European Journal of Interdisciplinary Research and Development
Volume- 36 February - 2025
Website: www.ejird.journalspark.org ISSN (E): 2720-5746

INFORMATIZATION OF EDUCATION AS A MEANS OF INCREASING THE EFFECTIVENESS OF THE EDUCATIONAL PROCESS

I. M. Sirojiddinova
Candidate of Pedagogical Sciences, Associate Professor
Andijan State Technical Institute, Head of the Department of Humanities,

Annotation:
This article will focus on the first steps in the field of informatization of education in our country, informatization of education, informatics and computer technologies in secondary schools, informatization of society, analysis of the process of introduction and application of computer technology and computer technologies in the educational process, the stages of informatization of education.

Keywords: Informatization, education, cognitive activity, implementation process analysis, learning, society informatization, team, technology, electronization, success.

Introduction

The informatization of education is one of the most crucial conditions for the successful development of society's informatization processes. It is in the field of education that people are prepared and nurtured who not only shape a new information environment for society but are also destined to live and work in this new environment themselves. The first steps in the field of education informatization were taken in our country in 1985, when an exceptionally important government decision was made to introduce several thousand of the first Soviet personal computers into the education sector and to implement a general course on the fundamentals of computer science and computing technology in secondary schools.

The informatization of society is a set of interconnected political, socio-economic, and scientific factors that provide every member of society with free access to any information sources, except for those that are legally classified. [1,2].

An analysis of the process of implementing and using computing technology and computer technologies in the educational process has allowed us to identify three stages of education informatization (conditionally termed electronization, computerization, and informatization of the educational process).

The first stage of education informatization (electronization) was characterized by the widespread introduction of electronic tools and computing technology into the process of training students, first in technical fields (late 1950s - early 1960s), and then in the humanities (late 1960s - early 1970s). This stage involved teaching the basics of algorithmization and programming, elements of Boolean algebra, and mathematical modeling on computers. The relatively low performance of computers at that time, along with the lack of user-friendly, intuitive software tools with a friendly interface for the average user (not a programmer) did not contribute to the widespread use of computing technology in the field of humanities education. [3,4].

The second stage of education informatization (computerization) (mid-1970s to 1990s) is associated with the emergence of more powerful computers and user-friendly software interfaces. It is primarily characterized by the use of interactive human-computer dialogue. Computer educational technologies enabled the study of various processes and phenomena (chemical, physical, social, pedagogical, etc.) through modeling. Computer technology became a powerful learning tool as part of automated systems with varying degrees of intelligence. In the field of education, automated systems for learning, knowledge assessment, and educational process management were increasingly utilized. [5,6].

The third, modern stage of education informatization is characterized by the use of powerful personal computers, high-speed storage devices with large capacities, new information and telecommunication technologies, multimedia technologies and virtual reality, as well as a philosophical understanding of the ongoing informatization process and its social consequences. [7,8].

Education informatization is the process of equipping the education system with the theory and practice of developing and using new information technologies aimed at achieving the goals of education and upbringing. [9,10]

In turn, the following main directions for the implementation of information technologies in education are generally recognized:

1) the use of computer technology as a teaching tool that enhances the teaching process, improving its quality and effectiveness;

2) the use of computer technologies as tools for learning, self-discovery, and understanding reality;

3) consideration of computers and other modern information technology tools as objects of study;

4) the use of new information technology tools as means for creative development of the learner;

5) the use of computer technology to automate processes of control, correction, testing, and psychodiagnostics;

6) organizing communication based on the use of information technology tools to transfer and acquire pedagogical experience, methodological and educational literature;

7) using modern information technology tools to organize intellectual leisure activities;

8) intensifying and improving the management of educational institutions and the educational process through the use of modern information technology systems. [11,12].

The most important tasks of education informatization are:

- improving the quality of specialist training through the use of modern information technologies in the educational process;
- implementing active teaching methods, enhancing the creative and intellectual components of educational activities;
- integrating various types of educational activities (academic, research, etc.);
- adapting educational information technologies to the individual characteristics of students;
- ensuring continuity and succession in education;
- developing information technologies for distance learning;
- improving software and methodological support for the educational process;
- introducing information technologies into the process of specialized professional training for specialists in various fields. [13,14]

One of the most important tasks in the informatization of education is the formation of an information culture in specialists. The level of this culture is determined by: firstly, knowledge of information, information processes, models, and technologies; secondly, skills and abilities in applying means and methods of processing and analyzing information in various activities; thirdly, the ability to use modern IT in professional activities; and fourthly, a worldview that sees the surrounding world as an open information system.

The concept of education informatization outlines several stages of this process.

