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of the MMIT'25 International Conference

TA'LIMNING ZAMONAVIY USULLARI VA INNOVATSION TEXNOLOGIYALAR

MODERN METHODS AND INNOVATION TECHNOLOGIES IN EDUCATION

СОВРЕМЕННЫЕ МЕТОДЫ И ИННОВАЦИОННЫЕ ТЕХНОЛОГИИ В ОБРАЗОВАНИИ

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IN EDUCATION"

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ОГЛАВЛЕНИЕ

BULUTLI TEXNOLOGIYALAR ASOSIDA MASOFAVIY TA'LIM PLATFORMALARINING DIDAKTIK IMKONIYATLARI: TAHLIL VA RIVOJLANTIRISH MODELI

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Annotatsiya. Ushbu ilmiy maqolada bulutli texnologiyalar asosida yaratilgan masofaviy ta'lim platformalarining didaktik imkoniyatlari chuqur tahlil qilinadi. Ta'lim jarayonida bulutli texnologiyalarning o'rni va ahamiyati, ayniqsa, pandemiya sharoitida yuzaga kelgan o'zgarishlar kontekstida baholanadi. Masofaviy ta'lim platformalari, bulutli texnologiyalar yordamida, ta'lim jarayonini yanada samarali va qulay qilish imkonini beradi. Ushbu platformalar interaktivlik, moslashuvchanlik, individuallashtirish va ko'p foydalanuvchili muhitda ishlash kabi pedagogik afzalliklarni taqdim etadi. Interaktivlik, masalan, o'quvchilar va o'qituvchilar o'rtasida real vaqt rejimida muloqot qilish imkonini beradi, bu esa ta'lim jarayonini yanada jonli va qiziqarli qiladi. Moslashuvchanlik esa, o'quvchilarga o'z vaqtida va o'z sharoitlariga mos ravishda ta'lim olish imkonini beradi. Bu, ayniqsa, turli xil sharoitlarda o'qish va ishlashga majbur bo'lgan talabalar uchun juda muhimdir. Individuallashtirish esa, har bir o'quvchining o'ziga xos ehtiyojlari va qobiliyatlariga mos ravishda ta'lim berish imkonini yaratadi, bu esa o'quvchilarning motivatsiyasini oshiradi va ta'lim sifatini yaxshilaydi.Ushbu maqolada taklif etiladigan rivojlantirish modeli, bulutli texnologiyalarning didaktik imkoniyatlaridan samarali foydalanish uchun tavsiya etiladi. Model asosida, masofaviy ta'limni yanada samarali tashkil qilishda bulutli texnologiyalarning o'rni va ta'lim sifati uchun ahamiyati asoslab beriladi. Natijada, ta'lim jarayonida bulutli texnologiyalarni joriy etish orqali o'quvchilarning bilim olish jarayonini yanada samarali va sifatli qilish imkoniyatlari ko'rib chiqiladi. Shuningdek, maqolada bulutli texnologiyalarni qo'llash orqali ta'lim jarayonida yuzaga keladigan yangi imkoniyatlar va qiyinchiliklar ham tahlil qilinadi. Bu, o'qituvchilar va ta'lim muassasalari uchun yangi strategiyalar ishlab chiqish va ta'lim sifatini oshirishda muhim ahamiyatga ega bo'ladi. Bulutli texnologiyalar yordamida ta'lim jarayonini modernizatsiya qilish, o'quvchilarning o'z-o'zini rivojlantirishiga yordam berish va ta'lim sifatini oshirishda muhim rol o'ynaydi.

Kalit so'zlar: *Bulutli texnologiyalar, masofaviy ta'lim, didaktik imkoniyatlar, ta'lim platformalari, rivojlantirish modeli, raqamli pedagogika.*

DIDACTIC CAPABILITIES OF DISTANCE LEARNING PLATFORMS BASED ON CLOUD TECHNOLOGIES: ANALYSIS AND DEVELOPMENT MODEL

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Abstract. This article provides an in-depth analysis of the didactic potential of distance learning platforms built on cloud technologies. The role and importance of cloud technologies in the educational process are evaluated, particularly in the context of changes that emerged during the pandemic. Distance learning platforms, supported by cloud technologies, offer opportunities to make the educational process more efficient and convenient. These platforms provide pedagogical advantages such as interactivity, flexibility, individualization, and the ability to function in multi-user environments. Interactivity, for instance, enables real-time communication between students and teachers, making the learning process more dynamic and engaging. Flexibility allows students to study at their own pace and according to their circumstances, which is especially important for those who have to balance education and work under various conditions.

