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Research paper



Integrated Healthcare Saving Technologies Innovative Potential in Higher Education Institutions

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Abstract

The article analyzes the innovative potential, the essence of which is orientation of the educational process on the potential human rights and their implementation, and also describes the tasks and circumstances of the use of integrated healthcare saving technologies in higher education institutions. Particular attention is paid to the fact that an innovative approach to student learning should be systematic and cover all aspects of educational work in the preparation of future specialists, with the need to review the theoretical and practical approaches to the content of education, vocational teacher training, development of new technologies and teaching methods. At the same time, the main objective of innovative educational technologies is to prepare a student for life in an ever-changing world. Thus, the teacher can act as a participant, developer, researcher, user and advocate of new pedagogical technologies, theories and concepts.

Keywords: *innovative technologies of training, integrated teaching technologies, innovative activity, health-saving technologies, information and communication technologies, socio-economic transformations.*

1. Introduction

Education is the strategic basis for the development of personality, society, nation, state and the key to a successful future. The transformation of a post-industrial society into a global information-based, based not only on knowledge but also on the competence of specialists, significantly updated the problem of innovative approaches to the organization of educational processes. As a result, the modern education system demands quite high demands on the education system: it must prepare professionals for life and activities in a broad, dynamic, changing world, where non-standard problems are constantly encountered by a person, the solution of which involves the ability to build and analyze their own actions . The leading place in such a system is taken by innovative methods of preparing students in the higher education system, which in future will be directly involved in the formation and implementation of investment and innovation policy.

2. Problem Search

2.1. Analysis of Recept Studies and Publications

In modern scientific literature, devoted to the problems of management of innovative processes in the field of educational activity, the complexity and multidimensionality of this process are noted. Particular attention is paid to the fact that the innovative approach to student learning should be systematic and cover all aspects of educational work in the preparation of future specialists, with the need to review the theoretical and practical approaches to the content of education, vocational teacher training, development of new technologies and teaching methods. Domestic and foreign researchers, such as J. Martin, L. Svenson, I. Lerner, M. Skatkin, V. Bespalko, V. Slastenin, O. Pekhot, S. Sysoev, and others, are actively studying the labeled issues. However, most studies are aimed at general education institutions, and the high school is undeservedly neglected by domestic scientists. And there are not so many works devoted to examining the peculiarities and distinctive features of innovative methods of teaching students, as well as revealing the advantages and prospects of using different innovative forms of education.

As you know, the basis of innovative educational technologies used in the educational process, is the social order, the professional interests of future specialists, taking into account the individual, personal characteristics of students[2]. Therefore, when preparing specialists in higher education, the application of innovative forms and methods should be organically combined with a pragmatic understanding of the goals and objectives of training and training. In modern psychological and pedagogical literature it is noted that innovative methods are reflected in many educational technologies aimed at the development and improvement of the educational process and the training of specialists for professional activities in various spheres of life of modern society[4]. They create conditions for the formation and consolidation of professional knowledge, skills and abilities of students, promote the development of professional qualities of the future specialist. The use by teachers of innovative methods in the learning process contributes to overcoming stereotypes in teaching different disciplines, developing new approaches to professional situation

One of the effective ways of solving these problems is the informatization of education. Improving the technical means of communication has led to significant progress in information exchange. The emergence of new information technologies related to the development of computer facilities and telecommunications

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networks has made it possible to create a qualitatively new information and educational environment as the basis for the development of integrated teaching technologies in higher education institutions [5].

An innovation (English Innovation is Innovation) is the introduction of new forms, methods and skills in the field of education, education and science. In principle, any socio-economic innovation, while it has not yet received mass, that is, mass distribution, can be considered innovations [1].

2.2. The Basic Part of the Study

The specifics of education at the beginning of the third millennium impose special requirements for the use of various technologies, since their product is aimed at living people, and the degree of formalization and algorithmization of technological educational activities is unlikely ever to be comparable to industrial production. In this regard, along with the technologicalization of educational activities is as inevitable process of its humanization, which is now becoming more widespread within the framework of personality-activity approach. The profound processes taking place in the education system in our country and abroad lead to the formation of a new ideology and methodology of education as an ideology and methodology of innovation education. Innovative learning technologies should be seen as a tool through which a new, integrative paradigm can be implemented [4].

