

INCREASING THE EFFICIENCY OF DIGITAL EDUCATION TECHNOLOGIES

Alabayev Sobitxon Ibragimovich¹
Sharipov Farkhod Fazlitdinovich²
Toshboev Abdulbosit³
Abduvakhobov Abdumumin⁴

Abstract

The article discusses the factors that effectively shape the digital learning environment. In addition, the article details the need for the digital learning environment of the education system to be a single communication space for all participants in educational relations, an effective tool for managing the quality of educational programs, the work of teachers.

Keywords: digital education, ICT, cognitive, media resource, media library, e-learning.



¹ Senior Lecturer Namangan Engineering Construction Institute, Namangan, Republic of Uzbekistan

² Lecturer Namangan Engineering Construction Institute, Namangan, Republic of Uzbekistan

³ Namangan Engineering Construction Institute, Namangan, Republic of Uzbekistan

⁴ Namangan Engineering Construction Institute, Namangan, Republic of Uzbekistan

INTRODUCTION

When it comes to modern education, the rapidly changing world around us requires a rapid change of school. There are achievements of the digital age in the world today. Think for yourself: tablets, iPads, cell phones, smart watches, virtual glasses have entered the daily lives of today's generation of students. Our digital lives are growing. Presentations, videos, audio programs in the classroom are one of the key digital technologies used. A new educational module has been developed: to teach students to learn knowledge independently using Internet technologies, and the teacher works as a teacher who manages and regulates student activities. The modern school is actively introducing digital technologies along with high-tech tools. Digital technology is a discrete system based on coding and data transmission methods that allows you to perform many different tasks in a short period of time. It is this speed and versatility that has made information technology so popular

Digital technology today -

- it is a means of effectively conveying information and knowledge to students;
- it is a tool for creating educational materials;
- it is an effective teaching tool;
- It is a tool for creating a new learning environment: evolving and technological.

Modern digital technologies:

Technology of joint experimental research of teacher and student.

"Virtual Reality" technology.

"Panoramic images" technology.

3D modeling technology.

"Educational robotics" technology.

Use of small media.

Multimedia educational content.

Interactive electronic content.

Today, we are making effective use of the last three digital technologies on this list. As an elementary school teacher in a school that implements customized programs, I can make learning fun and enjoyable so that children have a positive motivation to learn. For example, the presentation is undoubtedly not the latest digital technology, but today it is actively used by teachers. I think this is an easy and effective way to present information using computer programs. The basis of any modern presentation is to facilitate the process of perceiving and remembering information using bright images. The presentation can combine dynamics, sound and image, ie. factors that hold the child's attention for the longest time. In addition to presentations, it is advisable to use video clips and interactive posters in the lessons. When learning to write letters and numbers, interactive posters are a great help, where the pen "marks patterns of letters and numbers". By showing an example of writing this or that number on the board, we cover our actions with our own hands, and many children in the class have the ability to see, and not all children can see what and how I write on the board. . Therefore, it is convenient to display on the screen the process of writing a number or letter, explaining in detail

the sequence and algorithm of pen movements. Since the ability to write is formed in the first grade, most of the lessons we work on chalk board. Use interactive tools at the same time. It is easy for students to learn how to work on an interactive whiteboard. They come to the board with great enthusiasm and perform tasks as it offers many interactive opportunities to help the child get laid off. Students especially enjoy making online simulators and didactic games on an interactive whiteboard and sometimes on a computer. We should use online simulators and didactic games in lessons as physical minutes, everyone can go to the board to complete the task, all movements can be accompanied by music, during the consolidation and review of the studied material and after school hours. such tasks provide an opportunity for all children, regardless of level and ability, to demonstrate their knowledge. This learning process engages the entire class. Students become more interested in science and as a result their interest in learning increases. In each lesson, children look forward and are ready to learn new things. To date, it is recommended to use frames for tracking in classrooms. Using them, you can conduct interesting practical exercises on the street. Teachers who actively use electronic systems in their daily work suggest the following 10 steps for the introduction of digital tools and services in the educational process:

1. Identify needs: why we need new tools in specific classes, what tasks and problems they solve.
2. Look for tools with the desired features.
3. Analysis of the technical requirements of the selected tools and their relationship with the technical capabilities.
4. Get acquainted with new programs in seminars or internships.
5. Test innovations created by active teachers.
6. Organize methodological support to help teachers learn new technologies quickly by sharing advice and experience in school.
7. Performance analysis using feedback from all participants in the learning process.
8. Decide on the use of specific tools and develop a roadmap for the project for the future.
9. Additional information for teachers.
10. Conduct master classes and open lessons with the participation of active teachers who have become experienced teachers.

