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THE ROLE OF INFORMATION TECHNOLOGY TOOLS IN INCREASING THE PROFESSIONAL TRAINING OF FUTURE ENGINEERS IN THE EDUCATIONAL PROCESS

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ABSTRACT
This article highlights issues related to the emergence of new technologies and software in higher educational institutions, the expansion of computer capabilities, the transition to the category of anachronism of its understanding as a computing tool, which led to the replacement of the term "computer technology" by the concept of "information technology".

Keywords: informatization, information technology, computer engineering, anachronism, software, learning outcomes.

Introduction

In scientific and scientific-methodical literature devoted to the problems of informatization of Higher Education (M. I. Jaldakov, L.V.Lutsevich, E.I. Mashbits, N. F. Your Call, V. F. Sholokhovich, E. Parkhomenko, T. Solovyov, etc.) there are a number of synonyms, often called "Information Technology", "Computer Technology", which indicates that the terminology in this field and its related concepts are not yet based.

The advent of new technologies and software in tertiary institutions, increasing the capacity of computer, the transition of understanding it as a computing tool to the category of anacronism gradually led to the replacement of the term "computer technology" with the concept of "Information Technology". Secondly, through electronic means, the process of collecting, processing, presenting and using information is understood. They are characterized by the environment in which they are carried out and its components:

- Technical environment (the type of technique used to solve the main problems); - software environment (a set of software tools for its implementation); - subject Environment (Science, Technology, the content of a particular field of knowledge); - methodological environment (instructions, mode of use, evaluation of efficiency, etc.).

Following this terminology, some researchers propose to consider it as a collection of electronic tools and the methods used to carry out their teaching activities. They include the hardware, software and information components specified in the methodology of information technology, as well as the methods of their application [1]. In the educational process, there are other approaches to assessing the essence and location of Information Technology. Thus, in the literature, education information technology (computerized teaching technology) is defined as a set of theoretical knowledge of computer tools, as well as methods that regulate the use of Education [2]. Lv Lutsevich [3] defines information technology as the technology of computer engineering (using computer), information processing, transmission, distribution, computing and software creation of Computer Science. Wider interpretation of this term M. I. Given by Zhaldakov [4]. Information technology offers understanding as a set of methods and technical tools for the expansion of knowledge of people, the management of technical and social processes, the development of their abilities, the collection, storage, processing, transmission.

E. I. Mashbits [5] and N. F. Talizina [6] considers information technology in education as a collection of various educational programs: from the simplest programs that provide cognitive control to artificial intelligence-based learning systems. Vf Sholokhovich [7] suggests that information technology is defined as a branch of didactics, which deals with the study of the process of education and the assimilation of knowledge, which is organized in a systematic and conscious manner using the means of informatization of Education.

Modern information technology is a set of methods, production processes and software and technical tools combined in a technological chain that provides the collection, processing, storage, transmission and display of information that allows for the systematic organization of optimal interaction between the teacher and the student in order to achieve educational results [8]. Today, it is possible to formulate some of the tasks arising from the demand for information on education

The first is the mastering of a complex of knowledge, skills and skills by a university graduate, the development of the qualities of a person who ensures the successful implementation of professional activity tasks, where information becomes a decisive factor of high work efficiency. Second-increase the level of training of specialists through the improvement of educational technology, currently used in higher education, and the widespread introduction into the educational process of electronic learning tools and technologies [9]. The effectiveness of computer usage in any industry is attributed to the following factors:

1. speed and reliability of any information processing; expand the possibility of providing information;
2. ability to model different processes using computer;
3. the computer allows you to FA access the meaningful, operational and motivational aspects of the activity process;
4. ability to allocate activities optimally, depending on the level of preparation, cognitive interests, etc.;
5. the computer allows to formulate the reflection of its activities, create conditions for mastering the methods of organizing its activities;
6. the computer plays the role of a means of communication, etc. [10].

Most often, forms used in the teaching of Information Technology are carried out (for example, lectures, stories, explanations, etc.). Their difference can only be seen in the meaningful component, in upbringing they are directed to the formation or development of individual spheres of a persontirishga, and in teaching they are mainly aimed at the formation of knowledge, mind and skills. Methods of teaching, unlike forms, reveal the technological side and consist in the sum of the more general methods (methods and connection with them, Vo sites) of the implementation of educational interaction.