Conclusions

The practical implementation of computer technologies and the transition to subsequent stages of informatization are linked to the selection of content for individual subjects with the aim of creating computer programs. The software should reflect the current curriculum and be synchronized with the school's schedule. Thus, one of the leading scientific and methodological challenges in this case becomes the creation of a methodology for designing modern information technologies applicable to school education. It is easy to notice that each period of education informatization has two parallel branches of development: the technological foundation and innovative processes within the education system itself.

Considering the enormous influence of modern information technologies on the educational process, many educators are increasingly willing to incorporate them into their methodological systems. However, the process of informatizing school education cannot occur instantaneously according to any reform; it is gradual and continuous.

Список литературы.

1. ЛовцовД.А. Адаптивная система индивидуализации обучения // Педагогика. 2001.- № 6.
2. ГустырьА.В. К определению терминологического стандарта открытого и дистанционного образования // Проблемы нормативно-правового обеспечения открытого образования. Материалы конф.— М.: МЭСИ, 2001.
3. Зулпыхар, Ж., Серікбаева, А., Нурбекова, Г., Кариева, К., & Sirojiddinova, I. . (2024). СОВРЕМЕННОЕ СОСТОЯНИЕ ОБУЧЕНИЯ СЕТЕВЫМ ТЕХНОЛОГИЯМ. «Вестник НАН РК», 407(1), 178–193. https://doi.org/10.32014/2024.2518-1467.666
4. Сирожиддинова, И. М. (2023). В КОМПЛЕКСНОМ ПРОЕКТИРОВАНИИ ПРОФЕССИОНАЛЬНОЙ ПОДГОТОВКИ ИНЖЕНЕРОВ МЕТОД СЛУЧАЙНОЙ ВЫБОРКИ.O'ZBEKISTONDA FANLARARO INNOVATSIYALAR VA ILMIY TADQIQOTLAR JURNALI, 2(16), 521-523.
5. Sirojiddinova, I. (2023). TECHNOLOGICAL CHARACTER OF THE EDUCATIONAL PROCESS WHEN DESIGNING PEDAGOGICAL OBJECTS. Solution of social problems in management and economy, 2(2), 130-132.
6. MAXAMMADOVNA, S. I. (2023). IN COMPREHENSIVE DESIGN OF PROFESSIONAL TRAINING OF ENGINEERS RANDOM SAMPLE METHOD. O ‘ZBEKISTONDA FANLARARO INNOVATSIYALAR VA ILMIY TADQIQOTLAR JURNALI.

7. Mahammadovna, S. I. (2022). IMPROVING THE PROFESSIONAL TRAINING OF FUTURE ENGINEERS BASED ON THE CLUSTER APPROACH. Spectrum Journal of Innovation, Reforms and Development, 3, 45-47.
8. Mahammadovna, S. I. (2022, October). DEVELOPMENT OF A METHODOLOGICAL SYSTEM OF TRAINING BASED ON THE CLUSTER APPROACH. In Archive of Conferences (pp. 30-33).
9. Sirojiddinova, I. (2022). THE IMPORTANCE OF THE CLUSTER APPROACH TO THE CREATION OF A MOTIVATIONAL AND METHODOLOGICAL TEACHING SYSTEM. Вестник Ошского государственного педагогического университета имени А. Мырсабекова, 2(2), 146-150.
10. MAXAMMADOVNA, S. I. (2021). PEDAGOGICAL OPPORTUNITIES FOR THE DEVELOPMENT OF PROFESSIONAL AND CREATIVE ABILITIES IN STUDENTS. International Journal for Innovative Enginering and Management Research….
11. Sirojiddinova, I. M. (2023). PEDAGOGIK OB'YEKTLARNI KOMPLEKS LOYIHALASHTIRISH TEXNOLOGIYASI. Academic research in educational sciences, 4(TMA Conference), 298-302.
12. Сирожиддинова, И. М. (2022). ТАЪЛИМ ЖАРАЁНИНИ МОНИТОРИНГ ТАДҚИҚ ҚИЛИШ УЧУН ТАШХИС МАТЕРИАЛЛАРИНИ ИШЛАБ ЧИҚИШ. Results of National Scientific Research International Journal, 1(6), 33-38.
13. MAXAMMADOVNA, S. I. (2022). Klaster texnologiyasi asosida bolajak muhandislarni kasbiy tayyorgarligini takomillashtirish. Муғаллим ҳәм үзликсиз билимлендириў. Илмий-методикалық журнал.
14. Zakirovich, N. I., & Mahammadovna, S. I. (2023). Levels of development of human abilities. Новости образования: исследование в XXI веке, 1(7), 341-344.