

EFFECTIVE PERFORMANCE IN A DIGITAL LEARNING ENVIRONMENT  
COMPETENCIES PROVIDING DEMONSTRATION

Sherali Khankulov

An independent researcher of Ferghana State University  
Ferghana, Uzbekistan

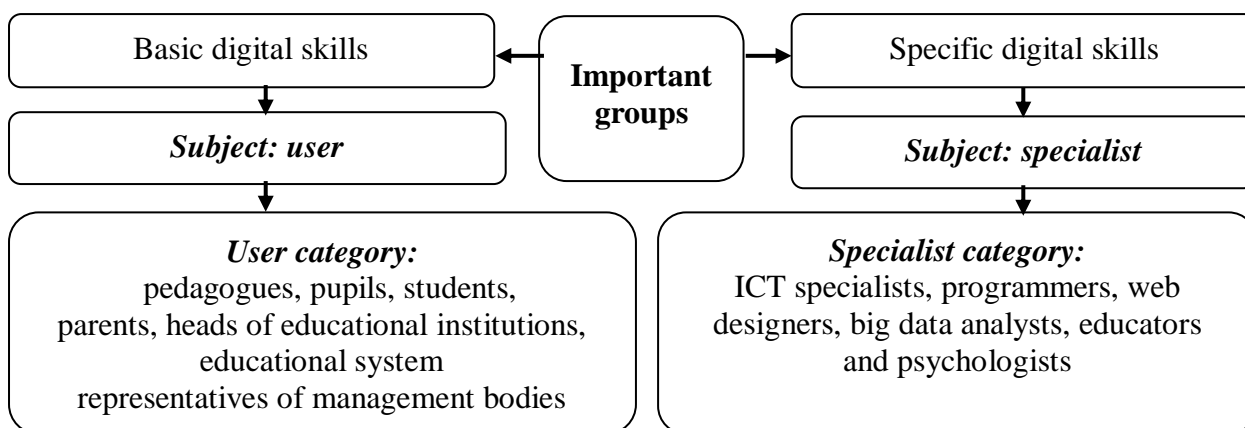
**Abstract.** In the context of globalization, the demand for competent, competitive specialists is growing. A modern teacher should have not only professional and pedagogical skills, but also the ability to work in a digital information environment. After all, without these competencies it is impossible to organize the educational process at the level of today's requirements, which is what this article is about.

**Key concepts:** education, educational environment, digital educational environment, competence, competences of digital education.

In the context of globalization, the improvement of the education system at the international level has created strong competition in all areas of human society. This phenomenon, in turn, requires the formation of an improved national education system based on international experiences and local conditions in Uzbekistan. An improved national education system, of course, should be able to ensure the active implementation of information and communication technologies (ICT) in the teaching process. Operation in the system (acquiring and imparting knowledge) requires having certain competencies in the field of ICT. Today, this competence, which is called "digital competence", serves for the organization of activities and interactions of social subjects - pedagogues and students, who are the main participants in the process of providing services of a teaching nature, in the digital educational environment.

According to one of the electronic sources, digital competence (RK) is a set of competences related to the creation and collection of data, their processing, analysis, as well as the automation of the relevant process using computer technologies, in order to work with the relevant products in the digital environment [2]. This definition applies to all spheres of society's life and acquires a general character. In simpler terms, digital competence is a unit of knowledge, skills, competences and experience that represents a person's actions aimed at consistent, systematic work with information (information) using computer technology.

From a logical point of view, digital competence is based on the individual qualities of a person, a valuable approach to ICT and skills to work with digital technologies. In recent years, in connection with the development of ICT, special attention has been paid to the definition of digital competences, their range, which must be mastered by a person and a specialist. In particular, in 2017, UNESCO released a series of digital competences to the public. According to the approach of the authoritative organization, digital skills are divided into the following two groups [7] (the essence of the groups was revealed by the dissertation (1- picture).



