

**TIBBIYOT OLIY TA'LIM MUASSASALARIDA TIBBIYOTDA AXBOROT  
TEXNOLOGIYALARI FANIDAN LABORATORIYA DARSLARINI TASHKIL  
ETISHDA MULTIMEDIA VOSITALARIDAN FOYDALANISH**

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***Annotatsiya.** Oliy ta'lim muassasalarida axborot texnologiyalari fanidan laboratoriya darslarini tashkil etishda multimedia vositalaridan foydalanish, ta'lim jarayonining samaradorligini oshirishda muhim rol o'ynaydi. Ushbu maqola, multimedia vositalarining ta'limdagi ahamiyatini, ularning qo'llanilishi va ta'lim sifatiga ta'sirini yoritib beradi.*

*Ta'kidlanishicha, multimedia vositalari orqali taqdim etiladigan interaktiv materiallar, talabalarning mavzuni chuqurroq tushunishlariga va amaliy ko'nikmalarini yaxshilashga yordam beradi. Shuningdek, maqolada multimedia vositalaridan foydalanishning oliy ta'limdagi zamonaviy usullari va ularning ta'lim jarayonidagi o'rni haqida batafsil ma'lumot berilgan. Natijada, multimedia vositalaridan foydalanishning ta'lim sifatiga ijobiy ta'siri va bu boradagi istiqbolli yo'nalishlar muhokama qilinadi.*

***Kalit so'zlar:** Oliy ta'lim, axborot, texnologiya, multimedia.*

**USE OF MULTIMEDIA IN ORGANIZING LABORATORY LESSONS ON  
INFORMATION TECHNOLOGY IN MEDICINE IN MEDICAL HIGHER EDUCATION  
INSTITUTIONS**

***Abstract.** The use of multimedia tools in the organization of laboratory classes on information technologies in higher education institutions plays an important role in increasing the effectiveness of the educational process. This article highlights the importance of multimedia tools in education, their use and impact on the quality of education. It is noted that interactive materials provided through multimedia tools help students to understand the subject more deeply and improve their practical skills. The article also provides detailed information about modern methods of using multimedia tools in higher education and their role in the educational process.*

*As a result, the positive impact of the use of multimedia tools on the quality of education and promising directions in this regard are discussed.*

***Key words:** Higher education, information, technology, multimedia.*

**ИСПОЛЬЗОВАНИЕ МУЛЬТИМЕДИА ПРИ ОРГАНИЗАЦИИ ЛАБОРАТОРНЫХ  
ЗАНЯТИЙ ПО ИНФОРМАЦИОННЫМ ТЕХНОЛОГИЯМ В МЕДИЦИНЕ В  
МЕДИЦИНСКИХ ВУЗАХ**

*Аннотация.* Использование средств мультимедиа при организации лабораторных занятий по информационным технологиям в высших учебных заведениях играет важную роль в повышении эффективности учебного процесса. В данной статье подчеркивается важность мультимедийных инструментов в образовании, их использование и влияние на качество образования. Отмечается, что интерактивные материалы, предоставляемые посредством мультимедийных средств, помогают студентам глубже понять предмет и улучшить свои практические навыки. Также в статье представлена подробная информация о современных методах использования средств мультимедиа в высшей школе и их роли в образовательном процессе. В результате обсуждается положительное влияние использования мультимедийных средств на качество образования и перспективные направления в этом отношении.

**Ключевые слова:** Высшее образование, информация, технологии, мультимедиа.

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**Kirish:** Bugungi kunda axborot texnologiyalari sohasidagi tezkor rivojlanishlar, ta'lim jarayonlariga ham chuqur ta'sir ko'rsatmoqda. Xususan, oliy ta'lim muassasalarida axborot texnologiyalari fanidan laboratoriya darslarini tashkil etishda multimedia vositalaridan foydalanish, ta'lim sifatini oshirishning muhim omili hisoblanadi. Multimedia vositalari orqali taqdim etiladigan ma'lumotlar, talabalarning mavzuni chuqurroq tushunishlariga va amaliy ko'nikmalarini yaxshilashga yordam beradi.

Axborot texnologiyalari fanidan laboratoriya darslarini tashkil etishda multimedia vositalaridan foydalanish, nazariy bilimlarni amaliyot bilan uyg'unlashtirish imkonini beradi. Bu esa, talabalarning o'zlashtirish jarayonini yanada samarali qiladi va ularning mustaqil ishlash ko'nikmalarini rivojlantiradi. Shuningdek, multimedia vositalari yordamida taqdim etilgan ma'lumotlar, talabalarning axborot texnologiyalari bo'yicha bilimlarini mustahkamlashga xizmat qiladi.