The main objective of innovative educational technologies is to prepare a student for life in an ever-changing world. The essence of such training is the orientation of the educational process on the potential human abilities and their implementation. Education should develop mechanisms for innovation, find creative ways to solve vital problems, promote the transformation of creativity into the norm and the form of human existence.

The purpose of innovation activity is qualitative change of the student's personality in comparison with the traditional system. This becomes possible due to the introduction into the professional activities of not well-known practices of didactic and educational programs, which involves the removal of the pedagogical crisis. The development of the ability to motivate actions, to independently focus on the information received, the formation of creative non-syllabic thinking, the development of students through maximizing the disclosure of their natural abilities, using the latest advances in science and practice, are the main objectives of innovation. Innovative activity in education as a socially important practice, aimed at moral self-improvement of the person, is important in that it is able to ensure the transformation of all existing types of practices in society[2].

Given the transition to a global informational society, the adequacy of education to the socioeconomic needs of the present and the future can only be said if its modernization will be based not only and not so much on organizational innovations as on changes in substance - in the content and training technologies and the preparation of scientific research. As a social institution that reproduces the intellectual potential of a country, education should have the ability to advance ahead, to meet the interests of society and a specific person.

The use of information and communication technologies makes it possible to significantly accelerate the process of finding and transmitting information, transforming the nature of mental activity, integrating human labor. It is proved that the level of development and introduction of information and communication technologies in production activity determines the success of any firm. The basis of information and communication technologies are information and telecommunication systems, built on computer means and which constitute information resources and hardware and software, which provide storage, processing and transmission of information at a distance [3].

An analysis of the use of computer technology in the teaching of natural sciences indicates that 78.41% of teachers use these technologies in full; 16,15% - not used; It is difficult to answer - 5.44% . Qualitative implementation of health-saving technologies in the professional activities of future biology teachers involves the use of the most effective teaching technologies in the educational process, which in the future will become the technological base that will provide professional competence and professional growth. In this regard, the use of modern media technologies in the formation of health-saving technologies is most effective in providing visibility to teaching, so we rate the level of data received as insufficient.

The high level of use of computer technologies among teachers is the basic basis for the rapid modernization of natural education and bringing it to the requirements of the Ukrainian society for the training of future biology teachers.

The questioning of teachers of natural sciences faculties of higher educational establishments revealed that 79.84% of respondents regularly use information from the Internet about health-saving technologies; do not use - 15.71%; It's difficult to answer - 4.45% of those polled. This once again convincingly proves our conclusions about the existence of high potential for the use of advanced information technology for the rapid modernization of natural education on a modern basis. The results of the survey on the use of methods for drafting projects on health care issues have shown a low level of use of this effective teaching method: only 21.75% of the teachers interviewed use it in the process of teaching natural sciences; do not use - 65,14%, it is difficult to answer - 13,11% of respondents. At the same time, the use of e-mail, videoconferencing, social networks to support students in the development of individual projects and tasks, while independently processing the training material, is necessary for 35.95% of the teachers of natural sciences discipline; do not use these tools 62.14%; It is difficult to answer - 1.91% of those polled.

A modern school should become the forefront of information technology, a place where a person receives not only the necessary knowledge but also takes on the spirit of the modern information society. Without the use of information and communication technologies (ICT), an educational institution can not claim an innovation status in education. In fact, an educational institution that broadly integrates organizational, didactic, technical and technological innovations into educational process is considered innovative, and on this basis it seeks to achieve a real increase in the pace and extent of knowledge acquisition and the quality of training of specialists. The word "innovation" (from the Latin "Innovative") appeared in the middle of the 17th century and means the introduction of a new sphere into a certain sphere, the introduction of it and the creation of a number of changes in this area. Innovation is, on the one hand, the process of updating, implementing, implementing, and on the other hand, it is an activity to integrate innovations into a particular social practice, and at all - not an object[1].

Education is a way and a form of becoming a holistic person. The essence and purpose of the new education is a true development of general and personal abilities of a person, mastering of it universal ways of activity and thinking. The modern notion of "education" relates to the interpretation of terms such as "learning", "education", "education", "development"[5].

The transition to integrated teaching methods and real-time technologies requires significant telecommunication resources that can provide the necessary interconnection of participants in the educational process, support multiservice technologies, high productivity of telecommunication equipment and bandwidth of data transmission networks[7].

Innovation, or innovation, is characteristic of any professional human activity and therefore naturally become the subject of study, analysis and implementation. Innovation does not arise in itself, they are the result of scientific research, advanced pedagogical experience of individual teachers and entire teams[8]. This process can not be spontaneous, it needs to be managed.