There are a number of proven online services available to help teachers and students:

Learningapps.org is a resource for creating e-simulators, tests, questionnaires. In the library you can find a variety of templates and ready-made materials, but there may be errors or omissions in the exercises on the site and they may not be appropriate for the school curriculum.

Google Forms is a very simple universal tool for creating tests, questionnaires, surveys, quizzes, online assignments. The student must have a Google account to view and complete the exercises. Google Docs and Presentations are not only a great replacement for the popular Word and PowerPoint, but also a great way to build collaboration between students. It allows you to combine children's efforts in creating a project or report, filling out a workbook.

Google Classroom is a virtual classroom management system where a teacher can create their work from other Google services, give students assignments and get results, connect parents to

review students' assignments and work.

Paid resource for organizing YaKlass-training sessions

There is an extensive bank of ready-made exercises. Kahoot! and English-language services that allow you to turn Quizizz-learning into a game system. They turn a student's tablet or phone into a remote control for voting, which can be used in tests, surveys and quizzes.

Digital technologies individualize the learning process, developing independence in children. The quality of education is improving, and this is only due to the fulfillment of the requirements of the curriculum: lessons begin to meet the personal interests and needs of students.

The idea of change (hypothesis) (what is the essence of innovation: the use of teaching, information and communication or other technologies, changing the content of education, the organization of the teaching or learning process, etc.): The essence of innovation is the use of digital technologies to improve the efficiency and quality of education.

Features of the formation of digital competence in the context of digitalization of subject-education.

The hypothesis is that in the future, the use of digital technologies in education will ensure innovative development.

Objective: to increase the effectiveness of educational technologies, the use of digital technologies in the organization of the educational process in order to successfully socialize students.

Based on the topic, purpose, object, topic and hypothesis, the need to solve the following problems is determined:

use of digital technologies in teaching and learning process to increase the efficiency and quality of education, successful socialization of students;

Introduction of Internet projects, distance learning courses, competitions;

Improving the level of cognitive abilities of students through the use of digital technologies, movement in the information space, the formation of students' information activity and media literacy.

The concept of change (methods, their similarity and superiority over innovation, limitations, labor, risks)

The relevance of the presented work: the changes taking place in modern society, in many respects, determine the characteristics of the teacher's work and the need for change.

Novelty of the presented experience: The project is in line with the main activities of the target program for the development of education, as well as modern global trends in education.

The appropriateness of the use of digital technologies is determined by a number of reasons: optimization of the teaching and learning process, encouraging the introduction of innovative teaching methods and increasing the prestige of the school.

The instrumental features of the created software products allow them to be implemented in any educational institution, regardless of which institute, which type of organization, quantitative composition and other factors.

The effectiveness of the developed methodological information processes is confirmed by the

requirements of all participants in the learning process.

Conditions for change (personal and professional qualities of teachers, teaching aids; financial support; logistics)

Science teachers, class teachers, deputy principals can use the experience in organizing the work of the educational organization. Changes can only be made if 100% of school teachers have ICT skills. Local network, the availability of automated workplaces, the desire of professors and teachers to introduce methodological information processing.

Expected results, development of new technologies (changes in the quality of the program; acceleration of the learning process; expansion of additional educational opportunities; ensuring social and educational impact; mental (emotional, cognitive) development to remove the child from the risk group, to normalize the state of development; something else).

The intended result of changes in the development of digital technologies.

It is necessary to implement specialized programs using digital technologies:

Improving the efficiency of the organization of digital educational technologies;

improving the quality of school education;

increase the digital competence of all participants in the learning process.

