Modern American Journal of Linguistics, Education, and Pedagogy
ISSN (E): 3067-7874
Volume 2, Issue 4, April, 2026
Website: usajournals.org

MECHANISMS FOR DEVELOPING INFORMATION COMPETENCE OF STUDENTS OF HIGHER EDUCATIONAL INSTITUTIONS

Abdullayev Sh. A.
Senior Lecturer, Chirchik State Pedagogical University

Abstract
This article examines the pedagogical significance of using information and communication technologies and digital learning tools in developing the creative activity of students and future teachers in higher education institutions. The study analyzes the content of information competence, including its connection with searching, selecting, analyzing, processing, storing, transmitting, and adapting information to educational processes. The article also reveals the interrelation between information culture and information competence, their role in teachers' professional competence, and the necessity for educators to use digital technologies effectively in the modern information society. Particular attention is paid to the possibilities of computer technologies, mobile devices, interactive tools, web services, and digital educational environments in organizing teachers' innovative professional activity. The findings indicate that the formation of information competence is an essential condition for increasing the creative potential of future teachers, preparing them for independent learning, and ensuring the effectiveness of professional pedagogical activity.

Keywords: Information competence, information culture, digital education, creative activity, future teacher, pedagogical competence, information and communication technologies, innovative educational environment.

Modern American Journal of Linguistics, Education, and Pedagogy
ISSN (E): 3067-7874
Volume 2, Issue 4, April, 2026
Website: usajournals.org

OLIY TA'LIM MUASSASALARI TALABALARINING AXBOROT KOMPETENSIYASINI RIVOJLANTIRISH MEXANIZMLARI

Abdullayev Sh. A.
Chirchiq davlat pedagogika
universiteti katta o'qituvchisi

Annotatsiya

Mazkur maqolada oliy ta'lim muassasalarida talabalar va bo'lajak o'qituvchilarning ijodiy faoliyatini rivojlantirishda axborot-kommunikatsiya texnologiyalari hamda raqamli ta'lim vositalaridan foydalanishning pedagogik ahamiyati yoritiladi. Unda axborot kompetentligining mazmuni, uning axborotni izlash, tanlash, tahlil qilish, qayta ishlash, saqlash, uzatish va ta'lim-tarbiya jarayoniga moslashtirish bilan bog'liq jihatlari ilmiy-nazariy asosda tahlil qilinadi. Shuningdek, maqolada axborot madaniyati va axborot kompetentligi tushunchalarining o'zaro bog'liqligi, ularning pedagog kasbiy kompetentligidagi o'rni hamda zamonaviy axborot jamiyatida o'qituvchining raqamli texnologiyalardan samarali foydalanish zarurati ochib beriladi. Tadqiqot mazmunida pedagogning innovatsion faoliyatini tashkil etishda kompyuter texnologiyalari, mobil qurilmalar, interaktiv vositalar, veb-xizmatlar va raqamli ta'lim muhitining imkoniyatlari alohida ta'kidlanadi. Maqola natijalari shuni ko'rsatadiki, axborot kompetentligini shakllantirish bo'lajak pedagoglarning ijodiy salohiyatini oshirish, mustaqil ta'limga tayyorlash va kasbiy-pedagogik faoliyat samaradorligini ta'minlashning muhim sharti hisoblanadi.

Kalit so'zlar: axborot kompetentligi, axborot madaniyati, raqamli ta'lim, ijodiy faoliyat, bo'lajak o'qituvchi, pedagogik kompetentlik, axborot-kommunikatsiya texnologiyalari, innovatsion ta'lim muhiti.

Introduction

Higher educational institutions find it difficult to develop creative activity in students without self-development in the educational and upbringing processes. The development of knowledge, skills and competencies aimed at creative activity of students requires the correct organization of their activities and a creative approach. In the process of poor perception of educational material,

Modern American Journal of Linguistics, Education, and Pedagogy
ISSN (E): 3067-7874
Volume 2, Issue 4, April, 2026
Website: usajournals.org

creative development in students does not occur to such an extent. For example: only if a student has acquired sufficient knowledge, skills and competencies to develop creative activity, he can effectively approach it, if he does not remember the necessary information, he cannot use it sufficiently in creative activity, and it is natural that no creative approach skills will be formed in him. In this case, as a result of the student's own efforts, aspirations, and regular work on himself, they will be able to form and develop creative activity in the future.

