

# Innovation in the Processes of Reforming the Higher Education System in Uzbekistan

<sup>1</sup>Umida Sabirova

**Abstract**--*The paper presents foreign experience and various models of higher education in developed countries. The aspects of foreign experience in terms of possible use in the country are singled out. Proceeding from this and requirements of reforms on democratization and liberalization, the problems facing the higher education system in Uzbekistan are revealed. The main systems of education in the world, which have developed under the influence of historical, economic and social factors, characterized in each country by a number of features, are described. The author has attempted to formulate the contours of a new educational and innovation model for Uzbekistan. According to the author, the differentiated nature of higher education enables any person to receive education and master a specialty depending on practical needs. It is assumed that the practice of accelerated training of specialists on narrow topics will be significantly expanded.*

*The paper outlines possible directions for improving the higher education system based on foreign experience. Advanced pedagogical technologies, which increase the degree of innovation in the educational process, are presented. The article also deals with the importance of internationalization of education related to the globalization of the economy, which implies the transition to the international level of education, the expansion of scientific contacts, cooperation and consolidation of efforts in solving scientific problems.*

**Keywords**--*quality of education, socio-cultural model, innovation process, extensive and intensive model, sociology.*

---

## I. INTRODUCTION

Globalization of the world accelerates the processes of formation of new world order, meaning the change of the entire social and cultural environment of man. All this requires that national states accelerate the innovation process in the socio-economic sphere, which requires a fundamentally new quality of personnel training. Here we can state that there is a global trend in the globalization of education as a process contributing to the integration of national educational systems into a single space.

Objectively, the scientific community of our country faces the question of evaluating this process, the degree of the need to join the processes of integrating education into a single integrated education system. However, the sceptics, who are conservative, object that Uzbekistan is a country of ancient culture, which has its own deep scientific and educational traditions. This circumstance, on the one hand, raises the issue of preventing possible loss of achievements of the national pedagogical school in the implementation of a number of provisions of the Bologna Declaration, the exclusive focus on the so-called "Eurocentrism".

On the other hand, time itself, the course of reforms requires the higher education system of Uzbekistan to be in a trend of change. The country's top leadership also understands this. Thus, at the June 2019 plenary session of

---

<sup>1</sup>PhD of Social Sciences, Associate Professor at the National University of Uzbekistan, Uzbekistan, email: sociology@tadqiqot.uz

the Senate of the Oliy Majlis, the head of state focused on the need to address problems in the higher education system. At the same time, the opening of branches of foreign universities in Uzbekistan was noted as one of the measures. Summarizing the idea was expressed that "our main mistake over the past 20 years is that we consciously tried to make people unconscious" [1].

Obviously, simply copying the successful models of different countries shows that they are not successful. The organization of education activity is based on the theories of human behavior, which reveal the socio-cultural mechanisms of activity activation. In this regard, this paper attempts to identify ways to modernize education, taking into account the specifics of culture and spirituality of the people of Uzbekistan.

## **II. MATERIALS AND METHODS**

Most of the scientists who have completed their degrees in their own country are also in demand outside their own country. This speaks not only about the globalization of education but also about the labor market. Another aspect of the globalization of education has been the compilation of international rankings of universities, which attract public attention and stimulate competition between universities.

Today we see the formation of a fundamentally new round of social development, transition to a post-industrial model characterized by the globalization of economic processes, increased competition and obsolescence of products and technologies. In these conditions, the main factor determining the country's long-term success is the human resources and intellectual potential of the nation. Knowledge, intelligence, information, innovations are the basis of wealth, determining the competitiveness of economic systems and being a key resource for development [15]. In turn, this places the following requirements on the higher education system.

The main characteristics of human factor labor are professionalism, high qualification and creative abilities. It is necessary to fundamentally change the approach to information and methods of knowledge acquisition, which are important to consume and update continuously, to use effectively. It should not only copy and transfer existing information but also teach how this knowledge can be obtained and how to use it in practice in the most effective way. It assumes an emphasis on effective methods of training and formation of abilities of trainees to be guided in a huge stream of the information, on ability to make non-standard decisions in difficult and constantly changing situations.

Training of specialists should be clearly and flexibly linked to the current technological developments. The educational system should react adequately to the emergence of new professions and specialties.

