

## APPLICATION OF INFORMATION AND COMMUNICATION TECHNOLOGIES IN COGNITIVE PEDAGOGY

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### **Annotations:**

In cognitive pedagogy, the pedagogical foundations of the use of ICT, as well as the study of the negative factors of their impact, are still insufficient, and the level of efficiency of the use of information technologies in the process of creating and presenting scientific and educational information.

**Keywords:** informatization of education, means and methods of teaching, cognitive psychology, interface in cognitive pedagogy, interactive learning.

This article focuses on the deeper application of information and communication technologies in cognitive pedagogy, given that the concept of interface is used as an element of communication between the participants of the pedagogical process. It is no secret that today information and communication technologies have penetrated into all spheres of our life and have become one of the most important factors influencing the development of society. The main goal of the development of these technologies is to provide access to distributed information resources and operational information interactions located in different thematic information environments. Modern achievements in the field of educational informatization are primarily due to the high level of software of modern ICT (multimedia, hypermedia, virtual reality, Internet system). However, it should be noted that the study of the pedagogical basis of the use of ICT, as well as the negative factors of their impact is still insufficient and there are no targeted programs for the creation and presentation of scientific and educational information.

There is a lot of talk today about the instrumental side of education using the concepts of tools, methods and technologies of education. Features of their use in certain contexts are considered and pedagogical effectiveness is evaluated, as well as advantages and disadvantages are discussed. The main problems of education are the insufficient application of modern information and communication technologies, curricula and interactive multimedia environments in educational practice, resulting in the need for pedagogical interaction and feedback.

Cognitive pedagogy acquires a multidisciplinary knowledge in epistemology, cognitive and neuropsychology, linguistics, neurobiology, and computer science, which allows to solve a number of problems of classical pedagogy. Cognitive pedagogy reflects a person's view of the world as a system that knows interacting, specially organized, and organized knowledge systems. It uses the theory, methodology, and tools of cognitive psychology to adapt to educational (educational and pedagogical) impacts. The role of the teacher is to create and provide the conditions that lead to the development of individual cognitive abilities and means of human cognition. It should be noted that the cybernetic and information models of cognitive psychology and pedagogy have recently become attractive and popular in the educational environment due to the intensive complexity of the man-made world and the development of information technology. [1.38-45 b].



In cognitive pedagogy, the concept of interface is used as an element of communication between the participants of the pedagogical process. In a pedagogical sense, the interface allows the student's knowledge system to interact with the elements of active learning dialogue and passive learning tools of the learning environment. This allows the student to form and change important knowledge connections in a dynamic knowledge exchange process, allowing only those changes that are useful and effective in pedagogical and personal plans to enter a constructive area of activity.

Often, the concept of an educational relationship with an interactive learning environment is seen as an interface. Creating an information learning environment based on quality and high technology is a very complex technical task that will allow us to radically modernize the technological basis of the education system, the transition to an open education system that meets world standards. At the same time, it should be noted that the creation of an information learning environment is not easy, and not only the technical task, but also the full use of the scientific, methodological, organizational and pedagogical potential of the entire education system. In a broad sense, the educational environment is a subsystem of socio-cultural environment, a set of historically formed facts, situations, and situations. It is expressed in the integrity of the pedagogical conditions specially organized for the development of the individual. The study of the processes of processing any information in the human psyche and body is accompanied by the emergence of new features in his psychophysiological system. These processes take place automatically throughout a person's life, with or without the participation of his or her consciousness. [2. 83-91 b]

Cognitive pedagogy focuses on the cognitive structures and means of a person and the ways in which they develop, as opposed to the traditional school-oriented behavioral orientation in which personality traits and the productive side of human activity are assessed. To ensure the effectiveness of the learning process, it is important to understand the features of the instrumental side of the organization of student knowledge. Man solves the problems facing him by means of various means, including not only the "external" means of their physical form (instruments, machines, ergatic systems), but also the "internal" means, the processing of information and change (intelligence, cognitive style, memory, attention, etc.). For each person, this is an individual package that can be used to solve many problems with different efficiencies.

From the point of view of cognitive pedagogy, it is important to assess not only the meaningful aspect of education, its information base, but also how the student acquires and uses the means of learning to achieve their goals. It is also important to consider what tools the student will use.

The general task of evaluating human cognition tools emerges. By what means does a person know and change the world around him? Isn't this a very effective and poorly suited tool for solving the class of problems under consideration?! No one knows that. Traditionally, it is said that people differ only in the features of the organization of their knowledge (intelligence, ability), which is reflected in the various results of activities.

Attempts to improve a person's cognitive organization are related to the concept of 'development' and are carried out in developmental pedagogy. This is a serious aspect of modern pedagogical thought that allows teaching to be viewed as a cultural and historical process based on the influence of the maturity and development of a person's mental organization. However, the analysis of existing pedagogical technologies in this area shows that we are dealing with a very poorly managed process, in which the main focus is on the natural processes of human cognitive organization and the development of his personality, partly student and helps develop relationships between teachers.

It is now one of the most effective ways to shape and develop a universal educational movement that provides the ability to explore a person's ability to develop and improve themselves through conscious and active acquisition of new social experiences, because the Internet is an open

information environment that provides ample opportunities for creative research, a variety of activities and educational choices to suit the interests, inclinations and needs of different categories of people. In other words, the Internet creates a favorable environment for overcoming reproductive forms of education, which, according to experts, poses a serious threat to overall development. . [3. 10-19 b]

To solve problems related to the understanding and comprehension of cognitive materials in the Internet information environment requires not only a certain level of subject preparation, but also a sufficient level of ICT skills, because at least the use of the browser is the first step in information retrieval. Lack of knowledge and skills. Using blog technology, wiki technology, and synchronous and asynchronous communication tools, students may not be able to fully participate in teacher-organized learning activities. In this context, the level of ICT competence of the teacher seems to be one of the most important conditions for the development of universal educational movements through modern Internet technologies.

An important factor in the organization of distance learning through e-interactive learning is the choice of electronic resource, the use of which in the contextual information environment of the Internet maximizes the independent learning activities of students. First of all, it is necessary to pay attention to the features of Internet resources, such as interactivity, dynamism (animation), multimedia and hypermedia.

## References

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