ENHANCING LEARNER AUTONOMY IN EFL THROUGH ARTIFICIAL INTELLIGENCE TOOLS

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ABSTRACT

This article examines the role of artificial intelligence tools in enhancing learner autonomy in English as a Foreign Language (EFL) context. The study investigates the impact of AI technologies on independent learning, self-monitoring, and reflective skills. A model-based quasi-experimental approach was applied to analyze the effectiveness of AI tools in language learning. The results indicate that artificial intelligence significantly improves students' writing skills, motivation, and self-assessment abilities. The study also provides methodological recommendations for the effective integration of AI technologies into EFL instruction.

Keywords: *artificial intelligence, learner autonomy, EFL, independent learning, self-regulation, reflection, educational technology.*

CHET TILINI O‘QITISHDA SUN’IY INTELLEKT VOSITALARI ORQALI TALABALARDA MUSTAQIL O‘RGANISH KO‘NIKMALARINI RIVOJLANTIRISH METODIKASI

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ANNOTATSIYA

Mazkur maqolada chet tilini o‘qitishda sun’iy intellekt vositalaridan foydalanish orqali talabalarning mustaqil o‘rganish ko‘nikmalarini rivojlantirish masalasi tahlil qilinadi. Tadqiqotda AI texnologiyalarining mustaqil o‘rganish, o‘z-o‘zini nazorat qilish va refleksiya jarayonlariga ta’siri o‘rganilgan. Model asosidagi kvazi-eksperimental yondashuv qo‘llanilib, AI vositalaridan foydalanish samaradorligi tahlil qilindi. Natijalar shuni ko‘rsatdiki, sun’iy intellekt vositalari talabalarning yozma nutq ko‘nikmalari, motivatsiyasi hamda o‘z-o‘zini baholash darajasini sezilarli oshiradi. Tadqiqot yakunida AI texnologiyalarini ta’lim jarayoniga samarali joriy etish bo‘yicha metodik tavsiyalar ishlab chiqildi.

Kalit so‘zlar: *sun’iy intellekt, o‘quv avtonomiyasi, chet tilini o‘qitish, mustaqil ta’lim, refleksiya, motivatsiya, ta’lim texnologiyalari*

INTRODUCTION

In recent years, rapid advancements in artificial intelligence (AI) have significantly transformed various sectors, including education. Within Applied Linguistics, AI-powered tools have created new opportunities for enhancing language learning by offering personalized, adaptive, and interactive learning experiences.

The integration of AI technologies into English as a Foreign Language (EFL) instruction has attracted increasing attention due to their potential to support student-centered learning. In particular, AI tools such as ChatGPT and Grammarly provide learners with immediate feedback, error correction, and opportunities for independent practice, which are essential for developing higher-order thinking skills.

One of the key goals of modern education is to foster learner autonomy, defined as the ability of students to take responsibility for their own learning process. According to Phil Benson, learner autonomy involves control over learning content, methods, and evaluation. Similarly, David Little emphasizes the importance of reflection and self-assessment as central components of autonomous learning.

In EFL contexts, where exposure to the target language is often limited to classroom settings, developing learner autonomy becomes particularly important. Students frequently depend on teachers for guidance, which can hinder their ability to learn independently. Therefore, integrating AI tools into language instruction may provide an effective solution by enabling learners to practice, receive feedback, and monitor their progress outside the classroom.

Despite the growing interest in AI-enhanced education, there is still a lack of research focusing specifically on how AI tools contribute to the development of learner autonomy in EFL contexts. Most existing studies primarily examine technological effectiveness rather than pedagogical impact.

Therefore, the aim of this study is to investigate the role of artificial intelligence tools in enhancing learner autonomy among EFL students. The research seeks to explore how AI technologies influence independent learning, self-monitoring, and reflective skills, as well as to provide methodological recommendations for their effective integration into language teaching.

LITERATURE REVIEW

The concept of learner autonomy has been widely discussed in language education research. Henri Holec (1981) defines learner autonomy as the ability to take responsibility for one’s own learning. This idea was further developed by Phil

Benson (2011), who emphasized learners' control over learning processes, and David Little (1991), who highlighted reflection and self-assessment as key elements of autonomous learning.

