



THE ROLE OF EXACT SCIENCES IN THE ERA OF MODERN DEVELOPMENT

IMPROVEMENT OF THE MECHANISM OF DEVELOPMENT OF INNOVATION COMPETENCE OF FUTURE TEACHERS IN THE PROCESS OF INDEPENDENT EDUCATION

Z. U. Mangitbaeva

*Doctoral student of Karakalpak Institute of
Humanitarian Sciences, Karakalpak
Department of the Academy of Sciences of
the Republic of Uzbekistan*

Annotation: This article describes the issues of developing special competencies of future teachers of technological education based on an integrative approach in the educational process, as well as the processes of improving the mechanism of developing innovative competence of future teachers in the process of independent education.

Keywords: integration, technology, trend, competence, thinking, principle, activity, innovation, knowledge, education, modernization, abilities, independent education, innovation competent.

Introduction: The position of any country in the world community is determined by the standard of living of its population and political and economic activity. In today's globalized world, rapid adaptation of the state to the conditions of the international competition process is a factor of its successful and stable development. The factors that ensure the stable economic growth of the state today and in the future are directly related to the development of the education sector.

Integration means the integration of individual parts or elements into a single whole. M. G. Chepikov in his book "The Science of Integration" justified the concept of integral based on the word integration. Therefore, we found it necessary to dwell on the definitions of integration. The term "integration" is relatively new and has a long history in terms of content and essence.

Integration is a very broad concept. To date, people are paying great attention to the essence of the integration process in education, the practical application of its



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developmental functions, the possibility of solving important environmental problems on our planet and saving life on earth. In particular, the importance of the integration process in education in the formation of the scientific worldview of the young generation, their ecological culture, is especially noted by world scientists.

In education, integration means the organic combination of knowledge with each other and the creation of a new, single stable generalized and comprehensive knowledge. The definitions given to the concept of integration are different, and these definitions have one thing in common: integration is to see the existence around us as a whole, a whole object. The concept of "integration" was directly used by G. Spencer in his manuscripts in the 18th century.

Today, there is a reason to consider integration as an important systematizing principle of didactics in education. Also, one of the important principles of integrative organization of education is the principle of unity of integration and differentiation. Integration and differentiation are inseparable categories that define each other from a dialectical point of view. Studying them separately as independent categories is considered a methodological shortcoming of pedagogical research.

From a scientific point of view, the basis of integration is the integrity of the world, the interrelationship and mutual relations of its constituent elements. Pedagogically and educationally, integration represents coherence, interdisciplinarity, interrelationship between subject materials. It serves as a tool that complements, expands and deepens knowledge and synthesizes the content of educational subjects, at least at the DTS level, and is considered a logically completed result. Integrative education requires the student to make extensive use of previously learned materials and knowledge from other subjects, and then to apply them in practice. It creates a solid foundation for the expansion of the student's scientific outlook and dynamic development. Integration in education can be considered as a form of development of knowledge in different subjects on the basis of a single goal, interconnected.



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The rapidly developing and changing society through modern educational trends demands the need to train highly qualified specialists who are able to meet the needs of the modern labor market. Therefore, it is important to form special competencies of future technological education teachers and improve their programs based on an integrative approach.

Pedagogical training and skills are required from future teachers of technological education in higher education. In the qualification requirements, the future technological education teacher has the following requirements for pedagogical activity:

- to have systematic knowledge related to worldview;
- to know the fundamentals of humanitarian and natural sciences, current issues of current state policy, to be able to independently analyze social problems and processes;
- to have a comprehensive idea of the processes and events taking place in nature and society, to acquire knowledge about the development of nature and society, and to be able to use them in life and professional activities on modern scientific bases;
- to know the legal and moral criteria that determine a person's attitude to another person, to society, to the environment, to be able to take them into account in professional activities;
- having acquired knowledge of the methods of collecting, storing, processing and using information and being able to make independent decisions in his professional activity;
- pedagogical design of the educational process in the electronic information educational environment;
- to have competitive general professional training in the relevant bachelor's field;



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- able to independently acquire new knowledge, work on oneself and organize work on a scientific basis;
- having mastered one foreign language at the level of free speech;
- it is determined that he should have a scientific imagination and belief about a healthy lifestyle and the need to follow it, as well as physical training and skills.

Also, the future teacher of technological education should find effective forms and methods of education. It is necessary to be able to correctly choose the form, method, and means of organizing training in special subjects in order to strengthen the activity of educational methodical preparation, to form one's professional competence.

In our opinion, the future teacher of technological education should be able to apply the knowledge acquired in his specialty in practice, as well as have professional qualities important for a pedagogue (self-development, striving for innovations) or, in other words, must have professional competence. It was adopted in order to fundamentally improve the higher education system in our country, to ensure the creation of the necessary conditions for the training of highly educated specialists at the level of international standards, based on the priority tasks of the country's socio-economic development.

Competence is the quality of a person who has in-depth comprehensive knowledge of a field, and therefore is considered reliable and trustworthy. Competence is one of the constantly developing qualities of a person, the ability to solve problems in real life situations, the ability to mobilize one's knowledge, educational and life experiences, values and interests. The term competence entered the field of education as a result of the scientific research of psychologists. This understanding is necessary for how to behave in non-traditional or unexpected situations, to communicate, to take a new path in relations with parties, to perform



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ambiguous tasks, to use conflicting information. Shows the need for theoretical knowledge about how to act in ever-evolving and complex processes.

Competence is a special type of knowledge manifestation. It is expressed in the general intellectual development of a person, the formation of the components of mental experience, the mechanism of information processing, the ability to individually choose intellectual activity, which allows the ability to solve professional issues as efficiently as possible and to objectively evaluate the surrounding environment. Competence requires constantly enriching one's knowledge, learning new information, feeling the demands of this day and age, the ability to search for new knowledge, process it and apply it in one's practical work.

Pedagogical competence is the personal capabilities of the teacher, his skills (knowledge and experience), solving problems based on his knowledge and skills in a certain area. Pedagogical competence is a professional-psychological characteristic of a teacher, a set of qualities that represent practical-theoretical behavior in subjective conditions in the organization and management of pedagogical activity.

Conclusion: Many researchers pay particular attention to the issues of professional competence and the combination of knowledge and skills of the pedagogue, his attitude to his profession, and activities aimed at a specific goal. Based on the above analysis, "competence" is the constant enrichment of one's professional knowledge. It can be considered as the ability to learn new information, feel the demands of the times, find new knowledge, process it and apply it in one's practical work.



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