



**SCIENTIFIC-METHODICAL SIGNIFICANCE OF PEDAGOGICAL
TECHNOLOGIES OF INNOVATIVE APPROACHES IN COMPETENCE
DEVELOPMENT OF FUTURE ENGINEERS**

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ABSTRACT	KEYWORDS
This article focuses on innovative approaches, technologies and their importance in the development of competence of future engineers, emphasizing that the integration of education, science, production with society is one of the important needs in the field of personnel training. and comments on the cluster approach as a modern priority direction in the field of science, production and education are presented.	Principles of innovation, creativity, integration, production, society, personnel training, harmony of theory and practice, cluster approach.

Introduction

The introduction of innovative approaches in education implies the further development of the basic and general competencies specified in the state educational standards using new technologies and forms of effective organization of educational processes. This is a process related to the need to combine the practical-active approach with the theoretical approach of education, that is, the acquired theoretical knowledge with the practical needs. The issue of integration in the education system is certainly not a new phenomenon, in our country there are enough theoretical foundations in this regard, as well as a lot of practical work. First of all, the tasks of ensuring the effective integration of education, science and production in the field of personnel training, the development of mechanisms for the formation of state requirements for the quantity and quality of trained personnel, as well as the formation of orders of non-state structures, enterprises and organizations. In the context of the modernization of the educational system, its integration is considered an innovative paradigm, it is possible to form a creative, competitive person within the framework of approaches aimed at improving the skills of applying the theoretical knowledge given to students in practical activities, the types of education and the mutual cooperation of pedagogues in the educational process.

Analysis of literature on the topic

The above-mentioned innovative paradigm in education takes the form of a system of activity of subjects related to education directed to a specific goal, which takes place in the harmony of theory and practice and leads to changes in quantity and quality. Any innovation is the product of an initiative,

which is focused on the development of the quality and content of education, in general, it is necessary to be based on the principle of innovation development.

It is necessary to take into account that the basis of innovations in the educational system is social relations to the system. In particular, it is necessary to look at higher education institutions not only as personnel training institutions in a specific field, but also as institutions that collect scientific ideas and projects, create social products from them, and establish technologies. In this case, it would be appropriate to increase the work efficiency of teachers working in higher education institutions, to turn their activities, which consist only of education, towards the involvement of talented young people in solving current scientific and technical problems. This, in turn, serves to increase the innovative activity of the higher education system and its integration with society.

Today, the increasing importance and necessity of the integration of education, science and production with society is explained by the following reasons:

1. increasing influence of the globalization process on education, science and industrial relations;
2. a sharp shortening of the terms of scientific development and introduction of results into production;
3. increasing mutual competition in the field of scientific research;
4. increasing mutual competition in the field of production;
5. the basis of efficiency in the fields of science and production is increasingly dependent on the potential of personnel;
6. rapid loss of significance of scientific developments, research results;
7. that all subjects are equally interested in integration.

Results

The importance of the educational system in the integration of education, science, production and society depends on the knowledge and skills of practitioners. Advances in science place new demands on the knowledge and skills of practitioners in this regard. This process, of course, shows the need to constantly change and improve the education system. The final result of these changes is reflected in the creative skills of the pedagogue. The importance of teacher's creativity in the life of society is increasing and deepening. Now the knowledge and skills acquired in practice cannot fully satisfy the needs of a person in this regard. Having new knowledge and skills and their independent position in relation to practice is becoming of fundamental importance for personnel working in any form of production. The condition for achieving efficiency in any field increasingly depends on the potential of personnel. This is increasingly reducing the distance between education and production, making education a necessary component of economic activity.

Undoubtedly, one of the modern priorities in the field of science, production and education is the cluster approach. This approach allows to reduce not only production costs, but also logistics and market costs, rational use of human resources. The cluster theory is the concentration of certain types of activities in specific geographical boundaries, which creates favorable conditions for the effective operation of that field. If such clusters of education, science, production and social integration are organized, this method will provide the priority direction of development for many years. For the successful development of the cluster, production enterprises, certain educational institutions, authorities and other representative bodies (financial institutions, educational institutions, cultural

institutions, etc.) must have a firm development strategy and a program that allows strengthening the interests of the employer.

The cluster approach allows to consider and describe the uniqueness of a specific area in a specific region. It should be noted that since cluster participants are interrelated, the uncertain performance of some cluster elements can lead to the negative performance of the dynamics of other cluster elements. Pedagogical capacity, innovative environment, innovative education, educational campuses and technological parks are important for effective integration of education, science, production and society. In these components, aspects important for the integration process, such as the role of scientific-pedagogical potential in personnel training, being based on the principle of development, modernity, renewal, modeling, harmony of theory and practice, are reflected. The cluster approach requires an innovative environment, which is important for the integration of theory and practice, and it combines the conditions for the introduction of innovations, regulatory and legal frameworks, state policies in this regard, and views and attitudes towards innovations. Innovative education occurs with the introduction of new approaches and methods to existing teaching methods and serves to increase the creative potential of higher education teachers and to form the intellectual potential of students. Innovative environment and innovative education, ultimately, develop the socio-economic development of the society.

It is desirable to provide theoretical and practical foundations for improving the effectiveness of education in the teaching of existing academic subjects in higher education institutions and providing students with high indicators that determine its result. In order to achieve this goal, in support of the above description of integration, it can be emphasized that it is an effective way to conduct educational processes in the integrated methods of inter-course, inter-disciplinary, departmental and inter-thematic theory and practice in order to provide students with high performance.

Improving the integration between types of education in the context of education also motivates the further development of the teacher's professional and pedagogical creativity in the field of competition. In this regard, strengthening cooperation between regional higher education institutions and other various subjects, popularizing innovative experiences, sharing mutual experience, wide use of the scientific competence of pedagogues of higher education institutions to improve the quality of education in general secondary education, secondary education and professional education institutions is a useful mechanism for providing employees in the future competitive field. This is reflected in the development and implementation of innovative models of pedagogues aimed at improving the quality of teaching subjects. By the learner being able to apply the acquired knowledge in practical processes, important competences in the wide scope of human-technology, human-society, science-nature relations and between the inner world of the learner and the society begin to be formed. Competencies formed as a result of the integration of such types of education and educational content help to overcome the problems encountered in the subsequent activities of a person, to be ready for various fields of the profession, and to develop professional and pedagogical competence in general.

Organization of the integration of the educational process on the basis of a cluster approach in the development and introduction of inter-educational competence requirements gives effective results. To increase the effectiveness of education, it is recommended to improve the knowledge of pedagogues, to identify and develop the abilities of learners.

Feedback and Suggestions

Thus, the process of integration in the educational system not only develops the professional and pedagogical creativity of the teacher, but also allows each subject to achieve the following goals:

- to further increase its position, using the opportunities of all interested partners in the production and implementation of new innovative approaches to education;
- to be able to effectively use the available resources of partners to achieve their private goals based on common goals.

In this way, each of the subjects unites around a common goal and is interested not only in increasing its own efficiency, but also in the achievement of high efficiency of other subjects.

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