The educational system should be closely integrated into the country's economy and be sensitive to the changes taking place in it, to respond to the current trends in the development of the national and world economy [16, p. 88].

These requirements stipulate the importance of developing new mechanisms for the implementation of public education policy. At the same time, a typical system of higher education is characterized by a number of significant systemic contradictions, in particular:

## **2.1. The contradiction between the needs**

The contradiction between the needs of the purchaser of the service and the needs of society due to the requirements of its development;

- Between the acceleration of the growth of scientific and technological progress, production of knowledge and the lack of appropriate educational and organizational technologies to transfer new knowledge;
- Between the emergence of demand for specialists in one field or another and the period when this need can be met by employers;
- Between the income of the population and the price of higher education services;
- Between the financial capacity of higher education institutions and the implementation of regulatory requirements;
- Between the number of graduates in a particular field and the needs of employers;
- Between the theoretical knowledge provided by universities and the practical skills required of professionals by employers;
- Between the development of market relations in the field of educational services and the outdated legal framework [17, p. 158].

## **III. DISCUSSIONS**

The current education system in the world is influenced by historical, economic and social factors, which are characterized by a number of peculiarities in each country. Existing classical educational models can be divided into models: (a) traditional extravagant; (b) European (American), which is referred to as a rational and pragmatic model; and (c) Japanese, which is called a model of developing education or intensive.

### **3.1. Models**

Each model has its own peculiarities and meets certain conditions of society development. The peculiarities of the models are in the predominant orientation to the exact or humanities; theoretical or practical training; detailed study of the achievements of the old or creation of the new. The use of this or that model of education leads to the "formation" in different educational institutions of different graduates, and therefore citizens, who perceive the world around them differently, with different goals and degrees of readiness. These educational models have different purposes, content and links to practice.

#### **3.1.1. An extensive model**

An extensive model, which has historically been passed on to higher education institutions in Uzbekistan, is to transfer as much experience and cultural achievements as possible, to help the student to self-determine on this basis, to use his or her potential. This model has certain advantages, as it is based on cultural heritage and provides students with a wide range of knowledge. However, history has shown that the main drawback of this model is its excessive conservatism, dogmatism, practical inadequacy, and lack of practical work and communication skills.

It is known that the extensive model of education originates in the French education of the XVIII century, which gravitated to universal knowledge, comprehensive educational tradition, the spiritual and moral perfection of personality. Essentially, education appears in this model as a form of cultural activity, in all the variety of features and individualities of human achievements. The main purpose of education in such a model is a person and his or her personal qualities. This model of education is inherent in the pre-industrial era when science has not yet become one of the factors in the intensification of production, has not become a productive force.

In general, the lack of an extensive model is the abstractness of knowledge, separation from the needs of the practice, and therefore, despite the extensive training and high level of knowledge - the spiritual and cultural potential of the people remains untapped. As noted by experts, such trends are manifested in the collective features of the intelligentsia of Russia [2], which possessing deep knowledge and high moral qualities, nevertheless, is not able to influence the cultural level of politics, economy and other spheres of public life.

### **3.1.2. Rational and pragmatic model**

The essence of the second, rational and pragmatic model is to prepare students for the types of activities that they will be engaged in and for the structure of classes that support the development of society and its development. Until recently, this model was characteristic of education in the economically developed countries of Europe and America. This explains the lack of rigidity of the educational structure in the United States or England.

Each university has its curricula, timetables, educational content and duration of study. Differentiation of higher education gives an opportunity to any person to receive education and master the specialty depending on practical needs.

### **3.1.3. European and American models of education**

European and American models of education have a common feature - Liberal Arts or "Freedom of Choice", meaning that students have the opportunity to choose their courses from a list offered by the institution. The main thing here is to create motivation to study and responsibility in decision making. Another feature of education in the U.S. is the lack of unified national standards for primary and secondary education.

Let's emphasize the fact that applicants in such a system of education were initially placed in different starting positions. Such education is also connected with the fact that the American program is designed not for the average student, but the backward student. Even at school, children are divided into several groups by ability using standardized tests designed to measure the "intellectual development coefficient". (IQ) for the groups with the highest and lowest scores.

