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DEVELOPING THE PEDAGOGICAL COMPETENCE OF FUTURE TEACHERS USING WEB-BASED TECHNOLOGIES IN SELF-STUDY

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ABSTRACT

The purpose of this article is to discuss how web technologies can be used to organize and improve autonomous learning for university students. It's made to help students improve their self-study skills and learn more effectively. The usefulness of modern web technologies' capabilities has been demonstrated. Among these, the conduct and management of distant learning receive special attention. Students should develop web-based abilities, according to the article, which also includes the legal and organizational foundations for its operation as well as the findings of research in this sector. Based on the study's findings, the article makes recommendations.

KEYWORDS: *Individual Work, Internet Technologies, Web Technologies.*

INTRODUCTION

The State Standard of Higher Education's general standards for the content of educational programs indicate that the requirements should be targeted at the formation of an independent, decision-making, developed, and versatile individual. Graduates must be able to gather, store, process, and apply information independently, make independent decisions in their professional activity, learn new knowledge independently, work on themselves, and organize work on a scientific foundation, among other things**.[1]**

The process of individual work is defined as more than 40% of the curriculum of present bachelor programs. In different sectors of education, this procedure is organized differently. This is accomplished through the preparation of an abstract and a presentation. There is a demand for decision-makers who work on themselves in today's society. In keeping with the principles of meeting and complying with the needs of an ever-changing information society. They should take advantage of the possibilities provided by information and communication technology while planning independent educational activities.

The purpose of an independent study might be defined as follows, based on the findings of literature and research: **[2,3]**

- systematize and consolidate theoretical knowledge and practical skills;

- further deepening and expanding theoretical knowledge;

-develop skills in working with literature and reference books;

- developing students' knowledge and skills and activism;

- formation of independence of thinking, ability to develop, improve and understand;

- developing research skills;

- formation of professional components.

The use of software products used in the educational process in other areas of information technology in computer science, the use of software tools related to the specialty in students increases their enthusiasm and interest in learning**.[5]**

We need to have a convincing idea that web technologies are a good tool for organizing and developing students' independent learning process. At the moment, that's not enough.We will mention the study of this process and the application of methods of independent learning in higher education to the use of computer technology, Web-technologies and Web 2.0 technologies. Students need to develop skills such as taking advantage of web technologies, providing information. When we studied the organization of these processes, it became clear that there is a lack of clear and goal-oriented work in the areas of higher education. Therefore, the directions we propose will consist of the following. **[4]**

- developing students' independent learning skills.

- students internet-based, self-learning skills intuitive and orderly systematization.

-further expanding educators 'knowledge of the opportunities offered by Web technologies and their capabilities.

- integration of technologies into education.

To do this, it is necessary to build the skills of educators on web technologies. Observations have shown that not all educators have the skills to work with web and web 2.0 technologies.The current state of information and communication technologies has opened the door to a wide range of opportunities for educators and learners for enormous professional growth. Connected to the global information space through an optical fiber network is important in receiving, storing, transmitting and processing information. Expanding the methods, forms and types of education in educational institutions has also led to changes in the content of education.

The introduction of Web 2.0 technologies into the educational process is important for the universalization of education, the acquisition of new knowledge, the constant acquisition of knowledge. However, the educator must familiarize students with the recommended resources, online resources. It requires the introduction of interdisciplinary and interdisciplinary integrative research.

Web 2.0 technology is a set of methods that require personal activity from users of web resources, based on a common set of information and communication technologies.In the field of information technology in education requires the performance of appropriate tasks on each topic. This can be working in applications and completing a given task, using online systems on the web, programming, creating multimedia, creating a website, creating wiki pages. An innovative method of independent learning is online distance learning, which arouses great interest and motivation in students. The use of open multimedia education systems, networked educational resources, and telecommunications requires the teacher to be proactive and skillful.In the

performance of independent learning tasks, depending on the form of education, it should be in a collective, divided into groups, designed to be performed individually, in a differentiated form. **[5,6]**

The basis of web-technologies consists of "client-server" information systems based on hyperlinks. The informatization of the educational process based on hypermedia and hypertext-based technologies is a growing trend in the future.In recent years, new methods of teaching in the informatization of education on the basis of these technologies have appeared Web-quest (WebQuests) technologies. [**5]**

Web-quest technology was introduced in 1995 by University of San Diego professors Bernie Dodge and Tom March. In recent years, researchers have explored the possibilities of pedagogical web-quests through e-learning and received news. S.V Napalkov in mathematics and G.I Egorova in chemistry conducted research on these works. Research on e-learning and Web 2.0 from foreign scholars was conducted by Mokhd Khafiz Zakaria and Beatrice Aguti. Web-quest word: English Web-network (set of server computers connected to the world wide web) and quest English quest - search, consisting of a set of travel words. Electronic Web quests can be as follows:

• Carrying out project work on the basis of a plan on problematic and interesting topics.

