

## USE OF INNOVATIONS IN TRAINING OF TEACHERS OF INFORMATION TECHNOLOGIES AND DEVELOPMENT OF PEDAGOGICAL COMPETENCE

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### ABSTRACT

The content of this article provides analytical comments on the reforms being carried out by the Government today in the country to improve the system of teaching computer science and information technology, the mechanism of development, capacity building and competence development.

**Keywords:** Competence, innovation, integration, system, technology.

### INTRODUCTION

At present, systematic work is being carried out in our country to improve the quality and efficiency of the education system, the formation of modern knowledge and skills among students, ensuring close cooperation and integration between education systems and science, continuity and continuity of education.

At the same time, the current state of the national education system is necessary to modernize it on the basis of modern requirements, to educate young people as highly educated, physically and spiritually healthy people, to increase the prestige of managers and teachers of educational institutions. requires the implementation of consistent measures to create conditions.

The growth rate of economic development of our country is highly recognized by the world community. It is also the result of large-scale reforms aimed at the development of science, education reform, comprehensive support for scientific and innovative activities.

As one of the priorities in the development of the country's economy, the transition to a path of development based on innovation and integration is in full swing.

As the President noted, "Our most important task is to create an innovative environment in the worldview of our people. Without innovation, there will be no competition, no development in any field. If we do not widely promote the changes in this area to our people, if we do not develop skills in people, we will not be able to keep pace with the intensity of today's times, the unprecedented achievements of science and technology".

A clear example of this is the Decree of the President of the Republic of Uzbekistan dated November 29, 2017 "On the establishment of the Ministry of Innovative Development of the Republic of Uzbekistan" in order to consistently work on the innovative development of leading industries and sectors in the country. The head of our state gave important instructions to make the design more convenient for the entire intelligentsia, to create conditions for the use of innovative achievements in the region.

The fourth direction of the Decree of the President of the Republic of Uzbekistan dated February 7, 2017 "About the strategy of actions for further development of the Republic of Uzbekistan" entitled "Development of the social sphere" provides for such priorities as improving the quality and further development of higher education.

In particular, higher education workers, public educators, under the leadership of the ministries began to take urgent measures in support of active entrepreneurship, innovative ideas and information technology in the system. Immediate connection of educational institutions to the fiber-optic Internet, increase of Internet speed, absolute innovation in schools - Daily.som educational programs, accelerated circulation of electronic documents in schools, the first publication of textbooks with QR codes, remote training, revitalization of psychologists that is bearing fruit today. In particular, the adoption of special decrees and resolutions by the head of our state on specific sciences, including mathematics, computer science and information technology, chemistry, biology, is a clear example of this. It is these sciences that develop engineering and the natural sciences. In particular, the Presidential schools, specialized schools, children in general who are thirsty for knowledge in ordinary schools and the conditions created for them are the basis for this.

### **Materials and methods**

The tasks ahead are to develop a system of training and retraining of teachers, which will play a key role in the implementation of these opportunities.

Many Resolutions are being adopted by our Government to address these issues.

In particular, modern requirements based on the content of priorities set out in the Resolution of the President of the Republic of Uzbekistan dated October 6, 2020 No PP-4851 " On measures to further improve the education system in the field of information technology, the development of scientific research and their integration with the IT industry " Improving the content of professional development processes for teachers of computer science and information technology, as well as increasing their professional competence.

The program also aims to update the knowledge, skills and competencies of teachers of computer science and information technology, necessary for improving the effectiveness of the educational process and direct them to independent practical activities. It is formed on the basis of the updated qualification requirements and curriculum for training and competence of teachers of computer science and information technology. provides for continuous improvement of organizational competencies.

Taking into account the above and improving the educational and scientific spheres of the country, increasing the respect for teachers and pedagogical staff, scientific and creative intellectuals in our society, developing the professional skills of students, the competence of teachers of computer science and information technology. A lot of practical work is being done by regional training centers and new ones are planned. Including,

### **RESULT AND DISCUSSION**

Study and implementation of foreign experience in assessing the knowledge, skills and competencies of students in the field of computer science and information technology;

- Organization of cooperation with advanced educational institutions of foreign countries;
- Participation in innovative competitions and projects in the field of international

science via the Internet;

- Getting acquainted with the activities of governing bodies for the development of computer science and information technology (Ministry of Information Technology, Ministry of Higher and Secondary Special Education, JSC "Uzbektelecom", JSC "Uzbekistan Pochtasi", Directorate of Software and Information Technology Technology Park, local government) develop the skills to go and participate in online communication through social networks;

- Registration with internationally recognized rating organizations in the field of computer science and information technology;

- Organization of online dialogues with professors and gifted students of specialized basic schools, specialized schools and higher education institutions in the field of computer science and information technology;

- Publication of scientific articles and research on the Internet in journals indexed in the international scientific and technical database;

- Earn extra money through social networks. Identification and implementation of vacancies in the field of information technology in our country and around the world;

- Study the structure of computer programs based on innovative ideas;

- Creating computer games using programming languages;

- To study the concept of authoring programs and methods of creation;

- To study the role of digital technologies in the teaching of computer science and information technology;

- Study of methods of preparation and analysis of monitoring of economic growth and development prospects in various sectors of society using spreadsheets;

- Study of the requirements of real sectors of the economy and methods of creating their database;

- To study the methods of creating models of various objects, products, devices using computer graphics;

- Involvement of highly qualified professors and talented students in the educational process and the organization of master classes and clubs in the methodological support of the educational process of higher education institutions;

- Participation in prestigious international Olympiads in the field of informatics, programming and information technology among students of higher education institutions and admission of winners of state prestigious master's programs in higher education institutions on the basis of state grants;

- Improving the system of effective teaching of the subject "Informatics and Information Technology" in secondary special, vocational education institutions, existing and newly established specialized schools and the provision of educational and methodological assistance to them by the Ministry of Higher and Secondary Special Education;

- The aim is to develop theoretical and practical skills in identifying talented students and preparing them for various intellectual competitions (robotics, information security, web designer, professional programmer, intellectual hackers, etc.).

Including from January 1, 2021 A. On the basis of the Institute of Retraining and Advanced Training of Managers and Specialists of the Public Education System named after Avloni and the regional centers for retraining and advanced training of public educators, the tasks of improving the organization of training and retraining of teachers of secondary schools "Informatics and Information Technology".

## CONCLUSION

In conclusion, we can say that today's awakening, innovation should become our daily motto.

Therefore, in our country, too, there is a real awakening and a wind of innovation in education and knowledge, the era of innovation is coming.

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### Internet resources

1. [www.uza.uz](http://www.uza.uz) - the official site of the National News Agency of Uzbekistan.
2. [www.lex.uz](http://www.lex.uz) - National Database of Legislation of the Republic of Uzbekistan.
3. <https://uzinfocom.uz/> - the official site of the single integrator for the creation and support of state information systems.
4. [www.pedagog.uz](http://www.pedagog.uz) - educational site.
5. [www.ziyonet.uz](http://www.ziyonet.uz) - educational portal.