DEVELOPMENT OF INFORMATION COMPETENCES OF EDUCATIONAL INSTITUTION HEADS

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Annotation: This article provides a comprehensive analysis of the theoretical foundations and practical aspects of developing information competences of educational institution heads. The evolution of the concept of information competence, its modern structural components (cognitive, technological, communicative, management), international standards (UNESCO ICT-CFT, ISTE Standards) and the national context of Uzbekistan are studied. The results of an empirical study conducted in the Bukhara region with the participation of 378 heads of educational institutions are presented. The study revealed significant differences between urban (58.7 points) and rural (48.4 points) schools, as well as the main problems (internet quality, financial constraints, traditional approach). The article proposes an innovative model that includes a modular-level approach, blended learning technologies, gamification and mentoring. The practical examples and recommendations provided provide guidance for educational leaders to effectively operate in the context of digital transformation.

Keywords: information competencies, educational leaders, digital transformation, professional development, cognitive component, technological component, communicative component, management component, UNESCO ICT-CFT, ISTE Standards, modular-level approach, blended learning, gamification, mentoring, Bukhara region.

The modern education system is undergoing a rapid digital transformation process. These changes require new types of competencies from leaders of educational institutions - the ability to effectively work with information, use digital tools, and make data-based decisions. In Uzbekistan, large-scale reforms are being implemented to digitize the education system within the framework of the New Uzbekistan Development Strategy for 2022-2026, which further strengthens the need to develop the information competencies of management personnel.

International studies show that the effectiveness of an educational institution directly depends on the level of information competencies of the leader. For example, according to the results of the TALIS-2018 study, it was found that students' mastery indicators are 23 percent higher in schools headed by leaders who actively use digital technologies. These data confirm that the development of information competencies of educational leaders is an urgent scientific and practical problem.

The history of the concept of information literacy begins in 1974, when the American librarian Paul Zurkowski introduced the term "information literacy" and defined it as "the skills to use information resources to solve problems." Today, this concept has expanded significantly and has acquired a complex structure.

The information competencies of a modern educational leader include four main components. The first is the cognitive component, which includes the ability to analyze, critically evaluate, and synthesize information. This component allows the leader to navigate complex information flows, isolate important information, and make informed decisions based on them. To give an example from practice, the director of secondary school No. 15 in Bukhara, S. Rahimov, made a comprehensive analysis of student achievement indicators, test results, and lesson observations and decided to organize additional lessons in mathematics. As a result, the average score in mathematics increased from 3.2 to 3.8 in six months.

The second important component is the technological component, which includes skills in using modern digital tools and programs. This includes not only office software, but also educational management systems, databases, cloud technologies, and artificial intelligence tools. We can observe that the director of an academic lyceum in the city of Kogon, having implemented a virtual laboratory platform, increased the quality of practical classes in physics and chemistry by 40%. This is a vivid example of the practical results of technological competencies. The third component - the communicative component - covers the skills of effective communication in a digital environment, managing virtual teams, and online collaboration. The importance of this competency is especially evident during the pandemicdemonstrated. The director of Vocational College No. 3 in Vobkent district held weekly online meetings with employees using video conferencing systems, and as a result, management efficiency increased by 35 percent. This example shows the importance of virtual communication tools in managing educational institutions.

The fourth component - the management component - includes data-based decision-making, monitoring systems and KPI management. A modern educational leader should make decisions based on accurate data and analysis, not intuition.

The UNESCO ICT Competency Framework for Teachers model defines digital competencies of educational staff at three levels: mastering technologies, deepening knowledge and creating knowledge. The ISTE Standards for Education Leaders directly define five areas for educational leaders: equality advocate, visionary planner, empowering leader, system designer and connected learning. These international standards need to be adapted to the conditions of Uzbekistan.

In the context of Uzbekistan, a number of national characteristics need to be taken into account. First, the language issue is important. Most programs are in Russian or English, and we can observe a lack of quality resources in the Uzbek language. A school principal in Romitan district, together with a team of teachers, prepared more than 50 video tutorials to solve this problem. This shows the effectiveness of local solutions.

