

UDC 373

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## CHALLENGES OF INTEGRATING INNOVATIVE TECHNOLOGIES FOR LEARNING

*This article discusses the introduction of innovative technologies in the educational process of higher education institutions, which emphasizes the importance of the motivational need of students and teachers and focuses on special educational conditions, taking into account the individual characteristics of the individual. The analysis of the scientific psycho-pedagogical literature conducted in the article allowed us to reveal the problems of introduction of innovative technologies in the educational process. This article reveals the contradictions between theoretically oriented education and the realization of acquired knowledge in professional activity. It reveals the contradictions between theoretically oriented education and the realization of acquired knowledge in professional activity. Modern processes in the field of education, socio-economic conditions of society determine a sustainable path of development of the whole system of education. This is unthinkable without innovation, but is also associated with certain difficulties, such as dramatic changes in the disciplines; the teacher's awareness of the need for change; psychological readiness of all subjects of the educational process to innovate in the educational system; ownership and active use by teachers of methods of self-knowledge, self-esteem and self-development; communicative competence of teachers; socio-psychological and emotional climate in the educational institution, etc.*

*The purpose of the article is to analyze, on the basis of articles, publications, scientific works, conducted psychological research, the modern introduction of innovative technologies and the identification of the most common difficulties of introduction of innovative technologies in the educational process in non-language higher educational institutions of Ukraine.*

*Scientific analysis has revealed the possible prospects for the introduction of innovative technologies in the higher education system and a special way of implementing modern requirements, which are used not only for graduates of universities, but also for teachers through the creation specially organized support in the conditions which meet the needs and motives of all participants of educational process; new forms of thinking are formed; overcoming psychological barriers inherent in a person while meeting something new and unknown.*

**Key words:** *innovation, innovative activity, innovation in education, challenges.*

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## ПРОБЛЕМИ ВПРОВАДЖЕННЯ ІННОВАЦІЙНОЇ ТЕХНОЛОГІЇ НАВЧАННЯ

*Освітні стандарти в освіті України передбачають певну перебудову процесів освіти, включення нових елементів та інноваційних технологій. Однак на практиці впровадження інновацій викликає низку проблем. Сьогодні основна мета навчально-виховного процесу – «навчитися вчитися». Студент стає не об'єктом, а предметом навчання, у зв'язку з цим змінюється вимоги до організації педагогічного процесу. У нашій статті розкриваються питання впровадження інноваційних технологій в освітній процес вищих навчальних закладів, де підкреслюється важливість мотивації студентів, викладачів та акцентується увага на спеціальних освітніх умовах з урахуванням індивідуальних особливостей студентів. Проведений аналіз наукової психолого-педагогічної літератури дозволив розкрити проблеми впровадження інноваційних технологій в освітній процес. У нашій статті розкриваються суперечності між теоретично орієнтованою освітою і реалізацією отриманих знань у професійній діяльності. Сучасні процеси у сфері освіти, соціально-економічні умови суспільства показують шляхи розвитку всієї системи освіти, яка є невід'ємною частиною нововведень, але пов'язана з певними труднощами: кардинальні зміни в навчальних дисциплінах; усвідомлення викладачем необхідності змін; психологічну готовність всіх суб'єктів освітнього процесу до інноваційної діяльності; володіння й активне використання викладачами методів самопізнання, самооцінки та саморозвитку; комунікативну компетентність викладачів.*

*Метою статті є аналіз на основі статей, публікацій, наукових праць, проведених психологічних досліджень сучасного впровадження інноваційних технологій і виявлення найпоширеніших труднощів впровадження інноваційних технологій у навчальний процес немовних вищих навчальних закладів України.*

**Ключові слова:** *інноваційні технології, інноваційна діяльність, готовність до інновацій.*

**Introduction.** The educational standards in Ukraine's education implies a certain reorganization of the processes of education the incorporation of new elements and innovative technologies into them. However, in practice, the implementation of innovations raises a number of problems. To date, the primary goal of the educational and educational process is: "learn to learn". The student does not become the object but the subject of learning, in this regard, changing the requirements for the organization of the pedagogical process.

**The purpose of the article** is to analyze, on the basis of articles, publications, scientific works, conducted psychological research, the modern introduction of innovative technologies and the identification of the most common difficulties of introduction of innovative technologies in the educational process in non-language higher educational institutions of Ukraine.