Ushbu maqola, oliy ta'lim muassasalarida axborot texnologiyalari fanidan laboratoriya darslarini tashkil etishda multimedia vositalaridan foydalanishning ahamiyati, usullari va samaradorligi haqida batafsil ma'lumot berishga qaratilgan. Maqola davomida, multimedia vositalarining ta'lim jarayonidagi o'rni va ahamiyati, shuningdek, ularning ta'lim sifatiga qo'shadigan hissasi haqida muhokama qilinadi.

**Adabiyotlar tahlili:** Zamonaviy oliy ta'lim tizimida axborot texnologiyalari fanidan laboratoriya darslarini tashkil etishda multimedia vositalaridan foydalanish muhim ahamiyat kasb

etadi. Ushbu sohada olib borilgan tadqiqotlar va ishlanmalar, ta'lim jarayonining samaradorligini oshirishda multimedia vositalarining rolini ta'kidlaydi.

M. Solayeva tomonidan yozilgan "Dars jarayonlarini samarali tashkil qilishda axborot kommunikatsion texnologiyalarining o'rni" maqolasida, kommunikatsion texnologiyalar rivojlangan bugungi kunda oliy ta'lim muassasalarida dars jarayonlarini tashkil qilish va boshqarishda axborot kommunikatsion texnologiyalarining o'rni va foydali hususiyatlari to'g'risida tahlil olib borilgan

Shuningdek, Zokir O'rinboyevning "Oliy ta'lim muassasalarida axborot texnologiyalar fanini SMART texnologiyalar asosida o'qitish" maqolasida, axborot texnologiyalari fanini zamon talablari asosida o'qitishning dolzarbligi va SMART texnologiyalar asosida o'qitishning afzalliklari bayon qilingan

Bundan tashqari, "Talabalarning axborot texnologiyalari fanida mustaqil o'quv faoliyatini tashkil etishda multimediali materiallardan foydalanish" mavzusidagi maqolada, oliy ta'limda axborot texnologiyalari fanida mustaqil o'quv faoliyatini tashkil etishda zamonaviy axborot texnologiyalari va multimediali materiallardan foydalanish metodikasi bayon qilingan.

Ushbu adabiyotlar tahlili, oliy ta'lim muassasalarida axborot texnologiyalari fanidan laboratoriya darslarini tashkil etishda multimedia vositalaridan foydalanishning ahamiyati va samaradorligini chuqurroq tushunish uchun asos bo'lib xizmat qiladi. Multimedia vositalarining ta'lim jarayoniga integratsiyasi, talabalarning bilim olish jarayonini yanada qiziqarli va interaktiv qilishga yordam beradi.

### **Xulosa**

Oliy ta'lim muassasalarida axborot texnologiyalari fanidan laboratoriya darslarini tashkil etishda multimedia vositalaridan foydalanish, ta'lim jarayonining samaradorligini oshirishda katta ahamiyatga ega. Ushbu maqolada ko'rib chiqilgan tadqiqotlar va tahlillar shuni ko'rsatadiki, multimedia vositalari orqali taqdim etiladigan interaktiv va vizual materiallar, talabalarning mavzuni chuqurroq tushunishlariga va amaliy ko'nikmalarini yaxshilashga yordam beradi.

Multimedia vositalaridan foydalanish, nazariy bilimlarni amaliyot bilan uyg'unlashtirish imkonini beradi, bu esa talabalarning o'zlashtirish jarayonini yanada samarali qiladi. Shuningdek, multimedia vositalarining ta'lim jarayonidagi integratsiyasi, talabalarning mustaqil ishlash ko'nikmalarini rivojlantirishga va axborot texnologiyalari bo'yicha bilimlarini mustahkamlashga xizmat qiladi.

Natijada, oliy ta'lim muassasalarida axborot texnologiyalari fanidan laboratoriya darslarini tashkil etishda multimedia vositalaridan foydalanish, ta'lim sifatini oshirishning samarali usuli sifatida qaralishi mumkin. Bu borada olib borilgan ishlar va tadqiqotlar, ushbu yo'nalishda yanada

chuqurroq ishlarni amalga oshirish zarurligini ko'rsatmoqda. Kelajakda, multimedia vositalaridan yanada kengroq foydalanish, ta'lim jarayonini yanada interaktiv va samarali qilishga yordam berishi mumkin.