Innovative product (intended for broadcast: project of educational practice, program, part of the program, methodology, etc.) The main features that show the necessity and importance of this product for educational practice. Its difference from existing analogues .

Innovation can be seen as a new perspective of a problem, a new area of application, and so on.

products of teachers' activity: development of methodical information, methodical recommendations, articles, notes on lessons, after-school activities, development of multimedia;

Products of student activities: presentations, videos, scenarios, events.

Development of non-standard lessons (interdisciplinary communication, digital technologies, design and research methods of teaching, use of problem-based learning methods).

Projects and presentations by students and teachers.

Development of extracurricular activities using digital technologies.

Expert evaluation of the project: criteria and indicators of project effectiveness:

Level of knowledge of students.

Student participation in distance olympiads, competitions, championships.

Methodical information of lessons, extracurricular activities, methodical recommendations should be published later.

Problem situation, contradiction, difficulty.

The changes taking place in today's modern society in many ways determine the characteristics and need for change in a teacher's work. In modern conditions, it is important to focus on the development of students' cognitive independence, the formation of research skills and the individualization of educational goals in educational activities. This problem cannot be solved by old methods.

We can see the contradictions in mass practice: between the need for reproductive, cognitive and creative transformation of learning materials; between the ever-increasing complexity and richness of the school curriculum, the ever-increasing level of demand, and the ability of students to absorb all the information presented to it.

These contradictions have led to the development of an educational system aimed at increasing students' knowledge and developing their creative abilities through the use of digital technologies.

Active work with the computer forms a high level of self-learning skills and abilities among students - the analysis and compilation of the data obtained. Notably, the new learning tools allow you to combine information and communication, person-centered search for technologies, and creative activities.

The project is in line with the main activities of the Targeted Program for the Development of Education, as well as modern global trends in education.

Project idea:

adapting the content of education to modern socio-economic conditions;

in the development of creative abilities and independent activity of students;

ensuring the integrity of the pedagogical process, the full development of students, the implementation of teaching and learning unity;

The success of a project is determined by the level of interest of all its participants in positive, personally significant results.

Digital technologies can activate all types of learning activities: learning new material, preparing and reviewing homework, independent work, testing and control work, extracurricular activities, creative work. Many methodological goals can be achieved more effectively by using digital technologies.

REFERENCES

1. Hayriddinov, B. E., Holmirzayev, N. S., & Ergashev, S. H. (2017). Combination of the solar greenhouse-livestock farms with the subsoil accumulator of heat. «*Symbol of science*». *International scientific magazine. OMEGA SCIENCE INTERNATIONAL CENTER OF I, (OVATION)*, 16.
2. Эргашев, Ш. Т., & Коротина, Н. Г. (2008). Профорориентационные возможности общеобразовательных предметов в 4 классе начальной школы.
3. Sarimsakov, O. S., Ergashev, J., Ergashev, S., & Kayumov, A. (1991). Working Chamber of the Saw Fiber Separator. Copyright Certificate (Patent) of the SU. No. 1680811. *Bulletin of Inventions, Moscow*, (36).
4. Ergashev, S. T., Sarimsakov, O. S., Kurbanov, R. N., & Burnashev, R. Z. (1991). The Working Chamber of the Saw Fiber Separator. Copyright Certificate (Patent) of the SU. No. 1693140. *Bulletin of Inventions, Moscow*, (43).
5. Эргашев, Ш. Т. (2007). О некоторых особенностях профорориентационной работы в общеобразовательных школах Узбекистана. *Образование через всю жизнь: непрерывное образование в интересах устойчивого развития*, 5.