Americans spend most of the total cost of education (92%) on weaker students, while the most capable and hardworking children receive less than 1%. Talented children take up special subjects in which they have demonstrated ability.

In the United States of America, with a duration of 2 years, in England, 3 years of general education is provided in a technical specialty. These institutes have a practical orientation and narrow specialization. This is an

undoubted plus, as in the U.S. 3 times more time is spent on research and coursework that directly meets the needs of science and industry, than classroom work. That is, it is about the commercialization of science. At the same time, American educators themselves note the inefficient use of public funds and teachers' efforts. This is what they see as the reason why the U.S. constantly needs students capable of studying in mathematics and technology.

To solve this problem, students and scientists from all over the world are constantly invited to America. Thus, according to the Education and Student Exchange Program (SEVP), supervised by the U.S. Department of Homeland Security [3], in March 2018 in the U.S. with F-1 and M-1 non-immigrant status are trained more than 1.2 million students from more than 229 countries. The vast majority of students with F-1 and M-1 visas came from Asia (925,349). About half of them are from China and India. At the same time, only 85,094 students from Europe, including Russia, Ukraine, and Belarus, turned out to be from China and India. The number of students from North America (63,380) was slightly higher than from South America (61,895). Some 54,000 students came from African countries.

1,019,333 international students receive associate, bachelor's, master's or PhD degrees in the United States. Of these, 169,359 students receive a bachelor's or master's degree in business, the management or marketing-related fields of study. 284,483. Receive a bachelor's or master's degree in STEM specialties.

PhD candidates consist of 45,373 students in engineering specialties, 19,249 in physical sciences and 14,671 in the biological and life sciences.

The United States has been and continues to be an attractive country for students, not only because of the quality of education but also because of the workers and immigration prospects it offers to its holder. That is, the most talented students, passing through the cycle of education, seek to stay in the U.S. This leads to the conclusion that the U.S. system of higher education fills in the deficiencies of its higher education system with the influx of foreign scholars. This approach is not quite appropriate for Uzbekistan.

The third way is the Eastern way, which is of interest. In Japan, the decisive factor in economic acceleration is corporate, community interest and behavior regulated by such ethical categories as debt, loyalty and goodwill. This way of organizing the organization is bearing fruit, which has allowed Japan to become one of the most highly developed countries in the world.

Japan's technical high schools and two college courses have been converted into five-year colleges, strengthening applied and science training programmes. In addition to special disciplines, the engineering and technical personnel training program includes courses that teach the knowledge of industrial products sales in the world markets.

Many graduates try to get a bachelor's degree in a certain specialty, and some become just bachelors of general training [4]. Getting a bachelor's degree after five years of college in Japan involves two ways to continue your studies. The first one is 1-2 years of study under a special program to improve knowledge in one of the fields (a kind of specialization). The second way is to continue studying at the professional school of businessmen, lawyers

and managers. This is a very expensive education, but those who graduate from such schools become masters and the most privileged part of professionals.

There are more than 500 universities in Japan, about 400 of which are private [5]. In Japan, they provide benefits in the form of a government scholarship, which is awarded annually to the best graduates. The competition is very intense - only 100 scholarships are awarded for almost 3 million. The most expensive traditionally economic, philological and medical faculties.

Today, an attempt is being made in Uzbekistan to adopt elements of a rational and pragmatic model of the education system, which has a number of advantages. It concerns its flexibility, ability to take into account the demands of production, science and technology. It is also differentiated and provides diverse opportunities for education. It allows the applicant to enter several universities simultaneously.

At present, universities have the opportunity to develop their curricula and training programs for practical orientation and apply training technologies in the learning process. However, we regret to point out that the connection between the learning processes and practice in Uzbekistan remains more formal, as many specialties do not have the appropriate infrastructure of professional activity, so their training is deprived of the opportunity to participate in solving real practical problems.

Today, the modern higher education system of Uzbekistan fails to fully satisfy the demand of the population and enterprises for educational services, to meet the needs of the labor market in the qualified labor force and development of competitive science in our country. The main reasons for this are limited powers of educational institutions, lack of competition in the field of educational services, lack of specialists able to work with the latest equipment, insufficient funding of the system and employees' salaries, etc.

