaction outside the classroom. AI-assisted educational technologies offer potential solutions to these limitations.

Learners can practise English in flexible and engaging settings with the use of AI tools like ChatGPT, Grammarly, intelligent language instructors, automated pronunciation evaluation systems, and adaptive learning platforms. These tools can create instructional materials, clarify grammatical rules, spot linguistic mistakes, mimic dialogues, and offer feedback according on each student's unique learning requirements.[1]

Artificial intelligence is described as computer-based algorithms and systems that can carry out tasks that conventionally require human intelligence (Chan, A. 2024; Du & Daniel, 2024).[2][3] Al is an essential tool in contemporary education because of these, which include language processing, decision-making, and problem-solving.

According to Krashen's material Hypothesis (Faltis, 1984), learners acquire language most successfully when they are exposed to material that is just a little bit beyond their current skill level.[4] This highlights the significance of intelligible input in language acquisition. For students who are proficient in using Chat GPT, the use of Al improves language proficiency and establishes an English-speaking environment. Building on this, Vygotsky's Sociocultural Theory of Cognitive Development asserts that language development is intricately linked to social and cultural contexts and emphasises how social contact and technologies like ChatGPT impact learning.[5] When combined, these theories provide a solid basis for investigating how social contact and adaptive input from Al technologies can improve language acquisition.

LITERATURE REVIEW

Scientific research on the introduction of artificial intelligence technologies into the education system has increased significantly in the last decade. Among foreign researchers, one of the scientists who studied the issues of language teaching and the integration of digital technologies, Michael Luckin, describes artificial intelligence as a tool for forming an individualized model of education. In his opinion, AI-based systems have the ability to determine the student's cognitive trajectory and provide personalized tasks. However, some studies also show the negative aspects of this process. For example, Neil Selwyn notes that excessive use of digital tools can lead to a decrease in critical thinking.

Research on the use of artificial intelligence in the field of language learning is often focused on adaptive learning systems, chatbots, and speech recognition technologies. Because it is these tools that can communicate with the user in real time. Foreign sources note that students who used interactive platforms in language learning showed faster results than groups using traditional methods. Some studies have estimated this difference to be between 18 and 30%. However, not all researchers consider these figures to be universal.

Uzbek scientists are also actively researching digital education and foreign language methodologies. A number of local studies in the pedagogical direction emphasize that digital tools increase learning motivation. Some methodologists show that the use of multimedia tools increases the level of auditory and visual perception. At the same time, some local authors assess the lack of infrastructure and technical means as the main obstacle. It is noted that the digital gap between regional schools is still significant. The pandemic factor occupies a special place in the literature after 2020. The sharp transition to a distance learning system has led to the rapid popularization of artificial intelligence tools in many countries. During this period, virtual platforms, adaptive testing systems, and automatic assessment tools have developed dramatically. In my opinion, this period

marked the beginning of a new stage in language learning methodologies. Because technologies that were previously considered additional tools have become one of the main tools.

A comparison of the available scientific sources shows that the effectiveness of artificial intelligence tools depends more on how they are used. Some studies assess technology as an independent factor, while others associate it with methodological integration. Therefore, there is no uniformity in scientific views. However, the general trend shows one thing: artificial intelligence tools are becoming an increasingly important component in learning English.

The relationship between artificial intelligence and language education has developed considerably over recent decades. Initially, AI-supported language learning was primarily associated with computer-assisted language learning (CALL), automated assessment, and intelligent tutoring systems. However, the emergence of generative AI has expanded these possibilities by enabling more flexible, interactive, and context-sensitive educational experiences.