6. Эргашев, Ш. Т. О НЕКОТОРЫХ ОСОБЕННОСТЯХ ПРОФОРИЕНТАЦИОННОЙ РАБОТЫ В ОБЩЕОБРАЗОВАТЕЛЬНЫХ ШКОЛАХ УЗБЕКИСТАНА.
7. Эргашев, Ш., Калонтаров, А., & Нематова, Г. (2020). Инновационная программа профориентации: этапы, цели, задачи реализации. *Профессиональное образование*, (2), 18-26.
8. Ergashev, S. (2020). PROFITABILITY AND FACTOR ANALYSIS OF AUTO TRANSPORT ENTERPRISES. *International Finance and Accounting*, 2020(3), 21.
9. Эргашев Шариббой Туланович, & Хан Игорь Викторович (2015). Создание информационной среды на образовательном пространстве Республики Узбекистан. Образование через всю жизнь: непрерывное образование в интересах устойчивого развития, 2 (13), 52-54.
10. Ergashev, S. T. (2007). On some peculiarities of career guidance activity in schools of general education in Uzbekistan. *Lifelong education: continuous education for sustainable development: proceedings of international cooperation in the realm of continuous education for SUStambk development. Vol. 5. Under scientific editorship of hi. A. Lobanov, VK Skvortsov; ar-rangement of N. A. Lobanov.-Saint-Petersburg: AlterEgo, 2007.-308 C.*, 61.
11. Ergashev Sharibboy To'lanovich. (2021). Vocational Guidance in General Secondary Schools. *Annals of the Romanian Society for Cell Biology*, 25(2), 460–466. Retrieved from <http://annalsofrscb.ro/index.php/journal/article/view/971>
12. Ismoilov Ravshanjon Bakhriddinovich, Mullabayev Baxtiyarjon Bulturbayevich, Mahmudova Nilufar Gulomjanovna, Usmonov Rustamjon Karimjanovich, and Bakhriddinov Jahongir Ravshanjonogli, "USE OF MODERN MARKETING RESEARCH IN THE CONTEXT OF MARKET DEVELOPMENT", *IEJRD - International Multidisciplinary Journal*, vol. 5, no. Special Issue, p. 8, Oct. 2020.
13. Bulturbayevich, M. B., Saodat, S., & Shakhnoza, N. (2020). INNOVATIVE ACTIVITY OF SMALL BUSINESSES IS AN IMPORTANT TOOL FOR CREATING PRODUCTIVE JOBS. *International Engineering Journal For Research & Development*, 5(6), 9-9.
14. Bulturbayevich, M. B., & Jurayevich, M. B. (2020). THE IMPACT OF THE DIGITAL ECONOMY ON ECONOMIC GROWTH. *International Journal of Business, Law, and Education*, 1(1), 4-7. Bulturbayevich, M. B., & Jurayevich, M. B. (2020). THE IMPACT OF THE DIGITAL ECONOMY ON ECONOMIC GROWTH. *International Journal of Business, Law, and Education*, 1(1), 4-7.
15. Jurayevich, M. B., & Bulturbayevich, M. B. (2020). ATTRACTING FOREIGN INVESTMENT IN THE AGRICULTURAL ECONOMY. *International Journal of Business, Law, and Education*, 1(1), 1-3. Jurayevich, M. B., & Bulturbayevich, M. B. (2020). ATTRACTING FOREIGN INVESTMENT IN THE AGRICULTURAL ECONOMY. *International Journal of Business, Law, and Education*, 1(1), 1-3.
16. Mamadaliyevich, S. A., Bulturbayevich, M. B., & Shokirjonovich, A. M. (2020). WAYS TO INCREASE THE COMPETITIVENESS OF NATIONAL GOODS IN DOMESTIC AND FOREIGN MARKETS. *International Engineering Journal For Research & Development*, 5(6), 6-6.