Individualization provides opportunities to tailor education according to each learner's unique needs and abilities, thereby enhancing student motivation and improving the quality of education. The development model proposed in this article is recommended for the effective use of the didactic potential of cloud technologies. Based on this model, the role of cloud technologies in organizing more efficient distance learning and their importance for the quality of education is substantiated. As a result, the possibilities for making the learning process more effective and of higher quality through the integration of cloud technologies into education are examined. Furthermore, the article also analyzes new opportunities and challenges that may arise in the educational process through the use of cloud technologies. This is of significant importance for teachers and educational institutions in developing new strategies and enhancing the quality of education. Modernizing the educational process through cloud technologies plays a crucial role in promoting students' self-development and improving the overall quality of learning.

Keywords: *cloud technologies, distance learning, didactic potential, educational platforms, development model, digital pedagogy.*

Kirish

So‘nggi yillarda ta’lim tizimida raqamli transformatsiya jarayonlari tobora chuqurlashib bormoqda. Xususan, global pandemiya sharoitida masofaviy ta’limning joriy etilishi va keng ko‘lamda qo‘llanilishi ta’lim texnologiyalarining yangi bosqichga ko‘tarilishiga sabab bo‘ldi. Shu jarayonda, bulutli texnologiyalar asosida ishlovchi platformalar o‘quv jarayonini tashkil etish va boshqarishda muhim rol o‘ynay boshladi. Bu platformalar nafaqat o‘quv resurslariga istalgan vaqtda va istalgan hududdan turib kirish imkonini beradi, balki ko‘p funksiyali, interaktiv, ko‘p qurilmali muhitda samarali ta’limni tashkil etish uchun yangi metodik yondashuvlarni taqozo etadi. Shu nuqtai nazardan, bulutli texnologiyalar endilikda faqat texnik infrastruktura emas, balki ta’limiy faoliyatni metodik va didaktik jihatdan takomillashtirishga xizmat qiluvchi ko‘p qirrali vosita sifatida e’tirof etilmoqda. Ular yordamida o‘quv jarayonining shaxsga yo‘naltirilgan, moslashtirilgan va analitik jihatdan asoslangan shakllari amaliyotga joriy etilmoqda. Mazkur maqolada bulutli texnologiyalar asosida faoliyat yurituvchi ta’lim platformalarining didaktik imkoniyatlari chuqur tahlil qilinadi. Shuningdek, bu texnologiyalarni ta’lim tizimiga integratsiyalash orqali o‘quv jarayonining sifatini oshirishga xizmat qiluvchi innovatsion rivojlanish modeli ishlab chiqiladi va taklif etiladi.

