Experience of Theory and Practice of the Process of Implementing Information Technologies in the Educational Environment

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Summary
The article covered theoretical aspects use of information and communication technologies in teaching. Information and communication technologies are technologies that allow you to search, process and assimilate information from various sources, including the Internet. This is the presentation of information in electronic form, its processing and storage, the use of the computer, a variety of programs. The use of information and communication technologies in the work of a student gives an increase in motivation for learning; increased cognitive interest; evaluate their learning activities, identify the problems of their own educational activities; the formation of cognitive independence of students.
Key words:
information technology, communication technologies, education system, educational process, optimization.

1. Introduction

At the present stage of education reforms, serious changes are associated with the introduction of information and communication technologies (ICT) in the educational process. The reform is being implemented through the solution of tactical, methodological and organizational problems.

Use of information and communication technologies saves time both in the lesson, when explaining new material, and when preparing for it, inspires teachers to find new approaches to training, stimulates the professional growth of teachers, frees from unproductive routine work. The use of information and communication technologies in the work of a teacher enhances the positive motivation of learning, respectively, along with this comes an increase in the quality of knowledge and academic performance, and its effective side increases.
Long-term domestic and foreign experience of the theory and practice of the process of introducing information and communication technologies into the educational process

confirms the relevance and novelty of this direction development of education, brings us closer and closer to understanding the essence of the use of information and communication technologies for teaching and is one of the modern ways to get quality education.

However, an analysis of the theoretical literature on the organization of education quality assessment using information and communication technologies in teaching allows us to see an obvious contradiction that having theoretical and material and technical equipment in the learning process, the teacher is not ready to use it in view of the content-organizational unpreparedness. In this regard, the problem arises of insufficiently effective use of information and communication technologies to improve the quality of education. The presented problem is significant, requires theoretical justification and practical solution.

The purpose of the article is to study the possibility of increasing the efficiency of the learning process using information and communication technologies.

2. Theoretical Consideration

Teaching in pedagogy is a purposeful pedagogical the process of organizing and stimulating the active educational and cognitive activity of students to master knowledge, skills, skills, the development of creative abilities and moral ethical views.
Learning is a type of learning activity in which the quantity and quality of elements of knowledge and skills of the student are brought to the proper level (average, reference, possible), which is the goal of learning.
The learning activity is considered complete, and the purpose of its achieved if the quantity and quality of the teaching material in the student's re-manufactured product will correspond to the learning goal or make up the proper

level (average, reference, possible) presented in the learning goal.

The basic principles of using information and communication technologies (ICT) are the development of students' motivation to acquire knowledge, an individual approach to students, simplicity and ease of creation and use, focus on the integration of academic disciplines.

The largest amount of information, about 90%, a person receives with the help of sight, about 9% with the help of his hearing, and only 1% with the help of other senses. Information received by a person in the form of visual, auditory and other images is stored in his memory [12].

When we talk about learning, we mean this or that organization of educational activities of students. In the process of development of the education system, the tasks of the content of education change, the forms of organization of education also change, they are variable: some become obsolete, instead of which new forms appear. Some forms of learning like, for example, a lesson, for a long time and reliably serve humanity from time immemorial. But this does not mean that the lesson as a form of teaching has not changed throughout the entire time. On the contrary, the present stage of development of education (training) is characterized by the renewal of the content of teaching methods. Much the share of creative work in the composition, professional activity of the teacher, who is engaged in the design of educational material and the educational process, is increasing. Therefore, even today the question is relevant: "What is needed in order to conduct an effective, interesting lesson for students?".

The use of information and communication technologies plays a positive role in modern education. Today, information and communication technologies can be considered the newest way of transferring knowledge, which corresponds to a qualitatively new the content of training and development of the learner. This method allows the child to study with interest, look for sources of information, as well as fosters independence and responsibility when acquiring new knowledge.