This study is based on the theoretical frameworks of Vygotsky's Sociocultural Theory and Krashen's Input Hypothesis, which shows that in the current technologically advanced era, teachers may be able to teach English effectively with the help of tools like artificial intelligence. Al can serve as a mediating tool to support social learning, which is pertinent to this study. Vygotsky's theory highlights that learning is mediated through social interaction and tools.[5] According to Krashen's theory, comprehensible input drives language acquisition, which is consistent with Al's ability to offer learners meaningful, adaptive language experiences that are customized to meet their needs (Krashen, 1984). This integration aids in the analysis of how Al can promote social interaction and easily accessible input to aid in language learning.[7]

AI development (Uno, 2024) is divided into three stages: artificial narrow intelligence (ANI), artificial general intelligence (AGI), and artificial superintelligence (ASI).[6] ANI, for example, powers tools such as Grammarly and ChatGPT, which help with grammar correction, automated grading, and instant feedback. AGI seeks to replicate human cognitive abilities and can help in a variety of educational settings by facilitating lesson planning and personalized learning, whereas ASI aspires to outperform human intelligence, potentially revolutionizing every field it touches. According to Jin et al. (2024), incorporating these Al stages into educational settings represents a transformative shift, particularly in language teaching and student engagement.

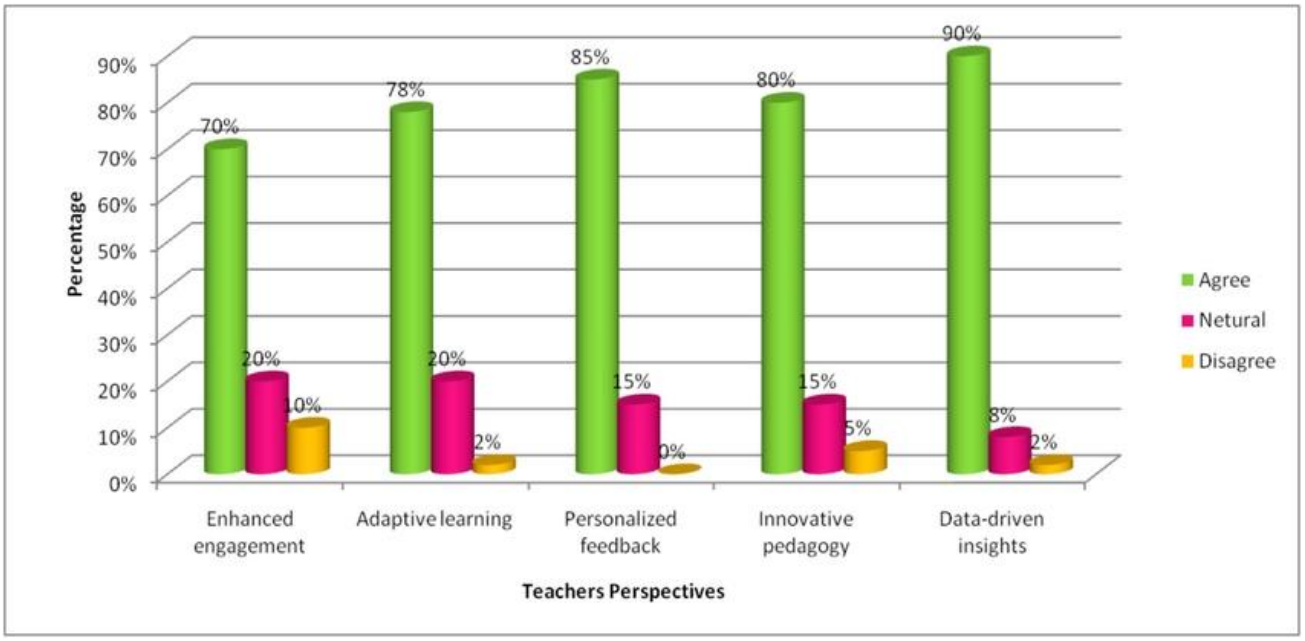
Despite these developments, Hu et al. (2025)[8] and Kong et al. (2024)[9] stress that there are ethical issues with the broad use of AI in education, especially with regard to data privacy and possible abuse of AI tools. For instance, students' academic integrity and critical thinking may be compromised if they rely too much on Al for assignments and tests. In a similar vein, Chan (2023b) and Kong et al. (2024) contend that although AI-driven tools present unmatched chances for individualized learning, their efficacy depends on educators' capacity to apply them in an innovative and responsible manner.[10]

Although the use of AI tools like Grammarly and ChatGPT in language learning has been widely acknowledged (Hu et al., 2025)[8], there is still little research on how these tools are actually incorporated into instruction. Al's advantages in language instruction are highlighted in numerous studies (Aldosari, 2020; Hu et al., 2025), but few examine how well-prepared teachers are to use these resources.[11] Furthermore, issues with training, ethical ramifications, and practical application result in obstacles that are still unexplored (Chan, 2023a). By investigating teachers' awareness, attitudes, and preparedness to incorporate Al into language instruction, this study fills in these gaps and offers insights into the difficulties and possibilities of Al-driven language learning. The purpose of this study is to find out how teachers perceive and are aware of Al, as well as how prepared they are to incorporate these tools into their lesson plans.

