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## ORGANIZATION OF THE EDUCATIONAL PROCESS BASED ON THE INTEGRATION OF SPECIAL SUBJECTS IN DUAL EDUCATION

Annotation

This article deals with organizational and methodological interdisciplinary integration in teaching special disciplines in dual education, ensuring the integration of special disciplines to achieve efficiency in the learning process, integrated information technology and the organization of integrated lessons.

**Key words:** Integration, training, special disciplines, dual education, learning process, interdisciplinary integration.

## ОРГАНИЗАЦИЯ УЧЕБНОГО ПРОЦЕССА НА ОСНОВЕ ИНТЕГРАЦИИ СПЕЦИАЛЬНЫХ ПРЕДМЕТОВ В ДУАЛЬНОМ ОБРАЗОВАНИИ

Аннотация

В данной статье речь идет об организационно-методической междисциплинарной интеграции в преподавании специальных предметов в дуальном образовании, обеспечении интеграции специальных предметов для достижения эффективности учебного процесса, организации интегрированных информационных технологий и интегрированных занятий.

**Ключевые слова:** Интеграция, преподавание, специальные предметы, дуальное образование, учебный процесс, межпредметная интеграция.

## DUAL TA'LIMDA IXTISOSLIK FANLAR INTEGRATSIYALASHUVI ASOSIDA O'QUV JARAYONINI TASHKIL ETISH

Аннотация

Ushbu maqolada dual ta'limda ixtisoslik fanlarni o'qitishda tashkiliy-metodik fanlararo integratsiya, o'quv jarayonida samaradorlikka erishish uchun ixtisoslik fanlarining integratsiyalashuvini ta'minlash, integratsiyalashgan axborot texnologiyalari va integratsiyalashgan darslarni tashkil etish haqida fikr yuritilgan.

**Kalit so'zlar:** Integratsiya, o'qitish, ixtisoslik fanlar, dual ta'lim, o'quv jarayoni, fanlararo integratsiya

**Introduction.** The decree of the President of the Republic of Uzbekistan from 07 February 2017 up-4947 "On a Strategy for the further development of the Republic of Uzbekistan" decree of the President of the Republic of Uzbekistan "On additional measures to improve the quality of education in dual education institutions and ensuring their active participation in large-scale reforms in the country" dated 14 June 2012. This article will contribute to achieving the goals set out in other regulatory documents [1].

Striving to become one of the developed countries, Uzbekistan, like all sectors of the economy, is trying to introduce advanced technologies in education and thereby bring the content of education to world standards. Currently, dual educational institutions are carrying out a number of noteworthy works on the use of new pedagogical and information technologies and the development of modern teaching materials. Also, in order to improve the education system, the experience of professional training of foreign countries is used. The implementation of this work is the basis for creating a methodological system in the field of education, combining the rich heritage of our people, the ideas of our great thinkers and the latest innovations of our time.

The model of interdisciplinary connections determines the quality of the student's professional training and, as a result, the

future specialist's ability to master an independent study of this activity. Therefore, the time characteristic of this model is its dynamics, and it involves the acquisition of independent knowledge based on interdisciplinary communication in dual education institutions.

**Literature review.** One of the most important features of the organizational and structural model that we developed is its integrity, because the research goal cannot be achieved by introducing any component of this model [5].

The task of the educational process is to ensure the unity of teaching, upbringing and development. The problem of developing the skills, consciousness and skills of students, deepening their scientific and practical knowledge is also relevant in the preparation of teachers in the field of vocational education in technical universities. These qualities help future students consciously increase their interest and responsibility in their profession, and develop their abilities. The problem of increasing the creative abilities of students in the learning process is complex and multifaceted.

Therefore, this is a priority area. Figure 1 below shows the structure of a traditional lesson process:

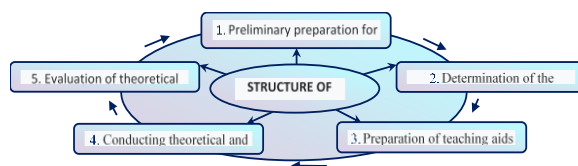


Figure 1. The structure of the traditional educational process

Thus, from Figure 1 above, it can be seen that, the pedagogical process is the result of joint activities of the

participants. In the process of learning, the worldview, abilities and qualities of a person change. Throughout the learning process,

students master the socio-historical experience of human society, and in this way they provide a spiritual, cultural, economic and social heritage between generations [4].

All actions of a person guided by a conscious goal in obtaining certain knowledge, skills and abilities are associated with education. The methodological basis of teaching is the theory of dialectical knowledge. The educational process includes: obtaining information about the characteristics of the universe, necessary for the successful organization of a certain type of experience and practice, mastering the methods and tools that lead to this activity, mastering the methods of using the information

provided to select and control the correct path and method in accordance with the intended purpose and conditions of the problem [3].

**Research Methodology.** Consequently, education is the process of transferring knowledge, skills and abilities, the main means of preparing a person for life and work. In the process of training, knowledge is acquired and upbringing is carried out. Education is a narrow concept of learning. But this is not only a learning process in various educational institutions, but also a process of acquiring knowledge in the family, in production and in similar areas.