Innovative thinking is formed in a student of specific conditions. First, he is actively motivated in learning, fulfills the requirements of self-management, individual self-government to achieve ambitious (in

the good sense of the word) life goals. Second, the educational process should reflect the full life cycle of professional activity with its innovations and contradictions. The current processes in our country are no longer talking about possible transitions to innovative technologies in the field of education, but about a sustainable path of development of the entire education system, which is not conceivable without innovation, because it is dictated by the socio-economic conditions of society.

**Main part.** Before considering the current situation in the higher education system, it is necessary to determine what underlies innovations and what is their relevance. The term "innovation" in Latin means "update, innovation, or change". Innovation exists in different spheres of human activity, but in educational activity it means the use of new knowledge, techniques, approaches, technologies to obtain results in the form of educational services that are important for social and market demands.

Innovative learning technologies include: interactive learning technologies and computer

technologies. Innovative learning technologies that reflect the essence of the future profession could shape the professional qualities of a specialist. It should be a kind of training ground for students to develop their professional skills in conditions close to the real ones. Modern innovative technologies introduce elements of problematization and scientific search into the higher education system. Many authors distinguish the following innovative learning technologies: contextual, imitative, problematic, modular, full knowledge acquisition, distance learning.

Innovative thinking is formed for a student of specific conditions. First, he is actively motivated in learning, fulfills the requirements of self-management, individual self-government to achieve ambitious (in the good sense of the word) life goals. Second, the educational process should reflect the full life cycle of professional activity with its innovations and contradictions. The current processes in our country are no longer talking about possible transitions to innovative technologies in the field of education, but about a sustainable path of development of the entire education system, which is not conceivable without innovation, because it is dictated by the socio-economic conditions of society.

Analysis of the scientific and pedagogical literature shows that innovative models of learning are based on the concept of developing learning. An indicative generalized model of innovative learning involves: active participation of students in the learning process; opportunities for applied knowledge in real-world contexts; an approach to learning as a collective rather than an individual activity; emphasis on learning rather than memorizing information.

Considering all participants of the educational process (teacher and student) it is necessary to understand that innovative activity is first and foremost related to the teacher's awareness of the need for change, innovation. E. Rogers identified four variants of perception of innovation by an individual: 1) perception of innovation with its subsequent use; 2) complete refusal of innovation; 3) perception with refusal of innovation; 4) refusal to innovate with subsequent perception (Rogers, 1983: 8).

Since the main task of psychological and pedagogical support of the learning process is self-study and self-education, the current situation of the student's readiness for self-regulation of his own learning process and self-control of his actions remains to be "high level", the dream of every teacher of the university.

The most common innovations are information and communication technologies, personal-oriented training, project and research activities, game technologies.

However, it turns out that to use such experience is not so simple for a number of reasons. The main problems can be formulated as follows: insufficient methodological elaboration of innovations, necessity of retraining and personal motivation, low motivation of students, lack of necessary material and technical equipment of educational institutions, insufficient methodological elaboration of innovations, constructive novelty is created by teachers-innovators, whose creative ability prevents them from copying automatically pedagogical experience. They are characterized not only by high intelligence and increased need for novelty, but also by their critical attitude towards outdated reality, their commitment to finding alternative solutions. Therefore, such educators often find themselves at odds with their environment.

Talking about innovations in the university, it is impossible to underestimate the psychological barriers that arise when a person is confronted with something new and unknown. It often causes anxiety and fear in people.

K. R. Mamadaliyev identified the following innovative barriers and barriers to creativity: a tendency to conformism; the fear of being a "white crow" among people, to appear foolish and ridiculous in their judgments; fear of seeming too extravagant, even aggressive in their rejection and criticism of other people's thoughts; personal anxiety, self-doubt, negative self-perception ("self-concept"), characterized by low self-esteem, fear of expressing ideas openly; rigidity thinking, which can be considered as a property to use the acquired knowledge "in their final sense without the possibility of diversity" (Mamadaliyev, 2012: 7).

Another problem is the commitment of the teaching staff to the classical methods of teaching and assessment, the unwillingness to apply innovations in their pedagogical practice. Teachers with long years of experience find it difficult to switch the new standards. Many educators do not have sufficient competence in information and computer technology. Most of the innovations are used by young teachers who have information technology skills, but do not have many years of experience using traditional methods, and are generally more creative in their learning. In this case there can also be problems – the unwillingness to be a "white crow" and cause disapproval of colleagues nullifies the enthusiasm.

Therefore, the question arises of advanced training, retraining the teaching staff, teaching them working skills with technology and Internet resources. Moreover, there should be a reorientation of teachers to new theoretical and practical foundations, motivation

to use pedagogical innovations in the changing conditions of the present. However, sometimes the school administration as a whole remains committed to the old system or does not pay enough attention to updates.

