Advantages of Using Information and Communication Technologies to Ensure the Efficiency of Pedagogical Activity: Theoretical Approach

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Abstract: The article presents the theoretical approaches to the advantages of teaching using information and communication technologies, one of the factors that positively affect the effectiveness of pedagogical activity. The world experience and the institutional basis of the measures taken in recent years in the higher education system of Uzbekistan are also presented. Based on the theoretical approaches, the authors draw conclusions and describe the factors influencing the effectiveness of pedagogical activity.

Key words: competence, online education, information, communication technology, media, institutionalization, foreign experience

INTRODUCTION

Today, special attention is paid to the issue of comprehensive education and culture of the younger generation in New Uzbekistan, and a set of issues related to them is reflected in our national youth policy. For example, the Law on the Fundamentals of State Youth Policy states that youth policy is a priority of the state activity of the Republic of Uzbekistan, the purpose of which is the socio-economic creation of legal and organizational conditions and their guarantee". [18], which states that the state youth policy is based on the following rules:

➢ "to take care of young people, regardless of nationality, race, language, religion, social status, gender, education and political beliefs;

➢ legal and social protection of youth;

➢ The transmission of national and cultural traditions from generation to generation, the spiritual connection of generations;

➢ support of youth initiatives, ensuring that young people are free to choose the path of their interests in the framework of the Constitution and laws of the Republic of Uzbekistan;

➢ direct participation of youth in the development and implementation of policies and programs related to the development of society, especially the life of the youth of the republic;

➢ unity of rights and duties, freedom and civic responsibility".[18].

MATERIALS AND METHODS

The prospects of our development, ensuring the well-being of the population depend on the personal and professional development of young people. This, in turn, requires our young people to become mature professionals in any field and use their abilities (mental, physical, creative, etc.) to ensure a prosperous life in our country. From a pedagogical point of view, this requires taking into

account, first of all, the content, quality and competitiveness of vocational education, the relevance of educational information and the formation of personal and professional competence in them, based on the demands and proposals of the labor market. The implementation of this responsible and forward-looking goal in many respects depends not only on the professional competence of teachers, but also on their role as a link, guide and unifier in the educational process.

Professional competence is mainly expressed at the levels of: functional, intellectual, situational, social, and its importance in the field of pedagogical activity can be assessed as a product of pedagogical activity, that is, as graduates can apply theoretical knowledge in professional practice.

Competence ensures the productivity of a person's activities. Competence has its own structure in a particular profession (specialty) and is characterized by dynamism. Dynamics, on the other hand, can vary according to labor market requirements or customer order. In this regard, we can quote that Abu Raykhan Beruni's teacher in writing Fi fiqiq ma li-l Hind (India) advised him to write this work, realizing his ability (ie in the role of the customer):, without sympathy and antipathy) [10, 135]". Nasriddin Tusi, in his book Adab al-Mutta'allimin, commented on the etiquette of teaching and upbringing, showing that a teacher's work is effective only if he has the ability [14, 161]. According to him, the specialization of activities is influenced by the following factors:

➢ diversity of human nature;

➢ nobility or non-nobility of individual individuals;

➢ intelligence or non-intelligence;

➢ mental differentiation of people;

➢ class affiliation [21, 178].

Apparently, thinkers have shown that a person (including a professional) performs the function of providing the ability to mature. According to the researcher N.K.Suleymanova, "Professional competence is a long-term integrative quality of a person who is able to objectively assess their professional characteristics, professional and pedagogical activity on the basis of their individual style of work and contribute to professional pedagogical activity in the conditions of continuous self-development and improvement is a process of professional growth and the pursuit of self-expression".[16, 13].

Today's education is characterized by a person's free development, creative initiative as a specialist, competitiveness and mobility in the workplace [15]. Achieving it in educational practice requires improving the quality of education and the introduction of information and communication technologies in the education system.