## REFERENCES

1. M. Solayeva (2022). DARS JARAYONLARINI SAMARALI TASHKIL QILISHDA AXBOROT KOMMUNIKATSION TEXNOLOGIYALARINING O'RNI. *Science and innovation*, 1 (B6), 24-27. doi: 10.5281/zenodo.7093620
2. O'rinboyev, Z. (2021). Oliy ta'lim muasasalarida axborot texnologiyalar fanini smart texnologiyalar asosida o'qitish. *Academic research in educational sciences*, 2(CSPI conference 3), 718-723.
3. Abdullayeva S., Maxmudova Z., Xujakulov S. TIBBIY TA'LIMDA VR TEXNOLOGIYA //Eurasian Journal of Academic Research. – 2022. – T. 2. – №. 11. – C. 1140-1144.
4. Abdusamatovich K. S., Olimjonovna T. F. Application of web applications in medicine //Eurasian Research Bulletin. – 2022. – T. 14. – C. 46-50.
5. Nabiyeva, S. S., Rustamov, A. A., Malikov, M. R., & Ne'matov, N. I. (2020). Concept of medical information. *European Journal of Molecular and Clinical Medicine*, 7(7), 602-609.
6. Malikov, M. R., Rustamov, A. A., & Ne'matov, N. I. (2020). STRATEGIES FOR DEVELOPMENT OF MEDICAL INFORMATION SYSTEMS. *Theoretical & Applied Science*, (9), 388-392.
7. Berdiyevna, A. S., & Olimjonovna, T. F. (2022). INNOVATIVE APPROACHES IN THE EDUCATION SYSTEM TO INCREASE YOUTH PARTICIPATION. *Web of Scientist: International Scientific Research Journal*, 3(3), 674-677.
8. Esirgapovich, K. A. (2022). THE EASIEST RECOMMENDATIONS FOR CREATING A WEBSITE. *Galaxy International Interdisciplinary Research Journal*, 10(2), 758-761.
9. Toxirova, F. O., Malikov, M. R., Abdullayeva, S. B., Ne'matov, N. I., & Rustamov, A. A. (2021). Reflective Approach In Organization Of Pedagogical Processes. *European Journal of Molecular & Clinical Medicine*, 7(03), 2020.
10. Ne'matov, N., & Rustamov, T. (2022). SANATORIYLAR ISHINI AVTOMATLASHTIRISH: BRON XIZMATI VA UNING STRUKTURASI. *Eurasian Journal of Academic Research*, 2(11), 763-766.
11. Ne'matov, N., & Ne'matova, N. (2022). OLIY TA'LIM TIZIMI TALABALARIGA O'ZBEK TILINI O'QITISHDA AXBOROT TEXNOLOGIYALARINING O'RNI. *Академические исследования в современной науке*, 1(19), 37-38.

12. OB Akhmedov, AS Djalilov, NI Nematov, AA Rustamov // Directions Of Standardization In Medical Informatics // Emergent: Journal of Educational Discoveries and Lifelong Learning (EJEDL), 2(2), 1-4 p. 2021
13. Ne'matov, N., & Isroilov, J. (2022). TIBBIY VEB SAYTLAR YARATISH YUTUQ VA KAMCHILIKLARI. Zamonaviy dunyoda innovatsion tadqiqotlar: Nazariya va amaliyot, 1(25), 162-164.
14. Ne'matov, NI. (2022). TIBBIY VEB SAYTLAR YARATISH SAMARADORLIGI. Academic Research in Educational Sciences (ARES) 3 (2), 118-124
15. Berdiyevna, A. S., Fazliddinovich, S. R., & Uralovich, R. N. (2022). Use of Information Technology in Improving the Quality of Education. Eurasian Research Bulletin, 14, 134-138. Abdullayeva, S. B., & Dosmurodova, S. S. (2022). THE ROLE OF THE FAMILY IN THE FORMATION OF VALUE DIRECTIONS IN YOUTH. Procedia of Theoretical and Applied Sciences, 1(1), 93-95.
16. Olimjonovna, T. F. (2023). SOCIO-HISTORICAL FOUNDATIONS OF FORMATION OF INTEREST IN THE PROFESSION AND DEVELOPMENT OF PROFESSIONAL THINKING THROUGH PEDAGOGICAL COMMUNICATION.
17. Berdiyevna, A. S., & Shokirovich, X. S. (2023). Prospective Directions of Implementation of Modern Information Technologies in Education. Eurasian Journal of Research, Development and Innovation, 17, 7-11.
18. Berdiyevna, A. S., Akramovna, M. M., & Olmasovna, R. P. (2023). Research in the Process of Education of Medical Students Shaping Their Abilities. Eurasian Journal of Learning and Academic Teaching, 17, 95-99.
19. Ismatullayevich, N. N. (2023). The role of educational websites in the development of student's higher education systems. Eurasian Journal of Research, Development and Innovation, 17, 17-20.
20. Ismatullayevich N. N., Ilxomovna M. Z. Automation of Sanatorium Work: Reservation Service and its Structure //Miasto Przyszłości. – 2022. – T. 29. – C. 65-67.
21. Olimjonovna T. F. Pedagogical Communication and its Role and Significance in Developing the Professional Thinking of Students //Eurasian Scientific Herald. – 2023. – T. 16. – C. 82-86.
22. Berdiyevna, A. S., Ilhomovna, M. Z., & Ogli, K. S. S. (2023). Modern methods of information exchange in polyclinic conditions. Genius Repository, 25, 16-20.