• Conduct research based on Internet opportunities.

• Completion of tasks based on web pages;

•Analysis of didactic methods of effective use of personal computers in teaching and research **[5].**

Web 2.0 services include:

- blogs and microblogs (Blog, Blogs.ziyonet.uz, Twitter);- Blog ("online journal or daily correspondence about events") an Internet user (blogger) creates an area of online communication by posting various files (text, audio/video, images) on their blog;

-social networks (Facebook, Davra.uz) - a platform for posting and communicating large amounts of information.

-wiki systems(Wikipedia, Wiki-university, Wiki-book).A wiki system is a unique website that consists of tools that allow unrelated individuals to enter and modify certain information. There are many types of wikis, and the Uzbek-language Wiki encyclopedia currently contains more than 133,000 articles. There are about 6 million articles in English and more than 1.5 million in Russian.

From a pedagogical point of view, the placement of teaching materials on the Wiki service is done through the placement of creative works in a collective form. New articles will be posted.

-social media (YouTube, Utube) - Internet services that allow you to save and edit media files.

-social media graphics: graphing.ru, img.uz, Photos.Google;

- document storage Google Drive;

- save the presentation: SlideShare, Prezi;

- mental cards: Mind24, Mindomo;

- infographics: Mindthegraphtagul, Canva, Wordart**.[5,6,7]**

The listed social networking services serve as resources for file storage, creation of new files that serve and are used in the learning process. Tasks performed from these systems are given as tasks for the independent learning process in the learning process. In this process, it is possible to work together, prepare training materials as a team, edit, leave comments, prepare projects together. According to Zakaria, Mohd Hafiz, I .V. Krechetnikova, D .V. Moglan, the advantages of Web2.0 services in the field of education are defined by the features of interactivity and continuity, openness, group movement in one direction, innovation, tolerance.

Web2.0 services have provided a new learning and information space with a new environment, collaboration and continuous involvement of students in the learning process, unimpeded access to all information resources.

Modern Internet technologies cannot replace the traditional form of teaching, such as live communication with the teacher, laboratory work with the teacher. Blended learning is a combination of electronic and traditional forms.[8].In mixed teaching, Internet technology is mainly used to carry out theoretical knowledge and independent learning.

In computer science lessons, we will look at ways of doing web quests using Web2.0, blended learning technology. This work is part of an ongoing research effort. Modernization of e-learning with Blended Learning is based on a five-step model proposed by J. Selmona (Gilly Salmon's). Students are immersed in the environment of social partnership (network community) and participate in group discussions and problem solving. **[8]**

At the first stage, the introduction to the course and the general concepts are of interest, providing guidance in the process. This process is also divided into several steps, registration in Web 2.0 systems related to training, familiarisation with working methods. Creates a targeted training plan and a clear outline of the work to be done in the form of independent study. Creates a personal website using Web 2.0. The first step is to set up a website via https://sites.google.com

or http://blogs.ziyonet.uz. Https://forms.google.com an online survey system, creates surveys by topic.

In the second stage (adaptation, adapting to the environment), the pupils are divided into small groups and make plans at the chosen site. It determines what topic and information to post on. For example, if one group has a website about historical sites, another group is given the task of creating a website about national traditions.

The next step (information sharing) is the process of searching and finding sources, systematising them, finding the necessary resources for the didactic and technical aspects of the assignment, and finding available resources to search for information. The teacher's role in this process is increasing.

The fourth stage is a group discussion on the tasks to be completed by the group in the process of accumulating knowledge and successfully completing the topic.

Analyse the joint training activities achieved in the final design phase. The knowledge and skills acquired by each participant, personal development are identified and assessed. **[8]**

According to the results of surveys and analyses, this type of learning showed an understanding of Web2.0 technologies in the computer science process, fulfilment of pedagogical tasks, student motivation, and quality assimilation of knowledge. Conducting the entire learning process using blended methodology and Web 2.0 technology not only yields good results, but also masters interdisciplinary integration and the effective use of Internet technology in their speciality.

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