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MODERN TEACHER IN THE DIGITAL WORLD

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Abstract

The article reveals the features of the use of information and communication technologies in the development of professional competencies of teachers, the possibilities of the "Web Quest" technology in full-time and remote mode of educational activities of adults and children; in addition, the Wix web designer is considered as an effective tool for creating a web quest. Today, digitalization in pedagogy is the fundamental beginning of a new pedagogical era. The introduction of modern technologies, the use of information computer programs in teaching activities will have a positive impact on the educational process. Online education is of particular importance in attracting students and teachers to share experiences and learn. The information technology infrastructure greatly helps students and teachers to use virtual machines and hardware for what they use, as well as active time, so they do not have to invest in a computer meeting and can work at ease. Today, the information and communication space of education is characterized by the presence of a growing set of non-linear, multidirectional information flows, whose speed of distribution, intensity, diversity, density, and volume are constantly increasing.

Keywords: Digital literacy, digital competence, educational digital technologies, educational environment

1. Introduction

Technology in education is a compulsory subject for any modern teacher. While this has its merits and demerits, the teacher must develop their skills in identifying, selecting, developing, using and storing the modern technological teaching and learning resources that become mandatory for classroom use. One of the leading professional qualities of a modern teacher is the availability of competencies in the field of information and communication technologies (ICT). However, for a number of teachers at the initial stage, the process of mastering ICT is disordered, unorganized and often spontaneous. This is due to insufficient training in the field of theory and practice of using information and communication technologies, the lack of interest in some teachers in their use and simply the fear of something new.

Meanwhile, these technologies are aimed at:

i. to stimulate interest and motivation for self-education; − increasing the level of activity and independence;

ii. development of skills of analysis and reflection of one's own activity; - development of the desire for cooperation, empathy.

IR technologies in modern conditions can become an effective tool for a teacher in terms of organizing an educational space with schoolchildren and parents (McLaren et al., 2022). In this regard, digital literacy is becoming an indispensable condition for the success of a teacher, who today mainly deals with the digital generation.

Digital literacy is defined as a set of knowledge and skills that are necessary for the safe and effective use of digital technologies and Internet resources (Idrisova et al., 2021).

Digital literacy is based on digital competencies or the ability to solve a variety of problems using ICT: use and create content using digital technologies, including searching and sharing information, answering questions, interacting with other people and computer programming. Digital solving competence should include the ability for digital collaboration, security and problem.

2. Problem Statement

The integration of information and communication technologies (ICT) in teaching has become increasingly important in the present era of digitalization. However, there is a need to explore the effectiveness of these technologies, specifically the "Web Quest" technology, in enhancing the professional competencies of teachers in both full-time and remote modes of educational activities for adults and children. Additionally, there is a need to investigate the effectiveness of Wix web designer as an effective tool for creating a web quest.

3. Research Questions

The most interesting research questions, in the context of the stated issue:

i. How can the use of ICT, specifically the "Web Quest" technology, enhance the professional competencies of teachers in both full-time and remote modes of educational activities for adults and children?

ii.   To what extent is the Wix web designer an effective tool for creating a web quest?

iii. What are the benefits of online education in terms of attracting students and teachers to share experiences and learn?

iv. What is the impact of the information technology infrastructure in facilitating virtual machines and hardware usage for both students and teachers?

4.   Purpose of the Study

The purpose of this study is to investigate the features of using ICT in developing the professional competencies of teachers. Specifically, the study aims to explore the effectiveness of the "Web Quest" technology in both full-time and remote modes of educational activities for adults and children. Moreover, the study seeks to evaluate the effectiveness of the Wix web designer as a tool for creating a web quest. Ultimately, the study aims to understand the benefits of online education in attracting students and teachers to share experiences and learn, as well as the impact of the information technology infrastructure in facilitating virtual machines and hardware usage for both students and teachers.

5.   Research Methods

A significant role in the processes of globalization is played by digitalization in society and in the field of pedagogy too. No one questions the need for digital transformation of education.

However, its implementation requires the investment of significant financial resources in the material infrastructure and retraining of personnel, as well as a rethinking of the goals and content of education at all levels (Serditova & Belotserkovsky, 2020). Today, digital pedagogy is becoming an integral part of pedagogical sciences (Gegenfurtner et al., 2014; On the multimedia network teaching model and its Evaluation System).

The pedagogical sphere plays an important role in the training of personnel for all areas of professional activity. That is why special requirements are imposed on the quality of functioning and the level of development of digital pedagogy (Ilaltdinova & Frolova, 2019). With a large number of scientific studies on the problems of digital pedagogy, its status as a scientific direction has not been fully determined. It is connected, first of all, with the fact that the subject of this pedagogical branch remains unclear, its boundaries are not defined.

