

IMPROVING THE METHODOLOGY OF COMPUTER SCIENCE EDUCATION OF STUDENTS ON THE BASIS OF CONSISTENCY

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Abstract. *The article will talk about improving the methodology of teaching computer science and Information Technology on the basis of consistency. The conclusions drawn from the article can be used to train future Informatics teachers. In order to reveal the topic of the article, scientific research developments of foreign scientists were used.*

Keywords: *informatics, information technology, teaching, methodology, pedagogy.*

СОВЕРШЕНСТВОВАНИЕ МЕТОДИКИ КОМПЬЮТЕРНОГО ОБУЧЕНИЯ СТУДЕНТОВ НА ОСНОВЕ СИСТЕМНОСТИ

Аннотация. *В статье речь пойдет о совершенствовании методики преподавания информатики и информационных технологий на основе согласованности. Выводы из статьи могут быть использованы при обучении будущих учителей информатики. В целях раскрытия темы статьи использованы научно-исследовательские разработки зарубежных ученых.*

Ключевые слова: *информатика, информационные технологии, преподавание, методика, педагогика.*

INTRODUCTION

The 21st century is the age of technology. Changes in technology and science in the world are changing by the hour, not by the day. Advances in exact sciences, IT and information technologies are developing day by day. There is not a single educational institution and stage where the science of informatics and information technologies has not entered. At almost all levels of education, the teaching of computer science or related knowledge has become one of the urgent problems.

The problem of reforming the education system in order to build the society we are building in accordance with the requirements of the times is a national task. The importance of the considered problem is the formation of a new citizen of Uzbekistan in the context of the transition to the information society and the internationalization of education. The internationalization of education is one of the most characteristic features of the development of education in the world in the last decade of the 20th century and the beginning of the 21st century. In connection with the transition of the society to the information society, the issue of informatization of education has become urgent for both the country and foreign countries. The use of information technology (IT) in the management systems of the economy and daily activities has led to a significant increase in the volume of information flows and their role in the functioning of complex economic and technical systems. The severity of the operating conditions of such systems places special demands on the level of information preparation of specialists and the strength of their skills and abilities. The main goal of our research is to improve the methodology of teaching informatics and information technologies on the basis of consistency and to review the research works in this regard. So what is consistency? What is meant by consistency in education? The word "consistency" means "regular" and "integral", and in our research, it is to ensure the regularity and "integral" of the teaching of computer science.

MATERIALS AND METHODS

Examples of research activities of Russian and European scientists can be cited in the literature related to this topic.

Among the Russian scientists on this topic, S. A. Beshenkov, A. V. Goryachev, S. G. Grigoryev, V. V. Grinshkun, A. P. Ershov, A. A. Kuznetsov, M. P. Lapchik, V. S. Lednev, I. V. Levchenko, N. V. Makarova, I. G. Semakin discussed the problems of forming and developing a methodological system of teaching informatics and information technologies. studied. Necessity of learning this subject in the use of interactive methods in the teaching of computer science in elementary school and others[1,2,3]. In the researches of scientists, the methodological and technological aspects of teaching informatics at the propaedeutic level were revealed, the influence of studying the science on the development of students' thinking, and the possibility of effective mastering of the basic concepts of informatics by primary school students were proved. Educational methodical collections were created for teaching this subject in elementary grades (A. V. Goryachev, O. T. Volkova, I. G. Gorina, A. L. Semenov, T. A. Rudchenko, O. V. Shcheglova, N. V. Matveeva, E. N. Chelak, N. K. Konopatova, S. N. Tur, T. P. Bokuchava, E.P. Benenson, A.G. spider), actions aimed at developing students' logical thinking, communication skills, forming universal education, basic theoretical concepts, computer skills. Nevertheless, the analysis of the results of pedagogical research, interviews with primary school teachers show that primary school students mainly have fragmented knowledge of computer science, which primarily means that primary school students are not familiar with this subject. It is related to the low level of interest [1]. In their research, N. G. Morozova, L. I. Bojovich, G. I. These scientists proved that the effectiveness of learning material from interactive methods depends on the level of students' interest in learning. Elementary school has a special place in forming students' interest in learning. According to L. S. Vygotsky, V. V. Davydov, L. V. Zankov, this is the primary school age, which is one of the most important stages of a child's development, because during this period educational activities, in particular, his cognitive motivation and activity are formed, which affects the further education of the student[2].

As an object of research, all stages of education can be taken within this topic. Because nowadays the primary elements of this subject are being taught from primary education. This process itself means that the teaching process of this subject is ensured in education. The development and improvement of the methodology of this process is often associated with reforms in the education system. As another example, in education, it is more effective to ensure the consistency of computer science in each subject, not just computer science and information technology through the subject itself. Also, not only in the teaching of each subject, it Informative and information technology science and knowledge related to it is being taught in a coherent manner in concrete sciences, but also in social and humanitarian sciences.

For example, it is possible to connect science with other subjects, from one socio-humanities subject to history with informatics, and through this, it is possible to form informatics skills in the student and ensure the integration of science in the student's life. can be achieved. For example, in history, homework can be given to a student on any topic in the form of an electronic drawing or model. Or you can assign homework such as tabulating or typing a text using a text editor.

RESULTS

The results of our research show that not only the teacher of this subject, but every teacher of the subject is responsible for ensuring the integrity of the science of informatics and information technologies. In this case, the main emphasis should be placed on the scientific-fundamental basis of training pedagogical personnel in higher education. Every subject pedagogue should have these subject skills. Even today, in public education, pedagogues are required to pass a systematic test attestation in science in order to control their skills and qualifications in this regard and to continuously improve them.

CONCLUSIONS

In general, the science of informatics and information technologies has formed in the 21st century not only as an important science in scientific activity, but also as an indispensable element in every process of our daily life. As a guarantee of the consistency of this science, it can be said as an example that today's information technology age, our daily environment is rich with its elements, and our every step is connected with techniques.

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