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IMPROVING THE LEARNER-CENTERED EDUCATIONAL PROCESS ON THE BASIS OF INNOVATIVE TECHNOLOGIES

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A B S T R A C T

This article analyzes the theoretical foundations and didactic characteristics of learner-centered education, as well as the ways of improving it through innovative pedagogical technologies. The effectiveness of applying modern information and communication technologies, digital learning platforms, the modular-credit system, and interactive methods is scientifically substantiated, taking into account learners' individual needs, abilities, and developmental dynamics within the educational process. In addition, the principles for enhancing learner-centered education are highlighted in the context of the ongoing reforms in Uzbekistan's education system.

K E Y W O R D S

Learner - centered education, innovative technologies, pedagogical technology, interactive methods, digital learning, ICT, individual approach

INTRODUCTION

In the 21st century, one of the primary objectives of the education system is to shape an individual who is competitive in society, capable of independent thinking, creative, and able to engage in continuous self-development. This, in turn, requires prioritizing a learner-centered approach in the educational process. As a modern pedagogical paradigm, the concept of learner-centered education aims to activate learners, take into account their individual needs, and develop their independent learning skills.

In recent years, a number of normative and legal documents have been adopted in the Republic of Uzbekistan aimed at modernizing the education system and widely introducing innovative technologies into the pedagogical process. In particular, the Law "On Education" (2020) and the conceptual guidelines "New Uzbekistan – New Education" serve as an important basis for deeply implementing the principles of learner-centered education.

The idea of learner-centered education is grounded in various scientific schools, including humanistic psychology (A. Maslow, C. Rogers), constructivism (J. Piaget, L. Vygotsky), and activity theory (A. N. Leontiev). Their common standpoint emphasizes that:

"The learner is not an object but a subject of education; therefore, the educational process must adapt to his or her individuality."

Consequently, the learner-centered education model represents the following scientific paradigm:

- a pedagogical process based on subject–subject relations;
- placing the learner's experience and motivation at the core of teaching;
- acquiring knowledge through construction, not through ready-made information;
- prioritizing reflective and practical activities.

Learner-centered education is an instructional model aimed at maximally developing the learner's abilities by considering his or her individual characteristics. The main principles of this approach include:

1. Individualization – considering learners' abilities, psychological types, learning pace, and cognitive styles.
2. Differentiation – presenting the same content at various levels of complexity.
3. Flexibility – adapting the content and methodology according to the learner's developmental dynamics.
4. Reflection – enabling learners to analyze and evaluate their own learning activities.
5. Collaboration – establishing partnership-based "teacher–learner" relations.
6. Defining an individual learning trajectory;
7. Recognizing the learner's subjective experience;
8. Developing independent thinking and reflection;
9. Forming subject–subject relations throughout the learning process.

The effectiveness of learner-centered education largely depends on the proper organization of the psychological mechanisms of the pedagogical process. In particular, studying the learner's developmental dynamics and cognitive processes—attention, memory, thinking, motivation, and emotional–intellectual states—must be placed at the center of instruction. Therefore, modern educational technologies are required to be psychologically grounded.

In the traditional model of education, the process is based on the principle that "the teacher is the primary subject," whereas in learner-centered education the learner becomes an active participant and the main subject of knowledge acquisition.

Today, the digital transformation process is penetrating deeply into the education system. Online platforms (Moodle, Google Classroom, EdX, Coursera), virtual laboratories, and artificial intelligence–based learning systems make it possible to provide customized learning for students.

Interactive methods are among the most effective tools of learner-centered education. From the constructivist perspective, learners construct knowledge actively. Therefore, interactive methods:

- create problem-based situations,
- stimulate critical thinking,
- initiate cooperative learning mechanisms,
- develop communicative competencies.

Such methods include:

Brainstorming, Fishbone, Insert, Blitz Survey, Debate, Discussion, and others. These techniques foster learners' critical thinking, communication, and problem-solving competencies. According to studies (OECD, UNESCO, 2021), interactive methods increase learner engagement and retention rates by 40–60%.

Significant differences exist among students' cognitive styles, which can be expressed in the following groups:

1. Analytical vs. synthetic thinkers – analysts focus on details, while synthetic thinkers prefer a holistic view.
2. Visual, auditory, and kinesthetic learners – differing in sensory channels of information reception.
3. Fast and slow learners – varying in information processing speed.
4. Creative vs. reproductive thinkers – creative learners seek new solutions, while reproductive learners rely on existing knowledge.

Innovative technologies allow adapting learning materials while considering these differences.

For the effective application of innovative technologies, teachers must possess the following competencies:

- digital pedagogy,
- educational analytics,
- project-based learning methodologies,
- interactive teaching methods,
- communication and soft skills.

Motivation is the driving force of learning activity, and its role becomes even more significant in learner-centered education. Based on Maslow's hierarchy, learners' needs, personal goals, and desire for self-actualization are taken into account.

Innovative technologies enhance motivation through the following functions:

- engaging learners through an interactive environment;
- enhancing emotional motivation using visual, audio, and animated materials;
- incorporating competition and encouragement through gamification;
- enabling self-assessment via real-time performance feedback.

Moreover, innovative technologies make it possible to design individual development plans for each learner based on their level of knowledge, interests, and needs. Through LMS (Learning Management Systems), it becomes possible to:

- monitor learners;
- differentiate assignments;
- analyze learning outcomes in real time.

Prospects for Improving the Learner-Centered Approach in the Education System of Uzbekistan

The learner-centered approach in Uzbekistan's education system can be improved on the basis of the following model:

1. **Diagnostic stage** – psychometric testing, monitoring, and learning analytics.
2. **Planning stage** – designing an individual learning plan.
3. **Adaptive teaching** – adapting the instructional process through AI-based tools and LMS platforms.
4. **Assessment and reflection** – formative assessment, portfolios, and electronic testing.
5. **Further expansion of digital infrastructure**;
6. **Development of national e-learning platforms;**
7. **Aligning teacher training with modern pedagogical models;**
8. **Strengthening interdisciplinary integration;**
9. **Introducing the STEAM approach.**

The development of competencies includes the acquisition of creative thinking, information literacy, communication and collaboration skills, and problem-solving abilities.
Social adaptability helps learners develop qualities such as freedom of expression, social engagement, initiative, and self-regulation.
Learner-centered education is one of the key conceptual directions of the modern educational process and plays a significant role in the development of human capital. Innovative technologies serve as powerful didactic tools that enable the effective implementation of this approach in practice. Through digitalization of education, online platforms, interactive methods, and the improvement of the modular system, the individuality of each learner can be fully realized.

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