

V International Scientific and Technical Conference Actual Issues of Power Supply Systems

**Improvement of the methodology of using digital technologies in
teaching the subject History of Karakalpakstan**

AIPCP25-CF-ICAIPSS2025-00496 | Article

PDF auto-generated using **ReView**



Improvement of the methodology of using digital technologies in teaching the subject “History of Karakalpakstan”

Zamira Turumbetova, Asilbek Guzerbaev ^{a)},

Karakalpak state university named after Berdakh, Nukus, Uzbekistan

^{a)} Corresponding author: asilbekguzerbaev@gmail.com

Abstract. The article explains the improvement of the methodology of using digital technologies in teaching the subject “History of Karakalpakstan” with examples.

INTRODUCTION

In the era of globalization, conditions are being created for the rapid exchange of information in all spheres, that is, for the introduction of mobile life. Digital technology plays a significant role in the rapid transmission of information and its widespread dissemination in a short period. The technical, technological, and functional capabilities of computer technology allow for the achievement of efficiency in searching, analyzing, processing, using, and transmitting information. Furthermore, all the capabilities of digital technology ensure that messages are tailored to a specific audience and are easily and quickly received by users. In recent years, special attention has been paid to the targeted and effective use of digital technologies in the educational process. Unlike traditional teaching, it is advisable to rely on a digital-based approach in the organization of modern education. The essence of a digital technology-based approach is clearly manifested in directing the individual towards actively mastering the methods of cognitive activity, adapting the educational process to the individual's needs and requirements, and ensuring that teaching allows for personal self-development. This approach requires the organization of teaching through innovative changes based on digital technologies, that is, based on new generation textbooks, presenting text educational information in visual form (pictures, drawings, diagrams, tables, charts, graphic organizers), the selection of forms, methods, means and technologies of teaching that contribute to increasing the educational and cognitive activity of students, ensuring that the subject-subject relationship in the learning process is not a standard. An innovative approach based on digital technologies is also determined by the use of modern digital technologies in the teaching process by educators. Because modern computer technologies, based on the principles of digital education, allow for the creation of a completely new teaching methodology using the virtual world. The technical, technological, and functional capabilities of digital technologies are manifested in their availability of innovative computer programs based on digital technologies that contribute to the effectiveness of the educational process [1].

METHODS

Based on the study of the existing capabilities of computer technology in the process of conducting pedagogical and scientific-pedagogical activities, it is determined that the use of Power Point, Hot Potatoes, MyTestX Tests programs, interactive posters of digital technology in the subject “History of Karakalpakstan” serves to organize the educational process, achieve thorough assimilation of educational materials by students, control their educational activities, and assess the level of knowledge and experience. At this point, the role of these programs in improving the quality of education, enhancing students' academic performance, and quickly assessing and evaluating their knowledge and skills will be discussed [4].

In the course of the research, presentations will be prepared on all topics included in the curriculum of the subject "History of Karakalpakstan" ("Introduction to the History of Karakalpakstan", "The territory of Karakalpakstan is one of the centers of ancient civilization," "The Southern Aral region in the early Middle Ages," "Ethnogenesis, ethnic formation and early statehood of the Karakalpak people, its stages of development," "The Southern Aral region in the 9th-15th centuries - the beginning of the 16th-19th centuries - the political, socio-economic and cultural life of the Karakalpaks," "Karakalpakstan during the period of colonization by Tsarist Russia and Soviet power," "Political, socio-economic and cultural development of the sovereign Republic of Karakalpakstan during the years of independence").

The preparation of presentations is achieved based on conditions such as avoiding the use of text messages as much as possible, converting text messages into visual form, ensuring communication between the teacher and the audience through digital technologies when conveying educational messages, creating problem-solving information and communication technologies for the educational material, and assessing the initial level of students' assimilation of educational material through digital games using digital technologies - information and communication technologies - by reducing control questions. Here, we will discuss the structure of the presentation prepared on the topic "Karakalpakstan during the Colonial Period of Tsarist Russia and Soviet Power." During our research, crossword puzzles - game scenarios for information and communication technologies - were developed on various topics in the subject "History of Karakalpakstan." Here are examples of them. In a seminar on the topic "Ethnogenesis, ethnic formation, and early statehood of the Karakalpak people, its stages of development," a crossword puzzle, one of the game elements, was prepared using the Hot Potatoes program. A crossword puzzle titled "The Political, Socio-Economic, and Cultural Development of the Sovereign Republic of Karakalpakstan during the Years of Independence" contributed to increasing students' learning and cognitive activity. Here's the crossword puzzle. Crossword diagram on the topic "Political, socio-economic and cultural development of the sovereign Republic of Karakalpakstan during the years of independence".