Researcher N. Nazarova writes about the factors that directly affect the effectiveness of pedagogical activity, i.e. personal example, traditions and values: "Teacher's personal example and reputation in academic association's traditions and values, the human environment established in the university, can serve as a means of spiritual and moral education. Since only a morally and spiritually mature person has the ability to have a positive impact on young people, only a highly qualified specialist can instill in students a sense of pride in their chosen profession, motivate them to express themselves professionally and creatively"[13, 497] It was noted that the approach to achieving the effectiveness of pedagogical activities from the point of view of national interests is expedient, showing the need to pay attention to the safety of educational programs and tools [5, 1759-1762]. The use of "folklore, folk songs and melodies, folk proverbs and books" [4, 170-173] also leads to positive results.

RESULTS AND DISCUSSION

The experience of online education in the wake of the COVID-19 pandemic suggests that "changes in the education system of any society require that every teacher, unlike students, not only has the knowledge and skills to use media, but also the skills to work with them showed. This is a relatively new and more complex problem for teachers who want to master the field of media education. Therefore, teachers need to constantly update their knowledge and skills in the field of media, to ensure that there is a gap between themselves and the student in the development of new media and computer technologies".[6, 12].

Therefore, the development of free, creative thinking skills in teachers, the expression of ideological and ideological issues in their field and the enrichment of practical knowledge, "to study the system of disciplines taught in foreign countries to generalize world experience, it must have a positive effect on both the development of science and the results of education".[8, 14]

O.Musurmanova, M.Urazova and O.Jamallidinova noted that "modernization of the education system - in the process of transition from theory to practice requires teachers to have a special type of activity (i.e., professional and pedagogical competencies)" [12, 9], which in turn In addition to the sufficient conditions for the effective conduct of the activities of teachers in any institution, it is important to equip them with modern information and communication technologies.

For this reason, in recent years in New Uzbekistan, much attention has been paid to the organization of the educational process on the basis of information technology, especially computers, as the use of modern teaching technologies in the teaching process has a high positive effect. The organization of the educational process in the humanities (history, philosophy, literature, etc.) or in the natural sciences (mathematics, physics, chemistry, etc.) on the basis of computer and information technology, on the one hand, the teacher, on the other - the student armed with a powerful engine whose options are unlocked [6, 12].

Clear educational, pedagogical and developmental learning objectives of each session are developed. Through any game, new learning material is mastered for educational purposes. Through the educational goal, certain personal qualities of the game participants are nurtured, the developmental goal is to develop the learners' ability to work independently and creatively [11, 14].

The results of research by C.Green and D.Bavelier in this regard have shown that "video games affect the formation of vision and attention span skills" [2]. If we take into account that the educational process is shaping the environment of information technology, the formation and development of information and communication competence of teachers is an idea aimed at ensuring the quality of education. Foreign researchers have shown that by studying the effects of modern information technology on human activity, changes in brain activity (expansion at some points) have been observed [3]. This indicator, in turn, shows that modern information technologies are also involved in the process of human development.

In the world, special attention is paid to the use of interactive teaching methods, the creation of scientific didactic materials and e-learning resources, as well as improving the effectiveness of teaching using the capabilities of information technology [7, 11]. At the same time, "given the growing trend of ensuring the connection of specific disciplines with different specialties, it is necessary to create special curricula for certain categories of disciplines, with a differential approach to their characteristics. That is, according to the principle of transition from simple to complex, in order to ensure the continuity of the educational process, it is necessary to create special programs for each link of the education system"[8, 14]. Based on this requirement, on October 8, 2019, the concept of development of the higher education system in Uzbekistan until 2030 is being developed and put into practice. It states that "based on international experience, the

introduction of advanced standards of higher education, including the gradual transition from an educational system focused on the acquisition of theoretical knowledge in the curriculum to the formation of practical skills;

Priorities have been identified, such as raising the content of higher education to a qualitatively new level, establishing a system of training highly qualified personnel who will make a worthy contribution to the sustainable development of the social sphere and the economy, and find a place in the labor market. [17]