Information and communication technology (ICT) is "A wide range of digital technologies used to create, transmit and disseminate information and provide services (computer hardware, software, telephone lines, cellular communications, e-mail, cellular and satellite technologies, wireless and cable networks, multimedia, and the Internet)" [4].

ICT (information and communication technology) is a set of technologies that simultaneously use several information media: graphics, text, video, photography, Animation, sound effects, high-quality soundtrack [6].

To diversify the lesson, try to make it enough interesting, uncommon, accessible and meaningful, the teacher should include information and communication technologies in planning at any of the stages of education, both for the introduction of new material and for consolidating the topic, monitoring the assimilation of what has been learned, generalizing and systematizing the topics covered.

The use of modern technologies in the learning process allows teachers to achieve a high quality of academic performance, motivation rises, the number of students participating in research projects and various creative competitions increases, and, accordingly, the level of knowledge rises.

Thus, the use of new technologies in teaching contributes to the development of students' cognitive activity, creativity, creativity, the ability to work with information, increase self-esteem, and most importantly, the dynamics of the quality of academic performance increases.

Educational technology - from the Greek words techno (art, craft, science) and logos (concept, teaching). With the help of educational technologies, intellectual information is translated into the language of practical solutions. Educational technology is both ways of educational activity and how a person participates in the educational process.

Information and communication technologies represent is the mastery of the skills of working in an integrated multimedia environment, which implements the further development of the idea of associatively related information received, processed and presented in various forms, taking into account the psychological and pedagogical foundations of the use of means - ICT in the educational process [11].

One of these skills is professional ICT competence. Professional ICT competence – qualified the use of ICT tools, widespread in this professional field in developed countries, in solving professional problems where needed, and when needed [9].

Professional pedagogical ICT competence includes:
1. General user ICT competence.
2. General pedagogical ICT competence.
3. Subject-pedagogical ICT competence (reflecting professional ICT competence in the relevant field of human activity) [1-3].

The modern period of the development of society is characterized by a strong influence on it of computer technologies, which penetrate into all spheres of human activity, ensure the spread of information flows in society, forming a global information space. An integral and important part of these processes is the computerization of education.

Using a computer in the educational process - (introduction new information technologies) is an attempt to offer one of the ways that can intensify the educational process, optimize it, raise the interest in studying the

subject, implement the ideas of developing education, increase the pace of the lesson, and increase the volume of independent work. Promotes the development of logical thinking, a culture of mental work, the formation of skills independent work, and also has a significant impact on the motivational sphere of the educational process.

A computer network with Internet access provides unique opportunities, because it allows you to instantly find information, get an answer to any question from competent sources, it can be concluded that the use of information and communication technologies in the educational process gives a number of indisputable advantages over traditional teaching methods, namely:

1. The intensity and density of the educational process is increasing; the amount of teaching material that a teacher can give to students is increasing.

2. A fundamentally new organization becomes possible independent work of students, where the teacher no longer acts as a translator of information, but is an active organizer of the educational process.

3. Individual teaching of each student, when each of them performs the volume of tasks that is available only to him (for example, Sukhomlinsky with his school of joy, where the principle of the success of each student served as the main principle of pedagogical activity, and then learning will become joyful, will bring pleasure).

4. Objectivity of assessment, since students are not assessed by the teacher with his views and preferences, but by the computer, devoid of all this, and then disagreements about the assessment are automatically eliminated.

5. Greater clarity of training, i. E. on the computer you can simulate situations and phenomena that are either impossible to see in real life.

6. With the use of information and communication technologies, it became possible for unlimited and very cheap replication of educational information, fast and targeted delivery of it to each student (i.e., this is essentially downloading various educational programs or information from. The Internet and their application in the learning process).

Based on the above, we can conclude that for using information and communication technologies, teaching becomes interactive, interesting, the importance of independent work of students increases, the intensity of the educational process is seriously increasing [14].

Information and communication technologies - a set methods, production processes and software and hardware integrated for the purpose of collecting, processing, storing, distributing, displaying and using information in the interests of its users.