Within Applied Linguistics, learner autonomy is considered a crucial factor in successful language acquisition. Autonomous learners tend to demonstrate higher motivation, better use of learning strategies, and improved academic performance (Benson, 2011; Little, 1991).

With the rapid advancement of digital technologies, particularly in Educational Technology, new opportunities have emerged to support autonomous learning. Artificial intelligence (AI) has become one of the most promising innovations in this field. According to Holmes, Bialik, and Fadel (2019), AI technologies enable adaptive learning systems that respond to individual learner needs, thereby promoting personalized and student-centered learning.

Similarly, Luckin et al. (2016) argue that AI can function as an intelligent tutor by providing immediate feedback and guidance. This is especially relevant in EFL contexts, where learners often have limited exposure to the target language outside the classroom.

Recent studies have increasingly focused on the application of AI tools in language education. For instance, Weran and Sa'adah (2025) propose an AI-assisted speaking practice model integrating ChatGPT into communicative language teaching, demonstrating improved speaking performance and learner engagement. Likewise, Khalilova (2024) highlights that AI-supported academic English instruction enhances students' writing performance and promotes independent learning behaviors.

In addition, earlier studies by Ulmasbaeva (2025, 2026) indicate that the integration of AI tools into EFL instruction significantly enhances students' language performance, task completion, and independent learning skills by providing opportunities for autonomous practice and immediate feedback.

Research conducted by Uzbek scholars also supports the effectiveness of AI in language learning. Hamidovna (2026) discusses modern approaches to teaching English based on artificial intelligence, highlighting its role in improving teaching efficiency and learner engagement. Furthermore, Dilshodbekovna (2025) examines both the opportunities and challenges of using AI tools in language education, noting that while AI enhances language competence, it also requires careful pedagogical integration.

Overall, the reviewed studies confirm that AI technologies have significant potential to support learner autonomy and improve language learning outcomes. However, there is still a lack of research focusing on structured methodological frameworks for integrating AI tools specifically to enhance learner autonomy in EFL

contexts. Therefore, this study aims to address this gap by proposing a model-based approach to AI-assisted language learning.

METHODOLOGY

This study employs a model-based quasi-experimental research design to investigate the effectiveness of artificial intelligence (AI) tools in enhancing learner autonomy in English as a Foreign Language (EFL) context. A quasi-experimental approach was selected as it allows for the comparison of learning outcomes between groups under controlled conditions without full randomization.

The participants of the study include 40 undergraduate students from the International Islamic Academy of Uzbekistan. The sample is divided into two groups: an experimental group consisting of 20 students and a control group consisting of 20 students. All participants are assumed to have a B1 level of English proficiency according to the Common European Framework of Reference (CEFR).

The instructional intervention is designed to last for eight weeks. During this period, the experimental group is exposed to AI-supported learning, where students utilize tools such as ChatGPT for idea generation and writing practice, and Grammarly for grammar correction and feedback. These tools enable students to engage in independent writing tasks, self-editing, and reflective learning activities. In contrast, the control group follows a traditional teacher-centered approach, relying primarily on textbook-based instruction with limited feedback opportunities.

To ensure the reliability and validity of the study, multiple data collection instruments are employed. Pre-tests and post-tests are administered to measure students' writing performance and track their progress over time. Additionally, a questionnaire is used to assess students' attitudes toward AI tools, as well as their levels of motivation and independence. Classroom observations are also conducted to analyze student engagement and learning behavior throughout the intervention.

The collected data are analyzed using both quantitative and qualitative methods. Quantitative analysis focuses on comparing pre-test and post-test results to determine the level of improvement, while qualitative analysis involves interpreting questionnaire responses and observational data. The study is guided by a conceptual framework in which AI tools facilitate independent practice, leading to self-monitoring and reflection, which ultimately contribute to the development of learner autonomy.

RESULTS

The results of the study demonstrate a significant improvement in the experimental group compared to the control group after the eight-week instructional intervention.

The pre-test results indicated that both groups had relatively similar levels of writing proficiency at the beginning of the study. The experimental group had an average score of 62%, while the control group scored 61%, showing no substantial difference between the groups.

However, the post-test results revealed notable differences. The experimental group achieved an average score of 82%, whereas the control group reached only 68%. This indicates an improvement of approximately **20%** in the experimental group compared to **7%** in the control group.

