



FEATURES OF TEACHING THE DISCIPLINE "INFORMATION TECHNOLOGY IN EDUCATION" IN HIGHER EDUCATION INSTITUTIONS

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ABSTRACT

The article discusses the features of teaching the subject of information technology in higher education, the conditions necessary to increase the effectiveness of teaching the subject, the problems associated with teaching.

Paragraph 4.4 of Annex IV to the Decree of the President of the Republic of Uzbekistan dated February 7, 2017 No UP-4947 "On the Strategy of Actions for the further development of the Republic of Uzbekistan" related to development priorities . ensures the development of the social sphere, education and science. It is noted that the system of continuing education has been further improved, and the policy of training highly qualified personnel in accordance with the modern requirements of the labor market continues. This, in turn, places a great responsibility on higher education teachers.

In this regard, the formation of knowledge, skills and abilities of students in the disciplines and their professional training is an urgent task. Having sufficient knowledge of students about their future professions and becoming qualified specialists will help to determine the future of our country.

In the process of teaching the subject "Information Technology in Education" it is necessary to develop students' thinking, to gain their understanding of the role of computer science in the development of society, its importance in the social environment and professional activity. The subject of computer science is a new science in comparison with others, and its application in practice changes the direction of material and spiritual activity of man. The individual is an active subject in society, so it is necessary to study the consequences of the impact of computer science on man, taking into account and analyzing various aspects of informing society.

The subject of "Information Technology in Education" is an integral part of the subject of informatics, which is aimed at solving problems such as processing data found in all areas of human activity using hardware and software tools and methods. Therefore, problems related to informatics in general



can be divided into 3 groups: 1) current problems of informatics, 2) philosophical problems of informatics, 3) problems of informatics.

1. Current problems of computer science may include special data processed by us, the creation of a programming language, information structure, units of measurement of information and their interpretation, as well as information modeling.

2. Philosophical problems of the science of "computer science" include questions of a philosophical nature: "What is computer science?", "What is information?", "What is the relationship and interaction of computer science with other objects and sciences?"

3. Information and philosophical problems of computer science means questions explaining the terms of informatics, theses and terms that are part of the philosophical categories related to the structure of information. In the process of teaching computer science, students gain the necessary understanding of the subject and expand their knowledge.

Because in teaching, understanding science, knowing, as well as the formation of new knowledge are philosophical processes. Education in the field of science, the assimilation of new information by students, shapes their rational knowledge. Our compatriot Abu Nasr Muhammad ibn Uzlag Tarhan, who was engaged in creative work under the pseudonym Farobi in the 9th-10th centuries, said that the learning process consists of two stages - mental and emotional perception, in particular, the process of cognition. The two stages are rational cognition and emotional cognition. These stages cannot be added without information and therefore information is

an element that forms the basis of knowledge.

In his book *The Dignity of Science and Art*, Farobi emphasizes that the process of knowing nature is infinite, that knowledge of ignorance is the primary path to perception, and that you can achieve results by identifying the cause, and on this basis to further expand knowledge and deepening is available. Another compatriot in the Khorezmi an educational process paid great attention to the individual observations of students and the practical application of the acquired knowledge.

The object of study of information technology in the educational process includes: information, information processes, algorithms, computers, as well as hardware, software, etc. It is known that informatics is the collection, storage, processing of data using computer technology, analysis, evaluation, transmission and individual decision making.

By information we mean the level of reflection or its impact and connection through all our senses in our future consciousness. Knowledge is formed directly in the learning process and it means the study of scientific knowledge or scientific knowledge. Scientists A.I.Mikhaylov, A.I.Cherniy, R.S. Gilyarevsky gave the following definition of the term "scientific information": scientific data are logical data obtained in this mental process, which can be used in socio-historical practice to accurately reflect the laws of the objective world .

Based on this, we can say that, first of all, man receives "scientific information" in the mental process, which is applied in practical work and can serve as a basis for science. Second, "scientific information" is



logical information that is transmitted through human thinking through logical thinking and is formed as a result of processing information. Third, it illuminates the world sufficiently objectively, and fourth, it must be put into practice. For information to be scientific, there must be a continuous connection between the data. Gathering information about natural and weather events in different regions of our country cannot be "scientific data". Because it does not satisfy the third condition.

Based on the above concepts, it can be said that the knowledge that students need to study in computer science is based on scientific knowledge and appears in the sequence "mixed → information → knowledge → scientific knowledge".

The main object in higher education is the student. The main task of the training is to provide teachers with the necessary information related to computer science and to transform it into knowledge by students through in-depth study, comprehension, memorization and, if necessary, the formation of scientific knowledge through their application. in practice.

This process is led by computer science teachers on each subject. We see this in the example of the following topic: "Technology in MS Excel" in the process of teaching university students in the field of "School Management" These are: mathematical calculations, performing complex calculations, working with mathematical formulas, converting table data into a graphical view (diagram), the importance of using Excel, ya ' The ability to provide relevant information using the program.

The information given to students during the teaching of the topic is displayed on the screen and explained using a computer, projector and electronic boards. Students will be provided with all the necessary information on the topic using information and communication technologies. In these processes, data based on clear evidence provided by the teacher is converted into data. During the course, the topic is explored in the above order, and as a result of students' independent practical and laboratory work, using the Excel program tasks related to the work of the principal, the deputy directors for the management of the educational process school, e.g. the development of curricula, lesson schedules, the organization of science Olympiads, as well as the mastery of the sequence of their implementation, the data become knowledge.

Students will be able to perform tasks related to school management based on the knowledge they have acquired during the lesson, find solutions to problems encountered with the help of textbooks and the Internet, and ensure that the knowledge gained becomes scientific knowledge..

Consecutive study of topics by students in this order and their application in practice leads to an increase in their interest in science, to deepen their knowledge.

Therefore, teachers of higher education in the field of "Information Technology in Education" have a big task:

- clearly define the purpose of the topic;
- highlight the main concepts being studied, based on the purpose of the topic;
- provide students with content relevant to the basic concepts using information and communication technologies;



- assignment of relevant tasks in practical and laboratory classes;
- Supervise the study of the topic by students;
- Work with students who have not mastered the topic.

Students' responsibilities include:

- study of data and information provided by the teacher;
- implementation of theoretically studied concepts in practical and laboratory classes with the use of information and communication technologies;
- analyze problems in the course of tasks and try to solve them;

- use of textbooks, Internet sites to solve problems, as well as to make individual decisions;
- Write reports on the tasks performed and draw personal conclusions.

Teaching the subject "Information Technology in Education" in all areas of higher education, today the use of computer technology in science and education contributes to the development of the education system. As a result of in-depth study of this subject, students can gain in-depth knowledge in the field of computer technology and apply it in their future professional activities.

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