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Continuity of Teaching Computer Science and Information Technology in the Education System

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Annotation. This article discusses the integrity and continuity of computer science in the system of continuing education. Before we talk about the problems and prospects of teaching computer science, we need to consider the main problem. That is, to develop students' understanding of the role of computer science as a science and the goals and objectives of its other branches.

Keywords: computer science, education, science, methodology, pedagogy, new pedagogical technology, innovation, computer

The global process of forming an automated information society creates opportunities for human development and the effective solution of many economic and social problems. However, this opportunity is available only to members of the community who have the necessary knowledge and skills in this field of information. Therefore, one of the main tasks of continuing education is to enable the younger generation to comprehensively improve the information culture and its ideological level. The direction of computer science plays an important role in solving this problem. Therefore, it is important to study and analyze the priorities of the computer science course and its future prospects.

Before we talk about the problems and prospects of teaching computer science, we need to consider the main problem. That is, to develop students' understanding of the role of computer science as a science and the goals and objectives of its other branches. By introducing the Internet, social networks, blogs, e-libraries, e-books and digital audio-video-photography, mobile phones, instant messaging, IP telephony, PDAs and communicators, 20 years ago we were in an information vacuum. we create that we live, that there is nothing but social, geographical, political barriers.

Informatics is a general education subject and should be viewed from a systemic perspective, which is determined by the specific features and objectives of secondary education. The difficulty of accepting computer science as a science is that its issues also apply to physics, mathematics, astronomy, and computer science has an interdisciplinary relationship. Today, children should not be limited to the knowledge of the existence of a computer, not only to have an idea about it, but also to be able to work it freely, to know how to use this technique. Informatics is not about objects or processes, but about the ways, means and technologies of their automation, creation and operation. This science provides not only its in-depth study, but also the practical application of knowledge and skills to modernize their knowledge and optimize the acquired knowledge. Informatics classes develop a systematic perception of the world, the idea of reforming the general interrelationship of events in nature and in the social sphere. Its level is mainly determined by the ability to process information quickly and make decisions based on it, which requires additional opportunities for students. And teachers need to use all the new methods and teaching aids.

The content of computer science must to a certain extent meet the level of development of science and the requirements of society. The development of computer technology, especially the rapid updating of personal computers and their software, is contributing to the spread of all areas of human activity. This, in turn, highlights the need to train and retrain professionals who can deliver computer science to children at an excellent level and who are able to teach with high-quality information technology. The emergence of new computer technologies also has a significant impact on the expansion of educational topics in the field of computer science education. Computer technology is evolving so fast that education is one step behind no matter how hard it tries. In particular, the final findings of committees such as ACM and Computer Science found that the following topics were considered important in the teaching of computer science, taking into account the technical changes that have taken place in recent years.

The system of continuing education in the country performs educational, pedagogical, economic, social and cultural functions as one of the important social institutions in the context of modernization of social spheres and sectors of the economy. To ensure their successful implementation, it is necessary to create pedagogical conditions for students to develop creative and independent thinking, professional maturity and high spirituality.

Problems of integral development of the student's personality in education:

- disproportion between the knowledge and skills formed in the system of continuing education and the requirements of the level of social, scientific and technological development of society;
- inconsistency between the knowledge and skills acquired by students in the educational process and the structure of professional skills and competencies required to work as a specialist;
- Lack of interconnectedness, coherence and perspective, integration of all components of the pedagogical system, which includes the purpose, content, methods, tools, organizational forms of education and upbringing in the formation of the student's personality;
- Lack of software and methodological software to intensify the activities of students based on the formation of independent analytical skills, working with the growing volume of information [3].

In order to cultivate a comprehensively mature, creative personality in the system of continuing education, to ensure the interconnectedness, coherence and future-orientation of the components of the pedagogical system at all stages of the educational process for the continuous development of the student and their didactic implementation requires the determination of the conditions.

Ensuring continuity in the system of continuing education, which is one of the key components of the national model of training, is a priority in the implementation of the tasks set in the national program and requires accelerated research to further improve the mechanisms of ensuring vertical and horizontal continuity of the education system does.

The main idea of continuity of education is the gradual development of the student's personality as a subject of education. In the national model of training, this idea is developed and the individual is recognized as the main subject and object of the system of training, the consumer of services in the field of education. In the ongoing educational reforms in the country, the development of the individual is considered as a continuous process, in which the educational process is combined with the ideas of developmental education, which involves not only knowledge, but also creative interpretation of acquired knowledge. This marked the transition from information-based learning to person-centered learning, from memory-based learning to active learning-based learning.

A distinctive feature of the scientific approach to the national education model in the development of the system of continuing education in our country is that the system of continuing education is considered as a whole, membership and continuity, that is, as a whole system. Integrity and continuity are defined as one of the main principles of state policy in the field of education and in the theory of pedagogy, the system city and consistency that characterize it are not only the methodological basis of education, but also the didactic principle. Continuity of education is known at each stage of education, ensuring the structure, consistency and logical connection of the content of education, creating the basis for the transfer of knowledge acquired by students to the next stage of skills and abilities is a didactic principle that requires the provision of the formation of knowledge, skills and competencies at the level of. The essence of membership is determined by the need to meet the needs of the individual and society in education, which can create the conditions for individual learning.