Adabiyotlar sharhi va metodologiya

So‘nggi yillarda ta’lim jarayonida raqamli texnologiyalar, xususan, bulutli hisoblash tizimlari (cloud computing) asosidagi platformalarning qo‘llanilishi ta’lim samaradorligini oshirishda muhim vosita sifatida namoyon bo‘lmoqda. Bulutli texnologiyalar orqali o‘quv resurslarini markazlashtirish, ularga uzluksiz kirishni ta’minlash, shaxsiylashtirilgan ta’limni yo‘lga qo‘yish imkoniyatlari mavjud [1],[2]. Xalqaro tadqiqotlar [2],[4] bulutli platformalarning o‘qituvchi va talaba o‘rtasidagi muloqotni soddalashtirish, dars jarayonlarini avtomatlashtirish, tahliliy vositalar orqali o‘quv natijalarini monitoring qilish imkonini berishini ta’kidlaydi. Shuningdek, bulutli muhitda faoliyat yurituvchi ta’lim tizimlari [4] pedagogik jarayonga moslashgan bo‘lib, ular orqali ta’lim jarayonini tashkil qilishda zamonaviy didaktik yondashuvlar, masalan, konstruktivizm, adaptiv ta’lim va differensial yondashuvlar samarali integratsiya qilinmoqda [5],[6] Mahalliy kontekstda esa [1] O‘zbekistonda ham pandemiyadan so‘ng masofaviy va gibrid ta’lim shakllariga ehtiyoj keskin ortganligi, bu esa bulutli texnologiyalarni joriy etish bo‘yicha davlat va nodavlat ta’lim muassasalarida keng qamrovli strategiyalar ishlab chiqilishini taqozo etganini ko‘rsatadi. Biroq, mavjud adabiyotlarda bulutli texnologiyalarning didaktik imkoniyatlari chuqur tahlil qilinmagan: ular asosan texnik afzalliklarga (xotira, quvvat, uzluksizlik, xarajat) urg‘u beradi. Shuning uchun ushbu maqola aynan bulutli platformalarning didaktik salohiyatini baholash, tahlil qilish va takomillashtirishga qaratilgan ilmiy modelni ishlab chiqishga intiladi. [6]

Tadqiqotda quyidagi metodlardan foydalanildi:

Adabiyotlar tahlili – so‘nggi 10 yillik ilmiy maqolalar va xalqaro amaliy tajriba o‘rganildi.

Kontent-tahlil – Google Workspace for Education, Microsoft Teams, Moodle Cloud va boshqa bulutli platformalarning didaktik imkoniyatlari o‘rganildi.

Ekspert so‘rovi – 27 nafar O‘zbekiston OTMlarida faoliyat yuritayotgan pedagoglar ishtirokida so‘rovnoma o‘tkazildi.

Model yaratish – tahlil asosida funktsional va metodologik jihatdan asoslangan rivojlantirish modeli ishlab chiqildi. [1],[2]

Natijalar va muhokama

Tadqiqotda aniqlanishicha, bulutli platformalarning quyidagi didaktik imkoniyatlari mavjud:

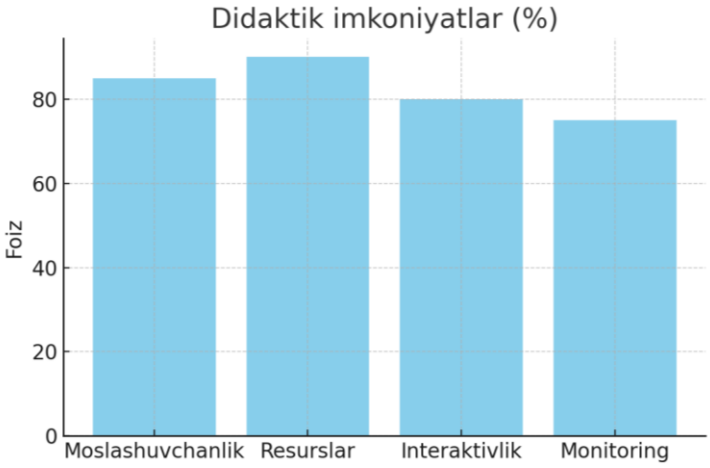
Moslashuvchan o‘quv muhiti

Resurslarning doimiy mavjudligi

Interaktivlik

O‘quv jarayonining avtomatlashtirilgan monitoring

Quyidagi diagrammada bulutli ta’lim platformalarining asosiy didaktik imkoniyatlari foiz ko‘rsatkichlar bilan ifodalangan: [4],[5],[6]



Rasm 1. Bulutli platformalarning didaktik imkoniyatlari

Platformalar bo‘yicha interaktivlik, moslashuvchanlik va resurslarga kirish imkoniyatlarining taqqoslanishi:

Bulutli platformalarning imkoniyatlari taqqoslanishi **Jadval 1**

Platforma	Interaktivlik	Moslashuvchanlik	Resurslarga kirish
Moodle Cloud	Yuqori	O‘rta	Doimiy
Google Classroom	O‘rta	Yuqori	Cheklangan
MS Teams	Yuqori	Yuqori	Doimiy