Students are also unprepared for new methods of learning, they have a lack of awareness of the importance and inevitability of the transition to innovative technologies. This is explained by the lack of awareness in the educational field and conservative views.

One of the factors contributing to the successful introduction of innovative technologies is the high level of technical equipment. In addition to computers, multimedia boards, programs, communication channels, it is desirable to have support services to ensure their proper functioning. At the moment it is noted that the material and technical base of many universities is not adequate.

In spite of the existing obstacles, despite the fact that the student is at the center of the educational process and rightly so, it is impossible to underestimate the importance of the teacher's personality and his / her own desire to develop. It depends on him whether his students will grow up with a relentless thirst for knowledge and whether they can find their way in life. That is why active and resourceful teachers cultivate talented and dedicated students.

Whatever problems a teacher may encounter when trying to rebuild a lesson, it is important to keep in mind that innovations in any area are faced with a number of problems at the testing stage. The main goal is not to stop, because favorable changes are happening today in some classes of hundreds of thousands of schools.

The conducted research and analysis of scientific publications in the field of introduction of innovative technologies in the system of higher professional education allowed us to identify a number of significant problems, to identify possible ways of their solution, as well as to note significant positive tendencies of this process:

1) the introduction of innovative technologies in the university significant psychological barriers for the teacher are: inability to express their own individuality, creativity; the inability to self-actualization; unwillingness to stand out from one's companions (fear not to be like everyone else), etc., which is completely overcome with the help of competent psychological and pedagogical support, expressed in the organization of training for teachers with presentation of new forms and methods of innovative learning in the university;

2) psychological and pedagogical support of the educational process contributes to the transformation

of all participants in the educational process: the development of teachers who organize the educational process (mastering a new style of management, a new type of analytical thinking); rapid inclusion of students in the educational process (use of new ways of interaction in the creation of projects, programs taking into account psychological characteristics and own potential opportunities). This allows to identify a specialist with a developed professional competence in the graduated students. The process of supporting the introduction of innovative technologies in the educational process should be carried out in two directions: preparation for the acquisition of knowledge with the help of modern technologies; the readiness of teachers themselves to transfer knowledge on the use of techniques, ways of thinking, which allow all participants of educational process to see the connections and relationships between the objects of the research;

3) in our opinion, there is a positive side of the use of innovative technologies in the university: the competitiveness of the educational institution; raising the level of professionalism of the teacher; student's personal growth; transforming the role of the teacher as a carrier of knowledge into the role of mentor, accompanying students' creative pursuits; raising the student's self-esteem in the execution and realization of the creative project; forming the ability to think independently and competently. Implementation of continuity of the acquired knowledge and its application in practical activity will significantly increase the level of higher professional education.

4) the learning process will be greatly enriched by well-established innovative learning models if these models will be able to reveal the psychological aspects of the activity, the principles and approaches formulated in the concept of developmental learning;

5) in order to develop cognitive motivation of students, first of all it is necessary to pay attention to the provision of conditions corresponding to sanitary and hygienic requirements; adherence to the rules of use of means of visualization (brightness, illumination, contrast, image size); the ability to use an oral speech; consideration of the possibility of direct management of perception; use the supporting techniques and return of attention; consideration of emotional factor; the use of clarity, graphs, circuits to enhance perception and memory;

**Conclusion.** Scientific analysis has revealed the possible prospects for the introduction of innovative technologies in the higher education system and a special way of implementing modern requirements, which are used not only for graduates of universities, but also for teachers through the creation specially



organized support in the conditions which meet the needs and motives of all participants of educational process; new forms of thinking are formed; overcoming psychological barriers inherent in a person while meeting something new and unknown.

Also, the current trends in the higher education system indicate the need for further research in this area: scientific and methodological support of innovative activity of the institution; regulatory legal support; monitoring the quality and effectiveness of their implementation. The selected directions will reveal a number of problems: lack of systematic and integrity of pedagogical innovations implemented; low awareness of innovations; stimulation of innovative activity of

teachers; lack of effective managerial support for the innovative activity of the teacher, orientation in which will allow to develop own system of introduction of innovative technologies in a particular university.

An essential indicator of successful implementation of innovative technologies is the adaptation of the teacher in new, rapidly changing conditions, in particular the transformation of the teacher's personality from a carrier of knowledge into an author, developer, researcher, user and promoter of pedagogical innovation. No less striking result of this activity is the development of professional competencies and the ability to quickly navigate the new conditions of our graduates.

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