ChatGPT, Gemini, and Grammarly are AI-powered tools that are revolutionizing language learning. By helping teachers create lesson plans, assess students' work, and customize learning pathways, these technologies facilitate quicker and more effective language learning. To optimize their efficacy, educators and learners must gain a thorough understanding of AI tools, their features, and their ethical implications (Chan, 2023b; Rafikova, 2024).[1]

Methodology

This study employs a qualitative, literature-based research methodology to examine the opportunities and pedagogical challenges of AI-assisted English language teaching.



Graph 1. Teachers' Views on Al Integration in Teaching [12]

The research is based on the analysis, comparison, and synthesis of academic publications addressing artificial intelligence, educational technology, second-language acquisition, and English language instruction.

RESULTS

The analysis of the selected academic literature reveals that artificial intelligence offers significant opportunities for improving English language teaching. At the same time, its implementation introduces pedagogical and ethical challenges that require systematic attention.

The principal findings are organized into five thematic areas.

1. Personalized Learning and Individualized Instruction

One of the most important advantages of AI-assisted English language teaching is the opportunity to personalize the learning process. In traditional classrooms, teachers often work with students who have different language proficiency levels, learning speeds, and educational needs. Providing individualized attention to every learner can therefore be challenging.

AI-powered platforms can respond to these differences by adjusting the complexity of learning materials, generating exercises according to students' proficiency levels, and providing explanations based on individual learning difficulties.

For example, a student experiencing difficulties with English grammar can use an AI chatbot to receive additional explanations, examples, and practice activities. Similarly, learners with

advanced proficiency can request more sophisticated vocabulary exercises, academic writing tasks, or discussions on specialized topics.

This flexibility supports differentiated instruction and creates opportunities for students to progress according to their individual abilities.

2. Development of English Language Skills

AI technologies can contribute to the development of all four fundamental language skills: listening, speaking, reading, and writing.

Table 1. Application of AI Technologies in English Language Skills Development

Language skill	AI-supported applications	Educational benefits
Listening	Speech recognition, AI-generated audio, interactive dialogues	Improves listening comprehension and recognition of pronunciation patterns
Speaking	Conversational AI, pronunciation assessment, voice assistants	Provides speaking practice and supports fluency development
Reading	AI text analysis, vocabulary explanation, adaptive reading tools	Improves reading comprehension and vocabulary acquisition
Writing	Grammarly, ChatGPT, automated writing evaluation	Supports grammar, coherence, vocabulary, and text organization

The development of speaking skills is particularly important because many English learners experience difficulties finding suitable opportunities for regular oral communication.

Conversational AI applications can simulate everyday interactions, academic discussions, interviews, and professional communication situations. Learners can practice expressing opinions, asking questions, and responding to different conversational contexts without the pressure sometimes associated with speaking in front of other people.

In writing instruction, AI systems can identify grammatical mistakes, suggest alternative expressions, and provide recommendations concerning sentence structure and coherence. Nevertheless, students should evaluate AI-generated corrections rather than accept them automatically.

3. Immediate Feedback and Assessment

Traditional assessment frequently depends on teachers' availability and workload. In large classrooms, providing detailed individual feedback on every written assignment can be time-consuming.

AI-assisted assessment systems can partially address this challenge by identifying grammatical errors, highlighting vocabulary problems, and providing suggestions for improving written communication.

For instance, when students submit an English paragraph, an AI application can identify:

- Grammatical inaccuracies;
- Incorrect word choices;
- Sentence structure problems;
- Repetition of vocabulary;
- Weak logical connections;
- Inappropriate academic expressions.

Such feedback enables students to recognize their weaknesses and revise their work more efficiently.

