



TYPES AND TECHNOLOGIES OF PERSONALIZED EDUCATION IN THE ERA OF DIGITAL TECHNOLOGIES

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Abstract

This article presents an opinion on the types of personality-oriented learning, its role in society, the importance and relevance of the use of technology in the XXI-st century in the era of digital technology development.

Keywords: Digital technologies, personality-oriented education, modern education, the XXI-st century.

Introduction

Аннотация:

В данной статье излагается мнение о видах личностно-ориентированного обучения, его роли в жизни общества, значении и актуальности использования технологий в XXI-веке в эпоху развития цифровых технологий.

Ключевые слова: Цифровые технологии, личностно-ориентированное образование, современное образование, XXI-век.

Introduction

Today, digital technologies are permeating all spheres of public life. The education system, in particular, is one of the areas most actively affected by these changes and adapting to them.

In the 21st century, the education system is undergoing rapid digitalization. This process requires education that takes into account the individual characteristics



of students, i.e., a student-centered approach. Digital technologies create extensive opportunities for implementing this approach. Unlike traditional education, modern educational processes are organized according to the individual needs, abilities, and interests of students. This approach is called student-centered education. It is no coincidence that the 21st century is the century of digital technologies. The rapid development of information and communication technologies (ICT) is causing fundamental changes in all aspects of life, including the education system. Traditional forms of education are gradually giving way to student-centered, innovative, and flexible forms of education. Education in a digital environment, taking into account the individual needs of each student, is one of the priorities of modern education.

The Role of Digital Technologies:

Digital technologies create extensive opportunities for the effective implementation of student-centered education. They enable:

- Automatic selection of educational content based on student knowledge;
- Enlivening the learning process with visual, audio, and interactive tools;
- Providing opportunities for distance and independent learning;
- Tracking student achievements and challenges through analytics.

Student-centered education is a pedagogical approach based on adapting the learning process to the individual characteristics of each student. In this model, the teacher acts not as a mentor or instructor, but as a guide and motivator. The student, not as a passive listener, but as an active participant, is at the center of the learning process.

One of the main principles of student-centered education is an individual approach. This principle assumes that the specific characteristics, abilities, and needs of each student are taken into account in the learning process. Students are given the opportunity to create a learning process that suits them and choose learning materials that meet their interests. Student-centered education helps students develop their knowledge and work purposefully. This principle supports student independence and creates opportunities for self-expression.[1]

The second principle is the active participation of students in education. Students should be actively involved in the learning process, focusing more on learning than on teaching. Students have the opportunity to choose a learning style that



suits them, which increases their motivation to learn. In student-centered education, students plan their activities and utilize various resources to achieve their goals. Students have the opportunity to control their own learning process, developing independent thinking and decision-making skills. Furthermore, the principle of differentiation plays an important role in student-centered education. This principle takes into account the different needs, abilities, and interests of students in the educational process. For example, one student may want to study a particular topic in depth, while another may prefer to acquire only the bare minimum. The style and content of instruction are adapted to the needs of each student, which increases the effectiveness of education. Student-centered education utilizes a flexible approach to the student's learning process. This approach ensures that the educational system is tailored to the specific needs of each student. This allows students to control their own learning process, choosing lessons that suit their abilities and needs. In such a system, the teacher not only imparts knowledge to students but also helps and supports them in choosing their learning method.[2]

The main types of personalized learning are:

Individualized learning. A customized curriculum and methodology are created for each student. This type is particularly effective when using digital platforms.

Differentiated learning. Students are divided into groups based on their knowledge level and abilities and assigned appropriate assignments.

Adaptive learning. Using artificial intelligence and algorithms, student activity is analyzed and relevant content is automatically suggested.

Distance learning is a type of education delivered online that allows students to study regardless of time and location.

Personalized learning technologies, particularly those using artificial intelligence and data analytics, offer students tailored learning paths. For example, student activity and achievement can be tracked, and personalized recommendations and learning plans can be developed based on this information. This approach provides education that is more tailored to students' needs, providing them with



the resources and support they need for self-improvement. Students are also given the opportunity to evaluate their results and track their progress in real time. For example, students can measure and improve their accuracy through online tests and interactive exercises. In this approach, teachers play a supporting role, providing individualized assistance to students, suggesting learning methods, and supporting them. In student-centered education, the process of individualization of learning is further developed. In this process, lessons and materials are adapted to organize learning based on the needs and abilities of students. For example, some students may only have a superficial understanding of a particular topic, while others prefer to study it in greater depth. The education system recognizes these differences and creates learning opportunities that are appropriate for students, which facilitates the retention of their knowledge.

Another important aspect of student-centered education is the development of self-assessment skills in students. Students can independently assess their knowledge and skills, set goals, and plan for their achievement. This allows students to manage their learning and develop their full potential.[3]

The role of technology in personalized learning is becoming an integral part of the educational process. In this approach, technology helps make the learning process more effective and interactive, taking into account the individual needs, abilities, and learning styles of students. With technology, students' learning experiences become more personalized, which increases their motivation and learning effectiveness. In personalized learning, technology plays a vital role in providing students with personalized learning, especially through innovative tools such as online learning platforms, mobile apps, artificial intelligence, virtual reality, and augmented reality.

In personalized learning, technology enables students to learn independently, think independently, and take responsibility for their own development. For example, online courses, video tutorials, and interactive learning materials allow students to study at their own time and pace. This allows students to choose their own learning style, easily access the necessary materials, and control their own learning process. [4] Online platforms and apps provide educational materials tailored to individual needs and adapt the learning process to students' abilities and pace. Furthermore, technology increases the interactivity of education. Students are provided with learning opportunities through virtual labs,



simulations, interactive exercises, and games. This, in turn, increases student engagement and makes the learning process more effective. In student-centered learning, technology encourages students to collaborate, exchange ideas, and help each other. For example, forums, chats, online group work, and collaborative learning tools enable students to share their knowledge with others, solve problems collaboratively, and exchange creative ideas.

Problems and Solutions

The following challenges arise when implementing personalized education:

Insufficient technical infrastructure

Low digital competence of teachers

Insufficient time for an individualized approach

To address these challenges:

Teacher retraining

Provision of modern technologies

Educational process automation is necessary

Conclusion

Overall, the possibilities for effectively implementing personalized education using digital technologies are expanding every day. Education tailored to the individual abilities, interests, and needs of students not only improves their knowledge but also helps them develop as independent thinkers and individuals with modern skills. In the digital age, personalized education is becoming an integral part of the education system. Modern technologies offer expanded opportunities to meet the individual needs of each student and ensure a high-quality education. In the future, this approach will contribute to further improving the effectiveness of education.

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