In addition, the categorical apparatus of digital pedagogy, which sets the subject field of the scientific direction and its methodology, also needs scientific reflection. Digital pedagogy must make the final transition from the state of metaphor to a strict scientific description, since in a digital society it becomes one of the main mechanisms for the socialization of the individual (Kasavina, 2019; Nazarov et al., 2021).

Higher education is a field in which many aspects of change arising from the digitalization of our world.

Digitalization is a type of informatization and, accordingly, a direction of innovative activity and involves the transfer of information into its form as digital information using new digital technologies, solutions, processes.

Thanks to such devices, many types of labor activities have been facilitated in the work process, etc.

From the point of view of radio engineering and computer science, "digitization" (or digitization) means the transformation of information from an analog form of representation into a discrete one. In turn, a discrete form can always be converted to a binary alphabet without loss of information, which is used to represent any data in a computer - texts, numbers, graphics, sound, logical values (Perevalov et al., 2020).

An analysis of the processes of digitalization of education made it possible to identify six main tools designed to improve the quality of online learning (Idrisova et al., 2020):

1. Making plans for preparedness for unexpected problems.
2. The division of educational material into smaller structural units.
3. Use of voice.
4. Organization of technical support for teachers.
5. Motivation for active learning outside the classroom.
6. An effective combination of online and self-study.

Thus, there is a problem in the relationship between the principles of humanistic pedagogy and new information-computer and digital technologies.

Digital literacy also includes the personal, technical and intellectual skills needed to live in a digital world. Digital skills are well-established, automated behaviors based on knowledge and skills in the use of digital devices, communication applications and networks to access and manage information (Olszewski & Crompton, 2020). These skills should be developed gradually, systematically, including in active independent activity, for example, self-education. Even the most complex modern technologies can be mastered, starting with accessible, understandable examples of their inclusion in educational activities.

6. Findings

Consider the use of technology "Educational Web Quest".

A web quest is an example of organizing an interactive educational environment. An educational web quest is a problematic task with elements of a role-playing game, for which information resources of the Internet are used (Uvarov et al., 2019).

PowerPoint is a kind of navigator for beginners, with the potential to master web quest technology, develop digital competencies, expand the field of professional interests and skills of teachers (Çebi et al., 2022).

With the help of a web quest, the participant's own activity, cognitive activity, communicative activity (the desire to communicate, share their thoughts and impressions with others, and above all with colleagues) and, of course, creative activity (create, invent, try) are stimulated.

The web quest technology makes it possible to implement visualization, multimedia and interactivity of learning. Visibility includes various types of demonstrations, presentations, videos, display of graphic material in any quantity. Multimedia adds to traditional teaching methods the use of sound, video, animation effects. Interactivity combines all of the above and allows you to influence the

virtual objects of the information environment, helps to introduce elements of student-centered learning, provides students with the opportunity to fully reveal their abilities.

The use of this technology in the educational process makes it possible to (Sidorov & Mokshev, 2014):

1. to interest students in the study of the academic discipline; − increase motivation for learning;

2. use different types of information for perception (text, graphics, video and sound);

3. visually represent a variety of situational tasks, etc. The web quest can be used for the following purposes:

4. to master basic knowledge of the discipline, section or topic of the lesson, course;

5. when systematizing the acquired knowledge;

6. in the formation of self-control skills;

7. to motivate learning in general.

8. as a tool for creating a web quest, you can use the Wix constructor.

Without much effort, teachers and students can create a one-page site on Wix that can serve as an advertising platform. If this is the first time you are faced with the creation of Internet projects, then Wix has a step-by-step detailed and simple instruction with which you can find answers to all sorts of questions.

Wix is a specialized website builder that has a special online editor that allows you to lay out any resource even for an inexperienced user who understands almost nothing in creating web resources.

It is important to note that this constructor can not only create so-called "business cards" (site block pages), but also create full-fledged online resources that have a complex structure, such as online stores with large catalogs.

In today's education system, computers, information technology, and e-learning are stimulating education to the point where they help real-time calculations and meet the needs of society. Information technology plays a huge role in the dissemination of education.

In information technology, cloud computing is understood as the movement of data from a desktop or personal computer to large data centers (Gottlieb, 2015). The key concepts behind cloud computing are networking and wireless networks, reducing storage costs, and the incremental improvement of Internet computing software (Loginova, 2015).

7. Conclusion

In general, the following advantages of the Wix online designer can be distinguished. High download speed. It is enough just to choose the necessary templates, supplementing them with one or another content. At any time, you can radically change any component of the created or created resource. Design, for example, changes at the touch of a button. You can separately change the background, and then the links leading to certain sections of the site.

Thus, even a novice user creates his own game (information, educational) navigator for teachers, parents or schoolchildren. The use of just such simple technologies helps to remove the fear of teachers of the unknown, help them with interest and desire to get involved in the development of modern pedagogical tools and successfully apply it in their professional activities.

The modern educator has a wide range of readily available technologies for his daily use. The only thing he needs to do to keep up with technological change is regular technology training.

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