

EOC
EUROASIAN
ONLINE
CONFERENCES

SPAIN
CONFERENCE

INTERNATIONAL CONFERENCE ON SUPPORT OF MODERN SCIENCE AND INNOVATION







Google Scholar zenodo OpenAIRE doi digital object identifier

INTERNATIONAL CONFERENCE ON SUPPORT OF MODERN SCIENCE AND INNOVATION: a collection scientific works of the International scientific conference – Madrid, Spain, 2026, Issue 8.

Languages of publication: Uzbek**,** English, Russian, German, Italian, Spanish,

The collection consists of scientific research of scientists, graduate students and students who took part in the International Scientific online conference **«INTERNATIONAL CONFERENCE ON SUPPORT OF MOERN SCIENCE AND INNOVATION»**. Which took place in Spain, 2026.

Conference proceedings are recommended for scientists and teachers in higher education establishments. They can be used in education, including the process of post - graduate teaching, preparation for obtain bachelors' and masters' degrees. The review of all articles was accomplished by experts, materials are according to authors copyright. The authors are responsible for content, researches results and errors.

The importance of integrative educational technologies in developing critical thinking in students

Kazbekova Fariza Pulatovna
Senior Lecturer, Department of Primary Education, Faculty of Preschool and Primary Education, Navoi State University

Abstract. This article discusses the issues of developing students' critical thinking competencies based on an integrative approach in the educational process. The possibilities of forming students' independent thinking, analysis of problem situations, and socio-ethical decision-making skills through integrative methods are analyzed.

Keywords: critical thinking, integration, integrative approach, competency, educational process.

In the current conditions of globalization and digital transformation, integration is becoming one of the priority methodological principles of the education system. The sharp increase in the flow of information, the acceleration of the development of science and technology, and the growing demand for universal competencies in the labor market require the organization of educational content based on a new approach. In such conditions, the fragmented knowledge provided within individual disciplines is not enough, and there is a need to harmonize and systematize them. Integration in the modern education system is considered an important component of the competency-based approach. Modern educational standards set the formation of basic and functional competencies in students as a priority task. This requires strengthening interdisciplinary connections, linking theoretical knowledge with real-life situations, and teaching based on problem situations. An integrative approach serves to fulfill this task. The expansion of the digital educational environment is also accelerating the integration process. For example, the STEAM (Science, Technology, Engineering, Art, Mathematics) approach is a practical expression of interdisciplinary integration, which is aimed at developing systematic, critical and creative thinking in students. In this, natural and exact sciences are combined with art and technology, forming complex problem-solving skills.

Also, today's socio-economic conditions require students to be flexible, quick-thinking and independent decision-making. Integration, on the other hand, activates the analytical and reflexive activity of students by revealing the logical connection between different areas of knowledge. As a result, they have the opportunity to analyze phenomena and processes in a multifaceted way, and to understand global and local problems in a systematic way.

Integration is derived from the Latin word "integratio", which means to restore, to complete, to make a whole. Integration can be interpreted from a philosophical and pedagogical perspective. From a philosophical point of view,

integration is defined as follows: integration is a phenomenon that is opposite to the process of differentiation, but manifests itself in dialectical unity with it, and represents the ascent of the system elements to a new qualitative level through mutual harmonization. From a pedagogical point of view, integration is interpreted as a process of ensuring interdisciplinary communication based on the mutual harmonization of educational methods, means, content and organizational forms. It helps to develop students' knowledge, skills and abilities in a holistic and systematic way. In the process of integration, the content of the subject is enriched with other subjects and combined on the basis of common concepts, categories and laws, resulting in a new didactic quality.

The theoretical and methodological basis of the integrative approach is the principles of systematicity, consistency, coherence and competence. The principle of systematicity implies revealing the interrelationship of knowledge, and the principle of coherence implies ensuring logical continuity between disciplines. In the context of a competency-based approach, integration allows students to connect their theoretical knowledge with practical activities and apply it in real-life situations.

Scientifically, integration is considered a factor that increases the effectiveness of the educational process. Because it activates high-level thinking operations such as analysis, synthesis, comparison, generalization, modeling in students. Especially in the context of integrative education, a favorable didactic environment is formed for the development of critical and creative thinking. By considering phenomena and processes in different disciplines, the student acquires the skills of a multifaceted approach to the problem, putting forward alternative solutions, and drawing reasonable conclusions. As a result of studying scientific sources, it became clear that the term integration entered as a scientific concept in the 80s of the 20th century. Initially, it quickly entered the sphere of social life, information, economics, and politics. It entered the sphere of education in the 90s of the 20th century. Currently, this concept has become one of the main categories of pedagogical science. Literature analysis shows that the term "integration" is defined differently in different sources. Let's get acquainted with some of them:

As the great scientist Jan Amos Komensky noted: “everything that is interconnected must be taught in the same connection”.

According to L.N. Bakhareva, integration is revealed as a process of convergence and connection of disciplines that occurs with the processes of differentiation. This is a higher form of communication at a qualitatively new level of education, contributing to the creation of a new whole...” .

Therefore, integration is the union of any elements into a single whole, the restoration of any unity.

According to Y.M. Kolyagin, integration in the education system can be used in two different senses:
1. To form a holistic view of the world around us in learners (here integration is considered as an educational goal).
2. To find a common platform for bringing together knowledge from subjects (here integration is considered as a means of education).
In modern science, the term “integration” is used in the following meanings:
1) the unification of any parts, elements into a whole (as opposed to fragmentation)
2) in systems theory - the state of relations between individual components of the system and what causes such a state. 3) integration - the process and result of creating an integral whole.
Integration in a broad sense is a phenomenon of mutual harmonization of elements, processes, systems of knowledge into a single whole. It is the systematization of various disciplines, methods, techniques, goals and pedagogical components into a single whole. The term integration can be understood as the consolidation, that is, (in the pedagogical sense) expansion of the general system. Ongoing scientific research shows that integration affects the educational process in the following ways:
1. Strengthens students' knowledge through a direct connection between the content and methods of the educational process.
2. Students' worldview expands through the integration of different disciplines.
3. Students' social and intellectual capabilities expand, they can express their reactions to situations.

LIST OF REFERENCES USED

1. Komensky Ya. A. Selected pedagogical works: In 2 volumes /Ya. A. Komensky. – Vol. 1. – Moscow: Pedagogy, 1982.

2. Kolyagin Yu. M., Alekseenko O. L. Integration of school education. Primary school. 1990. No. 9.

3. Belov V. O. On some issues of integration in the educational process of an educational school / V. O. Belov // Teacher. – 2000.