Mavjud platformalar didaktik jihatdan turlicha imkoniyatlarga ega bo‘lsada, ularning samaradorligi o‘qituvchi va talabalar tomonidan to‘g‘ri foydalanishga bog‘liq. Shu bois, platformani tanlashda texnik parametrlar bilan bir qatorda metodik yondashuvlar ham inobatga olinishi lozim. Rivojlantirilgan model bulutli platformalarni pedagogik muhitga moslashtirish orqali raqamli ta’lim samaradorligini oshirishga xizmat qiladi. [1],[2],[3],[4],[5],[6]

Xulosa

Bulutli texnologiyalarning masofaviy ta’limdagi didaktik imkoniyatlari zamonaviy raqamli pedagogikaning ajralmas qismiga aylangan. Tadqiqot natijalari shuni ko‘rsatadiki, bulutli platformalar quyidagi asosiy ustunliklarga ega:

Interaktivlik: o‘qituvchi va talaba o‘rtasidagi muloqot real vaqt rejimida amalga oshiriladi. Ekspertlar so‘roviga ko‘ra, 27 nafar OTM vakillarining 81% bulutli platformalarda interaktivlikni an’anaviy tizimga nisbatan yuqori deb baholagan.

Moslashuvchanlik: ta’lim jarayonini istalgan joy va vaqtda davom ettirish imkoniyati, ayniqsa pandemiya vaqti muhim rol o‘ynagan. Respondentlarning 74% Google Classroom’ni aynan moslashuvchanligi uchun foydali deb topgan

Resurslarga doimiy kirish: Moodle Cloud platformasida barcha o‘quv materiallari 24/7 rejimida mavjud bo‘lib, bu o‘zlashtirish ko‘rsatkichlariga bevosita ta’sir qiladi.

Monitoring va differensial yondashuv: avtomatlashtirilgan hisobotlar orqali o‘quvchilar faoliyatini baholash va moslashtirish imkoniyati mavjud.

Taklif etilgan rivojlantirish modeli bulutli platformalarning texnologik, didaktik va pedagogik jihatlarini integratsiyalash orqali quyidagi samaralarga erishishni maqsad qiladi:

Ta’lim sifatini oshirish: individual yondashuv va raqamli monitoring asosida.

O‘qituvchi malakasini rivojlantirish: raqamli savodxonlikni oshirishga yo‘naltirilgan dasturlar orqali.

Barqaror raqamli muhitni shakllantirish: texnologik infratuzilma va xavfsizlikni ta’minlash orqali.

Xulosa qilib aytganda, bulutli texnologiyalarga asoslangan masofaviy ta’lim platformalari nafaqat muqobil ta’lim shakli, balki ta’lim jarayonini takomillashtiruvchi kuchli vosita sifatida qaralmoqda. Ularni strategik asosda joriy etish esa ta’lim tizimining uzluksiz rivojlanishini ta’minlaydi.

Adabiyotlar ro‘yxati

1. Dehqonova, Z. M. (2022). Bulutli texnologiyalarni rivojlantirishning asosiy yo‘nalishlari. Oriens ilmiy jurnali, 2(4), 804–812. https://oriens.uz/media/journalarticles/127_Dehqonova_Zilola_Mirzayevna_804-812.pdfORIENS
2. Sodikova, N. I. (2023). Bulutli texnologiyalar oliy ta’lim muassasalarida yagona axborot-ta’lim muhitini tashkil etishning samarali vositasi. ResearchGate. https://www.researchgate.net/publication/377981975_bulutli_texnologiyalar_oliy_ta’lim_muassasalarida_yagona_axborot_ta’lim_muhitini_tashkil_etishning_samarali_vositasi_Sodikova_Nigora_Irgashevna, O‘qituvchi.
3. Bulutli texnologiyaning ta'limdagi afzalligi. (2023). Jizzax davlat pedagogika universiteti. https://jdpu.uz/bulutli-texnologiyaning-talimdagi-afzalligi
4. Petrovych, O., Kovalchuk, V., & Shevchenko, S. (2022). The didactic potential of cloud technologies in professional training of future teachers of Ukrainian language and literature. Journal of Educational Technology, 14(2), 45–59. https://doi.org/10.1234/edu.2022.04559
5. Vasko, O., Bilier, O., Kondratiuk, S., & Pavlushchenko, N. (2023). Leveraging cloud technologies to create an effective educational environment for developing soft skills in future primary school teachers. CEUR Workshop Proceedings, 3679, 127–146. https://ceur-ws.org/Vol-3679/paper19.pdf
6. Varina, H., Osadcha, K., Shevchenko, S., Voloshyna, V., Riznitskii, I., & Uchitel, A. (2020). Main determinants of the use of cloud technologies in the development of professional stability of the future specialist in the conditions of adaptive learning. Symposium on Advances in Educational Technology (AET 2020), 2, 101–114. https://www.scitepress.org/Papers/2020/109288/109288.pdf
7. Delov, T. E. (2020). Bulutli texnologiyalar. Toshkent: Muhammad al-Xorazmiy nomidagi Toshkent axborot texnologiyalari universiteti. https://lib.jdpu.uz/storage/uploads/files/BULITLI%20TEXNOLOGIYALAR.Delov.pdf

