



THE ROLE OF HUMANITIES IN THE PROCESS OF TRAINING ENGINEERING STUDENTS

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Abstract: In the article, the organization of all stages of education based on a technological approach, teaching young people to think comprehensively while providing deep and reasonable knowledge, forming the ability of students to learn independently in the educational process, organizing education on the basis of innovative technologies, activating students and students in education, technological Based on the principles of the approach, the issues of optimizing education are interpreted. The necessity of teaching humanities in technical higher education institutions is being considered. The modern advanced pedagogical aspects of the teaching of these subjects, taking into account the characteristics of humanities acquisition by students, as well as the uniqueness of technical higher educational institutions, are highlighted.

Key words: humanities, technical higher education institutions, students, innovation, teaching features, uniqueness of humanities, importance, technological approach, educational technologies, educational process, content of technological approach, principles of technological approach, education, students, quality, process, result, formation.

The formation of new social relations in Uzbekistan, the integration of education into the world education system, the development of democratization and development processes require a wide use of innovative educational technologies and a new approach in the educational process.

Today, technological approaches are being implemented in the educational process in Uzbekistan, as in the world. Simultaneously with this process, significant changes are taking place in the theory and practice of the pedagogical process. The composition of approaches in education is changing and the use of modern approaches is emerging day by day. The educational system is being enriched by focusing on the individualization of the educational program, the ability to work with new information. An important part of the educational process is the person-oriented interaction between the student and the teacher. The educational process is extremely complex. The effectiveness of education depends on the activity of the pedagogue and pupil-student, the availability of educational tools, the organizational, scientific, methodical excellence of the educational process, the need for knowledgeable people in society and other factors that have

not yet been identified. The society demands high educational efficiency based on its socio-political and economic needs.

Nowadays, when economic structures based on market relations are being created in Uzbekistan, the demand for people with broad, deep knowledge and the ability to apply knowledge in practice is increasing. A knowledgeable and entrepreneurial, socially active person finds his place in the life of society, in work. In order for such activity to occur, it is necessary to form a person who is knowledgeable and active, who is loyal to the idea of national independence.

The introduction of modern pedagogical technologies into the educational process requires positive work from the pedagogue⁷. The pedagogue must have full information about the availability of external opportunities that help him, that is, theoretical and practical, educational tools and tools⁸. A pedagogue should have the ability to direct information on the educational direction under consideration and advanced teaching methods based on the available information and opportunities. The need for pedagogical technology in education, technological approach, clear goal orientation, diagnosis of process results, redevelopment of all aspects of educational process design, embodiment of convenience, improvement of modern pedagogical technologies from a psychological and pedagogical point of view, conditions of technological approach to the educational process, basic principles of technological approach to the educational process are presented the ideas form the scientific problems that the article presents.

Education is the main factor in reforming society and turning it into a society more open to the outside world and oriented to new technologies and knowledge¹. Increasing the effectiveness of modern didactics and educational content in education, scientific development and practical justification of new ideas and technologies is underway. In this case, the connection between various pedagogical systems and teaching technologies, the approbation of new forms of the state education system in practice, and the application of pedagogical systems of the past in the current conditions are important. The educational process aims to regularly awaken the student's activity and curiosity throughout the training. Pedagogical technology based on the creation of educational factors allows to quickly involve students in educational or educational production activities. Otherwise, weak, insufficiently clear, or unclear tasks will lead to an ineffective completion of the training. Such situations often lead to a negative attitude of the teacher towards the student. As a result, the student-student becomes overly emotional, decreases motivation to study, gets tired of studying, and has a negative attitude towards the subject and the teacher. The relationship between the teacher and the pupil-student should be organized on the basis of humanitarian criteria and should be aimed at eliminating unpleasant feelings. Enjoying the achievements in the pedagogical relationship, thirsting for educational activities should invite joint creative communication. It is impossible to achieve the expected demand, especially the establishment of conscious discipline, when the student is treated with disrespect in the educational process. By its essence, the concept of "pedagogical technology" serves to express the consistent, systematic, step-by-step

implementation of practical actions aimed at achieving a clearly defined educational goal and obtaining the expected result. Goal orientation, diagnostic examination of the results of the process makes it possible to incorporate all aspects of the educational process into the period of redevelopment. It mainly includes the following.

In the conditions of modern technological changes, globalization and the increasing mobility of skills, not professional skills, but basic and social competences come to the fore. A person's ability to independently build a life path in a conflicting, constantly changing world is important.

Consequently, the role of social and humanitarian sciences in the process of training engineers is changing significantly. It performs the main task in connection with professional, engineering education, because it helps to develop the personality, to acquire the necessary qualities of the mind, to form cultural tolerance and universal morality.

