THE ROLE OF INFORMATION AND COMMUNICATION TECHNOLOGIES IN EDUCATION

Mashrabjonov Ulug'bek A'zamjon o'g'li
Teacher of KSPI

Abstract: *In recent years, the national education system has been modernized, and its main task is to improve the quality of education and ensure access to it by introducing information and communication technologies (ICT) into pedagogical practice. The use of ICT allows to optimize the educational process.*

Keywords: *computer training, creative thinking, individual, mono technology, multimedia, technology, teaching–interaction, textbook.*

Аннотация: *В последние годы отечественная система образования модернизируется, и ее основной задачей является повышение качества образования и обеспечение доступа к нему путем внедрения информационно-коммуникационных технологий (ИКТ) в педагогическую практику. Использование ИКТ позволяет оптимизировать образовательный процесс.*

Ключевые слова: *компьютерное обучение, творческое мышление, личность, мультимедиа, технология, обучение – взаимодействие, учебник.*

The usage of information and communication technologies (ICT) in the teaching process was expressed by V.P. Bespalko, B.S. Gershunsky, V.A. Dalinger, A.J. Jafyarov, E.V. Klimenko, G.M. Kodjaspirova, M. Kupriyanov, V.M. Monahov, O.P. Okolepov, E.S. Polat, I.V. Robert, G.K. Selevko, B.L. Selivanov in the works.

V.K. Selevko distinguishes the following computer technologies:

- "penetrating" technology with the use of computer training on individual subjects, and departments;

- the main technology, which is the most important of the parts used in this technology;

- mono technology, in which the entire teaching and learning process management, including diagnostics and monitoring, relies on the use of computers.

V.K. Selevko also considered the following conceptual rules of computer technologies: teaching - interaction of the learner with the computer; the principle of adaptability (adapting the computer to the individual

characteristics of learners); dialogic nature of teaching; manageability; interaction; optimal integration of all types of work; supporting psychological comfort in teaching; unlimited teaching.

Currently, the problem of developing and introducing information technologies in the teaching process is urgent. According to N.W. Bulanova-Toporkova improvement of methods of solving functional tasks and organization of information processes leads to new information technologies in general, among which she distinguishes: computer training programs (electronic textbooks, simulators, test programs, etc.); educational systems and educational expert systems based on multimedia technologies; our distributed databases; means of telecommunication (teleconferences, e-mail, etc.); electronic library, centralized publication systems, etc.

V.A. Traynyov, I.V. Traynyov emphasizes the use of information technology to achieve the following pedagogical goals:

1. Development of the learner's personality, that is, preparation for effective independent activity in information conditions; development of constructive and algorithmic thinking; development of creative thinking; development of communicative abilities; formation of the ability to make optimal decisions in a complex situation, formation of information culture.

2. Realization of social order through informatization of modern society: training of specialists in the field of information technologies; preparing students for independent knowledge activities using information technologies.

3. Intensification of all levels of the educational process: increasing the efficiency and quality of education by introducing information technologies; identification and use of stimuli for activation of cognitive activity with the help of information technologies; deepening of interdisciplinary relations as a result of the use of modern means of information processing in solving problems in various disciplines.

In the conditions of rapid development of information technologies, it is necessary to know how to use ICT tools competently to teach students in each subject. Electronic textbooks, multimedia teaching tools developed by us in the educational process within the framework of studying the course "Elementary mathematics"; e-mail; electronic library; we use electronic encyclopedias and dictionaries. We use telecommunication teaching tools: internet consultations by e-mail at Elementarnaya. matematika.3 kTirs@mail.ru; Internet conferences held at mail. ru-agent. The use of these tools is presented more fully in the second chapter.

Design technologies of education. Project-based teaching technologies are widely used by pedagogues engaged in theoretical research and practical implementation in various educational institutions as teaching methods.

But until now, there have been many debates about the meaning of the concept of "project method", the necessity and effectiveness of using the method in teaching practice, and the application of the method to different teaching subjects in educational institutions of different levels.

There are different opinions about the origin of the method and its founders. For example, E.S. Polat , N.Yu. Pakhomova connects the emergence of the project method with the name of the American philosopher and pedagogue John Dewey (1859-1952), B.M. V. Nazarenko is the founder of this method. Mentions Kilpatrick, American pedagogues (DJ. Kneller, K. Gould, D. S. Hall) founder of the method R.Stimson. During the existence and development of the project method, many different conceptual contents were developed: in labor education (K.M. Woodworth, N.K. Krupskaya, S.T. Shatsky); in professional education (N.E. Erganova, G.V. Rogova, F.M. Rabinovich), in differentiated teaching (N.P. Guzik, E.A. Yunina, I.E. Unt), in person-oriented education (I .S. Yakimanskaya), in cooperative pedagogy (V.F. Shatalov, V.A. Sukhomlinsky, I.P. Volkov, L.C. Vygotsky). Studies on the history of the project method were conducted by I.G. Voronchikhina, M. Knoll.

