Modern Innovative Research in the Field of Education

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Abstract

The main purpose of the study is to identify the key aspects of modern innovative research in the field of education. In the modern informatized world, education is becoming a decisive factor in social development and an important component in the development of the human personality, increasing respect for human rights and freedoms. Today it is quite obvious that without the necessary education a person will not be able to provide himself with proper living conditions and realize himself as a person. The high level of education of the population is an important factor that positively influences the creation of favorable conditions for the full realization of the rights and freedoms of man and citizen. Today, active and interactive teaching methods are widely used. The use of interactive teaching methods ensures complete immersion of students in the learning process and is the main source of learning. The radical difference between traditional and interactive learning is that the student not only replenishes and strengthens his knowledge, but also complements and constructs new ones. The methodology includes a number of theoretical methods. As a result of the study, current trends and prerequisites of modern innovative research in the field of education were investigated.

Keywords:
Innovative Research, Social Development, Education, Interactive Learning, Innovations.

1. Introduction

One of the main features of modern society is its development on the basis of innovations. This process is being fully implemented in the field of education, since it is this area that determines the forward movement of the economy of each state. Education, traditional for the past, as a system aimed at the passive acquisition and reproduction of knowledge, today lags behind the real requirements of the labor market. The demand for a transition to innovative education, in particular in higher education institutions, is due to today's challenges and is one of the priority areas of state policy in the context of the integration of the national educational industry into the European and global educational space.

In the context of socio-economic reforms, continuous renewal and development of the education system under the influence of scientific, technological and humanitarian progress, competition in the labor market and educational services, innovations are becoming a vital element in the activities of educational institutions, a necessary condition for success in education and training.

Modern educational institutions, to a certain extent, become cells for the preparation of creatively thinking young people who are able to adapt in a dynamically changing world. At the same time, the traditional forms and methods of management that have developed in educational institutions are insufficient for the professional management of modern, larger-scale innovations in education.

Educational innovations are the main factor in the effectiveness of the teaching and upbringing process in universities, which determined the choice of our study.

Innovations are classified according to the object of influence (pedagogical, socio-psychological, organizational and managerial), the level of distribution (system-methodological and local-technological) and the innovative potential of the new (radical, modification, combinatorial). According to the object of influence, the results of pedagogical innovations are qualitative changes in the education and upbringing of schoolchildren. The introduction of innovations of a specially psychological orientation contributes to the improvement of the microclimate in the educational environment, forms a high level of culture of

relations between the subjects of the educational process. Innovations of the organizational and managerial type ensure the introduction of modern forms and methods of management, contribute to overcoming the stereotypes of a conservative leadership style, and form new partnerships. Dissemination of innovations of the system-methodological level are implemented within the overall system. The local-technological level of innovation implies the approbation of personality-oriented innovative methods, systems at individual educational facilities. According to the innovative potential of the new, radically new ideas are innovations in education introduced on the basis of radically new means (information and computer technologies, neurolinguistic programming, etc.). Modification is called innovations aimed at improving the content, forms, methods of the educational process, organization of education. Combinatorial innovations are called modernized innovations - educational and pedagogical traditions adapted to the new socio-cultural environment.

2. Methodology

To achieve the goals set in the study, we applied the following methods: induction and deduction, comparison and systematization; synthesis and analysis; abstract-logical - for theoretical generalizations and conclusions of the study.

3. Research Results and Discussions

The methodology of teaching and education in the system of higher education is constantly being improved and transformed under the influence of objective and subjective factors. Based on classical and innovative technologies of interactive organizational forms of education and upbringing of students, the educational process in higher education is intensified, it is being optimized taking into account the globalization of the world economy [1]. When a revolution of intellectuals is observed in post-industrial states, the transformation of science into a direct productive force, higher education should ensure not only the assimilation of a system of knowledge by students, but also instill in them the ability to independently generate new knowledge, form universal positive qualities. Under these

conditions, the methodology of teaching and education in higher education allows not only to deepen and intensify the process of cognition of real phenomena by students, but also to humanistically direct it in terms of content, technological components and structural elements. In addition, the methods of teaching and education are not only being improved, but also changing according to the structural and organizational technology.

In order to maximize the positive potential of modern global trends in the development of education and overcome their negative consequences, it is necessary to implement a number of measures, in particular [2]:

- decentralization of the higher education system, real autonomy in educational institutions (including economic activity), development of the private sector of the higher education industry with the simultaneous introduction of an effective education quality assessment system based on independent quality assessment agencies;

- gradual restructuring and optimization of the state order for the training of specialists with the participation of employers in order to bring the state order in line with the real needs of the public and private sectors of the national economy;

development of the system of education throughout life;

further development of the export potential of domestic higher education in order to obtain economic results, accelerate the modernization of education and increase influence and prestige in the world.

