THEORETICAL FOUNDATIONS OF THE DEVELOPMENT OF INSTITUTIONS OF SELF-VOCATIONAL EDUCATION OF INFORMATION AND COMMUNICATION TECHNOLOGIES

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Abstract
Today, due to the expansion of the scope of application of digital technologies to all fields and the modernization of computer devices, the improvement of software tools suitable for it, there is a need to improve the content of the subjects of informatics and the forms, methods and tools of teaching in the continuous education system. This article reveals the theoretical foundations of the development of continuous professional training of informatics teachers.

Keywords: Cloud technologies, method, digital technologies, One million developers, Delphi, Java programming language, multimedia,

Introduction

On approval of the concept of development of the public education system of the Republic of Uzbekistan until 2030, on April 29, 2019, PF-5712 and on October 8, 2019, in decrees PF-5847 on approval of the concept of development of the higher education system until 2030, in order to increase the general level of use of digital technologies for students; implementation of measures for the systematic organization of the process of development and application of multimedia products in education; improvement of methods of teaching Informatics in general secondary schools; introduction of the project "one million programmers" in schools on a wide territory; Organization of distance education programs based on modern information and communication technologies; priority tasks are set, such as the implementation of the "E-MINBAR" platform, which allows you to track and master lectures and practical activities online, as well as impose them on electronic information keepers, the use of "cloud technologies"in educational processes"" [1, 2].

To carry out the tasks set out in the decrees, it initially assumes the improvement of the form, methods and means of teaching subjects of the Informatics category in the system of continuing education, including subjects related to

programming languages, and the development of logical, algorithmic, creative, cognitive thinking of student-students regarding programming.

LITERATURE ANALYSIS AND METHODOLOGY

Several studies have been carried out to improve the training of its teachers and ensure the effectiveness of education in the educational system:

R. G. In the scientific views of isyanov's science, the present day assumes the organization of education taking into account their individual characteristics, in addition to teaching, educating, developing students in accordance with the time requirement. It expressed its views that society is demanding the education of physically competent young people with formed views, broad opinions, creative, capable, able to bring to life the acquired knowledge, living up to the demand of the era, working, civilized, well-mannered personality traits.

U.N.Nishonaliyev's Studies outlined the main stages of improving the quality and efficiency of training teachers of future professional education.

O'.Q.Tolipov carried out research work on the topic" pedagogical technologies for the development of universal and professional skills and qualifications in the higher pedagogical education system " and studied the role of pedagogical technologies in the development of professional skills and qualifications in future teachers, as well as important aspects of its application in the educational process [3].

K.A.Zayirov laid down the Polytechnic foundations of the formation of structural technological knowledge and skills on the basis of the application of computer techniques in future teachers of Labor Education, Sh.S.Sharipov, on the other hand, developed the scientific directions of the future teachers of professional education and labor education-the preparation of students for inventive activities. A.R.In the research work performed by khodjaboyev, the pedagogical foundations of the educational and methodological support of the teacher of Labor and professional education were developed in theory, showing the ways of their application in practice [5].

M.Urazova studied the problem of improving the technology of preparing the future professional education educator for design activities.

Research on the methodology of teaching Informatics N.N.Zaripov, M.R.Fayzieva, N.A.It was researched by the otakhanovs.

In Particular, N.N.Zaripov's dissertation work" improving the methodology for using the programming environment in teaching Informatics and Information Technology (on the example of General secondary education schools)" presents

the methodology for teaching 10th grade “Informatics and Information Technology” in general secondary schools, the chapter “creating applications in the Delphi environment”. This includes the development of game and trainer programs, visual, multimedia applications designed to work with the Delphi programming environment and perform mathematical accounting work in it, teach the creation of various applications, and the methodology for its use. A set of issues related to the students ' use of Delphi's programming environment as well as various applications has also been developed.

M.R.Fayziyeva's dissertation work” creating web systems that adapt to the educational process “improved the methodology of teaching Web programming on the basis of Web technologies. In his study, information and educational resources in Uzbek were developed based on the improved content of the subject “Web programming” for the Web system adapted to the educational process, and a software system of teaching was created that adapts to the student's level of knowledge and allows them to receive education using computer or mobile technologies remotely. Also, the distance testing platform has been put into practice, which serves to determine the level of knowledge of students from those subjects in which the procedure for conducting intermediate and final controls on the subject” Web programming " is defined as a test, as well as to automatically record to an electronic journal.

N.A.In his dissertation work “methodology for teaching Object-Oriented programming technologies”, otakhanov developed a methodology for the use of various didactic tools and modern pedagogical technologies in the teaching of Object-Oriented Programming Languages in higher educational institutions.

While the research of these scientists has advanced the methodology of teaching Delphi, C++, Java programming languages, their research cannot be considered sufficient for today's developing field. Because today, modern programming languages are improving and new algorithmic programming languages are entering the system of continuing education. Therefore, the research carried out in the field of programming in the system of continuing education today and the scientific resources related to it cannot be considered sufficient.

Modern concepts of teaching Informatics in schools of general secondary education, in works dedicated to the development of a methodological system of teaching Informatics (S.A.Beshenkov, A.V.Goryachev, A.V.Mogilev, S.Peypert, Yu.A.Perwin, Ye.A.Rakitina, I.G.Semakin, A.L.Semenov, N.D.Ugrinovich et al.) lit up before the teacher of Informatics the task of illuminating the abilities of each student, educating a ready-to-life personality,

developing the motivational, operational and cognitive resources of students. At the same time, it is argued that of particular importance is the ability of the subject to "expand" the personal resources of students, to develop universal educational activities, in a broad sense, self-development and self-improvement through conscious and active assimilation of new social experience (a. G. Asmolov, A. M. Kondakov, A. A. Kuznesov, O. Ye. Lebedev et al.[6]

The requirements of general secondary schools for an informatics teacher are determined in new regulatory documents created on the basis of modernizing the education of our country and modern concepts of teaching Informatics, which can act in its information environment and make conscious decisions, know the methods of creative activity, self-education, independent education, be ready not only to master existing knowledge, but

Conclusion

The teacher is required by the ability to bring up the abilities of each student, to educate a worthy and patriotic person, to educate each student as a competent person in every possible way, ready to live in a unique, high-tech competitive world. Teachers should be open to all advanced things, understand child psychology and the developmental characteristics of schoolchildren, and be well versed in their science. The task of the teacher is to help students find their identity in the future, to be independent, creative and confident, able to find non-standard solutions, ready to study all their lives. Taking into account these, teachers should organize education in different ways in the primary, primary and upper stages, taking into account the age characteristics of schoolchildren.

The development of professional development in the general secondary education system is a prerequisite for maintaining the high professional status of pedagogical personnel. The current trend in the development of education is education based on ICT. Distance education the main aspects of the use of technology are considered in improving the skills of pedagogical personnel. The use of network technologies will expand the possibilities of improving the personal and professional competencies of the teacher will increase. Independent selection of advanced educational programs and their independent distance Development allow the teacher to increase his level of knowledge and develop his competence as a product of individual professional and creative self-development.

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