Socio-economic conditions that required the revision of traditional teaching methods to meet the demands of the new era served to train competitive specialists. Therefore, the method of projects in education was born. But if the essence of the project at the stage of its creation is limited only to a plan, a drawing or a scheme (that is, a narrow interpretation), the emergence of design as a form of teaching is connected with the development of humanitarian pedagogy, which in turn was considered the consequence of global changes in all spheres of human activity.

V.N. Sternberg believes that "in the modern interpretation, the "project method" represents the creative work of students on a given topic" and emphasizes "the integrative character of the "project method", its ability to include various teaching methods".

GM Kodjaspirova and M.L. Serdyuk express the same point of view about the method of projects as a teaching system, "in which students acquire knowledge in the process of planning and carrying out practical tasks - projects, which are gradually becoming more complex".

Today, many studies have been conducted by pedagogic scientists in the field of development and implementation of the project method in teaching

practice, in which it has become a pedagogical technology that meets the modern requirements of the educational system.

The analysis of the conducted studies shows that in local pedagogy, the project method is understood as a separate or integrated technology that includes other creative technologies. The following terms can be found in pedagogical and methodical literature: project method, design method, and project technology.

Many researchers of this problem use the term "project method" because it has been used for a long time. Commenting on project technologies and taking into account the essence of the concept of "project", we understand it as a way of organizing educational activities of learners, aimed at obtaining some form of result (material, textual, etc.).

Modern research shows that project technologies are widely used in education in various fields of knowledge, increase learning motivation, develop interest in learning, creative abilities, etc.

For all researchers and pedagogues who are engaged in the development of project technologies and use them in practice, the project technology has wide pedagogical possibilities and helps to deepen the mastery of software material, which is considered the necessary quality of a person in modern conditions, to plan personal educational activities, to form the skills and competencies of the practical application of the studied subject, project skills and helps develop skills.

Like many new pedagogical technologies, the project method cannot be imagined without the use of information technologies, primarily computer technologies. It is the new information technologies that allow us to fully reveal the pedagogical and didactic functions of this method, to realize its existing possibilities. Effective integration of information and design technologies, in our opinion, is the key to solving problems related to the formation of competence of a student of a pedagogical higher education institution in the field of planimetry. Information technologies such as: searching for additional information on various educational subjects; providing educational information; control and diagnosis; organization of students' activities (individual and group work on a personal computer using local networks and modern telecommunications); serves as a tool for the use of technologies aimed at the development of the student's personality (not only project technologies, technologies for the development of logical thinking, technologies for group work, etc.).

As a result of working on such tasks, students not only get practice working on a computer, check their knowledge on mastering various programs, but also "Elementary mathematics. They systematize their knowledge, skills, qualifications in a separate section of the "Planimetry" course, and strengthen their skills in creating a system of planimetric problems on the research topic, thereby increasing their level of knowledge and skills in the field of planimetry teaching methodology; they increase the readiness of the future mathematics teacher to organize students' creative activities on planimetry.

REFERENCES:

1. Вазина, Кима Яковлевна. Коллективная мыследеятельность - модель саморазвития человека / К. Я. Вазина. - [Москва] : Педагогика ; Нижний Новгород : Упрполиграфиздат, Б. г. (1990). - 195,[1] с.; 21 см.

2. Иванов И. П. Энциклопедия коллективных творческих дел. — М.: Педагогика, 1989.

3. Смолкин А.М. Методы активного обучения Науч.-метод. пособие. — М.: Высшая школа, 1991. — 176 с.

4. Зеер Э.Ф. Психология профессий. Екатеринбург, 1997.

5. Ландшеер В. Концепция «минимальной компетентности» // Перспективы. Вопросы образования. 1988. – № 1.

6. Наперов В.Я. Разговаривая с Ли Якоккой // Специалист. – 2000. – № 4 – с.32.

7. Новиков А.М. Профессиональное образование в России. – М., 1997. Стратегия РФ в области развития образования на период до 2010 г. – М.: Минобрнауки РФ, 2003.

8. Чошанов М.А. Гибкая психология проблемно-модульного обучения. – М., Народное образование, 1997. – 152 с.

9. Зимняя, И.А. Педагогическая психология [Текст]: учеб. пособие / И.А. Зимняя. – Ростов н/Д:

10. Зимняя, И. А. Социально-профессиональная компетентность как целостный результат профессионального образования (идеализированная модель) / И. А. Зимняя // Проблемы качества образования. Компетентностный подход в профессиональном образовании и проектировании образовательных стандартов. Книга 2. – [Актуальные проблемы качества образования и пути их решения в контексте европейских и мировых тенденций] : матер. XV Всерос. научно-метод. конф. – М.-Уфа : Исследовательский центр проблем качества подготовки специалистов, 2005. – С. 10