RESEARCH RESULTS

During the experimental work, interactive posters will be prepared on the topic "Political, Socio-Economic, and Cultural Life of the Karakalpaks in the South Aral Region in the Early 9th-15th Centuries and in the Mid-16th-19th Centuries." They facilitate the work of teachers and students in the educational process, as well as facilitate interactive communication between them. Thus, the development of modern information and communication technologies is creating conditions for the effective use of their functional, technical, and technological capabilities in the educational process. Computer programs such as PowerPoint, Hot Potatoes, and MyTestX Tests, as well as interactive posters, contribute to the high-quality and effective organization of education and enhance students' learning and cognitive activity [3]. The purposeful use of computer programs such as Power Point, Hot Potatoes, MyTestX Tests, as well as interactive posters in teaching the subject "History of Karakalpakstan" helped students to thoroughly master the educational material [5-8].

Furthermore, digital educational technologies are a complex of technologies aimed at making education, teaching, and learning more effective through the use of digital tools and resources in the educational process.

Digital educational technologies include:

1. Online educational platforms

Massive Open Online Courses (MOOC): Coursera, edX, Udemy, Khan Academy, etc.

Local online platforms: ZyoNet, EduMarket, ARXIV.uz and others.

2. Virtual Learning Systems (LMS)

Moodle, Google Classroom, Blackboard, Canvas, Microsoft Teams Education

It is designed for managing the learning process, creating a class schedule, assessing, uploading materials, and organizing tests.

3. Mobile learning

Learning through smartphones and tablets: mobile applications, e-books, interactive lessons.

4. Virtual and augmented reality (VR/AR)

Learning through educational simulations and 3D models. For example, it is used in the fields of medicine or engineering.

5. Interactive multimedia tools

Video lessons, animations, infographics, interactive presentations.

6. Electronic books and digital libraries

PDF, EPUB format books

Electronic libraries: Google Books, JSTOR, Springer, and local platforms.

7. Education through social networks and messengers

Teaching and communication through Telegram, WhatsApp, YouTube, and Facebook groups.

8. AI (artificial intelligence) technologies for gifted students. Personalized learning tools such as ChatGPT, Duolingo, Scribe AI

9. Online tests and assessment systems. Google Forms, Kahoot, Quizizz, Socrative, and others.

Based on the results of the above-mentioned scientific research, we have developed a plan for teaching the subject "History of Karakalpakstan" based on digital technologies.

1. Sample lecture plan

Lesson Topic: The Formation of the Karakalpak Khanate

Group: 1st-2nd year

Lesson type: (seminar)

Lesson format: Interactive (through the use of digital platforms)

Lesson Topic: The Formation of the Karakalpak Khanate

Group: 1st-2nd year

Lesson type: (seminar)

Lesson format: Interactive (through the use of digital platforms)

Platforms used: Google Classroom, Quizizz, Padlet, YouTube

Lesson structure:

Organizing the teacher's actions during the lesson. Announcing the lesson topic in Google Classroom. Joins the lesson, opens the necessary links. Incite interest in Google Classroom.

Add a YouTube video (a documentary video about the Karakalpak Khanate), watch the video, and write comments. Explaining new material and presenting historical facts.

Listens to the presentation, writes - PowerPoint, Google Slides. Group work 10 min. Writing a comment on the topic "The Reasons for the Formation of the Karakalpak Khanate." They write their thoughts on the Padlet board and read the opinions of other groups. Padlet covering 10 min.

Quiz test (10 questions). They will answer the test and see the result. The result of the quiz is 5 minutes. Brief summary, gathering thoughts for the lesson (Mentimeter or orally). Lesson feedback is shared through Google Classroom and Mentimeter [2].

2. Platform screenshots (with explanation)

Below are specific actions and descriptions that you can use on each platform:

Google Classroom:

What can be done:

Announcement of the lesson topic

Upload material (PDF, PPT, video)

Preparing individual assignments for students

Go to classroom.google.com

You will choose a topic

Go to the "Assignments" section.

