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Benefits and disadvantages of the use of information technologies in education

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Information technologies are new dimension in education space. The computer must be a teaching assistant, a tool to achieve their educational goals, but not a panacea for all educational problems. The computer does not in any way replace the traditional book; in any case, will not replace live communication with the teacher, the influence of teacher personality on student.

In preparing for a lesson in using of information technology teacher should not forget that this is the lesson and therefore he should make the plan of its holding on the basis of its goals and in selecting of educational material he should respect the basic principles of teaching: systematic and sequence, availability, differentiated approach, scientific etc. In this case, the computer does not replace the teacher, but complements him [Хейнсоо 2006].

The use of information technologies allows to solve such actual issues:

- 1) to use in teaching the latest information technologies;
- 2) to improve the skills of independent work of students in information databases and Internet;
- 3) to intensify the education, improve the absorption of knowledge by students, to make the learning process interesting and informative.

Using information technologies complete with traditional textbook helps in the following:

- 1) provides personally oriented and differentiated approach to teaching;
- 2) ensures the implementation of interactive approach;
- 3) increases the cognitive activity of students through a variety of video and audio information;
- 4) provides the control through testing and system of questions for self-control [Открытое... 2000].

One of the important features and benefits of information technology in comparison with other educational tools is that computer programs are mainly designed for self-actively perception and help students to understand the knowledge, skills and abilities. The sheer formation, didactic directions and decision of training (scientific) problem envisage active thinking activity of students. They can choose the optimum pace of work with the program in accordance with the individual's mental, psychological and physiological capabilities

and interests check the correctness of answers, to use in the process of perception and assimilation of knowledge the necessary visual and auditory, and textual information [*Современные...*].

There are two types of knowledge assimilation by students: productive, which is based on cognitive activity and independent thinking of students (characterized by high productivity of cognitive processes) and reproduction, based on memorization and understanding of ready knowledge. Self work with the information technologies as an important stimulus in studying creates all the prerequisites for application of practical and intellectual skills, combination of sensory and rational knowledge, because knowledge which students receive as a result of self activity, absorbed significantly better than those which reported by teacher. Learning of ready-made knowledge that based on multimedia information is required, but when you perform certain tasks it is necessary to skillfully combine these two types of cognitive activities so, that the main feature of a phenomenon, event or process has been proven and disclosed by the students in the feasible for them to work [*Інформаційно-комунікаційні...*].

Information technology is very promising for increasing the creative activity. Student departs from the position of the learning object, recipient finished learning information, becomes an active subject of study, he may independently obtain the necessary information and also to be able to invent, to construct the necessary ways of acting.

We remark that in course of the study humanitarian subjects is important to keep the problematic lessons with debate elements. In general, all the methods that have successfully developed in our didactics should not be rejected and forgotten, and qualitatively improved and better used for improving the cognitive activity of students. One of the ways of this process just also is the introduction of modern computer technologies.

Integration of regular classes of information technologies allows the teacher to shift part of their work on the PC, while making the learning process more interesting, varied, and intensive. In particular, it becomes more rapid recording process of definitions, theorems and other important parts of the material, as the teacher does not have to repeat the text several times (he brought it to the screen), the student does not have to wait until the lecturer repeats precisely the right fragment to him.

This education method is very attractive for the teacher, because it helps him better assess the skills and knowledge of students, understand them, encourages the search for new, non-traditional forms and methods of teaching, encourages his professional growth and further development of information technologies.

Using in the lessons of computer tests and diagnostic complexes will allow the teacher for a short time to get an objective picture of mastering level of the studied material by all students and in a timely manner to adjust it. At the same

time it is possible to choose the level of complexity of the task for a particular student [Сутність...].

For the student, it is important that immediately after the test (when this information has not lost its importance), he gets an objective result with indication of errors that is not possible, for example, when asked verbally [Сутність...].

The widespread introduction of modern information technologies in everyday life served as a catalyst for the development of the processes associated with remote and online education. Internet as a source of information has already become a reality, and the development of telecommunications, without which this form of education is unthinkable, goes rapidly.

Using and implementation of teaching methods with the Internet provides a number of benefits in the organization of educational process:

- 1) for the participants of the online course tasks are available at any time, and the students are free to decide at what rate they pass this course;
- 2) accessibility of the course from anywhere in the world where there is Internet access;
- 3) breadth of the provided information. In using the Internet the student can directly in the process of work on the course material to address any sources of the world (the resources of other educational centers, digital libraries around the world etc.);
- 4) prompt provision of information. In the traditional teaching a source of information is a book recovery cycle of which takes months and sometimes years. Internet allows you to update any information and provide access to it for a minute;
- 5) more flexible organization of the educational process. Any educational subject matter includes sections simpler and more complex. Online education allows the teacher to focus on the more advanced sections of the course, setting out simple fragments for individual work;
- 6) automation of the educational process – the teacher is no need to develop a lot of similar variants of tasks for the test and check their results: the system will pick up any parameters at the request of the teacher and will check and save the results in the teacher's journal;
- 7) except for textual and graphical information, online education offers the possibility of using in the learning process of all means of multi-media: animation, video, sound and color. It provides visibility of material for teaching and allows you to use most of the mechanisms of perception by student of the new information;
- 8) e-learning technologies better fit to the mentality of today's youth, for which the Internet has become almost a „second reality”;
- 9) good knowledge of modern information communication technologies is one of the core competencies of the graduate of modern educational institution.

Passage of education in the online format allows student to increase sharply his overall computer literacy.

Taking into account all of the positive and negative consequences of using the information technologies it can be concluded that they are effective when they provided the combination with traditional methods and contribute to the high-quality formation skills of students. Summing up the aforesaid it can be distinguished:

The benefits of using the information technologies:

- 1) increasing of the interest and overall motivation to education thanks to new forms of work and involvement in the priority area of scientific and technical progress;
- 2) individualization of education: everyone works in the mode that satisfies him;
- 3) objectivity of control;
- 4) activation of education through the use of attractive and rapidly changing forms of information presentation;
- 5) formation abilities and skills for the the creative activities;
- 6) training of information culture;
- 7) mastering the skills of operational decision-making in a complex situation;
- 8) students' access to databases of information, quickly obtain the necessary information;
- 9) intensification of self student work;
- 10) increase the volume of completed tasks;
- 11) increasing the motivation and cognitive activity due to the diversity of the work forms, the possibility of including game time;
- 12) enhance of information flow at use the Internet;
- 13) Online forms of education offer new opportunities for more active involvement of students in the educational process.

But, along with the advantages, there are various problems both in preparing for classes using the information technologies and during their carrying:

Existing deficiencies and problems of information technologies using:

1. It is difficult to integrate the computer into the structure of the lesson;
2. The schedule does not provide the time to use of the Internet at lessons;
3. There is a possibility that, carried away by using the information technologies in class, the teacher will move from developing education to visually-illustrative methods;
4. Education on the basis of computer programs can't replace direct communication between teacher and student.

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Abstract

The use of modern information technologies in education is one of the most important and sustainable trends of the global educational process. In national educational institutions in recent years, computer equipment and other means the information technologies are increasingly used in studies of the majority of subjects.

In the learning process is important, not information technology itself, but rather how its use implements achieve of educational goals. Computer role became more complex: its use in educational process helps to teachers to make lesson more dynamic, targeted, rich, striking, and memorable for a long time.

Key words: information, information technologies, Internet, electronic benefit, educational process, computer, knowledge, diagnostic complex, online education.