

MODERN COMPUTER TECHNOLOGIES AND WAYS OF WIDELY USING THEM*Arzuova Sharigul A**Nukus State Technical University, Doc, Teacher**Tajibayev Nursultan S**Nukus State Technical University, Assistant**Sagidullaeva Malika Abat kizi**is a 3rd year student of the Computer Engineering Department at**Nukus State Technical University*

Abstract: In this article, it can be seen that various encyclopedias and dictionaries serve as primary bibliographic analogues of the knowledge base. The rich possibilities of recommending various scientific information, educational materials, information on educational materials using a computer, in particular, the introduction of integrative courses into them, familiarization with the history and methodology of science, knowledge of their modern level in various disciplines, help to significantly change and dramatically enrich the content of education. It is an important factor in its activation and development.

Keywords: computer, electronic communication, pedagogical information, educational material. Integrative course.

It arose in the 1930s in Western European countries and the United States, when efforts were made to increase the effectiveness of education and ensure the socialization of the individual. This idea was based on the introduction of the concept of "pedagogical technique" (educational technique) into the educational process. In the literature of that time, the concept of "pedagogical (educational) technique" was interpreted as "a set of methods and tools that contribute to the precise and effective organization of educational activities". The introduction of educational and laboratory equipment into the educational process, their effective and productive use, and the explanation of the content of the material using visual aids were considered to be leading factors that contribute to increasing the effectiveness of education. By the 1950s, the use of technical means in the educational process was recognized as a tool that determined the direction of "educational technology".

Further improvement of the capabilities of technical means was aimed at expanding the information capacity and organizing their transmission qualitatively, individualizing education. The capabilities of technical means, the process of their improvement were taken as the basis of scientific research in this area. Particular emphasis was placed on studying the organizational aspects of the "technologization" of the educational process. By the 60s, the organization of the educational process on the basis of educational programming began to be accepted as a factor revealing the essence of the concept of "technology". Programmatic education implies the provision of specific knowledge to students not in separate parts, but in a consistent, integrated

manner. This work first began to operate in the USA. Programmatic education includes educational goals, appropriate criteria for their change and assessment, and a clear description of the educational environment.

Issues of the theory and methodology and practice of informatization of education U.Begimkulov, R.Juraev, M.Soy On the issues of organizing independent learning in the educational process of students of higher educational institutions, scientists of our republic B.Ziyomukhammadov conducted scientific research on informatics and information technologies in education. Improving the organization of independent work of students in the CIS countries N.V.Smetanina A. A. Drobyshhevskys Issues of preparing students for the use of information and communication technologies in professional pedagogical activities, N.Ye.PikinaV conducted scientific research. In foreign countries, scientists such as Ch.AbbottN.AndersonF.Barbara, A.Connell, A.Edwards, M.HamminD, V.Jadhav.

Currently, in our independent Uzbekistan, a number of leading organizations are working to introduce new pedagogical technologies into the activities of educational institutions. (AXELS, IREXS, KOICA, etc.). Pedagogical staff of higher educational institutions, academic lyceums, vocational colleges and general secondary schools participated in scientific seminars, short and long-term courses organized by these centers, and gained theoretical and practical knowledge about pedagogical technology and its use in the educational process.

A number of positive works are being carried out in this area at the Institute of Higher School Problems under the Ministry of Higher and Secondary Specialized Education of the Republic of Uzbekistan, OzPFITI and the Center under the Tashkent State Pedagogical University named after Nizami. The use of modern information technologies in the educational process leads to an increase in the effectiveness of educational methods, changes in the labor activity of teachers, and the improvement of their pedagogical skills. This, in turn, sets specific tasks for the organization and management of the informatization of pedagogical processes:

- the team of teachers, computer programmers, relevant specialists working together to create distance learning courses and electronic literature;
- the correct distribution of tasks among teachers;
- creates the opportunity to improve the organization of the educational and upbringing process and monitor the effectiveness of pedagogical activities. When using computer technologies (computer literacy), the teacher can perform several tasks depending on its content. They perform the following main didactic functions:
 - develops students' interest in subjects through the use of multimedia technologies
 - in this case, due to the interactivity of education, students' thinking skills are activated and the effectiveness of mastering educational material increases.
 - is important in that it is demonstrated from real situations or provides the opportunity to model and visualize complex processes.
 - is considered effective not only by the level of mastering educational material, but also by the level of logical achievement of students.
 - Distance learning is not organized only for students who are learning or for online education. It also provides an opportunity for students who have missed classes without a reason.
 - It creates an opportunity for students to independently search for materials and perform certain research work by answering problematic questions.

— It creates conditions for students to quickly complete tasks such as mastering a new topic, solving examples, writing essays, presentations, independently familiarizing themselves with educational materials, and analyzing information and data.

If we analyze the organization of independent education using computer tools from the point of view of its interactivity, it can be noted that through direct communication, the student has the opportunity to obtain knowledge in the desired subject area using special educational programs specified in the curriculum. The computer tool “responds” to the requests of the student or teacher, enters into “communication” with them. Another important feature of the computer-based teaching methodology is that it is most clearly manifested at all stages of the teaching process in explaining, repeating, summarizing new educational material, and checking the knowledge, skills and abilities acquired by students in the subject. In such a process, the teacher must know how to perform various tasks for the student, in particular, as a teacher, a working tool, and an educational object.

Today, dramatic changes are taking place in the development of information technology science and, in particular, human knowledge. In this, the internal structure, essence, values, psychological laws and features of thinking of a person are being revealed in a new way. One of the urgent and important tasks is the formation of independent work as a conscious educational and cognitive activity, the implementation of thinking operations based on practical experience, aiming at certain goals. The thoroughness, stability and durability of the knowledge and skills mastered by individual students largely depend on the improvement of the organization of independent work of students and the development of their learnability.

In an information-based educational environment, there are encyclopedic views of our thinkers on teaching students to actively acquire knowledge in a creative non-standard way, adapting them to mental activity, organizing methods and tools, as well as the technology of engagement, work enthusiasm, motivation, interest, and emotional aspiration by the student, which are expressed as follows. According to the theory of information technology, "the concept of information is one of the basic concepts of cybernetics (from the Latin "information" meaning explanation, reporting) and means a set of messages, information, and indicators."

It has been proven that when providing independent education based on computer technology, teachers should have knowledge of the following structures:

- ✚ knowledge of the basic concepts of informatics and computing;
- ✚ knowledge of the functional capabilities of computer technology;
- ✚ knowledge of modern operating systems and mastering their basic commands;
- ✚ knowledge of modern software tools and operating structures and mastering their functions;
- ✚ familiarity with at least one text editor;
- ✚ basic understanding of algorithms, languages, and programming;
- ✚ initial experience in using practical programming;

Today, the problem of forming a free personality requires the transfer of educational work in educational institutions to innovative pedagogical technologies. This process will not be easy, because it is necessary to transform the education system, which is being built and implemented voluntarily, into a strictly scientifically based pedagogical system. According to V.P. Bepalko, “a pedagogical system is a set of interrelated tools, methods, and processes necessary to create an orderly, clearly targeted and premeditated pedagogical impact on the formation of certain personal qualities.”



Pedagogical technology is a field of knowledge that, through them, will lead to a fundamental change in the state's educational policy in the new millennium, the activity of the teacher (pedagogue) will be renewed, and a system of freethinking and humanistic feelings will be formed in students. Today, the activities of teachers (pedagogues) are renewed and in many cases they cannot separate them from technology. Therefore, it is necessary to clarify these concepts. It has been proven that the methodology consists of a set of recommendations for organizing and conducting the educational process.

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