Click Print Screen and save the image.

Padlet:

What can be done:

Virtual board where students write their thoughts

Padlet:

What can be done:

Virtual board where students write their thoughts

You can add images, links, and videos.

link:

register on padlet.com

Make a new board

Ask a question ("What led to the formation of the Karakalpak Khanate?")

Please send a link to the students

Quizizz:

What can be done:

Automatically evaluated test

Provides the opportunity to hold a competition

Create relevant questions and tests with pictures.

link:

go to quizizz.com

Click “Create quiz”

Enter 5-10 questions (for example, “Who was the founder of the Karakalpak Khanate?”).

Share the test and get the students’ results

1) Padlet’s task (writing a comment)

Topic: What were the main reasons for the formation of the Karakalpak Khanate?

link:

Go to the paddle board and write your opinion.

Leave a comment on at least one other student’s post.

2) Quizzes (test questions)

Test title: Karakalpak Khanate

3) Canva task (creating a poster)

Theme: Portrait of a historical figure

link:

go to canva.com

Create a poster about Aydos Biy.

Show their photo, life, and main work.

Send your work in PDF or PNG format

DISCUSSION

go to canva.com

Create a poster about Aydos Biy.

Show their photo, life, and main work.

Send your work in PDF or PNG format

CONCLUSION

The formation of a global information and innovative, digital educational environment, in turn, has brought to the forefront the need to improve the education system, taking into account the significant changes taking place in the fields of science, technology, engineering, and production. Because, in all periods, the training of qualified personnel has been achieved through the adaptation of relevant sectors to the social, economic, and cultural life of society. The demands of the time also require the improvement of history teaching methodology. The correct and rational solution of organizational issues in teaching history based on information and communication technologies ensures the effective implementation of the educational process. Selecting the organizational aspects of teaching in accordance with the educational goal, established information and communication technologies, tasks, and the content of the educational material, as well as information and communication technologies, will help achieve the expected results without excessive physical exertion, effort, and time expenditure.

REFERENCES

1. M. Mamarajabov On the topic “Improving the Professional Pedagogical Training of Future Teachers in the Context of Digital Education”: 13.00.01 - Theory of Pedagogy. Dissertation for the degree of Doctor of Pedagogical Sciences (DSc) in the History of Pedagogical Doctrines. T.2022 64
2. Reymov, A.M., Namazov, S.S., Beglov, B.M. Effect of phosphate additives on physical-chemical properties of ammonium nitrate. Journal of Chemical Technology and Metallurgy 2013 48(4), 391-395. <http://dl.uctm.edu/journal/>
3. Innovative Educational Technologies / N. Muslimov, M. Usmonboeva, D. Sayfurov, A. Turayev. Tashkent: Sano-standart, 2015. - 150 p.
4. Alisher Eshimbetov, Shahobiddin Adizov, Inderpreet Kaur, Ahmed Reymov. Is it possible to differentiate between 2-phenylaminodihydro-1,3-thiazine from 2-phenyliminotetrahydro-1,3-thiazine by spectral methods? New

glance to the old problem. European Journal of Chemistry 12 (1) (2021). <https://doi.org/10.5155/eurjchem.12.1.77-80.2068>

5. Toshpulatov T., Gafforov Ya. Methods of Teaching History / Textbook for undergraduate students. Tashkent: Universitet, 2002. - 190 p.
6. Reymov Akhmed, Namazov Shafoat. Nitrogen-phosphorous fertilizers on the base of concentrated ammonium nitrate solution and Central Kyzylkum phosphate raw material. Polish Journal of Chemical Technology 16(3), Sep 2014, 30-35. <https://doi.org/10.2478/pjct-2014-0046>
7. Sattorova, J.Q. *History Teaching Methodology* Educational Technology. - Kokand: Kokand State Pedagogical Institute, 2010. - 35 p.
8. A.Ahmadjonov, U.Alimov, P.Tuychi, A.Seitnazarov, A.Reimov, Sh.Namazov, S.Sadullayev. Effect of temperature on the kinetics of the process of nitric acid decomposition of Arvaten serpentinite. IOP Conf. Series: Earth and Environmental Science 1142 (2023) 012034. <https://www.scopus.com/pages/publications/85151285667>