DIGITAL TECHNOLOGIES AS A METHOD OF FORMING STUDENTS ' INFORMATIONAL SKILLS IN THE EDUCATIONAL PROCESS

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Abstract: *In a real post-industrial society, the role of information technology (IT) is extremely important; today they occupy a central place in the process of intellectualization of society, the development of its educational system and culture. Their widespread use in various fields of human activity dictates the expediency of getting to know them as soon as possible, starting from the early stages of learning and cognition. The education system and science are one of the objects of the process of informatization of society. Informatization of education, due to the specifics of the very process of transferring knowledge, requires careful development of the used IT (informatization technologies) and the possibility of their wide replication. In addition, the desire to actively apply modern information technologies in the field of education should be aimed at improving the level and quality of training.*

Currently, digital technologies (IT) have begun to be used all over the world, which has led to significant changes in all areas of human activity. The general way of life of a person, relations between people in the process of production activities are being modernized, the economy and modern education are being transformed.

Digitalization of education provides new opportunities for learning, makes it interesting and personalized by introducing appropriate educational programs. Information technologies can be used not only at the appointed time, but also during extracurricular (at various clubs, electives). For example, students can be instilled in the use of certain practical knowledge and technologies during robotics, programming, etc. IT can be used at different stages of the education process: to submit material, test knowledge, consolidate material, self-study, etc. Let's consider the information tools that can be used in the educational process. Digital learning tools include:

- ***General user tools (office tools, Internet tools, public information search tools, databases, etc.);***
- ***educational computer simulators and simulators;***
- ***virtual laboratories;***
- ***educational games;***
- ***Specialized digital environments/tools (for example, for developing computer programs, performing mathematical transformations and calculations, design automation, etc.).***

Computer simulators represent one of the interactive forms of education.

Educational simulation is a structured scenario with a detailed system of rules, tasks and strategies that are created with a very specific goal: to form specific competencies that can be directly transferred to the real world.

The computer simulator should provide:

1. ***Selecting a sequence of tasks of the same type on a specific topic and presenting them to the student.***
2. ***Presentation to the student of the means of completing tasks: an electronic calculator, a test editor, a software module that works according to a certain algorithm.***
3. ***Providing the student with advice or a sample solution at his request.***
4. ***Analysis of the student's actions with a qualitative assessment of the results and the issuance of recommendations for achieving the best results.***

There are several classes of simulators that are used in the educational process:

1. ***electronic software examiner;***
2. ***demonstration (illustrative) simulator;***
3. ***simulators that teach motor skills;***
4. ***simulators teaching pattern recognition;***
5. ***simulators that teach how to work according to the algorithm;***

The effective use of simulators in the educational process can significantly reduce the number of errors, increase the speed of manipulation and decision-making, reduce training time, more adequately assess the level of knowledge and acquired skills, individualize training, and form conclusions on the actions of the student.

A ***virtual laboratory*** is a hardware and software complex that allows conducting experiments without direct contact with a real installation or in the complete absence of one.

Virtual laboratories are understood as two types of software and hardware complexes:

1. Laboratory installation with remote access – let's call such complexes remote laboratories
2. Software that allows you to simulate laboratory experiments – virtual laboratories.

Main advantages:

- there is no need for expensive equipment and purchase of reagents;
- the possibility of modeling processes that cannot occur in laboratory conditions;
- the possibility of observing what is happening on a different time scale, this is very important for those processes that take place in a fraction of a second;
- the main advantage is security;
- due to the fact that the virtual process is controlled by a computer, it becomes possible to quickly conduct a series of experiments with different values of input parameters, which is often necessary to determine the dependencies of output parameters on input;
- strong time savings and the ability to output the result electronically;
- The virtual laboratory can be used for distance learning.

Educational games specially designed for educational purposes. All types of games can be used in an educational setting, however, educational games are games that are designed to help people learn about certain subjects, expand concepts, enhance development, understand a historical event or culture, or help them learn skills while playing.

Educational games perform 3 main functions:

- Instrumental: the formation of certain skills and abilities;
- Gnostic: formation of knowledge and development of students' thinking;
- Socio-psychological: development of communication skills.

Each function corresponds to a certain type of game. The instrumental function can be expressed in gaming exercises, in didactic ones, the latter in role-playing games.

To increase the effectiveness of a learning game, its technology must meet certain requirements:

- The game must be consistent with the learning objectives;
- Imitation-role-playing game should affect the practical pedagogical (psychological) situation;

Thus, with the active use of digital skills in the educational process, the general goals of education are more successfully achieved, competences in the field of communication are more easily formed: the ability to collect facts, compare them, organize, express one's thoughts, discover something new, make choices and make decisions.

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