

# THE INTEGRATION OF ARTIFICIAL INTELLIGENCE IN THE ORGANIZATION AND ASSESSMENT OF STUDENTS' INDEPENDENT LEARNING

V.K. Salikhova

Lecturer, Department of Foreign Economic Relations, Tashkent State University of Oriental Studies

<https://doi.org/10.5281/zenodo.15269135>

**Abstract.** *This article examines the potential of artificial intelligence platforms in organizing and assessing students' independent learning effectively. It addresses the modern requirements of self-directed learning and the challenges in its implementation, highlighting the role of digital technologies especially AI-based platforms in solving these issues. The study discusses how such platforms can personalize learning, automatically assess knowledge levels, monitor student progress, and simplify evaluation processes. Findings suggest that using AI platforms enhances the efficiency of independent learning and supports the development of students' self-regulation skills.*

**Keywords:** *independent learning, artificial intelligence, digital education, automated assessment, learning process, technological approach.*

## INTRODUCTION

In response to the evolving demands of modern education system, a student's readiness for independent learning and the ability to successfully implement it are among the most important competencies. Globalization, digital transformation and the rapid development of new information technologies increase the need for innovative approaches in the educational process. The use of digital tools, in particular platforms based on artificial intelligence, in organizing independent learning is considered an important factor in improving the quality of education.

Amid rapid technological advancements within the educational sector, artificial intelligence technologies allow individualizing learning, automatically determining the level of students' knowledge, monitoring the performance of independent work and analyzing the results. This, in turn, is of great importance for the effective organization of the educational process, developing a culture of independent work in students, and forming self-assessment skills [1].

## LITERATURE ANALYSIS AND RESEARCH METHODOLOGY

In recent years, many scientific studies have been conducted on the use of artificial intelligence technologies in the educational process. Scientific and practical works of foreign and domestic researchers on the organization of independent learning, improving assessment systems, and developing individual approaches using artificial intelligence are widely covered. In particular, the digital education reports of international organizations such as UNESCO and the OECD emphasize the transformative role of AI technologies in education[2].

This paradigm shift necessitates a critical evaluation of domestic literature mainly examines the theoretical foundations of independent learning, its forms and methods, mechanisms for orienting students to independent thinking, while the capabilities of artificial intelligence-based

platforms have not yet been widely covered. Therefore, this study examines the issue of integrating artificial intelligence tools into independent learning from a new perspective.

The complexity of personalized learning environments demands innovative assessment tools such as the research methodologies used were analytical, comparative and observational methods based on a combination of qualitative and quantitative approaches. During the pedagogical experiment, a practical analysis was conducted of how various artificial intelligence platforms (e.g. automated assessment systems, adaptive learning environments, digital portfolios) affect student engagement and performance in independent work[3].

### **DISCUSSION AND RESULTS**

The results of the study showed that independent learning organized using artificial intelligence platforms significantly increases student activity, the level of material acquisition and reflective thinking skills.

Although, with traditional methods, students are often limited to completing only theoretical tasks. AI platforms allow for personalization, customization, and motivation through engaging challenges. Most importantly, with AI tools, students receive immediate feedback, can identify their mistakes, and learn to correct them on their own.

The table below lists the key differences between the AI-based learning model and traditional teaching methods:

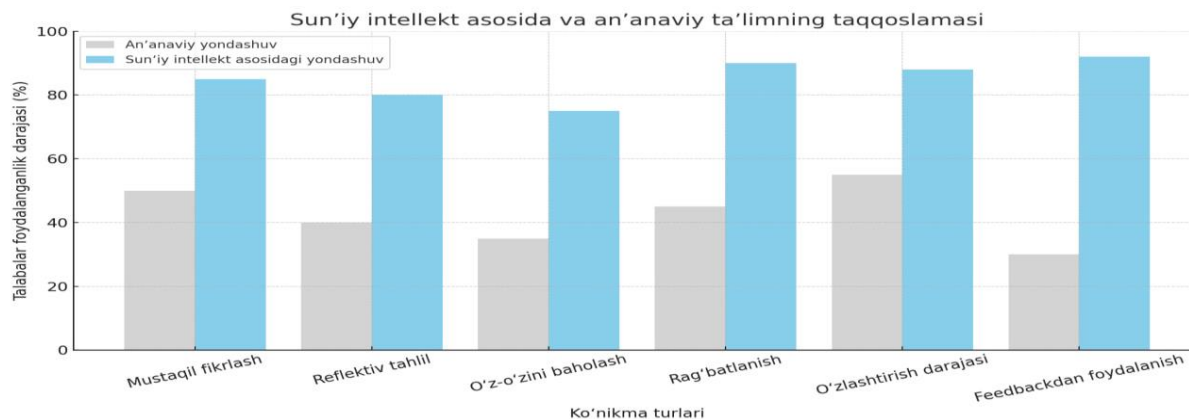
№	Indicators	Traditional approach	An artificial intelligence-based approach
1	Types of independent assignments	Mainly written essays, tests	Exercises with a visual interface, interactive questions and answers
2	Assessment process	Delayed assessment by teacher	Online real-time automated assessment
3	Person-centered approach	Based on common criteria	Adaptive approach to each student's level
4	Feedback	Weekly or end of month	Automatic analysis and recommendations after each exercise
5	Student Motivation	Mainly through assessment	Ratings, badges, additional resources recommended by AI
6	The Role of the Teacher	Informative	As a guide, observer and analyst
7	Access to Learning Resources	Library and traditional manuals	Online database, resources selected by artificial intelligence

For example, if a student is assigned to independently study grammar in the traditional way, he reads a book and takes a test. On the AI platform, the student first takes a short test to determine his level, and then the platform adapts the exercises specifically to his needs. If an error occurs, the system analyzes and explains the reason, and also recommends additional training. This increases the student's self-awareness [4].

During the experiment, it was noted that students in the AI-powered group learned to independently deepen their knowledge, analyze their mistakes, and critically approach the assessment criteria.

### **CONCLUSION**

Automatic analysis of interactive lesson plans. A group of students uploaded their independent lesson plans to an AI-powered assessment system. The system automatically determined the accuracy of the content, logical sequence, and compliance with the learning objectives of each plan and made recommendations. As a result, the students began to work more deeply on their plans and learned to independently analyze.



***Comparison of AI-based education and traditional education***

***100 g***

***Traditional approach***

***AI-based approach***

***Student usage rate (%)***

***Independent thinking***

***Reflective analysis***

***Self-assessment***

***Improvement***

***Mastery level***

***Use of feedback***

***Skill types***

Anchored in contemporary educational theory, AI-powered essay analysis platform. Students were asked to write an essay on their own. The AI platform analyzed the written text for grammar, style, logical structure, and credibility. The platform not only showed the errors, but also provided a brief explanation of each error. The students realized their mistakes and tried not to repeat such shortcomings in their future work.

As can be seen from the graph above, independent learning based on artificial intelligence is much more effective in developing students' skills than traditional methods:

The difference is especially noticeable in the areas of reflective analysis and the use of feedback.

Students demonstrated a high level of motivation, self-esteem, and independent thinking skills with the help of artificial intelligence[5].

## **REFERENCES**

1. Akhmedova, D. A. (2021). Methodology of using digital technologies in the educational process. Tashkent: Uzbek Pedagogical Publishing House.
2. Juraev, A. S. (2020). Artificial Intelligence and Digital Transformation: Application in the Education System. Tashkent: Center for Innovative Development.

3. Usmanova, Z. M. (2022). Modern approaches to the development of independent educational activities of students. Samarkand: Publishing House of SamSU.
4. Sattorov, B. M. (2019). Information technologies and their integration into education. Tashkent: Science and Technology Publishing House.
5. Eshmatova, M. T. (2023). Pedagogical innovations and artificial intelligence systems in education. Karshi: Karshi State University Publishing House.