

ADVANTAGES OF DUAL EDUCATION IN TRAINING QUALIFIED ENGINEERING PERSONNEL IN TECHNICAL HIGHER EDUCATION INSTITUTIONS

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Abstract. The article talks about the features and advantages of dual education, which allows solving the problem of professional training in the preparation of qualified engineering and technical personnel in technical universities.

Keywords: dual education, production enterprises, efficient and flexible mechanism, advantages of dual education.

It is known that the social and economic reforms carried out in the professional education system require further improvement of the process of providing the labor market with competitive qualified personnel. The result of the reforms carried out in the field of professional education is that a completely new system of education, which is harmonized with the international standard classification, has been introduced. Also, at present, systematic reforms are being carried out to form the integration of educational content, science and production on the basis of the dual education system.

Decree of the President of the Republic of Uzbekistan No. PF-37 of February 21, 2024 on the state program on the implementation of the "Uzbekistan - 2030" strategy in the "Year of supporting youth and business" was announced. . One of the goals of the "Uzbekistan - 2030" strategy in the decree, in the direction of "Creating suitable conditions for every person to realize his potential" in the plan of practical activities for 2024, is - Higher education to expand the coverage, to increase the quality of training of highly educated specialists, and to fulfill the task of "organizing the educational system in accordance with the changes in the international labor market, technological processes, and bringing the quality of education in universities to a new level" In order to fulfill such tasks, as practical measures, first of all, it is necessary to revise the terms of training of practice-oriented specialists in universities and educational and methodological manuals, to improve educational programs based on the model of prestigious universities of the world [1].

Also, in order to further improve the education system in our Republic, with the decision No. 163 of the Cabinet of Ministers of the Republic of Uzbekistan dated March 29, 2021 "On measures to organize dual education in the professional



education system", dual education in the professional education system In addition, the development of a national plan, a special program in the direction of renewable energy sources in our country, dual education in higher and secondary special educational institutions for this field was approved. The practice of actual tasks, such as creating a new system for personnel training using the system, is important. Because the practical use of alternative energy sources is considered as the most important factor of sustainable development of the economy and increasing the competitiveness of qualified personnel [2] .

Further development of the educational system to increase the knowledge and skills of graduates of higher educational institutions in order to meet the needs and size of production enterprises for qualified personnel is an urgent issue. In such conditions, introducing the principles of the dual education system into the system of training qualified personnel of higher educational institutions is considered the most effective method.

In the presentation of the dialogue held by the President of the Republic of Uzbekistan Sh.Mirziyoyev with experts in the field in February 2024, the President criticized the system of vocational training, saying that "Educational programs do not meet the demands of life."

It was reported that the form of "dual education" was introduced, which allows students to study and earn income at the same time. As a result of this system, 6,000 young men and women are being trained together with 2,000 enterprises. In addition, young people are taught various specialties in vocational schools after the 9th grade, and in colleges and technical schools from the 11th grade. In particular, up to 75 percent of students in developed countries are covered by vocational education. In Uzbekistan, this sector is also being developed based on the requirements of the labor market.

Middle-level specialists are trained mainly in two directions - vocational schools and technical schools of the Ministry of Higher Education, Science and Innovation, and monocenters under the Ministry of Poverty Reduction and Employment. Today, there are 714 professions and specialties in 689 professional educational institutions and 54 per population in 20 "Ishga Merhamat" monocenters.

t a profession and 6 foreign languages are being taught. Also, "There are certain gaps in the field.

Some educational programs are not connected with the demand of life. Due to the fact that professional education is not able to attract schoolchildren, the available capacities are not fully used," Sh. Mirziyoyev said in the presentation. At the same



time, the President said that the monocenters fully meet the need for middle-level personnel. to those who do not receive and graduates They stated that they are taking an additional exam because the qualification level has not been issued. The lack of cooperation between the Foreign Labor Migration Agency and professional education, and the lack of work on teaching foreign languages and issuing confirmation documents have been criticized.

According to the message, new proposals have been developed by the relevant ministries in order to eliminate these shortcomings and improve the quality of vocational training. These proposals envisage the introduction of foreign educational programs, ensuring the recognition of graduates' qualifications in the domestic and foreign markets, wider involvement of students in colleges and technical schools, and measures to improve the quality of vocational training in monocenters.

Also, Sh.Mirziyoyev gave additional assignments to those responsible for improving these proposals. It was emphasized that the employment of the population is the most important issue, and young people should be taught professions based on the specialization of the districts and the needs of the enterprises.

The importance of gradually updating the classifications of professions and professional education, harmonizing them with international standards, and connecting professional educational institutions with schools and higher educational institutions. It is decided that the Ministry of Higher Education, Science and Innovation will coordinate all vocational education institutions as an integrated system. According to it, from the next academic year, vocational training will be launched in each region in accordance with the world-recognized curriculum. Their graduates will have an international qualification and a foreign language certificate. Also, criteria for ensuring the quality of training are applied to advanced professional education and professions. In monocenters, professions are taught based on the order of employers, which is an important factor in the employment of graduates. Officials were assigned the task of developing an annual program for the development of the professional education system.

So, based on the ongoing work on the use of the dual education form of teaching in professional educational institutions, the use of dual education in the higher education system is proving how effective it is, and it is important. giving results.

