

How to Cite:

Khodjiev, M. T., & Sultanov, O. S. (2022). Development of professional competence of students in conditions of informatization of the educational process. *International Journal of Health Sciences*, 6(S5), 8929–8935. <https://doi.org/10.53730/ijhs.v6nS5.11813>

Development of professional competence of students in conditions of informatization of the educational process

Muksin T. Khodjiev

Guliston State University, Gulistan, Uzbekistan

Otabek S. Sultanov

Namangan Institute of Engineering and Technology, Namangan, Uzbekistan

Abstract--This article reveals the essence of the concept of "Development of information and communication competence among students", the general structure of information and communication competence, the system of basic and special competencies, pedagogical and psychological factors in the development of information and communication competence among students. students and in the subject "Information Technology" based on learning opportunities.

Keywords---informatization, competence, professional competence, students, basic competences.

1 Introduction

Informatization of education is a radical reform of the subject and object of education, modernization of teaching methods, provision of the educational process with information and communication technologies, equipping teachers with modern knowledge and technical means to improve the quality of education, including:

- Improving the mechanism for using electronic forms of education and didactic support in the management of the education system;
- organization of the form and method of teaching based on modern conditions, based on the basic knowledge and skills of the student;
- creation of an education system aimed at developing the personal abilities and potential of the student, striving for maturity in his future career and the formation of independence in decision-making;
- develop the student's ability for self-assessment, control and critical analysis.

Improving the educational activities of teachers and students on the basis of modern information and communication technologies is one of the main stages in the informatization of education. This process poses such an important task for modern pedagogy as training personnel who are rapidly developing and adapting to modern requirements at a qualitatively new stage of development based on the informatization of society. This task, in turn, is a social order of society, mainly due to the provision of educational institutions with modern information and communication technologies and the level of readiness of students to receive and process an ever-growing flow of information (Mirziyoev, 2017).

The use of modern means of information and communication in the process of arts and culture education provides ample opportunities for students to demonstrate their professional abilities. In the conditions of an informed society, a system will be created considering the pedagogical, psychological and didactic features of the development of future specialists in the field of art and culture based on information technology.

2 Materials and Methods

In many studies related to the requirements of the modern system of economic and social development of education, the competence approach was considered as a new stage in changing the content and methods of education. In this context, in many studies, competence is interpreted as a set of interrelated personal qualities necessary for productive and creative activity, and competence is interpreted as the acquisition by a person of the necessary competencies to solve a problem in a particular area (Ilyina, 2010; Bryzgalova, Ilyina, Rotenkova, 2011; Muslimov, 2007; Hayitov & Umarov, 2001; Urazova, 2015; Rustamova, 2019).

Competence (the Latin word means to achieve, coincides) is the willingness of the subject to set goals and effectively combine external and internal resources to achieve them, in other words, this is the subject's personal ability to solve certain professional tasks (Rustamovna, 2020; Rustamovna, 2020; Isyanov,, Rustamov, Sharifhodjaeva, & Rustamova, 2020). According to N.M. Muslimov, the English word "competence" literally means "ability", but the term "competence" itself serves to express knowledge, skills, abilities and abilities (Muslimov, 2007). O. Khaitov and N. Umarova propose to group competencies based on the cluster approach as follows:

- competencies for working with information: collection and analysis of information, decision-making; change of information;
- competencies for success: planning, organization of activities, analysis of results;
- competencies in working with people: relationship management, teamwork, influencing others;
- self-improvement competencies: introspection, professional growth, innovative mobility (Hayitov & Umarov, 2001).