In order to ensure a creative approach to professional and pedagogical activities of students based on modern requirements, it is considered appropriate to effectively use ICT and digital technologies. Because digital technologies are considered significant in that they consist of a set of unified methods, production processes and software tools for the purpose of collecting, editing, storing, distributing and using information for the benefit of the user. As is known, the informatization of society, which puts forward a number of new requirements for the level of development of all knowledge of the human personality, has not bypassed the education system. Not so long ago, a school graduate would step into adult life with very slow changes. Today, due to the rapid growth of information flows (a sharp increase in the types of information in society), each new generation is faced with a completely new situation requiring basic knowledge. Many leading scientists emphasize that the existing traditional school model, based on the paradigm of knowledge-based education, does not meet the requirements of today.

Modern educational institutions set themselves the task of forming a socially active, creatively thinking person, graduates with skills oriented to the flow of information, mastering new technologies, independent learning, deepening and expanding existing knowledge. The concept of information literacy is not considered clearly defined and consolidated today. Authors place different emphasis on the interpretation of this concept. Currently, there are a number of works that use the term “information culture”, which refers to information literacy, in some studies the authors use the terms “information literacy” and “information culture” as synonyms. However, it is necessary to distinguish these concepts. In the work of B.S. Gershunsky, the levels of educational outcomes are established, which in order of increase look like this: literacy - education -

Modern American Journal of Linguistics, Education, and Pedagogy
ISSN (E): 3067-7874
Volume 2, Issue 4, April, 2026
Website: usajournals.org

professional competence - culture - mentality [1]. In the "Pedagogical Encyclopedia" culture is defined as "a historically specific level of development of society, human creative power and abilities, their mutual relations, as well as the material and spiritual values created by them. Culture includes ... knowledge, skills, competencies, intellectual, moral and aesthetic development, the level of worldview, methods and forms of communication implemented in human activity" [2; p. 486]. In the above-mentioned work of B.S. Gershunsky, culture is defined as "the highest expression of human education and professional competence. It is at the level of culture that human individuality can be fully expressed" [3; p. 85]. There are many approaches to defining the concept of "information culture" in the literature. An analysis of the literature allows us to conclude about the versatility of this concept. From the point of view of the cultural approach, culture is considered as the organizer of the general culture of a person, as a way of life in an information society, as a process of harmonization of a person's inner world during the assimilation of the entire volume of socially significant information. In a narrow sense, information culture is considered as the ability to work with information purposefully and use new information technologies to obtain, process and transmit it, that is, to carry out information activities aimed at satisfying information needs. In this case, it is appropriate to say about information competence. Let's consider what different authors include in the content of the concept of "information competence". O.N. Krylova emphasizes that information competence can be considered as a person's ability to independently search, select, analyze, organize, express and transmit information [4]. As the American educator F.S. Schlechty noted, "students who successfully master the basic course of the school program learn to apply their knowledge in familiar situations, receive a diploma, but do not know how to work with information independently and acquire knowledge, and cannot succeed in the information society" [5; p.6].

Therefore, information competence is considered one of the main priorities of modern general education. N.A. Morozova in her work [6] emphasizes the need to form different basic competencies at different age periods of personality development (for example, in the preschool period - primarily personal and communicative; in the school period - general cultural, educational-cognitive,

