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## INNOVATIVE TECHNOLOGIES IN THE EDUCATIONAL PROCESS

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### Abstract

Among the priority directions of the state policy on the development of higher education in the context of European integration of Ukraine are identified the problem of continuous improvement of the quality of education, modernization of its content and forms of organization of the educational process; introduction of educational innovations and information technologies. Improving the quality of future teacher training aimed at implementing the provisions of the Bologna Declaration. The article presents an assessment of the effectiveness of implementing educational innovations and information technologies to improve the quality of the education system as a whole. Particular attention is paid to the use of innovative and information technologies to train future teachers.

**Key words: innovative technologies, education, teacher, professionalism, competences, information tools.**

## ІННОВАЦІЙНІ ТЕХНОЛОГІЇ В ОСВІТНЬОМУ ПРОЦЕСІ

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Серед пріоритетних напрямів державної політики щодо розвитку вищої освіти в контексті євроінтеграції України визначено проблему постійного підвищення якості освіти, модернізацію її змісту та форм організації навчально-виховного процесу; впровадження освітніх інновацій та інформаційних технологій. Підвищення якості професійної підготовки майбутнього вчителя, спрямованим на реалізацію положень Болонської декларації. В статті представлено оцінку ефективності впровадження освітніх інновацій та інформаційних технологій на підвищення якості системи освіти в цілому. Особливу увагу приділено питанню застосування інноваційних і інформаційних технологій для підготовки майбутніх вчителів.

**Ключові слова: інноваційні технології, освіта, вчитель, професіоналізм, компетенції, інформаційні засоби.**

**Formulation of the problem in general form and its relation to important scientific or practical tasks.** Among the priority directions of the state policy on the development of higher education in the context of European integration of Ukraine are identified the problem of continuous improvement of the quality of education, modernization of its content and forms of organization of the educational process; introduction of educational innovations and information technologies.

The reference is the theoretical model of the "innovative person", tested in the world. An innovative person is a person of such socio-cultural development, who is able to work creatively, be competitive in the conditions of today. Accordingly, the educational process should be transformed in the direction of individualization of educational interaction, teaching, formation of creative thinking and increase of independent work of students.

In Ukraine, innovative activity is envisaged by the draft Concept of State Innovation Policy (1997) and the draft Regulation “On the Procedure of Innovation Activity in the Education System” (1999).

The solution of the problem of the quality of professional training of the future technology teacher, in accordance with the modern requirements aimed at implementing the provisions of the Bologna Declaration, requires the introduction and use of credit-modular learning technology in the educational process of universities as a new model of the organization of the educational process.

**Analysis of recent research and publications.** Methodological bases of vocational guidance (concepts, content, principles, forms and methods) are considered in the works of EM Pavlyutenkov, SM Chistyakova, EA Klimova.

Modern scholars (M.Klarin, V.Monakhov, G.Selevko, V.Bespalko, A.Nisimchuk, etc.) have made a huge contribution to the development of the problem of innovative pedagogical technologies. The methodological aspects of the study of the credit-modular system of organization of the educational process are revealed in the works of I. Moroz, P. Sikorsky, S. Goncharova, V. Gurin, O. Spirina, O. Beznosyuk and others.

The introduction of this technology in the conditions of innovative development of society contributes to the democratization of the educational process, the organization of rational and effective assimilation of certain knowledge, stimulating the subjects of learning to systematic educational work, enhancing the motivational component, the formation of self-esteem actions and turning control into an effective mechanism of management process, [6].

**Formulating the goals of the article (setting the task) Purpose of the course:** To discover the importance of using innovative technologies in the educational process, future technology teachers in the minds of integration of higher education of Ukraine into the European space.

**Outline of basic material.** The main requirements for teacher training were reflected in the laws of Ukraine on the development of education. Thus, the State National Program “Education” (Ukraine of the 21st Century) states that “higher education is aimed at providing fundamental training of specialists, the formation of the intellectual potential of the nation and the comprehensive development of the individual as the highest value of society. It should become a powerful factor in the development of the spiritual culture of the Ukrainian people...” [2, 3].

The National Doctrine of Educational Development in Ukraine in the 21st Century focuses on identifying priority areas for the development of humanitarian education in the

new conditions of state formation. Thus, the state documents of Ukraine on education and upbringing send higher pedagogical institutions to review the content, forms, methods of professional training of specialists.

This term came into use in the 40's of the twentieth century. It was first used by German and Austrian scientists in the analysis of socio-economic and technological processes. Subsequently, the concept of "innovation" was also used in pedagogical research, which meant everything new in the education system. Basic concepts reflecting innovative processes are presented.

Innovation (Italian. Innovazione) is news. The scientific and methodological literature defines a certain terminology of innovations - new forms of organization of labor and management, new types of technologies that cover not only individual installations and organizations, but also different spheres. The concept of "innovation" means innovation, novelty, change, innovation as a means and process implies the introduction of something new.

With regard to the pedagogical process, innovation means the introduction of new goals, content, methods and forms of education and training, organization of joint activities of teachers and students.

