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KEY CHALLENGES IN INTRODUCING INNOVATIVE TECHNOLOGIES INTO THE EDUCATIONAL PROCESS

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Before considering the current situation in the higher education system, it is necessary to determine what is the basis of innovation and what is their relevance. The term "innovation" translated from Latin means "renewal, innovation or change." Innovations exist in various spheres of human activity, but in educational activities is the use of new knowledge, techniques, approaches, technologies for obtaining results in the form of educational services due to social and market demands.

Innovative learning technologies include: interactive learning and computer technologies. Innovative learning technologies that reflect the essence of the future profession, form the professional qualities of a specialist, are a kind of training ground where students are able to practice professional skills in conditions close to real [1]. Modern innovative technologies has been introduced into the system of higher education elements due to problematic issues of the scientific research. Many authors distinguish the following innovative learning technologies such as contextual, simulation, problem, modular, full acquisition of knowledge, distance learning.

Students can form innovative thinking, firstly because of active motivation in learning, implements the requirements of self-management, individual self-government to achieve ambitious (in the good sense of the word) life goals, secondly, if the educational process reflects the full life cycle of professional activity with its innovations and contradictions. Modern processes taking place in our country no longer speak of possible transitions to innovative technologies in education, but of a sustainable development of the entire education system, which is inconceivable without innovation, as it is dictated by the socio-economic conditions of society.

Analysis of scientific and pedagogical literature shows that innovative learning models are based on the concept of developmental learning. Approximate generalized model of innovative learning involves: active participation of students in the learning process; opportunities for applied use of knowledge in real conditions; approach to learning as a collective rather than individual activity; emphasis on the learning process, not on memorizing information.

Considering all participants in the educational process (teacher and student) it is necessary to understand that innovation is primarily associated with the teacher's

awareness of the need for change, innovation. E. Rogers identified four options for the perception of innovation by the individual: 1) the perception of innovation with its subsequent use; 2) complete rejection of innovation; 3) perception with a refusal to innovate; 4) rejection of innovation with subsequent perception [2].

Since the main task of psychological and pedagogical support of the learning process is self-learning and self-education, the current situation of student readiness for self-regulation of their own learning process and self-control of their actions remains a high bar, the dream of every teacher.

The most common innovations: information and communication technologies, personality-oriented learning, design and research activities, gamification technologies.

However, it turns out that using their experience is not so simple for a number of reasons. The main problems can be formulated as follows:

insufficient methodical elaboration of innovations, necessity of retraining and motivation of personnel, low motivation of students, lack of necessary material and technical equipment of educational institutions, insufficient methodical elaboration of innovations, constructive novelty is created by teachers-innovators.

Speaking of innovations in higher education, we must not underestimate the psychological barriers that arise when a person encounters something new and unknown, always causes people anxiety and fear.

Keywords: innovative learning technologies, innovation, innovative learning models.

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ЗАСТОСУВАННЯ ПКВМ-МІКРОКОНТРОЛЕРА ДЛЯ АНАЛІЗАТОРА КОРОЗІЙНИХ МІКРОУШКОДЖЕНЬ ПОВЕРХОНЬ КОНСТРУКЦІЙ НА ОСНОВІ ДИФУЗНОГО ВІДБИВАННЯ СВІТЛА

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Розглядається задача створення аналізатора корозійних мікроушкоджень поверхонь конструкцій на основі дифузного відбивання світла (ДВС).

Створення такого аналізатора потребує розв'язання технічних та теоретичних задач і подолання пов'язаних з ними протиріч. Одне з таких протиріч полягає у поєднанні надійності конструкції сенсора, важливої для