However, AI-generated feedback is not always accurate. Some systems may incorrectly identify acceptable linguistic structures or recommend expressions that are inappropriate for a particular academic or cultural context.

Therefore, teachers should verify AI-generated assessments and explain the reasoning behind important corrections.

4. Promotion of Learner Autonomy and Motivation

Learner autonomy represents an important principle of contemporary language education. Students should gradually develop the ability to organize their learning activities, identify personal weaknesses, and evaluate their progress.

AI technologies can support autonomous learning by providing opportunities for independent practice beyond formal classroom hours.

For example, students can use conversational AI to:

✓ Practice English conversations every day.
✓ Learn new vocabulary through contextual examples.
✓ Request explanations of unfamiliar grammatical structures.
✓ Prepare presentations and academic discussions.
✓ Complete additional exercises based on their learning difficulties.
✓ Receive suggestions for improving their written communication.

The availability of continuous learning support can increase student engagement and encourage regular language practice.

Nevertheless, learner autonomy should not be confused with complete dependence on artificial intelligence. Students must remain actively involved in the learning process by making decisions, evaluating information, and developing independent language-production skills.

5. Teacher Support and Instructional Efficiency

AI-assisted technologies also offer important benefits for English language teachers.

Teachers can employ AI applications to prepare lesson plans, develop classroom activities, generate reading passages, design vocabulary exercises, create assessment questions, and adapt instructional materials to different proficiency levels.

For example, an English teacher preparing a lesson on environmental issues can request AI assistance in developing:

➢ A reading passage appropriate for B1-level learners;
➢ Vocabulary activities related to environmental protection;
➢ Discussion questions;
➢ Grammar exercises;
➢ A short writing assignment;
➢ A classroom debate.

This approach can reduce the time required for preparing supplementary instructional materials.

However, AI-generated educational content must be reviewed before classroom implementation. Teachers remain responsible for ensuring linguistic accuracy, curriculum alignment, cultural appropriateness, and pedagogical relevance.

DISCUSSION

Tadqiqot davomida olingan natijalar sun'iy intellekt vositalari ingliz tilini o'rganish jarayoniga sezilarli ta'sir ko'rsatayotganini ko'rsatdi. Biroq bu ta'sir bir xil emasligi kuzatildi. Ayrim foydalanuvchilar texnologik vositalar yordamida qisqa muddat ichida natijaga erishgan bo'lsa, boshqa guruhlarda o'zgarish nisbatan sekin kechdi. Bu holat faqat platforma yoki dastur sifati bilan

bog'liq emas. O'quvchining motivatsiyasi, texnologik savodxonligi va internet imkoniyatlari ham muhim omil sifatida namoyon bo'ldi. Shu nuqtada bir narsaga e'tibor qaratish kerak: sun'iy intellekt barcha muammolarni avtomatik hal qiluvchi vosita emas.