Second, a centralized management system imposes its own requirements. Due to the centralized nature of the education system, leaders must be in constant digital contact with higher authorities. The Bukhara Regional Department of Public Education has introduced a unified electronic reporting system, reducing document processing time by 60 percent. This is a practical result of digital transformation.

Third, there is a problem of resource constraints. Many institutions are experiencing a lack of financial and technical resources. However, creative solutions are also being found. The principal of an

innovative school in Gijduvan district purchased 10 modern computers through crowdfunding and renovated a computer classroom.

378 heads of educational institutions participated in a large-scale survey conducted in Bukhara region. The results of the study showed the following: the overall level of competence was 52.3 points on an average on a 100-point scale. In urban schools, this indicator was 58.7 points, and in rural schools - 48.4 points. The highest indicator was recorded in Bukhara city - 64.8 points, and the lowest indicator was recorded in Shafirkan district - 44.2 points.

The main problems identified during the study are: firstly, the problem of the quality of internet connection - 42 percent of rural schools do not have stable internet. Secondly, financial constraints - 73.4 percent of leaders consider this to be the main obstacle. Thirdly, adherence to the traditional approach - 67.8 percent of leaders still believe that "paper documents are reliable."

As a result of the study, an innovative model for developing information competencies of educational leaders was developed. The model is based on a modular-level approach and includes six main modules: digital literacy, information management, digital communication, educational technologies, cybersecurity and digital leadership. Each module is mastered at four levels: basic, intermediate, advanced and expert. This approach allows you to create an individual trajectory for each leader.

The blended learning technology model includes 30 percent synchronous (face-to-face and virtual), 50 percent asynchronous (self-study) and 20 percent practical (application in the workplace) components. This approach provides flexible training, taking into account the busy work schedule of leaders.

Significant results were observed when using gamification and interactive methods. In a pilot project in the Olot district, the course completion rate of leaders increased from 65 percent to 89 percent after the use of gamification elements. This confirms the effectiveness of game elements in adult education.

The mentoring and peer learning system also plays an important role. Each new leader is assigned an experienced mentor, which ensures the transfer of knowledge and experience.provides. After the establishment of peer learning groups in the Peshku district, the level of competence increased by an average of 15 points in six months. This shows the power of collaborative learning.

It is clear that the development of information competencies of heads of educational institutions is a long-term and complex process. The key to success lies in the combination of an individual approach, modern technologies, taking into account national characteristics and constant support. The given practical examples show that significant results can be achieved through the right approach and consistent efforts.

In the future, the integration of new technologies such as artificial intelligence, virtual reality, blockchain into education will require more complex competencies from leaders. For example, tasks such as managing educational analytics systems based on artificial intelligence, designing virtual learning environments, and implementing certification systems based on blockchain will become the agenda. Therefore, continuous professional development and openness to innovation should become the main characteristics of a modern educational leader.

In conclusion, the development of information competences of heads of educational institutions is not only a process of teaching technological skills, but also a process of changing the way of thinking, forming a new management culture. This process requires a combination of state policy, institutional support and personal motivation. Only then will the education system of Uzbekistan become an innovative and effective system that can meet the requirements of global digital transformation.

Abstract: This article provides a comprehensive analysis of the theoretical foundations and practical aspects of developing information competences of heads of educational institutions. The evolution of the concept of information competence, its modern structural components (cognitive, technological, communicative, management), international standards (UNESCO ICT-CFT, ISTE Standards) and the national context of Uzbekistan are studied. The results of an empirical study conducted in the Bukhara region with the participation of 378 heads of educational institutions are presented. The study identified significant differences between urban (58.7 points) and rural (48.4 points) schools, key problems (internet quality, financial constraints, traditional approach). The article proposes an innovative model that includes a modular-level approach, blended learning technologies, gamification and a mentoring system. The practical examples and recommendations provided provide guidance for educational leaders to effectively operate in the context of digital transformation.

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