Modern American Journal of Linguistics, Education, and Pedagogy
ISSN (E): 3067-7874
Volume 2, Issue 4, April, 2026
Website: usajournals.org

informational, communicative; in the period of professional training - value-based, general cultural, socio-labor, informational, communicative, political and social, competences for living in a multicultural society, competences that realize the ability and desire to learn throughout life). However, there are also a number of competencies that need to be formed throughout a person's life. Such competencies include information competence. Despite the fact that information competence is not explicitly included in the structure of basic competencies in the "Strategy for Modernizing the Content of General Education", it is observed in the field of competences in the field of independent cognitive activity - "the development of methods for acquiring knowledge from various information sources, including extracurricular sources." The text of this document emphasizes that the set of core competencies should cover such areas as information and communication. O.G. Smolyaninova also interprets information competence as “a universal method of searching, receiving, processing, expressing and transmitting information, generalizing, systematizing and transforming information into knowledge” [7; p. 161]. According to N.Kh. Nosirova, information competence has the following elements: - motivation, need and interest in acquiring knowledge, skills and qualifications in the field of technical, software tools and information; - a set of social, natural and technical knowledge that represents the system of a modern information society; knowledge that forms the information basis of digital technology, research-related cognitive activity; - methods and practices that determine the operational basis of research-related cognitive activity; - experience in research activities in the field of software and technical resources; - experience of "human-computer" relationships [8]. Competence in information activities is also expressed in the ability to eliminate the negative consequences of information technologies (for example, detachment from reality, fear of computers, reduced communication, dehumanization of work due to disregard for the personality of the communication partner and equating it with a set of messages, etc.).

Also, digital education is considered a type of activity aimed not only at continuing the educational process through digital educational tools, but also at further improving the quality and effectiveness of education. Thus, the introduction of digital education into the educational process is carried out based

Modern American Journal of Linguistics, Education, and Pedagogy
ISSN (E): 3067-7874
Volume 2, Issue 4, April, 2026
Website: usajournals.org

on the use of information technologies. Information and communication technologies are considered one of the main mechanisms of the innovative activity of the teacher of education. Digital education provides the teacher with the opportunity to manage information, use it, as well as disseminate knowledge in all areas of human activity. Accordingly, in the modern information society, the teacher's ability to solve a wide range of professional, cognitive, recreational, household and other tasks using computer and communication technologies, including radio, television, modern mobile devices, gadgets, interactive equipment, podcasting, streaming and augmented reality technologies, web services, mobile applications, etc. plays a special role.

The professional skills of a teacher in information and communication technologies include:

a) awareness of the involvement of the education system in global information processes;

b) readiness to master effective methods of access to an almost unlimited amount of information and analytical processing of this information;

d) striving to form and develop personal creative qualities that allow the formation of pedagogical ideas in a modern information environment in order to obtain innovative pedagogical results, as well as the creation of a unique information environment;

e) readiness for joint development of scientific and social experience, reflection and self-reflection together with all subjects of information interaction;

f) mastery of the professional culture of obtaining, selecting, storing, reproducing, presenting, transmitting and integrating information;

g) readiness to use modern interactive telecommunication technologies as an important area of professional growth in a constantly changing information society, in conditions of continuous education;

h) the ability to model and design the information and educational environment and predict the results of one's professional activities.

In today's conditions, a new educational system is being developed, aimed at entering the global information and digital educational space. This process is accompanied by significant changes in pedagogical theory and the educational process, associated with adjustments to the content of educational technologies

Modern American Journal of Linguistics, Education, and Pedagogy
ISSN (E): 3067-7874
Volume 2, Issue 4, April, 2026
Website: usajournals.org

that correspond to modern technical capabilities and should contribute to the student's successful entry into the information society.

The analysis of the literature allows us to conclude about the versatility of the concept of "information literacy". Important characteristics include information worldview, theoretical knowledge in the field of informatics, a set of knowledge, skills and competencies in the search, analysis and use of information, practical skills and competencies in the use of modern information technologies, the expression of active social views and motivation of subjects of the educational environment. The concept of "information competence" is studied by researchers in a narrow and broad sense. In a narrow sense, information competence is associated with the ability to use new information technologies, modern technical means and methods to search, receive, process, present, transmit information. Information competence is associated not only with the ability to use new information technologies to work with information, but also with the ability to carry out analytical and synthetic processing of information, solve information-search tasks using the library as an information-search system, that is, with the implementation of information activities using traditional technologies. In the context of modernization of education, it is necessary to understand professional competence as an integral indicator of the quality of training of a future teacher, which is not determined by a set of specific knowledge and skills, but represents the skills of a person to implement the knowledge and experience acquired in a specific situation. The professional skills of a teacher include various competencies, including information competence. It is known that in modern conditions, the information competence of a teacher determines his professional pedagogical competence in general.