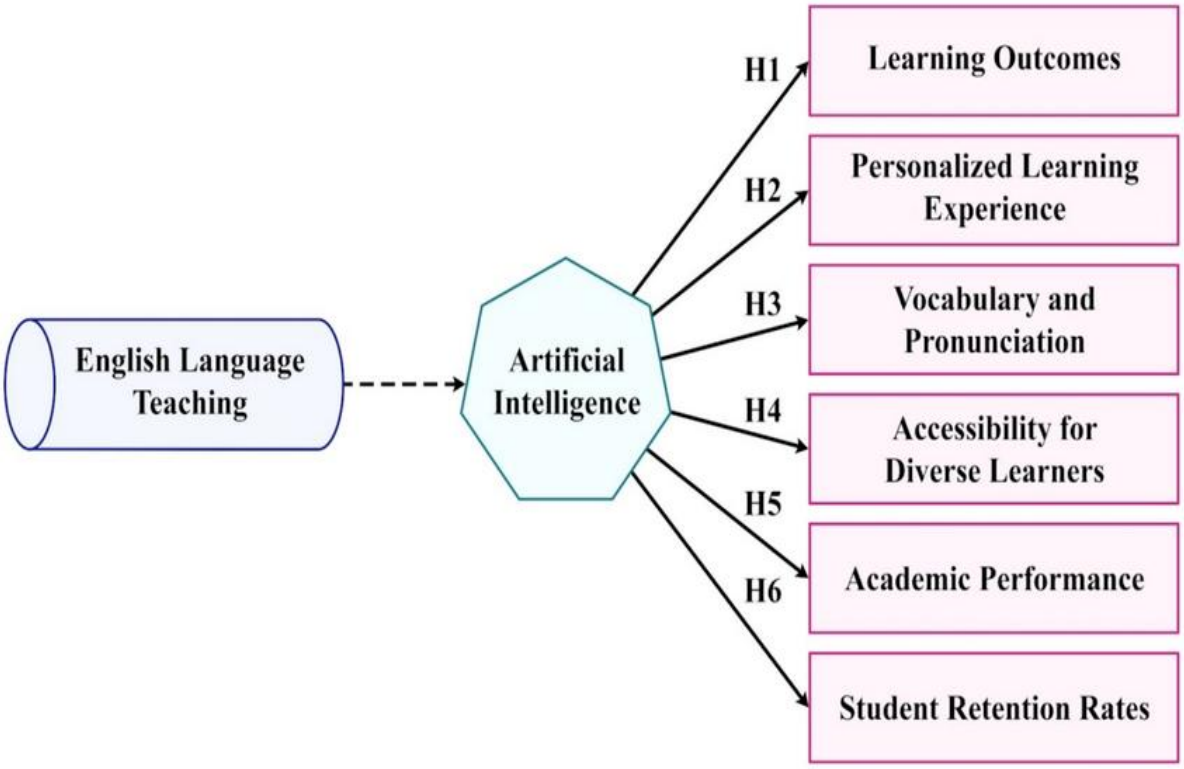


Figure 1. Conceptual Framework on Al in English teaching for improved learning [12].

The results were partially consistent with foreign studies. In particular, the view that students using adaptive learning systems have a higher rate of individual development was also confirmed in this study. Some respondents stated that they were able to identify their pronunciation errors faster through AI tools. In my opinion, it is the rapid feedback mechanism that plays a key role here. Because in traditional lessons, the teacher cannot devote the same amount of time to each student.

Some negative aspects were also observed. Excessive reliance on artificial intelligence tools can in some cases lead to dependence on ready-made answers. Some respondents said that they rely more on platform recommendations instead of independent thinking. This raises the possibility that analytical thinking skills will be affected in the future. Therefore, it seems more effective to use technological tools as an auxiliary component. Regional differences were also noticeable. Respondents in cities highly appreciated the possibility of using digital platforms, while in some remote areas, the quality of the Internet and technical equipment were noted as a problem. This shows that the issue of digital inequality in Uzbekistan is still relevant. It is important not only to introduce technology, but also to create equal access to it. The results of the discussion showed another aspect: artificial intelligence tools can increase the speed of learning English, but the human factor remains for the formation of communicative competence. The teacher, group work and a real communication environment remain the main elements of language learning. Therefore, the future model is likely to be integrated.[13]

The findings indicate that AI-assisted English language teaching represents an important development in contemporary educational practice. Nevertheless, the successful implementation of AI depends on the relationship between technological opportunities and pedagogical principles.

Major Pedagogical Challenges

Although AI provides numerous educational benefits, several challenges may negatively influence the quality of English language instruction.

1. Excessive Dependence on Artificial Intelligence
2. Accuracy and Reliability of AI-Generated Information
3. Academic Integrity and Plagiarism
4. Reduced Human Interaction
5. Digital Inequality and Accessibility
6. Data Privacy and Ethical Concerns

One of the most significant concerns is students' increasing dependence on AI-generated responses. If learners consistently use AI to complete writing assignments, translate texts, or answer questions, they may gradually reduce their independent language-production efforts.

For example, students who ask AI to write complete essays without attempting to formulate their own ideas may fail to develop essential academic writing skills.

To address this problem, teachers should introduce activities that require students to demonstrate their individual reasoning, explain their writing decisions, and evaluate AI-generated suggestions.

AI systems can occasionally generate inaccurate grammatical explanations, misleading information, or unnatural linguistic expressions. This limitation is particularly problematic for students with lower English proficiency who may be unable to distinguish reliable information from incorrect suggestions.