Currently, a dual educational form of on-the-job training based on the German experience has been launched in 57 professional educational institutions across the country. This is paying off in the preschool education system. For example, students



of the pedagogical college receive theoretical knowledge for 2 days at the college, and practice in kindergartens for the remaining 4 days. In this way, he earns a salary. On the basis of the President's order, production workshops of enterprises will be established in the empty spaces of vocational schools for the introduction of dual education. Students work in this enterprise and receive a salary. In addition to the basic salary, teachers in the enterprise are paid an additional bonus from the Employment Assistance Fund.

It is known that the system of training qualified personnel of higher educational institutions is characterized not only by quality changes in the process of the educational system, but also by its interaction with the production sectors, as well as by the development of personnel competence [3] .

As for the name "dual", dualism (lat. dualis - two sides) is the promotion of the coexistence of irreconcilable states, principles, ways of thinking, worldviews, aspirations, and epistemological principles. teaching doctrine. Dualism is a form of pluralism. The term dualism was introduced by the German philosopher H. Wolff (1679-1754). Dualism represents the following pair of concepts: the world of ideas and the real world. Dualism can be manifested in philosophical, religious, anthropological, ethical forms. In ancient times, religious-ethical dualism is found in the Avesta.

Dualism appears in the philosophy that there are two independent things - spirit and matter. Dual education "can be considered as a pedagogical activity that ensures the formation of individual knowledge and skills of students in their professional fields in professional training activities" [4] .

In this case, direct practice plays the main role. LV Sidakova admits that the dual education system is "an educational system that involves the combination of educational activities of an educational institution with the activities of production enterprises " [5] .

The dual education system of training specialists can be considered as "an education system aimed at training specialists who will have the required level of qualification in a specific profession, clearly coordinated between the employers and production enterprises of higher professional education." [6] .

Analyzing local and foreign literature, it is possible to imagine the dual education system as an educational model in which theoretical training can be carried out in educational institutions, and practical training can be carried out in production enterprises. If we pay attention to the experience of Russia , As a vivid example of dual education, we can cite the system created at the Moscow Institute of Physics



and Technology, and in this institute: from the third or fourth year, students involved in research and development in organizations [7] .

Due to the fact that the dual education system worked well, it later became the reason for the expansion of the scope of its application at Novosibirsk State University. Dual education is the organization of career orientation, formation (forecasting) of personnel needs, modernization of educational programs, training of specialists in enterprises and educational institutions, as well as executive authorities, business associations, work It is an infrastructure that includes the equal responsibility of providers and interested parties and provides for quality training of personnel [8-20]. The high level of interest of the employers in the content of the education of students in higher education determines the importance of the dual education system in higher education. In order to increase the effectiveness of such a system for training future specialists, state organizations, employers, education organizations should act together. In this regard, according to mutual agreement with the participants of the educational process, students and employing enterprises, students spend a certain time in the enterprise and receive a salary. In the process of introducing the dual education system to higher education institutions, a number of problems are encountered. These problems include the fact that work programs aimed at bachelor's training do not match the sequence of seasonal work in production enterprises; the educational organization cannot always teach in accordance with the curriculum. The first of the main difficulties in personnel training is the insufficient level of preparation of the enterprise for training, namely the lack of training places in the enterprises; the necessity of mandatory price increase for the produced product, lack of funds for education in order to attract to education; (lack of equipment, inadequate funding, etc.).

As a result of the training of qualified engineers in higher technical educational institutions based on dual education, it is important to note that "ensuring the organization of a specific educational approach for the student" is of great importance. In the implementation of dual education, the educational process relies on a group of students, as well as the use of distance education in order to individualize the educational process for the use of an individualized system of personnel training for dual education, and in this, network educational mechanisms. based on implementation.

In order to successfully implement dual education in the higher education system, it is proposed to develop a dual education model based on cooperation between participants in the educational process. The main elements of this model are: legal,



conceptual components, higher education dual education implementation program for organizations, as well as a personnel component. Each of the proposed elements mutually acknowledges the other. In this, the conceptual component is technological, methodological, personal-resultative levels, mechanisms and student teaching several conditions of motivation are represented by activity.

First of all, it should be noted that the legal basis for the introduction of the dual education system is necessary, which will allow to regulate the relations between educational organizations and base enterprises for the joint training of personnel; implementation of educational programs taking into account the views of interested parties, taking into account the structure, content and technical adaptability; also take into account the labor market forecast in a specific area; mechanisms of such cooperative training programs make a great contribution to the development of priority sectors of the economy and create conditions for the development of an independent system of vocational education, depending on its quality.

As a result of the analysis of the literature on the dual education system, it was possible to identify its many possible advantages, which are presented schematically in Figure 1.



Figure 1. Advantages of dual education.

Conclusion. Thus, if we talk about the concept of dual education and it can be applied to the higher education system, it will strengthen the practical direction based on the analysis of the educational processes of the higher education institution and production in the preparation of bachelors. is based on

This form of education allows to harmonize the cooperation between higher education institutions and enterprises, and provides theoretical course and professional training in the training of qualified engineers in technical higher education institutions directly in workplaces. conduct and ensure that they acquire highly qualified knowledge and have the opportunity to expand their functional responsibilities.

The process of introducing dual education requires the implementation of fundamental changes in the organization of educational activities; theoretical and practical parts of the curriculum require the creation of adequate replacement mechanisms.

The dual education system is an effective and flexible mechanism for training highly qualified personnel, which is required by enterprises operating in various sectors of the market economy in modern conditions.

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