



## MODERN METHODS OF PREPARING HIGH SCHOOL STUDENTS FOR PROFESSIONS

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### ABSTRACT

**Introduction.** Modern conditions of development of society require further development of the content of vocational education. When studying the content of vocational education, it is necessary to take into account the economic and social development of the country, the requirements of scientific and technological development, the goals and objectives of vocational education, and the strategic directions of vocational education.

**Materials and methods.** The following research methods were used in the study: theoretical research methods - analysis, synthesis, induction, deduction, abstraction, generalization, comparison, etc.; empirical methods - observation: direct (fast), indirect (indirect); pedagogical experiment: analysis of written and graphic works of students; interview, conversation, interrogation; monographic study of the works of teachers, masters of industrial education, students.

**Research results.** The requirements for a skilled worker and specialist, the main trends in changing the content of his work, the historical and logical analysis of the content of vocational education make it possible to single out the following changes in the content of education: humanitarian, polytechnical and vocational education; strengthening theoretical training in the general content of vocational education; increasing the role of engineering and technical knowledge in the professional training of workers and specialists; consistency, continuity and gradation of the content of industrial training in the specialty, ensuring the ratio of the main and special parts; providing complex interdisciplinary connections in the construction of curricula and programs; the growing role of polytechnical knowledge and skills based on the scientific and technical community in modern production; a combination of professional knowledge and professional and technological skills in the form of professional competencies; increasing the role of the scientific foundations of production at all levels of pedagogical science.

**Discussion and conclusions:** as a result of studying the content of vocational education, the requirements for the content of theoretical and industrial education, factors influencing the development of the content of the principles of industrial training (scientific, technical and social development, labor analysis of activities, development trends in vocational education, state educational and professional standards ) allowed to determine.

**Key words:** content, vocational education, industrial education, production process, theoretical education.

### АННОТАЦИЯ

**Введение.** Современные условия становления общества остро требуют дальнейшего формирования содержания профессионального образования. При



изучении содержания профессионального образования необходимо учитывать финансовое и социальное развитие государства, требования научно-технического развития, цели и задачи профессионального образования, стратегические направления профессионального образования.

**Материалы и методы.** В исследовании использовались соответствующие методы обучения: абстрактные методы обучения - проверка, синтез, индукция, дедукция, абстракция, обобщение, сравнение и др.; эмпирические методы - контроль: прямой (быстрый), непрямой (косвенный); педагогический опыт: рассмотрение письменных и графических ситуаций учащихся; интервью, беседа, допрос; монографическое исследование работ преподавателей, мастеров производственного образования, студентов.

**Результаты исследования.** Опросы квалифицированных рабочих и специалистов, основные тенденции конфигурации содержания их труда, историко-логическое тестирование содержания профессионального образования позволяют отметить соответствующие изменения в содержании образования: гуманитарное, политехническое и квалифицированное образование; усиление теоретической подготовки в общем содержании профессионального образования; повышение роли инженерно-технических знаний в профессиональной подготовке рабочих и специалистов; обеспечение последовательности, преемственности и градации содержания производственного образования по специальности, соотношения ведущей и специальной частей; обеспечивать комплексные межпредметные связи при построении образовательных целей и программ; возрастающая роль политехнических знаний и навыков в современном производстве на базе научно-технического сообщества; комплексность профессиональных знаний и профессиональных технологических умений в форме профессиональных компетенций; повышение роли научной основы производства на всех уровнях педагогики.

**Мнения и выводы:** по результатам изучения содержания профессионального образования, претензии к содержанию реферативного и производственного образования, моменты, влияющие на разработку содержания основ производственного образования (научно-техническое и социальное образование, трудовой анализ, труд, тенденции развития профессионального образования, городское образование и профессиональные стандарты) позволили определить.

**Ключевые слова:** содержание, квалифицированное образование, производственное образование, производственный процесс, реферативное образование.

## IZOX

Jamiyat taraqqiyotining zamonaviy sharoitlari kasb-hunar ta'limi mazmunini yanada rivojlantirishni taqozo etmoqda. Kasb-hunar ta'limi mazmunini o'rganishda mamlakatning iqtisodiy va ijtimoiy taraqqiyoti, fan-texnika taraqqiyoti talablari, kasb-hunar ta'limining maqsad va vazifalari, kasb-hunar ta'limining strategik yo'nalishlarini hisobga olish zarur.