17. Madrahimovich, R. N., & Bulturbayevich, M. B. (2019). Advantages of vertical integrated enterprises (under light industry enterprises). *Test Engineering and Management*, 81(11–12), 1596–1606.
18. Bulturbayevich, M. B., & Sharipdjanovna, S. G. (2020). Improving the efficiency of management of vertical integrated industrial enterprises. *Test Engineering and Management*, 83, 5429–5440.
19. Mullabayev Baxtiyarjon Bulturbayevich, Mirzabdullayeva Gulnora, Inamova Guligavkhar. (2020). Analysis of Macroeconomic Indicators and Forecast of Scenarios of the Republic of Uzbekistan. *International Journal of Advanced Science and Technology*, 29(11s), 04 - 12. Retrieved from <http://serisc.org/journals/index.php/IJAST/article/view/19921>
20. Mullabayev Baxtiyarjon Bulturbayevich, Inamova Guligavkhar, Umarova Gulchekhra. (2020). Issues Of Development Of Light Industry Enterprises Through Modern Management Mechanisms And Forecasting Of Corporate Structures On The Basis Of Vertical Integration Processes. *International Journal of Advanced Science and Technology*, 29(11s), 1975-1986. Retrieved from <http://serisc.org/journals/index.php/IJAST/article/view/21866>
21. Mullabayev Baxtiyarjon Bulturbayevich, Saydullaeva Saodat, Juraeva Umida, Nurullaeva Shakhnoza, & Shamsieva Feruza. (2020). MECHANISMS OF STATE INCENTIVES FOR LOGISTICS CENTERS TO ENSURE THE COMPETITIVENESS OF THE ECONOMY. *International Engineering Journal For Research & Development*, 5(5), 7. Retrieved from <http://iejrd.com/index.php/article/view/1117>
22. Ismoilov R. B., Mullabayev B. B., Abdulkakimov Z. T. Prospects For The Development Of A Tourist Route " Safed Broth Or Horn Jarir" //The American Journal of Interdisciplinary Innovations and Research. – 2020. – T. 2. – №. 08. – C. 38-44.
23. Ismoilov, R. B., Mullabayev, B. B., Abdulkakimov, Z. T., & Bakhriddino, J. R. O. (2020). The Essence Of Small Business And Private Entrepreneurship And The Theoretical Basis Of Its Development. *The American Journal of Applied Sciences*, 2(08), 45-50.
24. Косимова, Д. (2020). Improvement of the strategy of vertical integration in industrial enterprises. *Архив научных исследований*.
25. Bulturbayevich, M. B., Sharipdjanovna, S. G., Ibragimovich, A. S., & Gulnora, M. (2020). MODERN FEATURES OF FINANCIAL MANAGEMENT IN SMALL BUSINESSES. *International Engineering Journal For Research & Development*, 5(4), 5-5.
26. Jurayevich, M. B., & Bulturbayevich, M. B. (2020). ATTRACTING FOREIGN INVESTMENT IN THE AGRICULTURAL ECONOMY. *International Engineering Journal For Research & Development*, 5(2), 3-3.
27. Sobirovna, Q. D., Abdugafarovich, S. A., & Bulturbayevich, M. B. (2019). Improvement of the strategy of vertical integration in industrial enterprises. *American Journal of Economics and Business Management*, 2(3), 63-68.
28. Mullabaev, B. B., Vohidov, E., & Karimov, D. (2019). ROLE OF VERTICALLY INTEGRATED ENTERPRISES IN THE ECONOMY. *Theoretical & Applied Science*, (1), 85-90.
29. Sholdarov, D., & Mullaboev, B. (2019). Problems of supporting financial stability of the pension supply system in Uzbekistan. *Theoretical & Applied Science*, (2), 344-349.