We represent this in Figure 2 below:

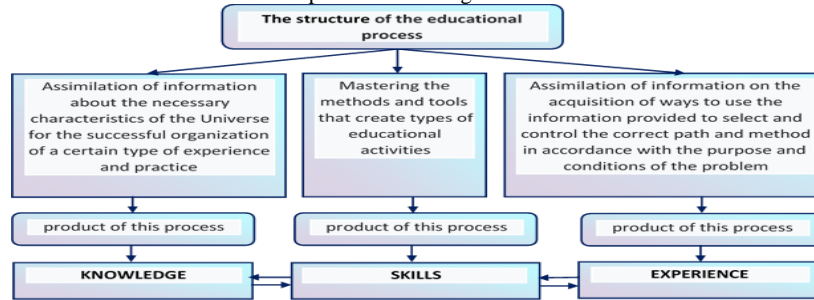


Figure 2. Product of the traditional educational process

Requirements for a comprehensive lesson plan:

1. The topic of a comprehensive lesson.
2. Planned results for the formed knowledge, skills and abilities.
3. Modern technologies, methods and techniques.
4. Training equipment.

5. Desktop educational process: the stage of formation of knowledge, skills and abilities, showing the leading activity of the lesson, teacher activity, student activity.

After developing a lesson plan that combines general and specialized teaching, the quality of its content can be assessed according to the assessment criteria shown in Figure 3.

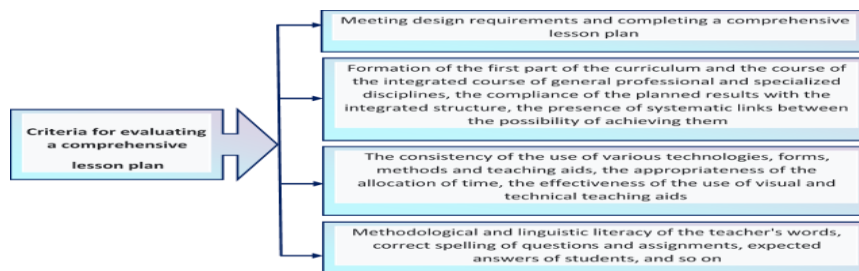


Figure 3. Criteria for evaluating a comprehensive lesson plan

**Analysis and results.** An integrative plan of practical training is developed on the basis of the following stages:

1. Create a multimedia presentation for an integrated lesson.
2. In the process of preparing the presentation, combine several similar topics, use one content to complement the other, determine the temporal distribution (based on the flowchart of the lesson).
3. Develop a cluster or mental map of the topic.
4. Create a page on the topic on the social network.
5. Create a collage (sketch for coat of arms, cover, poster, portrait, costume, etc.) on the main concepts of the subject using ICT.
6. Create video booklets or playlists.

1. Choosing a topic, organizing a project group (for example, a group project)

2. Drawing up the name of the project, the planned results, the format of the final product, the distribution of responsibilities.

3. Monitoring the progress of the project (stages of orientation, planning, data collection and processing, implementation, presentation of results, presentation, evaluation and reflection).

4. Development of a sample project.

5. Preparation of the project presentation.

Table 1

Criteria for evaluating project activities

Criteria for evaluation	Points (estimates)
Material feeding quality:	
compliance of the project structure with the set goals and objectives;	10-15
relevance, novelty and originality of the proposed solutions;	10-15
completeness of the content of the topic, the depth of the disclosure of the topic;	10-15
compositional integrity and consistency of presentation;	10-15
compliance with speech norms.	10-15
The practical value of the proposed developments	15-20
Compliance of the project with the standard requirements for text formatting and video presentation.	10-15
Project defense (the ability to present material and conduct scientific discussions in the process of discussing the results)	10-15
Total points: min. – max.	85-100

At the end of the lesson, students will be provided with a list of recommended literature and teaching aids for independent work on a new topic. Thus, the technology of teaching natural sciences plays an important role in organizing the educational process on the basis of an integrated curriculum and teaching materials. Interdisciplinary integration in style, didactic tools, methodological support of the course, the appeal of students to the content of other topics of the subject, along with general and specialized subjects related to the topic, depends on the structure of the curriculum and learning objectives.

The peculiarity of the domestic version of the integrated approach lies in the early correction of impaired functions against the background of a purposeful general development of an abnormal child, in providing him with rehabilitation opportunities through a system of special differentiated and integrated education.

The formation of the cognitive interests of students occurs primarily in the classroom. We activate students' learning and cognitive activity and increase interest in learning at each stage of the lesson, using various tasks for the purposes of influence and use in various lessons.

Since integration is not an end in itself, but a certain system in the activity of a teacher, there must be an end result of integrated learning:

to increase the level of students' knowledge of the subject, which manifests itself in the depth of digestible concepts, patterns due to their multifaceted interpretation using information from integrable sciences;

in changing the level of intellectual activity provided by the consideration of educational material from the perspective of leading ideas, the establishment of natural relationships between the problems studied;

in the emotional development of students;  
in the growth of students' cognitive interest, manifested in the desire for active and independent work in the classroom and during extracurricular time;

in the inclusion of students in creative activities, the result of which may be their own independent work, which is a reflection of the personal attitude to certain phenomena and processes.

**Conclusion.** The highlighted aspects correspond to the educational, developmental and educational functions of training. This allows us to formulate the conclusion that the integration of subjects contributes to the overall development of the student and a deeper study of topics in the class on special subjects, contributes to the formation of a holistic picture of the world among students, understanding the links between phenomena in nature, society and the world as a whole.

For our time, the integration of sciences is characteristic, the desire to get the most accurate picture of the general picture of the world. These ideas are reflected in the concept of modern education. But to solve such a task is impossible within the framework of one academic subject. Therefore, in the theory and practice of education, there is a tendency to integrate academic disciplines (integrated courses, integrated lessons), which allows students to achieve interdisciplinary generalizations and approach an understanding of the overall worldview. This is especially important for teaching mathematics, the methods of which are used in many fields of knowledge and human activity [2].

This connection is also reflected in the development of criteria for assessing students' knowledge on the topic, the correct choice of types of assessment.

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