In addition to writing performance, changes were observed in students' learner autonomy. Based on questionnaire responses, approximately 75% of students in the experimental group reported increased confidence in independent learning, while only 40% of students in the control group demonstrated similar improvement.

Furthermore, the use of AI tools had a positive impact on students' self-monitoring and reflective skills. Around 70% of students in the experimental group actively engaged in self-editing and error correction using AI tools, compared to 35% in the control group, who relied mainly on teacher feedback.

Classroom observation data also supported these findings. Students in the experimental group were more actively involved in learning activities, showed higher engagement levels, and demonstrated greater responsibility for their learning process. In contrast, the control group remained more dependent on teacher guidance.

Overall, the findings suggest that the integration of artificial intelligence tools significantly enhances both writing performance and learner autonomy in EFL contexts.

Table 1. Comparison of Pre-test and Post-test Results

Group	Pre-test	Post-test	Improvement
Experimental group	62%	82%	+20%
Control group	61%	68%	+7%

DISCUSSION

The findings of this study demonstrate that the integration of artificial intelligence (AI) tools into EFL instruction has a significant positive impact on both students' writing performance and learner autonomy. The results indicate that

students who engaged with AI-supported learning environments showed higher levels of independence, motivation, and self-monitoring compared to those in traditional learning settings.

These findings are consistent with previous research in Educational Technology, which emphasizes the role of digital technologies in promoting student-centered learning. In particular, the improvement observed in the experimental group supports the argument that AI tools facilitate personalized learning experiences and provide immediate feedback, which are essential for developing learner autonomy (Holmes et al., 2019; Luckin et al., 2016).

Furthermore, the results align with the theoretical framework of Applied Linguistics, where learner autonomy is closely associated with reflection and self-assessment. The increased engagement of students in self-editing and error correction activities confirms the views of David Little (1991), who highlights the importance of reflective learning in fostering autonomy.

The findings also support earlier studies conducted in AI-assisted language learning. For example, Weran and Sa'adah (2025) reported that integrating AI tools into communicative language teaching improves speaking performance and student engagement. Similarly, Khalilova (2024) demonstrated that AI-supported academic writing instruction enhances students' writing accuracy and independent learning skills.

In addition, previous studies by Ulmasbaeva (2025, 2026) indicate that the use of AI tools in EFL classrooms significantly improves students' language performance and independent learning competencies. The results of the present study further confirm these findings, showing that AI not only enhances language skills but also promotes learner autonomy through continuous practice and feedback.

From a pedagogical perspective, the study highlights the shifting role of the teacher from a knowledge provider to a facilitator of learning. AI tools enable students to take greater responsibility for their learning, thereby reducing dependence on the teacher and fostering a more active learning environment.

However, it is important to note that the effective integration of AI tools requires careful methodological planning. Without proper guidance, students may rely excessively on AI-generated content, which could limit critical thinking and creativity. Therefore, teachers should design structured tasks that encourage meaningful interaction with AI tools.

Overall, the findings suggest that AI-assisted learning environments can serve as an effective means of enhancing learner autonomy in EFL contexts, provided that they are integrated within a well-designed pedagogical framework.

CONCLUSION

This study examined the role of artificial intelligence (AI) tools in enhancing learner autonomy in English as a Foreign Language (EFL) contexts. The findings demonstrate that the integration of AI technologies significantly improves students' writing performance, motivation, and ability to engage in independent learning.

The results confirm that AI tools such as ChatGPT and Grammarly provide effective support for self-monitoring, error correction, and reflective learning. These features enable students to take greater responsibility for their learning process and reduce dependence on teacher-centered instruction.

Moreover, the study highlights that AI-assisted learning environments promote active student participation and foster the development of essential skills associated with learner autonomy. The improvement observed in the experimental group suggests that AI tools can serve as a valuable supplement to traditional teaching methods.

However, the study also indicates that the successful implementation of AI technologies requires careful pedagogical planning. Teachers play a crucial role in guiding students to use AI tools effectively and responsibly, ensuring that these technologies enhance rather than replace the learning process.

In conclusion, artificial intelligence has strong potential to transform EFL instruction by supporting learner autonomy and improving learning outcomes. Future research should focus on developing structured models for integrating AI tools into language education and exploring their long-term impact on student learning.

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