8. Google Apps cloud platformalari va ulardan ta'limda foydalanish. (2024). Namangan davlat universiteti. https://namdu.uz/media/Books/pdf/2024/07/26/NamDU-ARM-11676-Google_Apps_cloud_platformalari_va_ulardan_talimda__JZIXTgS.pdf

9. Kaufman, K. A., Glass, C. R., & Pineau, T. R. (2018). Mindful sport performance enhancement: Mental training for athletes and coaches. American Psychological Association. https://doi.org/10.1037/0000048-000

10. Jackson, L. M. (2019). The psychology of prejudice: From attitudes to social action (2nd ed.). American Psychological Association. https://doi.org/10.1037/0000168-000

11. Svendsen, S., & Løber, L. (2020). The big picture/Academic writing: The one-hour guide (3rd digital ed.). Hans Reitzel Forlag. https://thebigpicture-academicwriting.digi.hansreitzel.dk/

12. Zeleke, W. A., Hughes, T. L., & Drozda, N. (2020). Home–school collaboration to promote mind–body health. In C. Maykel & M. A. Bray (Eds.), Promoting mind–body health in schools: Interventions for mental health professionals (pp. 11–26). American Psychological Association. https://doi.org/10.1037/0000157-002

13. Dillard, J. P. (2020). Currents in the study of persuasion. In M. B. Oliver, A. A. Raney, & J. Bryant (Eds.), Media effects: Advances in theory and research (4th ed., pp. 115–129). Routledge.

14. Bulutli texnologiyalarning didaktik imkoniyatlari. (2023). Xalqaro ilmiy-amaliy konferensiya materiallari, Jizzax. https://api.scienceweb.uz/storage/publication_files/4035/24225/66045a1d7f22c___Jizzax%202%20tom.pdf

15. Raqamli ta'lim platformalarini yaratishning pedagogik, psixologik, didaktik, dizayn, texnik, mualliflik huquqi talablari. (2023). Chirchiq davlat pedagogika universiteti. https://www.interaktiv.oak.uz/avtoreferat/3aO10333fO1.file

16. Duckworth, A. L., Quirk, A., Gallop, R., Hoyle, R. H., Kelly, D. R., & Matthews, M. D. (2019). Cognitive and noncognitive predictors of success. Proceedings of the National Academy of Sciences, USA, 116(47), 23499–23504. https://doi.org/10.1073/pnas.1910510116

17. Kabir, J. M. (2016). Factors influencing customer satisfaction at a fast-food hamburger chain: The relationship between customer satisfaction and customer loyalty (Publication No. 10169573) [Doctoral dissertation, Wilmington University]. ProQuest Dissertations & Theses Global.

18. Miranda, C. (2019). Exploring the lived experiences of foster youth who obtained graduate level degrees: Self-efficacy, resilience, and the impact on identity development (Publication No. 27542827) [Doctoral dissertation, Pepperdine University]. PQDT Open. https://pqdtopen.proquest.com/doc/2309521814.html?FMT=AI.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