Thus, the teacher's information competence is considered as a necessary component of his professional competence. Various authors include in the teacher's information competence such components as knowledge and skills in the field of computer science; knowledge of the main types and forms of documents in the field of education; mastery of formal methods of analytical-synthetic processing of information; mastery of methods of information search in accordance with professional information needs; skills of interpreting information and adapting it to educational and educational tasks; skills of

Modern American Journal of Linguistics, Education, and Pedagogy
ISSN (E): 3067-7874
Volume 2, Issue 4, April, 2026
Website: usajournals.org

presenting educational information; skills related to collecting, processing, searching, storing and presenting information using new information technologies and the Internet; skills of using new information and communication technologies in order to increase the effectiveness of the educational process. The nature of competence is such that it can manifest itself only in harmony with a person's values, that is, in conditions of deep personal interest in this type of activity. Therefore, in addition to the cognitive (knowledge) and operational-technological (skills, experience) components of information competence, it implies the presence of internal motivation in an individual to qualitatively implement information activities, the presence of a value-based attitude to this activity. In analyzing the possible ways of forming information competence, it is necessary to determine what information competence of a particular specialist includes. Let's consider what components different researchers distinguish in the structure of a teacher's information competence. The structure of a teacher's information competence is the ability and willingness to work with various databases available at school, to accept them and transform them into educational and educational goals; the ability and willingness to systematize the information received and organize personal teaching methods; participation in work activities, cooperation with the class team; the use of new technologies for mastering information and communication.

References:

1. Gershunskiy B.S. Kompyuterizasiya v sfere obrazovaniya: problemы i perspektivы. – M.: Pedagogika, 1987. – 264 s.
2. Polonskiy V.M. Slovar ponyatiy i terminov po obrazovaniyu i pedagogike. – M., 2000. – 367 s.
3. Gershunskiy B.S. Filosofiya obrazovaniya dlya XXI veka: v poiskax praktikoorientirovannыx obrazovatelnыx konsepsiy. – M.: Inter-Dialekt, 1997. – 697 s.
4. Kirillova S. Znaniya ne otkrыvayut dveri // Pervoe sentyabrya. – 2004. – № 2. – S. 2.
5. Shlexti F.S. Shkola dlya XXI veka: prioritetы reformirovaniya obrazovaniya. – San-Fransisko, 2004. – 46 s.

Modern American Journal of Linguistics, Education, and Pedagogy
ISSN (E): 3067-7874
Volume 2, Issue 4, April, 2026
Website: usajournals.org

6. Morozova N.A. Dopolnitelnoe obrazovanie kak odna iz naibolee znachimых osnov obespecheniya formirovaniya klyuchevых kompetensiy cheloveka // Problemы kachestva obrazovaniya. Kniga 2. Kompetentnost cheloveka – novoe kachestvo rezultata obrazovaniya: Materialы XIII Vserossiyskogo soveshchaniya. – M.; Ufa: Issledovatelskiy sentr problem kachestva podgotovki spesialistov, 2003. – S. 60–67.
7. Smolyaninova O.G. Razvitie metodicheskoy sistemы formirovaniya informasionnoy i kommunikativnoy kompetentnosti budushchego uchitelya na osnove multimedia-texnologiy: dis. … d-ra ped. nauk. – SPb., 2002. – 504 s.
8. Nasyrova N.X. Proektirovanie podgotovki studentov gumanitarnых fakultetov klassicheskogo universiteta po informatike: avtoref. dis. … kand. ped. nauk. – Kazan, 2000. – 17 s.