D. Matrasulov, professor of the Turin Polytechnic University in Tashkent, notes that "the state of the education system, science and technology in Uzbekistan is characterized by a lack of competitiveness in comparison not only with developed countries but also with many developing ones, such as Iran, Kazakhstan, Mongolia and Pakistan". [6]. On the one hand, the reason is the inability of key representatives of the academic community to adapt to the new reality. On the other hand, the wrong approach to the development of science, technology and the academic community. It is also too complex and inefficient a system of defending dissertations, which imposes a lot of bureaucratic requirements on them, which do not contribute to the competitiveness of the theses being defended.

The higher education system in Uzbekistan is also notable for the fact that the quality of teaching is not at all a priority. Teachers are busy with absolutely unnecessary paperwork, which leaves no time to think about scientific and educational work.

Let's also mention the following problem. Indeed, thanks to the introduction of scientific and technological achievements, Western countries have come to the forefront of economic development and have solved many social problems of life support. But in the modern era, this model has exhausted itself, showing the flawed nature of the pure consumer approach. Limited natural resources and ecological crisis make the society reconsider the system of specialists' training and turn to the cultural sources of vital activity, providing harmony, order and stability. Narrow

utilitarianism and excessive practicality have a negative impact on the spiritual state of society and cause problems of deviant behavior. This raises the question of searching for a new model that combines the advantages of a rational and intensive model based on cultural mechanisms of behavior.

This article is an attempt by the authors to outline a new approach to the model of the higher education system in Uzbekistan, which should be based on the tools and technology of the Western (rational) model while relying on cultural traditions (intensive). Therefore, we consider innovative education as a basic category. By it, we understand the ability, on the one hand, to create a new, useful for people, on the other hand - to spread this new, useful in all spheres of human life. It is necessary to create one's socio-cultural model of the education system, relying on socio-cultural mechanisms of boosting of the young specialist's activity.

#### **3.1.4. Innovative model**

The essence of the innovative model is in the development of universal individual qualities of students, the formation of their readiness not only to master certain knowledge but also their continuous improvement, development and application. This model implies assimilation of cultural heritage, mastering practical skills of modern forms of activity, satisfaction of social needs, all-round development of personality and maximum realization of its potentialities. To some extent, the innovative model is a combination of rational, pragmatic and intensive models of education, providing the implementation of the general function of education.

In this context, we emphasize that the system of training of specialists should be determined not only by training technologies, but also by the humanization of education. The main thesis of the innovative model is not to suppress, but to help to see the personal meaning of the taught knowledge [7], the maximum disclosure of abilities, adequate understanding and use in life activities. In teaching, more attention should be paid to the inner world of a person, as well as to how his goals relate to the goals of the social system.

Based on the personal meaning and interests of the students, the educator, within the framework of such a model, is called upon to formulate thesis topics and link them to practice and social needs. This is a complicated process that involves knowledge of individual characteristics of the individual, the ability to form an indifferent attitude to the new material, to give specific knowledge in their practical significance.

## **IV. CONCLUSION**

A number of problems in the higher education system in Uzbekistan have been mentioned above. In developed countries, many problems in the organization of education are solved with the help of market mechanisms: the credit system of education, the demand for scientific developments in the country's economy. In Uzbekistan, market relations are at the initial stage of formation and require reorganization not only of education, but also of other education-related social institutions: management, finance, production, etc.

Introduction of the innovative model of education implies implementation of the following set of measures. First of all, it concerns the transition from centralized management to greater independence, to personnel

management, marketing of educational services, planning on the basis of monitoring the needs in the labor market, and the creation of appropriate training programs.

This also implies bringing the education system in Uzbekistan in line with the achieved level of science, technology, production, culture and prospects for their further development. It also means orientation to already existing foreign experience. In this regard, it is important to continue the processes of supporting the opening of branches of foreign universities in Uzbekistan. Here, in our view, it is necessary to adhere to a liberal approach that implies tough competition in the education market.

The issues of access of private structures to the system of higher education with the corresponding annual certification by the Ministry of Higher and Secondary Special Education of the Republic of Uzbekistan are also becoming relevant here. In the end, each applicant risks his or her own funds allocated for tuition fees. It is obvious that in these conditions the state does not allocate any funds for such universities.