In the context of the innovative strategy of a holistic pedagogical process, the role of teachers as direct carriers of innovative processes is significantly increasing. With all the diversity of teaching

technologies: didactic, computer, problem, modular and integrative - the implementation of leading pedagogical functions remains the teacher. With the introduction of the educational process of modern technology, teachers increasingly master the functions of a consultant, counselor, educator. This requires special psychological and pedagogical training from them, as in the professional activity of the teacher, not only special, subject knowledge, but also modern knowledge in the field of pedagogy and psychology, technology of education and upbringing are realized. On this basis, readiness for the perception, evaluation and implementation of pedagogical innovations is formed [2].

The term "innovation" means innovation, novelty, change; innovation as a means and process involves the introduction of something new. With regard to the pedagogical process, innovation means the introduction of new in the purpose, content, methods and forms of training and education, the organization of joint activities of teachers and students.

The use of interactive teaching methods plays an important role in the implementation of healthcare-saving technologies in the professional activities of future biology teachers. The results of the survey are shown in Table.1, indicate that in the process of teaching natural sciences interactive methods are used by 47.88% of teachers; business and role games - 42.15%; method of brainstorming - 38.71%; work in small groups - 61,11%; trainings - 36.14% of the interviewed teachers. The obtained data indicate that the level of practical use of modern pedagogical technologies, which is the basic component of health-saving technologies, is lower than the knowledge of health-saving technologies in general, that is, the received knowledge does not find practical implementation in the implementation of healthcare-saving technologies in the professional the activities of future biology teachers.

Table 1: Teacher's answers distribution who were asked concerning the use of interactive methods and individual teaching methods (%)

Do you use the course in teaching natural sciences?	I use	I do not use	Difficult to answer
Interactive methods	47,88	43,17	8,95
Business and role playing games	42,15	39,48	18,37
«Brainstorming» method	38,71	52,12	9,17
Work in small groups	61,11	37,65	1,24
Trainings	36,14	59,77	4,09

In understanding the essence of innovation processes in education are two major problems of pedagogy - the problem of studying, generalization and dissemination of advanced pedagogical experience and the problem of introducing the achievements of psychological and pedagogical science into practice[6]. Consequently, the subject of innovation, the content and mechanisms of innovation processes must lie in the plane of unification of two interrelated processes that are considered so far until isolated, that is, the result of innovation processes should be the use of innovations, both theoretical and practical, so itself and those that are formed at the junction of theory and practice. All this emphasizes the importance of managerial activity in creating, mastering and using pedagogical innovations. The language, therefore, is that the teacher can act as a participant, developer, researcher, user and advocate of new pedagogical technologies, theories, concepts. The management of this process ensures the purposeful selection, evaluation and application of the experience of colleagues or the science offered by new ideas and techniques. The need for innovative direction of teaching activities in the present conditions of development of society, culture and education is determined by a number of circumstances [4].

First, there are socio-economic transformations that have led to the need for radical renewal of the education system, methodology and technology of the organization of the educational process in educational institutions of different types. The innovative orientation of activity, which includes the creation, development and use of pedagogical innovations, serves as a means of updating educational policy.

Secondly, the strengthening of the humanization of the content of education, the continuous change in the volume, the composition of educational disciplines, the introduction of new educational subjects require a continuous search for new organizational forms, integrative learning technologies. In this situation, the role and authority of pedagogical knowledge in the teaching environment grows significantly.

Thirdly, is the change in the nature of teachers' attitudes toward the very fact of mastering and applying pedagogical innovations. In conditions of strict regulation of the content of the educational process, teachers were limited not only in the independent selection of new programs, textbooks, but also in the use of new techniques and methods of teaching activity. If earlier the innovation activity was mainly to the use of the recommended abovementioned innovations, now it is becoming more and more integrative, research character. That is why an important direction in the work of higher educational institutions, educational management bodies is the analysis and evaluation of pedagogical innovations, creation of conditions for their successful development and integration into the educational process.

Fourth, the entry of higher education institutions into market relations, the creation of new types of educational institutions, including non-state, create a real need to increase their competitiveness.

3. Conclusions

Thus, education by its very nature is already an innovation. Applying technology data to innovative learning, the teacher makes the process more complete, interesting, and full. When crossing the subject areas of natural sciences, such integration is simply necessary for the formation of a holistic worldview and worldview of innovation.

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