30. Mullabaev, B. B. (2018). ECONOMETRIC ANALYSIS OF VERTICAL INTEGRATION OF THE LIGHT INDUSTRY ENTERPRISES OF THE NAMANGAN REGION (ON THE EXAMPLE OF THE REPUBLIC OF UZBEKISTAN). *ScientificReview: TheoryandPractice*, (8), 22, 36.
31. Зайнутдинов, Ш., & Муллабаев, Б. (2018). Ўзбекистондаиктисодийинтеграцияниривожлантиришваунингсамарадорлигиниоширишомиллари. *Бизнес-эксперт журналы*, 30.
32. Mullabayev, B. B. (2018). Economic analysis of vertical integration integration of the Namangan region (on the prerogative of the Republic of Uzbekistan). *Scienceoftheory: theoryand practice"-8*.
33. Zaynutdinov, S. N., & Mullabayev, B. B. (2018). REGIONAL EFFECTIVENESS OF THE REGIONS. *EconomicsandInnovativeTechnologies*, 2018(1), 9.
34. Mullabaev, B. (2017). DEVELOPMENT OF LIGHT INDUSTRY BRANCHES IN UZBEKISTAN BASED ON VERTICAL INTEGRATION. *Бюллетень науки и практики*, (10), 178-184.
35. Bachtijarzhana, M. (2017). DEVELOPMENT OF LIGHT INDUSTRY BRANCHES IN UZBEKISTAN BASED ON VERTICAL INTEGRATION. *Бюллетень науки и практики*, (10 (23)).
36. Dadaboyev, T. Y., Qoraboyev, S. A., & Mullabaev, B. B. (2017). CORPORATE MANAGEMENT AS THE FACTOR OF INVESTMENT ATTRACTION. *Научное знание современности*, (5), 77-80.
37. Муллабоев, Б. Б. (2015). Корпоративное управление как способ привлечения инвестиций. *Молодой ученый*, (10), 749-751.
38. Mullaboev, B. B. (2015). Corporate governance as a way to attract investment. *Young scientist*, (10), 749-751.
39. SabitkhanHashimov, IrisqulovFarxodSultonboyevich, ImamnazarovErkinDexkanaliyevich, ErkinovHusniddinBakhtiyoro'g'li, AbdujalilovSodiqjonMuhammadamino'g'li. (2020). PROBLEMS OF DEVELOPMENT AND SOLUTION OF TECHNOLOGICAL PROCESSES OF CLEANING COTTON WITH SMALL DISPERSION PARTICLES AND DUST. *PalArch's Journal of Archaeology of Egypt / Egyptology*, 17(7), 7540-7548. Retrieved from <https://www.archives.palarch.nl/index.php/jae/article/view/3352>
40. Олимов, М., Жакбаров, О. О., & Ирискулов, Ф. С. (2015). Алгоритм решения прикладных задач для обыкновенных дифференциальных уравнений четвертого порядка с методом дифференциальной прогонки. *Молодойученый*, (6), 193-196.
41. Олимов, М., Каримов, П., Исмоилов, Ш. М., & Ирискулов, Ф. С. (2017). К вопросу численной реализации краевых задач для системы обыкновенных дифференциальных уравнений четвертого порядка. *Молодойученый*, (7), 1-6.
42. Хашимов, С., & Ирискулов, Ф. (2014). РОЛЬ И ЗНАЧЕНИЕ ИСПОЛЬЗОВАНИЯ КОМПЬЮТЕРНЫХ ТЕХНОЛОГИЙ В ДЕЯТЕЛЬНОСТИ ОРГАНОВ САМОУПРАВЛЕНИЯ ГРАЖДАН (НА ПРИМЕРЕ МАХАЛЛИНСКИХ СХОДОВ ГРАЖДАН НАМАНГАНСКОЙ ОБЛАСТИ). In *Сборники конференций НИЦ Социосфера* (No. 25, pp. 161-169). *VedeckovydavatelскеcentrumSociosfera-CZsro*.

43. Кодиров, З. З., Ирискулов, Ф. С., Пулатов, А., & Умурзаков, Х. (2018). МОДУЛЬНОЕ ОБУЧЕНИЕ В СИСТЕМЕ ОБРАЗОВАНИЯ. Экономика и социум, (4), 381-386.
44. Кодиров, З. З., Ирискулов, Ф. С., Пулатов, А., & Убайдуллаев, М. (2018). ELECTRONIC LIBRARIES AS A FACT OF CONTEMPORARY INFORMATION LANDSCAPE. Экономика и социум, (3), 629-633.
45. Кодиров, З. З., Ирискулов, Ф. С., Пулатов, А., & Убайдуллаев, М. (2018). ELECTRONIC LIBRARIES AS A FACT OF CONTEMPORARY INFORMATION LANDSCAPE. Экономика и социум, (3), 629-633.
46. Хашимов, С., Ирискулов, Ф., & Шокиров, Д. (2018). ИНФОРМАТИЗАЦИЯ МАХАЛЛИ. Экономика и социум, (3), 545-555.
47. Хашимов, С., Ирискулов, Ф. С., & Нурмаматов, Ж. И. Ё. (2017). Компьютер тармоғидан фойдаланишда ахборот хавфсизлиги муаммолари ва уларни ҳал этиш усуллари. Евразийский научный журнал, (2).
48. Олимов, М., Ирискулов, Ф. С., & Гойипов, У. Г. (2016). О решении прикладных задач. Молодой ученый, (10), 16-18.