There are various approaches to the classification of types of competencies. In particular, N.A. Muslimov and M.B. Urazova divide competence in the conditions of vocational education into the following types: special competence - the ability to acquire a sufficiently high level of professional activity, to plan further

professional development; social competence - joint professional activity, cooperation, social responsibility for the results of one's work; personal competence - the ability of a person to think independently and independently, to master the means of resistance to professional deformities; individual competence - possession of methods of independent application and development of individuality within the profession, readiness for professional and personal growth, independent organization and independent rehabilitation; key competencies are intercultural and intersectoral knowledge, skills and abilities of the individual necessary for adaptation and productive activity (Yunusova, Ilhamova, Daulanova, Normuradova & Rustamova, 2020).

E.S. Zair-Bek identifies the following types of methodological competencies: Target competence: The problem of goal setting and goal setting is an integral part of all pedagogical activity, the ability to set goals correctly depends on the results of pedagogical work; content competence: the content of technological education in the amount provided for at each level of general education; requirements for the minimum necessary training of students within the specified scope of content; the maximum amount of teaching load, which can be determined by years of study; monitoring competence: the assessment of the quality of education includes the determination of the results of the learning process. At the same time, quality is not only a normative level, which the effectiveness of education must correspond to, but also the content, conditions and process that ensure the result (Dolgorukov, 2015).

Professional competence is the acquisition by a specialist of knowledge, skills and competencies necessary for the implementation of professional activities and their application in practice at a high level (Zair-Bek, 1995). Psychologists give different definitions of the concept of professional competence. According to T.M. Sorokina, professional competence means the readiness of teachers to carry out theoretical and practical professional activities and the ability to solve pedagogical problems of different levels. M. I. Lukyanova emphasizes that psychological and pedagogical competence is a combination of specific qualities of a teacher's personality with a high level of professional training and the ability to effectively interact with students in the educational process (Dolgorukov, 2015).

Professional competence involves the acquisition of integrative knowledge and actions in each independent direction, and not the acquisition of individual knowledge and skills by a specialist. Competence also requires constant enrichment of professional knowledge, the study of new information, the ability to understand important social needs, the ability to search for new information, process it and apply it in one's work (Savelyeva, 2013).

Professional competence is manifested in the following cases:

- in complex processes;
- when performing undefined tasks;
- when using conflicting information;
- a specialist with professional competence to be able to have a contingency plan:
- consistently enriches their knowledge;
- assimilates new information;

- has a deep understanding of the requirements of the time;
- seeks new knowledge;
- recycles them and effectively uses them in their practical activities (Muslimov, 2013).

A number of studies directly examined the professional competence of the teacher and its specific aspects. Among these studies. These include a study conducted by A.K. Markova and B. Nazarova. In her study, A.K. Markova notes that the professional competence of a teacher consists of several components (Markova, 1993).

3 Results and Discussions

It is concluded that, given the availability of professional education in higher educational institutions of art and culture, it is necessary to identify the qualities inherent in professional competence. As many researchers note, a number of competencies are also reflected in the professional competencies of artists and culture workers. These include: psychological, methodological, informational, creative, innovative and communicative. They contain the following content:

psychological competence - the formation of a deep psychological environment in professional activities, positive communication with industry representatives, colleagues, classmates, the ability to understand and overcome various negative psychological resistances in a timely manner; Methodological competence - methodologically fair organization of the process of arts and culture education, the right choice and expedient use of types and forms of education, methods and means; information competence - the use in the information process of useful information used in the professional activities of the future worker of culture and art, the implementation of various, purposeful actions and the rational use of resources; communicative competence - the ability to sincerely communicate with all participants in the future professional and educational process, including colleagues and students, listen to them, and exert a positive influence on them; innovative competence - promotion of new ideas for improving the professional process, reforming the quality of education and professional skills, increasing the productivity of professional activity and their effective use in practice; creative competence - a creative, critical approach to activities in the field of art and culture, the ability to show their creative abilities.

Today, in our society, activities aimed at creating creativity, creativity, innovation play an important role in the development of each area and are understood as creative activities. Derived from the word creativity (English "create" - creativity, creativity), which characterizes the ability of the individual to be creative, the level of creative talent, the readiness of the individual to create fundamentally new ideas that are far from traditional or habitual patterns of thinking, as well as unique solutions - these are creative abilities, which are accepted as an independent talent factor (Markova, 1996).