23. Abdullayeva, S., Maxmudova, Z., & Xo'jaqulov, S. (2023). MODERN METHODS OF INFORMATION EXCHANGE IN POLYCLINIC CONDITIONS. *Modern Science and Research*, 2(10), 304-310.
24. Махмудова, З. И., & Аббосова, Р. Р. (2023). ТЕМА: РОЛЬ ИНФОРМАЦИОННЫХ ТЕХНОЛОГИИ В ФАРМАЦЕВТИЧЕСКОЙ ОТРОСЛИ. *Gospodarka i Innowacje.*, 33, 164-169.
25. Илхомовна, М. З., & Ражабоевна, А. Р. (2023). ТЕМА: РОЛЬ ИНФОРМАЦИОННЫХ ТЕХНОЛОГИИ В ФАРМАЦЕВТИЧЕСКОЙ ОТРОСЛИ.
26. Maxmudova, Z. (2023). THE ROLE OF INFORMATION TECHNOLOGY IN THE PHARMACEUTICAL INDUSTRY. *International Bulletin of Engineering and Technology*, 3(3), 52-54.
27. Maxmudova, Z., Mehmonov, A., Maxsiddinova, O., & Tirkashev, A. (2023). SCIENTIFIC STUDIES SHOWING HOW MUCH PART OF THE BRAIN A PERSON USES. *Modern Science and Research*, 2(10), 960-964.
28. Tohirova, F., & Esanmurodova, D. (2024). THE IMPORTANCE, ADVANTAGES AND DISADVANTAGES OF THE MODULAR PROGRAM IN THE EDUCATIONAL SYSTEM. *Modern Science and Research*, 3(1), 789-794.
29. Olimzhanovna, T. F. (2023). Facts About the Poisonous Mammal-Loris. *Miasto Przyszłości*, 42, 592-594.
30. Elamanova, M., & Toxirova, F. (2023). FACTS ABOUT THE POISONOUS MAMMAL-LORIS. *Modern Science and Research*, 2(12), 226-229.
31. Olimjonovna, T. F., Rustamjonovna, T. P., & Zafarovna, I. S. (2023). Causes Leading to Baldness and How to Deal With Them. *Miasto Przyszłości*, 42, 216-220.
32. Abdusamatovich, K. S., & Olimjonovna, T. F. (2023). Information technologies in the economy. *Genius Repository*, 26, 30-33.
33. Olimjonovna, T. F. (2023). TELEMEDITSINA TEXNOLOGIYALARINI RIVOJLANTIRISH.
34. Olimjonovna, T. F. (2023). AXBOROT TEXNOLOGIYALARINI TA'LIM JARAYONIDA QO'LLASHNING PEDAGOGIK-PSIXOLOGIK OMILLARI.
35. Karabaev, S., & Toxirova, F. (2023). DEVELOPMENT OF TELEMEDICINE TECHNOLOGIES. *Modern Science and Research*, 2(4), 698-702.
36. Karabaev, S., & Toxirova, F. (2023). PEDAGOGICAL AND PSYCHOLOGICAL FACTORS OF USING INFORMATION TECHNOLOGIES IN THE EDUCATIONAL PROCESS. *Modern Science and Research*, 2(4), 703-707.

37. Abdusamatovich, K. S., & Olimjonovna, T. F. (2023). Information technologies in the economy. *Genius Repository*, 26, 30-33.
38. Ne'matov, N., & Sobirova, K. (2024). THE ROLE OF WEBSITES IN IMPROVING THE WORK OF MEDICAL INSTITUTIONS. *Modern Science and Research*, 3(2), 530-532.