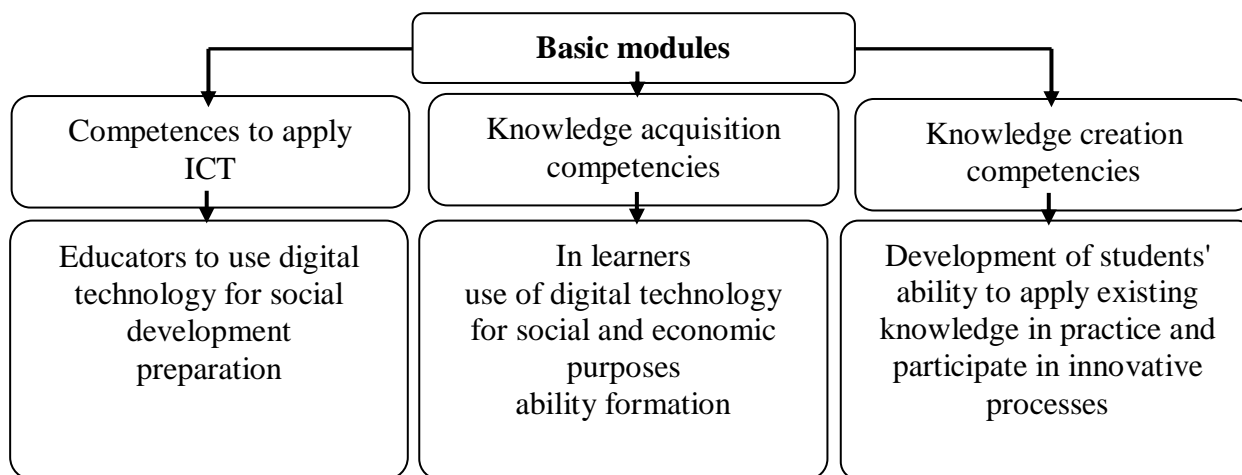
**Figure 1. Core groups of digital skills (UNESCO)**

1. Digital skills possessed by users (computer technicians and Internet users). These include: entry-level functional skills required to use digital devices and applications in simple ways; skills to work with computers, other technical devices, files, Internet and applications used in offices; ability to write on a keyboard (enter text, create a table, build a scheme, create a diagram) or work with a touch screen; skills to use digital technologies wisely in order to search and process information; skills for working with online applications and digital services (social networks, messengers, information portals), creating digital content and working with information; the skills of obtaining information from relevant sources and subjects, collecting, organizing, verifying that it is reliable, storing and protecting it [3, p. 52].

2. Specialist (IT specialist, programmer, web designer, (big data analyst) with digital (special) skills. These skills include: programming or application development skills, as well as network management skills; data analysis, processing and modeling skills; skills to consistently solve complex professional tasks in a digital environment; skills that demonstrate teamwork, creativity, critical thinking; computer programming and coding skills [3, p. 52].

In 2017, the European Union (EU) also prepared a report entitled "Digital Competence for Citizens". In the report, 21 digital competencies that a person needs to have when working with digital technologies were grouped separately into 5 areas [6]. In 2018 in Moscow "More powerful than education: how to develop digital skills" ("More than learning: how to develop digital skills") The essence of the digital qualifications systematized by the European Union was revealed at the III International Conference [4, p. 6].

UNESCO Pedagogical Learning Raqamli Talim Muhitida Ishlay Olishi Uchun Zarur Raqamli Competence Larning Aniqlagan. Bunda competencelarning kuyidagi uch modules taklif qilindi [1, p. 99] (2- picture):



**Figure 2. Development of digital competences in pedagogues**

In the course of the research, based on the direction of the scientific problem, attention was paid to determining the competences that the subjects - specialists participating in the process of creating a digital educational environment at HEIs should have. Creating a digital learning environment in HEIs represents the nature of management. Therefore, it is considered appropriate to determine the digital competencies that the experts participating in this process must have:

**1. Competencies specific to ICT specialists:** creation of artificial intelligence (SI), creation, installation, configuration and repair of computer equipment covering large volumes of data, creation, installation, configuration and repair of anti-cyber security devices, creation, installation, configuration and repair of digital entrepreneurship devices, Internet activities Competencies to create, install, configure and repair augmented reality devices, create, install, configure and repair virtual reality (VR) devices [5].