Teaching methods (sometimes instructional methods) are regarded as the thematic, actionable actions of teacher and student interaction and are explained with the purpose of their use. In pedagogical literature, they are often interpreted as the smallest structural unit of educational interaction, the period of actions aimed at solving simple pedagogical issues. In this, exactly the same methods can be carried out in different ways of teaching.

Teaching aids are a pedagogical method, a relatively independent source of formation and development of personal qualities of the student, ensuring its implementation within the framework of a certain style of teaching. They include various subjects (textbooks, computers), works and phenomena of spiritual and material culture (art, social life), etc.

Each of the pedagogical tools considered in Information Technology reflect their exact, one side .tiradi At this time, more importance is attached to pedagogical theory and methods of teaching in practice. It is also possible that the educator does not even think about what style he uses in his daily teaching activities. However, facing the problem of choosing the right

direction of teaching in a difficult situation, it is necessary to know the set aggregate of possible decisions of this educational issue. Here's why the existing idea of systematization of teaching methods at this or that level arises from the conditions under which the educator interacts directly with the reader. Thanks to this, two types of teaching methods can be distinguished: pedagogical and psychological.

Pedagogical (sometimes — traditional) methods of teaching are intended to influence the mind of the student. According to their classification, the methods of teaching are divided into three groups depending on their place in the educational process: the methods of forming the consciousness of the individual, the methods of organizing activities and the methods of stimulating activity. The separation of the first group is based on the principle of commonality of consciousness and behavior. Consciousness defines behavior as knowledge, the accumulation of imaginations about the world, and at the same time is formed in it. The second group of methods is distinguished on the basis of the thesis on the formation of an individual in activity. The third group reflects the activity consumption-motivation compo - nent: the approval or condemnation of the action the formation of behavior. [11].

On the basis of Information Technology in higher education, the didactic functions of teaching can be divided into stages such as motivational, diagnostic, analytical, organizational and development. Of course, bunda is observed to achieve good results only when the sequence of these functions is ensured. The main thing is the final stage, that is, the stage of development, and in it Independent Education (independence) plays an important role. Independent education can not be compulsory organization, therefore, the student himself will be required to have Initiative, ability and activity.

References

1.Образцов П.И., Шляпцев С.Н. Научно-методические подходы к разработке компьютерных педагогических технологий на основе формирования системы динамических образов. Сб.научн. трудов ВИПС. - Орел, - 1996. - № 6. - С.18-21.
2. Компьютерная технология обучения. Словарь-справочник /Под ред. В.И.Гриценко, А.М.Довгяло, А.Я.Савельева. - Киев: Наукова думка, 1992.- 652 с.
3. Луцевич Л.В. Вопросы эффективного использования ЭВМ в учебном процессе // Автоматизированные системы научных исследований обучения и управления в вузах. Межвузовский сборник научных трудов. - Новосибирск: НГУ, 1986, - С. 33-39.
4. Компьютерные технологии в высшем образовании /Ред.кол.: А.Н.Тихонов, В.А.Садовничий и др. - М.: Изд.МГУ, 1994. - 370 с.
5. Машбиц Е.И. Компьютеризация обучения: Проблемы и перспективы. -М.: Знание, 1986. - 80 с
6. Талызина Н.Ф. Психолого-педагогические основы автоматизации учебного процесса / Психолого-педагогические и психофизиологические проблемы компьютерного обучения // Сб.научн.тр. - М.: Изд-во АПН СССР, МГУ, 1985. - С. 15-26.
7.Pulatova Odinahon Khamidovna. (2020) THE MECHANISM OF DEVELOPING A CULTURE OF COMMUNICATION IN STUDENTS IN THE EDUCATIONAL PROCESS. JCR. 7(12): 3096-103.doi:10.31838/jcr.07.12.468
8.Khamidovna , P. O. (2021). The importance of the culture of communication in the pedagogical community. Web of Scientist: International Scientific Research Journal, 2(05), 703-708.
9. Mahammadovna, S. I. (2021). Needs snd Factors for Developing Professional and Creative Abilities of Students of Higher Educational Institutions. Annals of the Romanian Society for Cell Biology, 25(6), 2804-2810.

10. Makhammadovna, S. I. (2020). Efficiency of development of professional and creative abilities of students. ACADEMICIA: An International Multidisciplinary Research Journal, 10(11), 1292-1296.
11. Kurbanova, N. N. (2020). Subordination of land and water relations to the colonial interests of the Fergana region. Экономика и социум, (7), 36-39.