**Materiallar va usullar.** Tadqiqotda quyidagi ilmiy tadqiqot usullaridan foydalanildi: nazariy tadqiqot usullari - tahlil, sintez, induksiya, deduksiya, abstraksiya, umumlashtirish, taqqoslash va boshqalar; empirik usullar - kuzatish: bevosita (tezkor), bilvosita (bilvosita); pedagogik eksperiment: talabalarning yozma va grafik ishlarini tahlil qilish; intervyyu, suhbat, so'roq; o'qituvchilar, ishlab chiqarish ta'limi ustalari, talabalar ishlarini monografik o'rganish.



**Tadqiqot natijalari.** Malakali ishchi va mutaxassisiga qo'yiladigan talablar, uning ish mazmunini o'zgartirishning asosiy tendensiyalari, kasbiy ta'lim mazmunini tarixiy va mantiqiy tahlil qilish ta'lim mazmunidagi quyidagi o'zgarishlarni ajratib ko'rsatishga imkon beradi: gumanitar, politexnika va kasb-hunar ta'limi; kasb-hunar ta'limi mazmunining umumiy tarkibida nazariy tayyorgarlikni kuchaytirish; ishchilar va mutaxassislarni kasbiy tayyorlashda muhandislik-texnik bilimlarning rolini oshirish; asosiy va maxsus qismlarning nisbatini ta'minlovchi ixtisoslik yo'nalishi bo'yicha ishlab chiqarish o'qitish mazmunining izchilligi, uzluksizligi va bosqichma-bosqichligi; o'quv rejalarini va dasturlarini qurishda murakkab fanlararo aloqalarni ta'minlash; zamonaviy ishlab chiqarishda ilmiy-texnikaviy hamjamiyatga asoslangan politexnik bilim, ko'nikmalarning ortib borayotgan roli; kasbiy bilimlar va kasbiy va texnologik ko'nikmalarning kasbiy kompetensiyalar shaklidagi kombinatsiyasi; ta'lim fanlarining barcha bosqichlarida ishlab chiqarishning ilmiy asoslari rolini oshirish.

**Muhokama va xulosalar:** Kasb-hunar ta'limi mazmunini o'rganish natijasida nazariy va ishlab chiqarish ta'limi mazmuniga qo'yiladigan talablar, ishlab chiqarish o'qitish tamoyillari mazmunini rivojlantirishga ta'sir etuvchi omillarni (ilmiy, texnik va ijtimoiy taraqqiyot, mehnat faoliyatini tahlil qilish, kasb-hunar ta'limining rivojlanish tendensiyalari, davlat ta'lim va kasbiy standartlar) aniqlash imkonini berdi.

**Tayanch so'zlar:** mazmun, kasb-hunar ta'limi, ishlab chiqarish ta'limi, ishlab chiqarish jarayoni, nazariy ta'lim.

**Enter.** Content of research When studying the content of vocational education, it is necessary to take into account the requirements of the country's economic and social development, scientific and technical development, goals and tasks of vocational education, strategic directions of vocational-pedagogical education [ 4,5,13].

The process of emergence and development of new features in the content of vocational education is no less important. In this study, it is necessary to rely on patterns and trends that lead to changes in the content of work. As a result of improvement and introduction of new labor tools, improvement of production technology, labor organization and management systems, the content of labor changes. In this regard, the content of vocational education acquires new qualitative characteristics in the historical stages of the development of science, technology and technology [6,11,21].

It is necessary to study the psychological and physiological characteristics of skilled labor in the conditions of scientific-industrial type of production, intellectualization and automation of production. The qualitative features of the content of skilled labor have a significant impact on the level of humaneness and professional training of workers. The spiritual professional level of a modern worker is a synthesis of humanism, social, political and professional knowledge, skills, professional skills, and social culture. The new content of vocational education has not only quantitative, but also qualitative changes [2,14,15,18,20].

The training of highly qualified workers and specialists predetermines professional activity, which is a system of external actions. The natural connection between them is the laws of knowledge transfer [1,8,10,16,19].