Today, educational, managerial and investment activities in educational institutions of the country are aimed at ensuring the full implementation of the National Training Program. All this requires structural changes in the dynamics of development of public educational institutions, the introduction of effective management of continuing education and training, the formation of a system of quality control in education.

Ensuring continuity in the system of continuing education, which is one of the key components of the national model of training, has identified priorities in the implementation of the tasks set out in the national program.

The system of continuous education, which covers all stages of the educational process, creates all the conditions for the development of a comprehensively mature, harmoniously developed generation.

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Continuing education means the interdependence of all components of the pedagogical system at each stage of education in order to integrate the student's personality.

The Law of the Republic of Uzbekistan "On Education" states that one of the main principles of state policy in the field of education is the basis of the system of continuing education, ensuring the socio-economic development of the republic, economic, is a priority area that meets the social, scientific, technical and cultural needs, creates the necessary conditions for the formation of a creative, socially active, spiritually mature person and the training of highly qualified competitive personnel, educational programs at various levels in accordance with state educational standards, ensuring continuity and preschool, general secondary, secondary special, vocational education, higher education, postgraduate education, professional development and retraining, as well as out-of-school education lim species are noted [1].

In pedagogy, along with the scientific-theoretical and methodological bases of education, special attention is paid to the didactic principles of education. They are taught to be scientific, systematic and consistent, conscious and active, to acquire knowledge thoroughly and firmly, to take into account the age and individual characteristics of students, to demonstrate the connection between theory and practice, independence and free thinking and reasoning are included. Continuity and continuity in the educational process The interdependence of science, education and production; membership of educational content; integration in the formation of knowledge, skills and competencies; membership in the formation of the student's personality; membership in the use of teaching methods and forms; provides continuity in the organization of student assessment.

Based on these requirements, the educational process between the system of general secondary and secondary special, vocational education is interrelated in the development of state educational standards, curricula and programs. Special attention will be paid to mining issues. To this end it is necessary to improve the cooperation of teachers of general secondary, secondary special and higher education in the creation of varied curricula and textbooks and manuals.

Man today operates in a changing environment, in which there are no ready-made solutions and no one is given, in which everyone is required to find the necessary solution independently and take responsibility for the consequences of this solution. That is why creativity plays an important role in cultivating an individual who is able to think independently and make decisions, listen to the opinions of others and draw conclusions based on them. Education should teach young people to solve problems, not to master ready-made learning materials.

Modernization, technical renewal and diversification of the education system, which is an integral part of the country's economy and the introduction of innovative technologies are the urgent tasks of today.

Education standardization is one of the biggest trends in education reform worldwide. Today's innovations and economic changes in society require the appropriate design and standardization of the content of the education system. Accordingly, the National Program of Personnel Training provides for the development and implementation of state educational standards that define the necessary requirements for the quality and specialization of students, their cultural and spiritual level.

Development of state standards that meet international standards, firstly, to ensure the global equivalence of specialists trained in our country and in turn to ensure the unimpeded participation of our country in the international labor market; secondly, as a result of setting clear requirements for the quality of educational services as training and regulating the system of monitoring the effectiveness of educational institutions. State educational standards and curricula for general secondary, secondary special, vocational and higher education, reflecting the social order of the state, have been developed and gradually introduced.

The analysis of the current DTS and curricula shows that the types of education are continuously interconnected and this continuity requires, first of all, the interdependence of the curricula of the disciplines taught in the types of education level. However, the interdisciplinary relationship between the types of education, the logical sequence of topics, the transition from simple to complex, from specific to general, does not take into account the age and psychological development of students, It became clear that the continuity and continuity of content between the types of education was not fully ensured in the implementation of the learning process.

The principal features of continuing education are determined by the diversity and flexibility of the means, methods and organizational forms used, the fundamentalism, humanism, democratization and

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national orientation of education, the stratification of educational processes according to direction and content [2].

Factors for the modernization of the educational process: reducing the load of SST, curricula and manuals with information that is not the basis for the acquisition and creation of new knowledge, the basis for the further development of educational disciplines and their own to achieve implementation; ensuring the professional orientation of education, determining the optimal relationship between fundamental and applied knowledge; to focus the educational process on the study of processes and events, the mechanisms of their implementation, rather than on specific facts, to achieve the integral connection of the information provided with the daily life of students; analysis of practical information analysis skills, focus on the choice of teaching methods that ensure the independent acquisition of knowledge; Improving and widely implementing mechanisms for regular updating of educational content.

The essence of continuity is determined by the need to meet the needs of the individual and society for education, which is individualized over time and can create the conditions for individual learning. Therefore, if the above-mentioned factors of modernization of the educational process are fully implemented, students will achieve a high level of professional competence based on the expansion of their professional and technological knowledge and the formation of professional creative skills.

However, there is another problem in this regard, which is that the boundary between the topics in computer science courses in secondary schools and the higher education system is not clear. For example, in the case of a course on office technology, the use of these technologies is important not only for universities but also for educational institutions.

Informatics is increasingly influencing the processes of further development of society. It is becoming a determining factor in the overall potential of society and the prospects for its development. Informing society is the most important component of modern civilization. Informatics is becoming a basic technically fundamental science of information and information processes in nature and society. From now on, the general educational and practical significance of the school informatics course will continue to grow. This course has great humanitarian potential. It plays an important role in preparing the younger generation for effective work in the information society.

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