American scientist D. Wexler defines "Creativity as a type of thinking that requires a person to develop several solutions to a problem or issue at once, and helps to understand the uniqueness of the essence of things and events, in contrast to stereotyped, boring thinking" (Gilliam, 2002).

A creative person is understood as a creative worker who is able to approach his work with new, creative and unique features and ideas, stand out from other workers in the industry, unusually get out of various problems and difficulties. Creativity is important not only for the creation of new ideas, but also for the development of lifestyle, the inner and outer world of the individual. Creativity is based on remembering information and collecting clear evidence. A. Maslow also considered creativity as a universal innate creative direction, activity, which is often lost under the influence of the environment (Gilliam, 2002).

American psychologist Joe Paul Guilford was the first to compare creativity and intelligence in his research work. He divided thinking into convergent and divergent types when creating a model of the intellectual structure [18]. Convergent thinking - (Latin convergere - "to one side") is a form of thinking that consists in choosing only one of the many options for solving a problem. Convergent thinking is based on intelligence, which is why it is also called intelligent thinking (Muslimov., Usmonbaeva, Sayfurov, Turaev, 2015). Divergent thinking - (Latin divergere - "separation") - one of the methods of creative thinking, finding multiple solutions to a given problem, as well as divergent thinking, aimed at finding different directions at the same time, that is, multiple correct answers to a problem and original creativity serve to generate ideas (Muslimov., Usmonbaeva, Sayfurov, Turaev, 2015).

Guilford links creativity to the productivity of divergent thinking. In pedagogical sources one can come across the idea that "Creativity is a process of divergent thinking". Initially, Guilford combined variability, solution accuracy and other intellectual parameters in his creative structure in addition to divergent thinking. He also proved that there is an inextricable link between creativity and intelligence. However, Guilford found in his experiments that high intellectuals do not always show creative behavior when solving tests, while creative low intellectuals do not (Bashina & Ilyin, 2009).

E.P. Torrance describes creativity in terms of thinking, describing creative thinking as "difficulties, problems, gaps in information; the structure of hypotheses about these shortcomings, their consideration and evaluation, revision and verification, and, finally, generalization of the results" (Barysheva & Zhigalov, 2006).

According to E. P. Torrens, the concept of "creativity" is based on: - the development of a problem or a scientific hypothesis; - test and change the hypothesis; - identify the problem based on the formation of a solution; - sensitivity to contradictions of knowledge and practical actions when finding the result of the task. Creative thinking can be clearly reflected in any social sphere (Bashina & Ilyin, 2009).

4 Conclusion

In general, creativity in the field of art and culture is the creation of new, original, unique ideas, works, a non-standard form of creative thinking, finding specific solutions in given situations. Today, the training of creative and intellectually

gifted personnel is an integral part of all scientific research in society. The need for research is at stake. Based on the views of researchers, it was necessary to prove that the creative and scientific potential of students of higher educational institutions of culture and arts is realized on the basis of information and communication competence.