Teachers should therefore encourage students to compare AI-generated responses with dictionaries, grammar references, academic publications, and other reliable learning resources.

Table 2. Comparative analysis: Opportunities and Pedagogical Challenges of AI-Assisted English Language Teaching

Opportunities	Pedagogical challenges
Personalized learning experiences	Personalized learning experiences
Immediate corrective feedback	Potentially inaccurate feedback
Flexible speaking practice	Limited authentic human interaction
Improved writing support	Academic dishonesty
Increased learner autonomy	Reduced independent thinking
Continuous learning opportunities	Data privacy concerns
Efficient lesson preparation	Dependence on technological resources

The comparison demonstrates that AI integration should not be evaluated exclusively through technological efficiency. Its educational value must also be assessed in terms of learning outcomes, learner independence, communicative competence, and ethical responsibility.

Recommendations for Effective AI Integration

Based on the literature analysis, several recommendations can be proposed for improving the pedagogical effectiveness of AI-assisted English language teaching.

First, educational institutions should develop clear guidelines concerning the appropriate use of artificial intelligence in language learning. These guidelines should define acceptable AI

assistance, academic integrity requirements, and procedures for protecting students' personal information.

Second, English language teachers should receive regular professional training in AI-supported instructional methods. Digital competence should include not only the technical ability to operate AI applications but also the ability to evaluate their educational relevance and limitations.

Third, AI should be integrated into communicative and task-based language teaching approaches. Rather than allowing students to rely exclusively on automated exercises, teachers should combine AI-supported activities with authentic communication, group projects, presentations, and classroom discussions.

Fourth, assessment methods should be reconsidered. Greater attention should be given to students' learning processes, independent writing, oral presentations, critical analysis, and the ability to explain their decisions.

Finally, educational institutions should promote equal access to AI-supported learning opportunities and ensure that technological innovation does not increase existing educational inequalities.

Another problem that arises when using artificial intelligence tools is related to the impact on students' critical and independent thinking skills. Kasneci and his co-authors analyze the educational possibilities and limitations of large language models, and show the importance of active student participation and critical evaluation of the results when using them. When learning English, if a student turns to artificial intelligence to get ready-made answers to each question, it may create fewer opportunities for problem solving, independent analysis of tasks, formation of their own opinion and expansion of their worldview. For example, when writing an essay in English, using the ideas proposed by artificial intelligence without comparing them with their own opinions is likely to limit the student's independent development and justification of arguments.

Although artificial intelligence technologies create wide opportunities and advantages for improving the educational process, they cannot fully take over all the tasks of the teacher. Experts such as Holmes, Bialik and Fadel, analyzing the possibilities of artificial intelligence in education, show the importance of considering these technologies as tools that support the teaching and learning process. In particular, in learning English, artificial intelligence platforms can help explain grammatical rules, create exercises and identify students' mistakes, but effective teaching and explanation is not limited to providing information alone. The teacher also performs tasks such as understanding the individual needs of the student, analyzing his development, shortcomings and achievements, increasing his motivation and appropriately approaching complex situations that arise in the process of communication.

CONCLUSION

During the study, it was found that artificial intelligence tools are becoming an important auxiliary resource in learning English. The results of the study show that adaptive platforms, chatbots and interactive systems create significant opportunities for the development of language competencies. In particular, positive developments were observed in pronunciation, vocabulary development and independent work skills. During the analysis, it was found that the effectiveness of using technological tools does not depend only on the quality of the platform. Student motivation, Internet capabilities, teacher approach and the level of methodological integration also play a significant role. Therefore, it is important to use artificial intelligence not in isolation, but in combination with the existing education system.

In conclusion, Artificial Intelligence is becoming an increasingly influential component of contemporary English language teaching. Its integration provides new opportunities for improving

instructional practices, supporting individualized learning, and developing students' linguistic competencies.

The findings of this study demonstrate that AI-assisted educational technologies can contribute to the development of listening, speaking, reading, and writing skills through interactive communication, personalized exercises, automated feedback, and flexible learning opportunities. Furthermore, AI applications can support teachers in preparing instructional materials, designing classroom activities, and organizing differentiated learning experiences.

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