Innovation is an essential element of the development of education in general, the implementation of specific tasks in the educational process. Innovation is reflected in the trends of accumulation and reconciliation of initiatives and innovations in the educational space; cause some changes in education.

Education innovation is a deliberate process of partial changes leading to the modification of the purpose, content, methods, forms of learning and upbringing, adaptation of the learning process to new requirements [1].

An innovative educational institution is a higher education institution in which pedagogical and student teams experiment, test or introduce new pedagogical ideas, theories of technology.

Teacher's innovative potential is a set of socio-cultural and creative characteristics of an educator's personality, which shows a willingness to improve pedagogical activity, availability of internal means and methods capable of ensuring this readiness [1]

Innovative environment - these are certain moral and psychological circumstances, which are supported by a set of measures of organizational, methodological and psychological nature, which ensure the introduction of innovations in the educational process of higher education.

Innovative teaching methods include active learning methods that will enhance the future competence of the future technology teacher. Methods of active learning contribute to the formation of knowledge, professional skills and skills of future specialists, by involving them in intensive cognitive activity; activating the thinking of participants in the educational process; manifestation of students' active position; independent decision making in conditions of high motivation; teacher-student relationship, etc. [9].

Therefore, in the process of technology preparation, the following methods and techniques should be used:

- conducting interactive lectures, namely the use of the question-answer method when working with students during the lecture; holding short presentations prepared by students that would cover one of the issues raised in the topic; testing;

- implementation of such forms of work as a "round table", "workshop" in the course of practical classes, where students during the discussion solve important problems of the specialty on the basis of their own independent experience; conducting discussions, discussions, analysis of pedagogical situations;

- transformation of independent work of the student, performance of individual research task, as a mandatory component of the study of a specific educational discipline;

- use of presentations, publications, websites prepared by students at classes;

- use in the educational process of high school of role and business games, case-methods, "brainstorming", which contribute to the development of activity, creativity, creativity of the teacher;

- conducting workshops, training sessions that contribute to the formation of professional competence of the future technology teacher;

- widespread use of multimedia tools in the process of lecturing and conducting practical classes, electronic and various types of reference lecture notes, providing students with educational information on electronic media, Internet search, etc .;

- use of elements of imitation, reflection, relaxation in the course of separate practical classes;

- use of new approaches to control and evaluate student achievement, which provide objectivity and reliability.

Using the possibilities of innovative teaching methods, in the process of professional training of the future technology teacher, the following is activated: activation of students' cognitive activity; motivation and stimulation of future pedagogical specialists to educational activity; modeling of professional skills of the future specialist; satisfaction of professional

educational interests and needs; development of creativity, critical thinking; ability to show their personal and professionally important qualities; ensuring lifelong learning; formation of professional mobility, creativity, competence and competitiveness of future primary technology teachers in the labor market [8].

The necessity of introducing innovative methods in the process of professional preparation of the future elementary teacher, caused by the need of time, leads to further scientific developments of the problem of forming the professional competence of the future elementary teacher.

**Conclusions.** The innovative potential of the teacher is characterized by: creative ability to generate new ideas and ideas, which is due to the professional setting to achieve the priority tasks; ability to design and model their ideas in practice: a high-cultural-aesthetic level, education, intellectual depth and diversity of interests are inherent in the novice teacher; perception of new ideas, concepts, trends based on tolerance, flexibility and breadth of thinking.

## REFERENCE

1. Hevko I. V. Psychological conditions for the development of technology teacher's professionalism. Bulletin of Cherkasy University. Pedagogical sciences. Cherkasy, 2017. Issue number 6. Pp. 38-50.
2. Hevko I. V. Formation of professional competence of the future teacher of technologies. Journal of Education, Health and Sport. Poland, 2017 Vol. 7. №7. Pp. 787-799.
3. Gushuley Y. M. The concept of in-depth general technical training of pupils in the system of continuous education // Scientific notes of the Ternopil State Pedagogical University. Series: Pedagogy. - 1999. - No.5. - Pp. 21-29.
4. Gushuley Y. M. General technical training of students in the process of labor education: didactic aspect / Ed. G. V. Tereshchuk. - Ternopil, TPPU, 2000, 312 p.
5. Gushuley Y. Creative tasks for the analysis of technical objects as the leading method of studying the basics of technology // Scientific and educational magazine "Obriy". - 2001, No.2 - pp. 90-92.
6. Esaulov A. F. Problems of solving problems in science and technology / A. F. Esaulov. - Leningrad: Leningrad University, 1979. - 200 p.
7. Tcherzhevsky D. The book on the experience of labor training in Ukraine / D. Tcherzhevsky // School and production. - 1970. - № 9. - P. 77.

8. Stefan L. V. Formation of an innovative culture of future engineer-teachers: monograph / L.V. Stefan. - Kh.: LLC "DM ZEBRA", 2012. - 350 p.

9. Yankovy`ch O. I. Osvitni texnologiyi vy`shhoyi shkoly` Ukrayiny`: problemy` ta perspekty`vy`: monografiya. T. : Pidruchny`ky` i posibny`ky`, 2010. – 208 s.