References

- Barysheva T.A., Zhigalov Yu.A. (2006). Psychological and pedagogical foundations for the development of creativity - St. Petersburg: SPGUTD,. - 88 p.
- Bashina T.F., Ilyin E.P. (2009). Psychology of creativity, creativity, giftedness. - St. Petersburg: Peter, - 136 p.
- Bryzgalova S.I., Ilyina M.V., Rotenkova T.N. (2011). Pedagogical conditions for the formation of key competencies of students of the main school: Monograph - Kaliningrad: IKBFU. I.Kanta, - 176 p.
- Dolgorukov A. (2015). The case-study method as a modern technology of professionally oriented education, - Moscow: - 14 p.
- Gilliam J.H. (2002). The Impact of Cooperative Learning and Course Learning Environment Factors on Learning Outcomes and Overall Excellence in the Community College Classroom: thesis (Ed. D.) / Gilliam Janice Hoots. – North Carolina State University. – 221 p.
- Hayitov O., N.Umarova (2001). Theoretical and practical bases of developing the desire for professional growth in young people. - T.: "TURON-IQBOL", - 187 p
- Ilyina M.V. (2010). Implementation of a competency-based approach in working with educational text (from the experience of teaching the course "History of Western Russia in the main school" // Research of the Baltic region. Bulletin of the Institute of the Baltic Region of the Russian State University. I. Kant. - - No. 1. – S. 149-156.
- Isyanov, R., Rustamov, K., Sharifhodjaeva, H., & Rustamova, N. (2020). Formation of ICT competence of future teachers in the classes of general physics. *Journal of Critical Reviews*, 7(5), 235-239.
- Markova A. N. (1993). Psychology of teacher's work / Book. for teachers. – M.: Enlightenment,- 190 p.
- Markova A.K. (1996). Psychology of professionalism. - M.: Knowledge, - 38 p.
- Mirziyoev Sh.M. (2017). We will build our great future together with our brave and noble people. - T.: Uzbekistan, - 488 p.
- Muslimov N.A., et al. (2013). Technology for the formation of professional competence of teachers of vocational education // Monograph.-T.: Science and Technology Publishing House, - 96 p.
- Muslimov N.A., Usmonbaeva M.H., Sayfurov D.M., Turaev A.B. (2015.). Basics of pedagogical competence and creativity. - Tashkent, - 120 p.
- Muslimov, N.A., (2007). Theoretical and methodological bases of professional formation of teachers of vocational education.: *Diss. ... doc. ped. Sciences*, Tashkent, 45 p.
- Rahman, N. M., Made, S., Usman, A. N., Idris, I., Unde, A., & Bahar, B. (2022). Analysis of understanding of midwife students of midwife care as the impact of online learning. *International Journal of Health & Medical Sciences*, 5(1), 63-66. <https://doi.org/10.21744/ijhms.v5n1.1834>

- Rustamova, N. R. (2020). Training of students of cognitive processes based on vitagen educational situations. *International Journal of Advanced Science and Technology*, 29(8 Special Issue), 869-872.
- Rustamova, N. R. (2019). *Technology for the development of media culture of students of general secondary education (on the example of grades 7-9)* (Doctoral dissertation, dissertation for the degree of Doctor of Philosophy (PhD) in pedagogical sciences.-Tashkent, -42 p).
- Rustamovna, R. N. (2020). Development of technology based on vitagenic experience using media resources in higher educational institutions students teaching. *International Journal of Scientific and Technology Research*, 9(4), 2258-2262.
- Savelyeva M.G. (2013). Pedagogical cases: design and use in the process of teaching and assessing students' competencies / Textbook and met. - Izhevsk: FGBOUVPO "Udmurt University", - P. 9.
- Suryasa, I. W., Rodríguez-Gómez, M., & Koldoris, T. (2022). Post-pandemic health and its sustainability: Educational situation. *International Journal of Health Sciences*, 6(1), i-v. <https://doi.org/10.53730/ijhs.v6n1.5949>
- Urazova M.B. (2015). Improving the technology of preparing the future teacher of professional education for design activities: Diss. ... doc. ped. sciences. - T., - 287 p.
- Yunusova, D. M., Ilhamova, I. N., Daulanova, K. I., Normuradova, G. M., & Rustamova, N. R. (2020). Using of interactive educational technologies in teaching medical terms. *Journal of Advanced Research in Dynamical and Control Systems*, 12(S6), 596-601.
- Zair-Bek E.S. (1995). Theoretical foundations of teaching pedagogical design. Dis. ... doc. ped. sciences. - St. Petersburg, - 370 p.