With the appearance in the education process of such a component as informatization, it became expedient to revise its tasks.

The main ones are:
- improving the quality of training of specialists through the use of modern information and communication technologies in the educational process;
- the use of teaching methods and, as a result, an increase in the creative and intellectual components of educational activities;
- integration of various types of educational activities (educational, research, etc.);
- adaptation of information technologies of teaching to the individual characteristics of the student;
- ensuring continuity and consistency in training and education;
- development of information technologies for distance learning;
- improvement of software and methodological support of the educational process [2, 4-7, 16].

Information and communication technology is based on interconnected comprehensive training for all types of speech activity:
- listening;
- speaking;
- reading;
- letter.

Chief in information and communication technology learning is the content of speech behavior, which consists of:
- speech acts;
- speech situation.

Information and communication technology provides learning functionality (student activity):
- student asks;
- confirms the idea;
- encourages action;
- expresses doubts.

At the same time novelty of a situation should be provided:
- a new speech task;
- a new interlocutor;
- a new subject of discussion.

Activities in which information and communication technology is implemented can be:
- educational;
- game;
- labor.

The unit of the organization and the core of the learning process using information and communication technology is the situation. With the help of the situation:
- a system of relationships between those who communicate is established;
- communication is motivated;
- speech material is presented (presented);
- speech skills are acquired;
children's activity and independence of communication develop.

Modern ICTs provide additional opportunities for the formation and development of information competence. Their application depends on the ability to include ICT in the education system, on the professional competence of the teacher, creating positive motivation and psychological comfort, promoting the development of skills and abilities.

Information and communication technologies are increasingly penetrating various spheres of modern society: business, finance, media, science and education.
"A person's abilities today are determined not by where he lives, but by what education he received. It is necessary that universities were focused on the Internet. Use modern ICT in professional activities determines its competitiveness. " The emergence of information technology is associated with the following achievements: emergence of new means of information accumulation, development means of communication, the possibility of automated computer information processing.

Conclusions

Theoretical aspects were considered in this article use of information and communication technologies in education.
Information and communication technologies are technologies that allow searching, processing and assimilating information from various sources, including the Internet. This is the presentation of information in electronic form, its processing and storage, the use of the computer itself, a variety of programs. Use of funds in the work information and communication technologies give the student an increase in learning motivation; increase of cognitive interest; to evaluate the educational activity, to define problems of own educational activities; formation of cognitive independence of students. Gives any teacher an extraordinary attitude to the organization of the educational process; the possibility of creating conditions for individual independent learning of students, the development of information and communication competence of students, cognitive activity, independent work on collection, processing and analysis of the received results; formation of motivational readiness for cognitive independence not only in educational, but also in other situations [8-12].

The essence of ICT is that in the modern world it is hardly possible to find a sphere of human activity that would not be associated with the process of obtaining and processing information. The following types of information and communication technologies can be distinguished:
- visual information (illustrative, visual material);
- demonstration material (exercises, reference schemes, tables, concepts);
- simulators;
- control over skills, abilities of students;
-work on the Internet;
-presentations, didactic materials;
-training and development programs.
Information and communication technologies nowadays enrich pedagogical and organizational activities with the following opportunities:
-improvement of methods and technologies of selection and formation the content of general secondary education;
-introduction and development of new specialized disciplines and areas of study related to information technology;
-making changes in the training of most traditional disciplines not directly related to computer science;
-increasing the effectiveness of teaching students by increasing the level of its individualization and differentiation, using additional motivational levers;
-organization of new forms of interaction in the learning process and change in the content and nature of the teacher's and student's activities;
-improvement of the mechanisms of management of the general secondary education system [11, 15].
So, modern educational technologies make it possible to improve the quality of education and more
make effective use of study time. They are focused on individualization and variability of the educational process, academic mobility of students, regardless of age and level of education.

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