

# REFORMING AND MODERNIZING THE EDUCATION SYSTEM BASED ON INNOVATIVE IDEAS AND DIGITAL TECHNOLOGIES



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#### Abstract.

This article examines the tasks and problems of the modern educational system of the CIS countries and Uzbekistan. A new methodically grounded approach to the modernization of educational activities based on innovative ideas and digital technologies is proposed.

# **Key words:**

Educational system, innovative character, modernization of education, innovative element.

## Introduction.

Reforming and modernizing the education system is one of the most important tasks of the Republic of Uzbekistan. The main goals of reforming the education system are to improve the quality of education, form an innovative approach to education and modernize the educational process and curriculum in accordance with world standards [1].

#### Methods.

In modern educational practice, not all types of educational activities are reduced to training, not all training takes place within the framework of lessons or within the walls of educational institutions.

We have researched didactic developments that

- 1) were formed in the practice of specially organized training,
- 2) set a special task to achieve didactic goals,
- 3) are innovative in relation to traditional education,
- 4) usually (but not necessarily) take place in educational institutions,
- 5) lend themselves to generalization and can be used in relation to various subject content.

Its technological basis is the transition to renewable energy sources, economical network methods of its generation, storage and distribution, a change in production technologies, in which labor costs for the physical creation of products are sharply reduced. This is happening against the background of the development of the digital information environment.

In the value chains of goods and services, including intellectual ones, profit centers are shifting from the stages of production to the stages of research, development, design, and the

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number of workers directly involved in production is decreasing. "Horizontal interactions" are intensifying in the economy, in the production and consumption chains, there is "uberization" - that is, the elimination of intermediaries - a new trend (Nassim Taleb). These trends are related to the field of education through their influence on:

- 1) the nature of the educational system and educational practices;
- 2) the nature of the expected educational results;
- 3) the nature of the interaction between teachers and students at different levels of education.

In modern education, different modes of educational activity coexist, in which teachers of the XXI century work and will work. Education remains the key mechanism of education, however, in recent decades, against the background of the usual school and university educational process, the search for alternative training options has been increasingly active.

According to the characteristics of researchers, modern society has entered the era of a new industrial revolution.

### Innovation.

The concept of "innovation" refers not just to the creation and dissemination of individual innovations, but to such changes that are significant in nature, accompanied by changes in the way of activity, style of thinking. The category of innovativeness refers not only (and not so much) to novelty as a temporary, transient factor, but rather to the qualitative features of changes. Types of innovative approaches to learning.

Innovative approaches to learning can be divided into two main types, in which two main metaphors of the educational process are manifested.

- 1) Innovations that modernize education aimed at achieving guaranteed results within the prevailing traditional reproductive orientation. The underlying technological approach to learning focuses primarily on highly effective reproductive learning.
- 2) Innovations that transform traditional education aimed at organizing search, research, educational and cognitive activities. The exploratory approach to teaching first of all forms students' experience of independent search for new knowledge, their application in new conditions, experience of creative activity in combination with the development of value orientations / relationships. In this vein, developments are underway that turn traditional learning into live, engaging research [2,3].

The reproductive and problem / search orientations of the educational process in modern pedagogy are embodied in two main innovative approaches to the transformation of education - technological and search.

Within each of the basic approaches, an innovative didactic quest is being conducted that transforms the nature of learning. Areas of transformation are associated both with the type of predominant student activities that the teacher organizes and with the nature and balance of the roles of the teacher and students.

In Uzbekistan, as in many CIS countries, the problematic aspects of transforming education into innovative, technological and search approaches from the point of view of modernity have remained

The number of such aspects can be entered as follows:

- Limited potential of Uzbek universities in training qualified specialists in the field of mechatronics and robotics;
- Lack of sufficient qualifications and suitable skills for the implementation of innovative projects;
  - Lack of sufficient information resources in the Uzbek language;
  - Lack of a systematic approach to the commercialization of research results;

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- Low interest of the female half of the population in this area of research;
- Protracted process of delivery of laboratory equipment (external and internal factors);
- Weak integration between science, education and industry;
- Insufficient resources, etc.

## Results.

To address these challenges, we are offering a new income, Modernizing Undergraduate Curricula Based on Innovative Ideas and Digital Technologies, which will radically change the boring and repetitive traditional education system into an improved learning process. Developed new educational standards, curricula, textbooks, training center, laboratories and center in this area will be valuable aspects that should be considered as sustainable learning outcomes.

The main innovative element of this approach will be the introduction of new training programs in the spheres through the modernization and development of the educational standard based on national priorities and support of the knowledge cycle: training-education-innovation. Another innovative element is partnerships working together to develop courses and curricula.

### Literature

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