**2. Competencies specific to programmers:** demonstrate ownership of computational thinking that serves to formulate a problem, search for a solution to a problem and analyze it, be able to create an appropriate algorithm for data evaluation, select or create scenarios for creating algorithms, create new and improved computer programs, as well as competencies for creating educational platforms.

<https://confrancea.org>

3. *Competencies specific to web designers:* creating a website and its elements, creating infographics, creating advertising web banners, creating content on social networks, leading (creating a web page whose main task is to collect information about the interactions of the target audience, creating online graphics, creating images for content marketing, Competencies for creating web mockups of products, decorations for web content, creating user interaction structures, as well as creating and displaying video ads.

4. *Specific to analysts working with large volumes of data competencies:* demonstrating analytical thinking, processing, summarizing, categorizing, sorting and presenting large volumes of data.

5. *Competencies specific to teachers:* being able to work with digital technologies, using the functional capabilities of digital technologies for didactic purposes, preparing electronic educational literature and methodical developments with the help of ICT, organizing online education using the Internet network, computer facilities, monitoring the educational and learning activities of students using a computer device, the Internet network and assessment, as well as competencies for electronic submission of reports on pedagogical activities.

6. *Competencies specific to psychologists:* Competencies of working with digital technologies, analyzing the psychological aspects of online communication, analyzing the factors that ensure students' activity in the online education process, developing practical suggestions for eliminating negative factors, psychological analysis of whether or not students are effective in the online education process.

Thus, in the current environment, the possession of competences is considered the most important professional quality that expresses the specialist's resistance to strong competition. When creating a digital educational environment in higher education institutions, it is required that specialists who are participants in this process have certain competencies. After all, only then the expected result will be achieved.

#### Used literature:

1. Dukhovnikova I.Yu., Korol A. Digital competencies of a modern teacher as a basis for successful teaching activity. - M.: 2021. Issue: No. 2 (104). Part 3. - S. 99.

2. The concept of developing digital competencies of HSE students // [https://www.hse.ru/data/2020/07/07/1595396188/App/207-Concept/development/TsK\\_22.06%20\(1\).pdf](https://www.hse.ru/data/2020/07/07/1595396188/App/207-Concept/development/TsK_22.06%20(1).pdf).

3. Kudritskaya E.A., Ivashko V.M. Digital competencies as a condition for the development of the digital economy // J. Vesnik suvyazi. - Minsk: 2021. - No. 5. 2021. - P. 52.

4. Teaching Digital Skills: Global Challenges and Best Practices. Analytical report for the III International Conference "More than learning: how to develop digital skills". – M.: ANO DPO "Corporate University of Sberbank", 2018. – P. 6.

5. Digital Skills Assessment Guide / Creative Commons Attribution-Non-Commercial-Share Alike // [https://academy.itu.int/sites/default/files/media2/file/20-00227\\_1f\\_Digital\\_Skills\\_assessment\\_Guidebook\\_R.pdf](https://academy.itu.int/sites/default/files/media2/file/20-00227_1f_Digital_Skills_assessment_Guidebook_R.pdf).

6. Carretero S., Vuorikari R., Puni Y. DigComp 2.1: A digital competency model for citizens with eight levels of proficiency and use cases, (2017). EUR 28558 EN, doi: 10.2760/38842.

UNESCO – Working Group on Education / Digital skills for life and work, 2017 // <http://unesdoc.unesco.org/images/0025/002590/259013e.pdf>