In recent years, with the increase in the number of higher education institutions and the professionalization of higher education, classical universities began to suppress the principles of the Humboldt model, authoritarian pedagogical principles and methods, resulting in a significant increase in the popularity of higher education, began to show a decline in interest in studying in their home countries. Gradually, authoritarian pedagogy has taken precedence in higher education in the form of compulsory assignments, standardized calculations, curricula and work programs, and similar methods of forcing students to study. Today, a number of measures are being taken to overcome this situation. However, there are a number of challenges facing higher education institutions in this regard, and the role of problem-based education in addressing these issues is important. This is because problem-based learning is not only the acquisition of ready-made knowledge, but also a mechanism that directs students to research. [9, 11]

The development of network technologies and the achievement of high peaks in the field of artificial intelligence have made it possible to create systems that allow the learning process to be adapted to the learner. From this it can be concluded that most of the training systems to be created in the future will depend on network technologies and telecommunications and will have adaptive components [20, 11].

An analysis of the scientific literature has shown that German scholars have different approaches to the types of professional pedagogical competence. In particular, members of the German Federal Society for Education and Science (Gewerkschaft Erziehung und Wissenschaft Baden-Württemberg) noted that a teacher's professionalism (professionalism) includes professional autonomy, high-level university training, and the following competencies:

knowledge of the specialty and the didactics of the subject;

social competence;

diagnostic competence;

be aware of the elements of pedagogical counseling and the principles of pedagogical support;

use of multimedia tools in the educational process;

organizational skills;

ability to work in a team;

striving for innovation [1].

According to the researcher M.B.Urazova, the introduction of pedagogical projects (project competence) in the educational process plays an important role in the formation of professional competence and is crucial in ensuring the competitiveness of the modern teacher. He noted that "in the system of vocational training, professional competence is considered as one of the main conditions for the management of the process that shapes the professional knowledge, skills, qualities, individuality of future teachers and constant readiness for professional self-improvement". [19].

Naturally, any innovation is updated and changed from time to time. It should be noted that any innovations and innovations do not lead to positive results everywhere and at all times. A number of scientists, led by Doctor of Pedagogical Sciences M.M.Potashkin, in their research cited specific reasons for this.

➢ any innovations cannot always be a means of solving current problems;

➢ any innovations, new thoughts and ideas are initially encountered by various obstacles, provoke controversy and eventually recognized by experts only when they can prove their effectiveness in practice;

➢ All the innovations aimed at solving certain pedagogical problems, pointed out that the new tools do not correspond to the personal characteristics and interests of the participants of the education system [6].

Innovative pedagogical technologies are effective and highly effective only when they are based on information technologies. At the same time, it is unfortunate that the methodology, including innovative technologies and interactive methods, is relatively little promoted in the higher education process. In the higher education system, as in the secondary school, there is a need to pay attention to methodology and the increase in demand is particularly related to the creation of various forms of electronic resources. After all, no matter how modern computers and compatible environments are, we cannot ensure the creation of e-learning manuals (ELM) that have their own consumer without the active participation of qualified professors in a particular subject. This shows the urgency of the problem of creating and implementing a program-didactic complex based on standard and student-activating principles (including the concept of problem-based learning) [6].

CONCLUSION

1. Ensures that all participants in the learning process interact through the use of information and communication technologies in pedagogical activities. At the same time, as a source of knowledge, not only professors and teachers, but also students themselves participate and provide practical assistance to each other in the process of mastering the teaching materials in the form of peer-mentors. This partner serves to ensure the effective conduct of the educational process and to ensure the successful functioning of the "We", i.e. the team, for the purpose of education.

2. It is expedient to develop the content of education on the basis of new technologies through the use of information and communication technologies in pedagogical activity, to develop an interactive learning environment, to stimulate the activity of students in the educational process, to organize the learning process.

3. Innovative pedagogical technologies are effective and highly effective only when they are based on information technologies. Therefore, the university has been able to achieve positive results through the use of information and communication technologies in the educational process, including the widespread introduction of innovative technologies and interactive methods.

4. Each pedagogical team has its own characteristics, based on existing traditions and values, taking into account the conditions of the introduction of innovative technologies and overcoming any situation (for example, online training in connection with the COVID-19 pandemic) the use of information and communication technologies leads to positive results.

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