It should be noted that the innovative model of education should be based on the historically established structure of forms and types of economic and cultural activities. Such a concept of education provides for equipping state educational institutions with powerful material and technical base, first of all, with laboratory facilities.

We consider it is important to introduce into the curriculum chosen by the student up to 25% of disciplines not directly related to specialization. For example, for technical sciences, these are philosophy, foreign language, sociology, etc. It is necessary to gradually move away from the concept of "academic group", as students should study according to an individual program and attend lectures on choice. It should be a practice to give each student her or his notes before the lecture, which relieves the student of the obligation to keep the notes. This will allow the lecturer to make extensive use of teaching aids and audio-visual equipment. The ideological content of this proposal is based on the concept of B. Skinner's social engineering, which puts in the foreground not the content of education, but effective ways of mastering the norms, rules and expectations of culture [8].

Innovativeness of specialists' training is determined by the extent to which online training is integrated into the education system. In the world, more and more employers recognize the value of online education [9]. Leading universities abroad also offer popular online courses, which improves the quality of education and expands the opportunities to master the specialty without interruption from the main occupation.

We should also talk about the internationalization of education related to the globalization of the economy, which implies a transition to the international level of education, the expansion of scientific contacts, cooperation and consolidation of efforts in solving scientific problems [12].

It is also necessary to give an honest answer to society that the market economy is not distinguished by its emphasis on social justice in access to higher education. The market economy is not able to provide everyone with high quality of education, equality of access to higher education (an increase of accessibility of higher education) and sustainable financing of educational institutions from the state budget. The high quality of higher education presupposes its elitism, which makes the accessibility of education difficult to achieve. Against the background of international competition in the field of training of working resources, this is solved by creating a greater number of



higher education institutions. However, the role of conscious enrollment of university entrants in this or that university increases. Obviously, this requires appropriate explanatory work among parents and applicants.

Japan has also eliminated inconsistencies in the relationship between higher education and the state by minimizing official funding for universities. Approximately 80% of Japanese students study at private universities. In most cases, large sums of money are allocated not from state grants, but the family budget. That is, the spread of Japanese higher education is promoted by private universities, which depend on the funding of families of students.

It should be noted that more than 50% of Japanese school leavers continue their studies at universities, and about 25% go to 2-year colleges and vocational schools of various profiles. That is, 75% of graduates have the opportunity to continue their education after secondary school. 2-year colleges and colleges are also almost entirely private. Thus, we observe a situation in which post-secondary education has become mass in nature with minimal government involvement [10].

In this regard, it is necessary to use this experience more widely in the innovation model. This presupposes a significant spread of the practice of accelerated training of specialists on narrow topics. For example, as a specialized branch of the Tashkent State Law University, where legal personnel will be trained under a three-year bachelor's program and retraining of personnel with higher non-legal education under a special six-month program. The bachelor's degree on the basis of tests can be applied to citizens of the republic aged 18 to 25 years, with permanent residence in Tashkent or the capital region, whomsome perform the duties of an employee of the internal affairs bodies or a serviceman due to their health condition [11].

In general, the formation of a socio-cultural model of innovative education in Uzbekistan, as part of the transformation of the structure and content of higher education, should contribute to the competitiveness of our country and science. Solving this problem requires not only a constant investment in science and education but also the proper organization of their structure, which should be flexible in relation to new tasks and requirements of the time. The system of science and education should adapt to new challenges in the economy and modern social space.