The system of universal and professional competences, the sum of knowledge, skills, and labor actions constitutes the content of education presented in curricula and programs.

Further development of the content of vocational education is conditioned by objective conflicts between work and vocational education. In this regard, a number of practical and theoretical contradictions arise:

- between the complexity and organization of work in the field of material production and the content of professional education;
- between the processes of stability and change of the professional activity of the employee and professional education;
- between knowledge and practice in work and education;
- between reproductive and developmental moment in work and education;
- between the processes of integration and differentiation of work and education.

The content of vocational education is understood as the humanities, natural sciences, polytechnics, system of professional knowledge, methods of activity, system of universal, general professional and professional competencies, their mastery ensures the development of intellectual and spiritual abilities of children [3, 9,15,18].

The content of vocational education is determined by the state educational and professional standards of Uzbekistan, which allows to describe it as follows:

- the content of vocational education provides the formation of the professional worldview of future workers and specialists, spiritual-ethical, civic-patriotic education;
- increasing the functionality of the content of vocational education based on the achievements of science, technology, and culture;
- to ensure the optimal ratio of science and professional training on the basis of unity and continuity;
- to ensure the professional orientation of general education subjects and the implementation of complex interdisciplinary relations;
- ensuring interdependence of education, upbringing, production processes;
- ensuring complexity, the importance of variability, production and safety of educational processes;
- reflection of the career growth of workers and specialists in the content of professional education;
- use of effective forms and methods of teaching in the educational process, implementation of mechanisms for the development of independence, creative activity.

The development of the content of vocational education is related to the study of the structure and essence of the content of the work of workers and specialists, socio-economic development, scientific and technical progress, and its impact on changes in the content of the work of workers defining specialists and prospects for its development. The main goal of this article is to research and develop the theoretical foundations of the content of professional education.

To achieve the goal, the following tasks are set: to determine the factors that determine the essence and composition of the content of vocational education, to determine the requirements for general education, general vocational, general education subjects and the principles of the content of theoretical and industrial education .

**Research hypothesis:** the content of professional education ensures a high level of professional training of workers and specialists, if:

- the inextricable connection between the content of theoretical education and production education;



- the role of the complex in the structure of educational plans and programs interdisciplinarity and profile direction of general education subjects;
- educational process - unity, continuity and logical integrity of general education, vocational, polytechnic and special training;
- to ensure the creative use of theory in the process of production training.

In the history of the development of educational content, two theories of the organization of educational content are distinguished: material and formal education. The theory of material education presents the content as a large volume of knowledge from various fields of science [3]. The theory of formal education directs the content of education to the development of thinking, abilities and cognitive interests [7,8,14,17].

Problem-complex theory [6] includes a complex study of academic subjects, turning the topic of cognitive activity into problems, the solution of which requires the use of knowledge in various fields.

Content structuralism requires education [13] and expresses it in the form of a grid of large structures containing the main main components. The possibility of further development of the educational content is considered by the educational content as "scientific knowledge, practical skills, as well as a system of philosophical-ethical-aesthetic ideas that students should acquire during the educational process" [12].

Another concept considers the content of education not only as a set of knowledge, but also the development of qualities such as will, self-motivation, the fate of society and the country, and environmental protection [11].

The humanistic concept of educational content includes, in addition to the experience of implementing "ready-made" knowledge and activity methods, the experience of creative activity and the experience of emotional-value relationships [6,19].

In the modern conditions of the development of vocational education, there are a number of studies on the conceptual foundations of integration processes [2,5,16,20] and integration of educational content [3]. [4,7,11,16,21]. A competency-based approach to the development of the state educational standard allows for the formation of universal, general professional and professional competencies of future workers and specialists, and the professional standard ensures the formation of a system of labor functions and a labor system.

The current potential of the content of vocational education is related to the new educational standards based on the competency-based approach, the introduction of professional standards, the development of exemplary basic educational programs, and the strategy of scientific, technical and social development.

**Materials and methods.** Research methods are related to the content and quality characteristics of the content of curricula and programs.

The research uses the following research methods:

- theoretical research methods (analysis, synthesis, induction, deduction, abstraction, generalization, comparison, etc.);
- observation: direct (immediate), indirect (indirect);
- pedagogical experiment;
- analysis of written and graphic works of students;
- interviews, interviews, questionnaires;
- monographic reading works for teachers, masters of production education, students.



