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Professional Development Of Teachers In The Context Of Digital Transformation

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Abstract: This article analyzes the role, importance, and effectiveness of modern information and communication technologies (ICT) in the process of developing professional competence. In addition, scientific and practical recommendations have been developed to address the pressing issues encountered in practice.

Keywords: Professional competence, information and communication technologies, digital education, innovative methods, distance learning.

Introduction: In the context of globalization and digital transformation, improving professional skills is becoming a crucial task for specialists in all fields. This is especially relevant for specialists working in education and manufacturing, as their level of professional potential is largely determined by their skills in using modern information and communication technologies.

The "Digital Uzbekistan – 2030" Strategy and the Law "On Education" define objectives for the effective use of ICT, improving digital literacy, and the widespread use of electronic resources and platforms. Consequently, the use of ICT to enhance professional skills is not only a modern requirement but also a priority for state policy [1].

The main part.

The concept of professional excellence and its development is one of the pressing issues of our time.

Professional excellence is a combination of theoretical knowledge, practical skills, and the ability to apply them effectively. It encompasses not only qualifications but also creativity, initiative, and adaptability to changing times. In the 21st century, the use of digital tools has become one of the key areas for enhancing professional excellence.

The concept of professional mastery. In scientific literature, professional competence (professional mastery) is defined as the combination of knowledge, skills, abilities, and personal qualities necessary for a specialist to successfully perform professional activities. In pedagogical sources, professional mastery is interpreted as the harmony of theoretical knowledge, practical experience, and personal qualities that enables a specialist to work effectively in accordance with socio-economic requirements [2]. In international research, professional mastery is expressed through a system of competencies: technical knowledge, communication, creative, and social skills are its constituent parts.

The need to develop professional skills is determined by a number of factors:

- **Technological progress**. In the digital economy, every specialist must be proficient in modern ICT.
- **Competition in the labor market**. Highly qualified personnel have an advantage in the global marketplace.
- **Integration of education and industry**. Strengthening the connection between theory and practice requires continuous updating of professional skills.
- **Personal development**. Professional skills play a vital role not only in work but also in self-realization and social status.

Scientific approaches to developing professional skills:

- cognitive – a set of knowledge, skills and abilities;
- activity-based – qualities that manifest

themselves in the process of practical activity;

- competence-based – a system of competencies (professional, communicative, informational, innovative);
- Innovative – not only the application of existing knowledge, but also the creation of something new, a creative approach.

Thus, professional excellence is a crucial prerequisite for human capital development. Its improvement is ensured by the use of innovative teaching methods, the effective use of ICT, professional development courses, and continuous self-training.

The Role of ICT in Professional Development. ICT is considered a key factor in modern society. It is transforming not only the educational process but also production, management, and the service sector, increasing the effectiveness of professional activity [3].

The main areas of ICT use in professional development:

- **Enhance your knowledge and skills**. Online courses and platforms (Coursera, EdX, Moodle, ZiyoNET) allow you to update your knowledge remotely.
- **Expanding practical experience**. Virtual labs, simulators, and multimedia tools create conditions close to real life.
- **Supporting innovation**. Information systems and artificial intelligence stimulate creativity and help develop new ideas.
- **Expanding professional networking**. Video conferencing, online forums, and social media offer opportunities for international exchange of experiences.

The use of ICT in professional development is expressed in the following:

- distance learning through platforms (Moodle, Google Classroom, Coursera, ZiyoNET);
- development of practical skills using virtual laboratories;
- personalized approach using artificial intelligence-based resources;
- Online seminars and webinars as effective forms of professional development.

According to researchers, ICTs shape the information culture of specialists and serve as the primary means for developing professional competencies. UNESCO and OECD reports recognize ICTs as the most effective mechanism for implementing the concept of "lifelong learning" [5].

ICT takes professional development to the next level:

- expand opportunities for advanced training;
- promote the development of creative and innovative potential;
- increase competitiveness in the global labor market.

Current issues and solutions:

Problems	Solutions
Lack of ICT competence among teachers	Identify the development of ICT competencies as a priority in advanced training courses
Insufficient technical equipment in certain regions	Equipping educational institutions with modern technical equipment
Low motivation to use digital resources	Expanding the availability of electronic textbooks and interactive resources. Conducting ongoing digital literacy training.
Insufficient methodology for effective use of ICT	Integration of innovative pedagogical methods (interactive technologies, gamification, project-based learning) with ICT

Benefits of using ICT in developing professional skills:

- efficiency and convenience of obtaining knowledge;
- enhancing interactivity and creativity in the educational process;
- expanding opportunities for international exchange of experience;
- development of independent work skills.

However, in practice, problems persist: a lack of technical equipment, a low level of ICT competence among teachers, and a limited number of electronic resources.

CONCLUSION

The results of the study showed that in modern conditions, the professional development of teachers is a continuous, purposeful and systematically organized process, the effectiveness of which is directly related to the level of use of information and communication technologies. In the context of digital transformation, traditional professional development models are transitioning to a new, flexible and active format.

The following main conclusions can be formulated:

ICT is a key factor in professional development. Modern digital tools and platforms not only optimize the process of acquiring knowledge, but also expand the opportunities for developing the creative abilities of specialists, forming practical skills and exchanging world experience.

Synergistic effect. The combination of digital technologies with traditional teaching methods significantly increases the effectiveness of professional development, while providing the opportunity to implement an individual approach.

Problems and solutions. During the study, it was found that the main obstacles to the use of ICT in professional development are: lack of technical equipment, low level of digital literacy, insufficient methodological support and low motivation. Addressing these problems requires an integrated approach.

Proposals and recommendations:

Identify the formation of teachers' digital competence as a key element of the continuous professional development system.

Support and encourage projects aimed at creating a digital learning environment.

Introduce a personalized digital development card for each teacher.

Improve the base of digital resources and expand access to them.

Encourage the active participation of teachers in digital projects and introduce mechanisms for evaluating their results.

In conclusion, in the context of digital transformation, the professional development of teachers involves not only providing them with technological equipment, but also forming a culture of new pedagogical thinking, readiness for self-development and acceptance of changes.

REFERENCES

1. President of the Republic of Uzbekistan. Strategy "Digital Uzbekistan – 2030".
2. Law "On Education". – Tashkent, 2020.
3. Dzhumaniyazova M.T. Theoretical foundations of innovative pedagogy. – Tashkent: Innovation-Ziyo, 2022.
4. Khodjaev A. Information and Communication Technologies and Education. – Tashkent, 2021.
5. Karimov D. Pedagogical Innovations in the Digital Educational Environment. – Samarkand, 2023.