## REFERENCES

1. Shavkat Mirziyoyev criticized the education system / [Electronic resource] <https://upl.uz/president/11580-news.html> (accessed 23.06.2019)
2. Organization and self-organization of intellectuals in modern Russian society / Russian State University of Humanities, Sociological Fact-Center of Sociological Research, Under the general editorship of Zh.T.Toshchenko; eds. M. S. Tsapko. MOSCOW: RGU, 2013.
3. Mrs. S abiramasundari, gayathiri d, mehala k, sivaranjini s, kousalya r. "design of smart toll cash collection using nfc reader." international journal of communication and computer technologies 7 (2019), 19-23. Doi:10.31838/ijccts/07.sp01.04
4. Foreign students in the USA (in figures) / [Electronic resource] <https://business-visa-usa.ru/blog/immigration/item/168-inostrannye-studenty-v-ssha-v-tsifrakhhttps://business-visa-usa.ru/blog/immigration/item/168-inostrannye-studenty-v-ssha-v-tsifrakh> (accessed on 23.06.2019)
5. Foreign experience of training specialists and some educational processes in Russia. - M., 1995.
6. Education in Japan / [Electronic resource] <https://tonkosti.ru> (accessed on 23.06.2019)
7. <https://www.gazeta.uz/ru/2017/10/19/science-education/>
8. Patterson C.H. Humanistic Education. Englewood Cliffs, New Jersey: Prentice - Hall. 1973. - p.22.
9. Skinner B.F. Reflections on behaviorism and society. - N.Y., 1978.

10. Durai Muthumani, Agaath Hedina, Juveriyah Kausar, Vijaya Anand, Pushpa. "Phytopharmacological activities of *Euphorbia thymifolia* Linn.." Systematic Reviews in Pharmacy 7.1 (2016), 30-34. Print. doi:10.5530/srp.2016.7.4
11. Fayzullaev A. Interview. / [Electronic resource] Mover.uz (date of circulation 13.01.2018).
12. Takehiko K. "Japanese syndrome" in higher education / [Electronic resource] <https://www.nippon.com/ru/in-depth/a00602/> (accessed on 23.06.2019)
13. 11.To the bodies under the simplified scheme: the admission of documents for the three-year bachelor's degree of law university has started. / [Electronic resource] <https://www.podrobno.uz/cat/obchestvo/v-organy-pouproshchenoy-skheme-start/>(accessed 23.06.2019)
14. Seitov A.P. UWED in the fairway of modern scientific trends. International relations, politics, economy, law. - Tashkent, 2016. - №3 (65)
15. Satyabrata das sharma, lakshman nayak, chitta ranjan panda, mitali priyadarsini pati, subhalata samantaray (2016) a review on benthic study along odisha coast, east coast of india: a neglected research. Journal of Critical Reviews, 3 (4), 27-32.
16. Globalization and education. Bologna Process // Sociology. Moscow State University 2004. - №9.
17. Hoffmann, A.M. Modernization, traditions and innovations (in Russian) // Sorokin readings. Actual problems of sociological science and social practice. M.: 2002.
18. Management of human resources. Materials of the All-Russian scientific and practical conference (October 21-22, 2004) [Text] / Editor-in-chief N.P. Makarkin et al: N.P.Ogarev Moscow State University. Saransk: Type. "Krasny Oktyabr", 2005 –p. 272.
19. Krakowskaya I.N. Theory and Methodology of Management of Investment Processes in Human Capital at Higher Educational Institution: Monograph. Saransk: Mordovian State University, 2008. –p. 244.
20. Dmitriev, V.Ya. Problems of the higher school educational services system development (in Russian) // Proceedings of the Free Economic Society - 2010. - № 3. - pp. 157-163.
21. Leonova N.M. Methods of adaptive management of conducting training sessions in real / [Electronic resource] <http://ipk.admin.tstu.ru/sputnik/index/str/resurs.files/ict.edu.ru/vconf/index1960.html>
22. Dolgorukov A. Method of case-study as a modern technology of professionally-oriented training / [Electronic resource] <http://www.evolkov.net/case/case.study.html>
23. Niranjana Murthy, H.S., & Dr. Meenakshi, M. (2015). ANN, SVM and KNN Classifiers for Prognosis of Cardiac Ischemia- A Comparison. *Bonfring International Journal of Research in Communication Engineering*, 5(2), 7-11.
24. Sakuma,H. (2013). Improvement of One-shot Fringe Projection for Shape Measurement. *The SIJ Transactions on Computer Science Engineering & its Applications*, 1(5), 7-11.
25. Smith, C.U.M. Synapses, quantum theory and panpsychism (2008) *NeuroQuantology*, 6 (2), pp. 164-174.
26. Georgiev, D.D., Glazebrook, J.F. Conformational dynamics and thermal cones of C-terminal tubulin tails in neuronal microtubules (2007) *NeuroQuantology*, 5 (1), pp. 62-84.