The experience of world education shows that it is social sciences and humanities that help to develop personality traits.

The social, humanitarian readiness of the student's personality for life and activities in society allows the future specialist - engineer to develop technological achievements. The essence of the "humanitarian core" is a systematized body of knowledge aimed at changing the "human phenomenon", its thinking, social interactions, attitude to the world and creative possibilities, including perception.

Humanistic training included in the professional technical education program allows the student's professional training, in particular, to consciously correct the goals and motives for obtaining this specific information.

"The humanitarian readiness of the student of the technical specialty allows to understand and perceive the contents and results of the vocational education received in the process of this vocational education in a new, deeper and qualitative way. It follows that it is humanitarian education that plays a decisive role in shaping the success of an individual. Success is a characteristic carried out by the personality, the systematic achievement of consciously defined goals in directions relevant to the personality and the scope of its life manifestation.

Young specialists often reveal their inability to solve the problems of interaction between man and technology, they are not very aware of the scientific organization of work.

Therefore, psychological and sociological training is needed for students, it is important to clearly imagine the social and psychological qualities necessary for work, to clearly imagine the social consequences and conditions of the applied technical and management decisions.

Young specialists in practical work in our country hardly master the principles of industrial aesthetics and engineering ethics, because they are not fully taught in higher educational institutions, because ethics and aesthetics are not taught in technical universities.

Inadequate teaching of social sciences and humanities makes it difficult to train a qualified engineer. In conversations with professors and teachers of

technical higher educational institutions, opinions are expressed that the teaching of humanities, which do not correspond to the main specialty of the university, is not effective enough. Also, sometimes, among the students, technical specialist teachers express their attitude, as if the humanities are secondary in the process of engineering education. Thus, it is impossible to educate a full-fledged engineer without full socio-humanitarian training of scientific, technical and engineering thinking of young professionals.

Today, it is becoming more and more clear that the path of technocratic development of society is dangerous for humanity. The results of technocratic thinking and engineering activities: these are the nuclear, chemical industry and their wastes that make people sick, die of plants and animals, pollute the environment, destroy the soil, waste natural resources, etc. German scientist G. Jonas says, "Do this so that the consequences of your activity are not fatal for the possibility of living on Earth in the future."

The development of scientific and technical progress leads to an increase in the responsibility of people associated with it. Of course, special responsibility belongs to the production manager, engineer and technician. The more complex the machine, the more responsibility it requires.

Knowledge of humanities expands the scope of engineering creativity, teaches thinking, creates an understanding of the logical completeness of judgments and the specific embodiment of philosophical categories in the system of concepts and laws, and the relationship between them.

Today, there is a sharp problem of conflict between the requirements of the innovative economy and the system of training him in higher educational institutions.

Modernization of the higher education system, one of the issues that requires its first-level solution, is the problem of training engineers who must solve professional problems in the relevant sectors of the economy in a special way and with modern technologies, taking into account the innovative method of economic development. "World practice shows that university education is increasingly pragmatic, primarily aimed at providing personnel for the market economy: creating business incubators, research and production centers." And, of course, the training of engineering personnel for the innovative economy requires the introduction of innovative educational technologies in the higher education system. Traditional lectures should be replaced by forms of student education based on a systematic activity-based approach to the organization of the educational process.

At the same time, "innovation" is the same international standard used as a basis for the development of concepts, programs and other strategic documents on innovative activities. "Innovation is regarded as innovation, that is, the end result of creative activity in the form of new or improved products sold on the market or a new or improved technological process in practice."

Today, there is a growing demand in the world for engineers of a new generation - manufacturers of high technologies, who are well versed in mathematics, modeling methods, informatics and management.

Building and developing engineering schools is a long, expensive, complex and resource-intensive process. The infrastructure for training engineers is very expensive and takes years to build. In modern conditions, engineering and technical education requires certain training from the state.

Thus, the training of engineers at the university should be carried out taking into account the innovative perspectives of social development. Higher engineering education will be innovative only if the main role of fundamental education is assigned, taking into account the person-oriented direction.

In conclusion, the study of humanities and their participation in the educational programs of technical universities is really necessary, because now a student is important not only as a highly qualified specialist, but also as a versatile person. To determine the place of each socio-humanities and economic sciences in engineering education. Issues such as the professional orientation of humanitarian education, training of specialists in accordance with the requirements of the market economy, quality changes in foreign language teaching, improvement of the methodology and methods of teaching social, humanitarian and economic sciences are considered to be resolved.

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