TRENDS IN INTRODUCING COMPETENCIES FOR WORKING WITH INFORMATION IN PHYSICS LESSONS

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This annotation: Describes a study exploring innovative methods for integrating information literacy skills into physics education. The research investigates pedagogical approaches and technological tools to enhance students' ability to locate, evaluate, analyze, and utilize information effectively within the context of physics learning. Findings highlight the impact of these strategies on student learning outcomes and critical thinking development in physics.

Key words: Physics education, information literacy, competencies, digital literacy, information skills, pedagogical approaches, technology integration, critical thinking, STEM education.

In addition, within computer-based learning, two new principles can be identified: personalization of learning and activity. Based on such exercises, teaching is being studied in two directions: visualization of teaching content and algorithmization of learning (Kuban, 1993).

Computer-aided teaching is a new methodological system that allows students to see the computer as an educational tool and not as an object of the educational process. The transfer of students to a new category of computer work is individual and continuous, and is carried out according to the general methodology of the educational program.

ICT specialist S. Sproge (2007) described how the main didactic principles of educational theory can be implemented in teaching:

- on the basis of determining the teaching content, which should cover not only traditional knowledge, but also the main directions of modern science and its future prospects, ICT competences are broad and effective use ensures the scientificity of the educational content;
- a systematic approach to the creation of the curriculum, ensuring the separation of their structure, main concepts and their interrelationships. The curriculum, which is structured and divided into different levels of difficulty, allows the student not only to include topics that provide the minimum required level of knowledge, but also to consider to look at the topic from a broader point of view, allows to expand the student's worldview. Building one's own

knowledge in a more fundamental way, connecting knowledge with other subjects in terms of content, studying their interrelationship and influence;

- the principle of the availability of computer-based training is transferred from the possibility of general use to the individual, and it is considered as an opportunity to achieve the educational goal;

- the principle of visualization, computerized training can also be called interactive visualization. The advantage is that the student can do different manipulations with each of the objects, thereby mastering the material not only statically, but also dynamically and in different conditions;

- the principle of sequence is a process related to the development of educational material and the use of the educational system in the process of mastering the material by the student.

Educational opportunities provided on the basis of digital technologies:

- source of information;
- rationalization of educational material forms;
- increase visibility, clarify concepts; incidents and events;
- organization and management of perception;
- enriching the imagination of future physics teachers, satisfying their thirst for knowledge;
- to fully satisfy the scientific and cultural interests and needs of future physics teachers;
- develops an emotional attitude to learning information;
- increasing interest in learning through new digital technologies;
- accelerates cognitive activity, facilitates the educational process of students, formation of thinking and spatial imagination, perception;
- is a means of summarizing, repeating, classifying and controlling knowledge;
- show the connection between theory and practice;
- prepares the conditions for the use of more effective forms and methods of teaching, the main principles of the pedagogical process: from close to far, from simple to complex, from specific to abstract to help in the overall implementation of the guidelines;
- saves the time spent on teaching, as well as the energy of students and teachers, due to the increase in information compactness and speed of teaching.

A. N. Pechnikov in his work "Electronic didactics: who, why and in what form it is needed" raises questions about the prospects for the development of electronic education, before and after digitization. presents didactic schemes.

N.W. Dvoryanchikov, T.V. Kalashnikov, L.S. Pechnikova, N.V. Frolov shows the specific features, conditions and problems of using digital resources in universities.

Foreign researchers have conducted empirical studies on technologies, forms, organization of educational activities, methods and technologies:

- attitude of future teachers to the digital transformation of education;
- comprehensive concepts have been developed in leading universities;
- at the test stage, currently there are no publications on the study of digital competences of teachers and students in the context of semantic didactics;
- difficulties in analysis arise due to different approaches to the definition of "digital didactics";
- made it possible to form a promising research direction.

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