The results of professional training are reflected through control work and processing of results. The content of the test work should reflect the most important issues of the studied sections, solid knowledge requirements, science and production facts, understanding the essence of processes, the ability to establish connections between the studied phenomena. The structural analysis of control works is used to determine the level of knowledge of students, to determine the level of mastering of each component of competencies:

-theoretical material on the topic, the level of mastery of labor and actions.

Learning to determine the indicators that are used to evaluate the skills of students' professional competencies in the process necessary to determine the effectiveness of educational and program documents.

Such indicators may be:

- the success of students expressed in statistical indicators;
- levels of acquisition of professional competencies;
- conformity of the obtained characteristics with practical training of students;
- qualification requirements;
- level of formation of spiritual and moral qualities.

The quality indicator of the control work is the average number of errors for students in the group, as well as the ability to perform practical tasks.

**Research results.** The study of the impact of scientific and technical progress on the content of the work of workers is carried out by studying the state programs for the development of the economy and the development of the innovative economy, foreign economic activity; are the leading directions of the state technical policy covering all elements of production: energy base, materials, tools and equipment, technology, as well as production organization and management methods. Analysis of labor activity of workers and specialists includes:

- get acquainted with the general qualitative and quantitative descriptions of labor activity in accordance with the trends of social and scientific and technical development;
- familiarization with machines, equipment and apparatus system, production process technology, management techniques, labor organization, requirements;
- focused on product quality and labor productivity;
- detailed analysis of labor activity: preparation, actual activity, evaluation of work performance;
- evaluation of production and technical parameters of individual elements of labor activity of workers and specialists;
- development of professional and professional characteristics;
- development of educational content and preparation of methodological instructions aimed at improving the training of workers in a specific profession.

Social and scientific-technical progress leads to significant changes in the work activities of workers and specialists. The trends of changing the content of labor on the basis of cross-industry and network integration are associated with the further development of a multi-industry national economy, the use of similar labor tools, the similarity of machines and devices, the typification of technological processes, as well as the homogeneity of labor resources.



A historical and logical analysis of the requirements for a qualified worker and specialist, the main trends of changing the content of his activity, the content of vocational education allows to determine the following changes in the content of education:

- an organic combination of humanitarian, polytechnic and vocational education;
- to strengthen the theoretical preparation in the general structure of the content professional education;
- increasing the role of engineering and technical knowledge in professional training of workers and specialists;
- the consistency, continuity and gradation of the content of production training in the field of specialization, which ensures the ratio of the main and special parts;
- ensuring complex interdisciplinary relations in the construction of educational plans and programs;
- increasing the role of polytechnic knowledge and skills based on the scientific and technical community in modern production;
- the combination of professional knowledge and professional-technological skills in the form of professional competencies;
- increasing the role of the scientific basis of production in all periods of education.

Changing the content of vocational education in terms of quality means increasing its scientific-theoretical level and the place of production education in the system of vocational education, the connection between theoretical and production education, is to ensure the interdependence of education, training and production activities in general.

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As a result, future workers can use the newest tools of production, learn new types of work. For this, production training should have a polytechnic direction expressed in the formation of not only professional, but also polytechnic competencies in students.



**Discussion and conclusions.** The content of professional education includes the following questions:

- socio-economic and national economic significance of the profession;
- production and technical working conditions;
- nature and content of work;
- general education, general technical and professional training of workers;
- qualification level;
- psychophysiological characteristics of the profession.

Integration processes lead to the expansion of the socio-cultural base of qualifications, which means the measure of the employee's mastery of his profession, and acts not only as a technical-economic, but also as a sociological and socio-pedagogical category.

Qualification is increasingly related to the level of social maturity, the inclusion of personal characteristics such as culture, citizenship, patriotism. In this regard, cultural activity, the level of cultural development of workers and labor teams in general is an important factor in increasing the efficiency of social production and management.

Social conditions of life (working conditions and nature, psychological microclimate in the community and opportunities for social and cultural development) are becoming increasingly important. As a result, it is necessary to take into account when organizing production activities, different types of general cultural orientation of workers, differential construction of work to meet their socio-cultural needs.

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