Interactive teaching methods allow you to organize the learning process in such a way that all students are still involved in the cognitive process, each of them contributes to the learning of others, students exchange information and ideas. Such relationships allow students not only to acquire knowledge, but also to develop communication skills: the ability to listen to others, evaluate different points of view, participate in discussions, make joint decisions, develop tolerance, etc. With interactive learning, students actively participate in learning activities, simulate professional situations, perform creative and research tasks, conduct discussions with other students, learn to substantiate their point of view and make arguments, develop strategies for effective behavior in various situations [3].

Innovative processes in education are considered in the literature as a purposeful organization of the creation, implementation and dissemination of the new (content, form, method, means, element, etc.) with the aim of changing the educational environment (educational institution, educational region, state) and the transition of education into a new quality system. They are determined by a number of factors: - innovation policy approved at the state level in education; innovative potential of teachers; the use of pedagogical experiment as the main form of producing innovations; purposeful organization of this process on a scientific and methodological basis; evaluation of the results of innovative search and its dissemination in educational practice [4].

At any level, educational innovation develops in five stages.

The first stage is the initiation of innovation and the decision on the need to introduce innovations of a certain type. The initiation can be brought to life by the internal motivation of the leader of the organization, but, most likely, the cause is external or internal pressure: the order of the ministry, the order of the industry for a new specialist, changes and processes within the organization itself. Normally, an innovation strategy and analytical work on its implementation should be carried out by a leader with the rank of rector, vice-rector and dean (director, head teacher). In practice, often the initiative for innovation comes not from above, but from below - from teachers – innovators [5].

The second stage is theoretical, that is, the justification and development of innovations based on psychological and pedagogical analysis, forecasting how the innovation process will develop and what are its negative and positive consequences (economic, legal, etc.) [6]. This stage is the most difficult, since pedagogical reflections and the ability to imagine a different pedagogical reality presuppose: possession of psychological and pedagogical theory; the ability to build your ideas into a single concept; substantiation of the necessity or inevitability of innovation; identification of factors contributing to the introduction of innovation. This stage also implies the information support of the planned innovation. Careful work at the second stage contributes to success at the stage of introducing innovations into the pedagogical process.

The third stage - organizational and practical - is the creation of new structures that contribute to the development of innovation: laboratories, experimental groups, etc. These structures should be mobile, self-sufficient and independent [7].

At the stage, it is important to find supporters of the innovative idea, especially from among influential and authoritative persons in the organization. In addition, it is necessary to provide for the attitude towards innovation of many other employees from among those who will be directly affected by these innovations. This stage of the innovation process ends with the conviction of the majority of members of the organization of the need for innovation and the creation of a favorable emotional and motivational background.

The fourth stage - analytical - is the generalization and analysis of the resulting model. At this stage, it is necessary to understand at what level the innovation process is carried out; correlate the state of the educational institution as a whole (or the state of teaching a particular subject) with the predictive state that was supposed to be achieved as a result of the innovation.

The fifth stage is implementation, which can be trial and then complete. Success at this stage depends on three factors: on the material and technical base of the educational institution (or educational environment) where the innovation is carried out; on the qualifications of teachers and leaders, on their attitude to innovation in general, on their creative activity; from the moral and psychological climate in the organization (the degree of conflict, the degree of cohesion of employees, staff turnover, public assessment of their work, etc.).

In our opinion, one of the important innovations in education is the use of interactive teaching methods.

There are a large number of interactive learning technologies. Interactive teaching methods are divided into: non-imitation; imitation: game; non-gaming [8].

Among students, simulation methods of interactive learning have gained popularity, aimed at modeling real professional situations, as well as situations that may be useful to future managers. Under such conditions, classroom training becomes the closest to the future profession.

Simulating professional reality, simulation methods allow you to learn to determine a career trajectory,

plan and engage in the implementation of your career opportunities in a learning environment. Game simulation methods of interactive learning include methods in which students play a certain (game) role, often corresponding to professional realities. The playing role brings the manager closer to the future profession.

Non-game simulation methods of interactive learning are distinguished by the absence of a conditional professional role and other game elements. Non-imitation methods mainly operate with problematic content, the creation of a list of professional tasks. Non-imitation methods are characterized by the absence of a model of the simulated object presented in a certain form. Basically, this group of methods includes those methods that are aimed at the audience as a whole. The use of interactive teaching methods in the educational process allows us to solve the problem of insufficient motivation of students, to assist in the optimal assimilation of educational material. Both lectures and practical classes can be conducted in an interactive form. An alternative to traditional lectures can be lectures with planned errors that activate students, as they search for methodological, behavioral, content and other errors intentionally made by the teacher. Also more common lecture discussion, where the problem is solved in the course of the discussion. In such classes, the teacher becomes an active participant in the discussion, directs it in the right direction, that is, acts as a moderator, consultant, assistant, etc. That is, the emphasis is on student-centrism [9].

