



IMPROVING DIGITAL COMPETENCE THROUGH CLOUD TECHNOLOGIES

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Article history:	Abstract:
Received: April 6 th 2023 Accepted: May 6 th 2023 Published: June 11 th 2023	In this research work, which was carried out in order to implement the tasks for the development of digital education in the order of the President of Uzbekistan on the approval of the strategy "DIGITAL UZBEKISTAN - 2030" and measures for its effective implementation, education system, including the development of digital competence by using cloud technologies and using them as a tool in the training of future teachers is of great importance.

Keywords: digital education

In this research work, which was carried out in order to implement the tasks for the development of digital education in the order of the President of Uzbekistan on the approval of the strategy "DIGITAL UZBEKISTAN - 2030" and measures for its effective implementation, education system, including the development of digital competence by using cloud technologies and using them as a tool in the training of future teachers is of great importance. Forming the readiness of future teachers to work in a virtual social educational environment based on the development of their digital competence is one of the important tasks. In the process of analyzing the professional and pedagogical activity of the future teacher in the state educational standards and the areas of application of his digital competencies, it is necessary to determine their interdependence and the possibilities of developing digital competencies. On the basis of the development of digital competencies of future teachers, it is brought to successful and effective professional activity by means of cloud technologies.

It is important to analyze the basic digital competencies of future teachers and develop their readiness for activities in the virtual social and educational environment with the help of cloud technologies based on the development of digital competencies. Modern processes of digital transformation of education in the information society in the preparation of specialists who are ready and capable of effective professional activity in the modern virtual social and educational environment for the higher education system: management of the "cloud" platform, ensuring information security; study the possibilities of using "cloud" computing technologies; implementation of cloud technologies; data storage and processing based on "cloud" computing; Creating software to implement various models of "cloud" service

provision; sets the tasks of developing new methods and technologies of using cloud technologies.

Mass media, social networks, public services, telemedicine and cloud technologies;

- digital competencies - the ability to search for information, use digital devices, social networks, perform financial transactions and online purchases, and create multimedia content;

- digital security - ensuring protection of personal data, use of strong passwords, legal content and data storage.

Mixed, remote, mobile, cloud technologies are used as modern digital technologies of educational organization. The future teacher's possession of digital technologies is determined by the presence of certain digital competencies.

We offered the components of its structure and content, teaching methods, forms and tools aimed at developing digital competencies of the future teacher with the help of cloud technologies and using them in the educational process; criteria for the formation of levels of digital competences were formed within the framework of professional training for activities in the virtual social educational environment.

According to the presented model, competence-based, scientific-methodical, systematic synergistic, informational approaches, any competence is formed step by step, at a special level. The future teacher will use this competence to solve problems that arise in practical activities, to demonstrate professional competence.

Thus, the professional competence of a teacher in the field of using cloud technologies is if he is ready to work in a virtual social and educational environment and can solve various problems in the field of using digital technologies (cloud, remote, mobile, virtual). Here we emphasized that the teacher's digital competence should be based on advanced logical



thinking, a sufficiently high level of knowledge of information management, and the mastery of digital technologies. Taking into account the development of digital competencies of the teacher, or rather, the development of competencies in the field of using digital technologies in the educational process at a special level, the content of cloud technologies based on private, general and hybrid computing systems and transformation into a reactive, hierarchical database and creation of digital methodical support based on diversification, application of developing integrative technologies and unification of distance education models such as franchising, validation, as well as taking into account the service time, storage capacity of evaluation depending on and independent of providers.

Databases help the user when using cloud technologies. Databases are an ordered collection of data stored in the form of collections, each of which contains a set of records. Database management systems (DBMS) provide the user with the most powerful tools for creating, updating and processing large volumes of data with a complex structure. There are three types of database structure (hierarchical, reactive and network). Among the databases used for the development of WEB-applications, the leader today is, of course, MySQL. Its main advantage is simplicity. As a result, there is a need to precisely program the basic rules for maintaining the highest speed of SQL queries and maintaining data integrity and consistency at the application server level. Databases are used everywhere and most importantly in most projects in the web development world. All database design options have a set of standard rules and best practices. They help to keep the database organized and help it to work more intelligently and efficiently with the site.

A database keeps records, files, photos, messages, etc. all stored and organized and managed. General graphic conventions and standard visual elements, diagrams, and pre-planning work necessary to create a database are done. Most databases are relational.

This means that the tables in the database are related to each other. For example, if there is a "user" on the site of an online store, he can certainly be associated with certain products based on the information about his orders or showing the desired products. For the blog database, authors must be linked to posts they write and comments left by authorized users.

Database normalization in cloud technologies - a set of virtual instructions designed for more efficient organization of information storage. This is a big topic, but already understanding the basics can help you a lot.

Designing a database in cloud technologies is an understanding of the correct structure of databases, a planning that allows the developer to get all the necessary information in advance and implement his plans.

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