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Competency-Based And Systemic-Information Approach To Enhancing Students' Information Competence In A Digitalization Environment

Abduraimov Abdulqosim
Independent researcher at National Pedagogical University of Uzbekistan named after Nizami, Uzbekistan

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Abstract: The role of the competency-based and systemic-information approach in the educational process is analyzed, and its importance in effective management of information resources, development of independent thinking, and formation of practical skills is examined. Also considered are ways to develop students' abilities to work with information, critically evaluate it, and create innovative solutions through digital technologies and pedagogical strategies. The research results show the importance of a systemic and competent approach for effectively organizing the educational process in a digital environment.

Keywords: Digital education, information competence, competency-based approach, systemic-information approach, student development.

Introduction: Consistent efforts are being carried out to reform the country's education system by implementing the tasks set out in the Action Strategy for the five priority areas of development of the Republic of Uzbekistan, training highly qualified personnel in line with labor market requirements, introducing international standards for assessing education quality, and creating effective mechanisms for applying innovative scientific achievements in practice. At the same time, today the fact that the educational programs of state higher education institutions in our Republic are not harmonized with the levels of the International Standard Classification of Education (ISCED) adopted by UNESCO, and that Uzbekistan's National Qualifications System has not been fully introduced into the educational process, hinders the trained personnel from taking a worthy place in the labor market. By the Decree No. PF-5812 of the President of the Republic of Uzbekistan dated 6 September 2019, "On Additional Measures to Further Improve the System of Professional Education," the system of training middle-level personnel was fully organized on the basis of international experience. Under this Decree, a new system of initial, intermediate, and secondary specialized professional education harmonized with the levels of the International Standard Classification of Education, a network of educational institutions in which differentiated educational programs are introduced, and their relevant regulatory legal documents have been developed and are being implemented in practice.

A system is understood as any object that is considered simultaneously both as a whole and as a set of heterogeneous elements united in the interests of achieving the set goals. Systems differ significantly from each other both in composition and in their main goals. In computer science, the concept of "system" is widely used and has many semantic meanings. Most often, it is applied to a set of technical means and programs. The technical means of a computer can be called a system. A system can also be considered as a set of programs for solving certain practical problems, supplemented by procedures for document management and accounting control. The addition of the word "information" to the concept of "system" reflects the purpose of its creation and operation. Information systems ensure the collection, storage, processing, searching, and output of data necessary in the process of solving problems in any field. They help to analyze problems and create new products.

An information system is an interrelated set of tools,

methods, and personnel used to store, process, and provide information in order to achieve a set goal. An information system is an information repository equipped with procedures for entering, searching, placing, and providing information. The presence of such procedures is the main feature of information systems, distinguishing them from simple accumulation of information materials. For example, a personal library that only its owner can use is not an information system. In public libraries, the procedure for placing books is always strictly defined. Thanks to this, searching for and issuing books, as well as placing new arrivals, are standard procedures close to algorithms.

Information systems (AT) are complex systems analyzed through a systems approach. A systems approach to the analysis of information systems makes it possible to understand their structure, the interaction of components, and functioning in the context of an organization or enterprise. From a systems perspective, some key aspects of information systems are as follows:

1. Composition and components: Information systems consist of several interrelated components, including hardware, software, data, processes, and users. Hardware includes computers, servers, network equipment, and other devices that store and process data. Software includes operating systems, application programs, databases, and other programs necessary for the system to function. Data are the information processed and stored in the system. Processes define how data are collected, processed, transmitted, and used. Users interact with the system, using its functions and services to perform their tasks.

2. Interaction of components: The components of an information system interact with each other to perform various functions and tasks. For example, data are collected via sensors or user input, then processed using software, stored in a database, and may be provided to users for viewing or analysis. The interaction of components ensures the effective operation of the entire system.

3. Goals and tasks: The main goal of information systems is to ensure the collection, processing, storage, and use of data to support operations and decision-making in an organization. Depending on the specific needs of the organization, the functions of information systems may include automation of business processes, data management, information security, decision support, and others.

4. Life cycle: Information systems go through various stages of the life cycle, including planning, analysis, design, development, implementation, operation, and support. Each stage requires certain processes and activities for the successful implementation and maintenance of the system.

5. Development trends: With the development of technology, information systems are becoming more complex and multifunctional. New technologies such as artificial intelligence, cloud computing, the Internet of Things, and data analytics can increase the functionality and efficiency of information systems, which opens new opportunities for their use in various fields of activity.

A management information system is a large structure that exists to support management and to help in making informed and strategic decisions.

CONCLUSION

In conclusion, it can be emphasized that the processes of reforming the education system in our country and adapting it to international standards are being implemented consistently. At the same time, the development of education and information systems on the basis of an integrated approach serves to train highly qualified personnel that meet the labor market needs. Information systems are significant not only for managing and storing data, but also as an effective mechanism for applying innovative scientific achievements in practice. Thus, the harmonious functioning of education and information systems will be an important factor in ensuring the competitive and innovative development of our country.

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