The use of interactive teaching methods in seminars can be carried out in various ways: Brainstorming, also known in pedagogy as a method of collective search for ideas. Each teacher can independently develop new forms of work with the audience. The most common are carousel, aquarium, incomplete sentence, brainstorming, Brownian motion, decision tree, role-playing (business) game, case method, discussion, debate, etc. Students are also motivated to use case studies in class [10].

However, in the process of compiling such a case, certain conditions must be observed: compliance of the situation with the content of the discipline; the presence of a problem; simplicity and relevance of the problem; the presence of clear instructions for working with it. Another effective interactive method of teaching and socio-

psychological development of a personality is training, which is a set of various games and exercises combined into a system with the help of several theoretical modules. Thanks to the use of training, one can effectively interact with colleagues, overcome barriers, and develop professional competencies [11].

Innovative activity requires a high level of professionalism of the teacher, the maturity of his personality, a steady desire for continuous self-improvement. The study of the processes of personality development in professional activities is carried out by acmeology, the theoretical and methodological foundations of which are determined by a set of provisions on the essence of a person as a subject of holistic spiritual, personal, professional self-development and self-improvement

According to the developed systematics, innovations in pedagogical techniques and research are divided into the following types and subtypes [12]:

1. In relation to the structural elements of educational systems: an innovation in goal-setting, in tasks, the content of education and upbringing, forms, methods, techniques, teaching technologies, means of teaching and education, a diagnostic system, control, evaluation of results, etc.

2. In relation to the personal formation of subjects of education: in the field of developing certain abilities of students and teachers, the field of developing their knowledge, skills, ways of working, competencies, etc.

3. According to the area of pedagogical application: in the educational process, the training course, the educational industry, at the level of the education system, at the level of the education system, in education management.

4. By types of interaction between participants in the pedagogical process: in collective learning, group learning, tutoring, tutoring, family learning, etc.

5. By functionality: innovation-conditions (provide the renewal of the educational environment, socio-cultural conditions, etc.), innovations-products (pedagogical tools, projects, technologies, etc.), managerial innovations (new solutions in the structure of educational systems and management procedures that ensure their functioning).

6. According to the methods of implementation: planned, systematic, periodic, spontaneous, spontaneous, random.

7. By the scale of distribution: in the activities of one teacher, a methodological association of teachers, a school, a group of schools, a region, at the All-Ukrainian level, at the international level, etc.

8. By socio-pedagogical significance: in educational institutions of a certain type, for specific professional-typological groups of teachers.

9. By the volume of innovative events: local, mass, global, etc.

10. According to the degree of proposed transformations: corrective, modifying, modernizing, radical, revolutionary.

In the proposed taxonomy, the same innovation can simultaneously have several characteristics and take its place in different blocks. For example, the educational reflection of students can be an innovation in relation to the system of diagnosing education, the development of ways of students' activities, in the educational process, in collective learning, an innovation-condition, periodic, in a senior profile school, a local, radical innovation [13].

The approval of the priority of the innovative development of education is based on the modernization of all components of the system (content, pedagogical technologies, assessment of educational achievements of students / students, training of teaching staff, management, financing, etc.); normative support of the innovation policy of the industry; formation of infrastructures supporting and coordinating innovation processes. The innovation process is polystructural in its functions and content.

4. Conclusions

Thus, the educational environment of a higher educational institution affects the formation of students' competencies, since it provides unlimited opportunities to search for the necessary educational information for doing independent work, preparing for seminars, reports, writing essays, etc., therefore, it forms the ability to work, analyze and evaluate information. However, this will be fully implemented only if the training is guided by an innovative model, the most important characteristics of which are a student-oriented focus, a setting for the development of students' creative abilities. Quality education implies that a graduate is capable of constant intellectual work, flexible change of specialization,

further learning throughout life. Simultaneously with the acquired professional knowledge, the graduate must take care of his own internal qualities, such as morality and spirituality, multiply the inherited national traditions, culture, etc. Education is also the process of forming skills and abilities, fostering a culture of thinking and cognition, the ability to self-learn and self-educate [14].

Pedagogical innovation consists in the constant search and implementation of new most effective technologies for training and education, the result of which should be the formation of a highly adapted to changing conditions, vigorous activity, a creative person who can analyze. Orientation to the new, the search and implementation of the new is not an end in itself of pedagogical innovation, it is aimed at ensuring the adequacy of the educational process and its results to the requirements of society. And in a dynamically changing society, this encourages a constant renewal of the content and forms of education and upbringing, the most attentive attitude to everything new [15].

Innovative activity in the educational sphere is a fundamentally important response to the challenges of our time, determined by the transition of society to an innovative type of development and causing the flexibility of the education system, its openness to the new, the implementation of competitive educational national and transnational projects. The implementation of educational innovations is the key to the competitiveness of national education, its ability to form an innovative person.

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