

**LOYIHALASH TEXNOLOGIYALAR ASOSIDA BO'LAJAK
FIZIKA FANI O'QITUVCHILARINI KASBIY METODIK TAHLILI.**

*Jo'rayev Mirjalol Qahramonovich. Osiyo Xalqaro Universiteti
"Umumtexnik fanlar" kafedrasida dotsenti.*

Annotatsiya: Mazkur maqolada loyihalash texnologiyalari asosida bo'lajak fizika fani o'qituvchilarining kasbiy-metodik tayyorgarligini shakllantirish masalalari tahlil qilinadi. Ta'lim jarayonida loyihaviy faoliyatni qo'llash orqali talabalarda fizik tushunchalarni chuqur anglash, muammoli vaziyatlarni tahlil qilish, metodik qarorlar qabul qilish hamda mustaqil ijodiy faoliyat ko'nikmalarini rivojlantirish imkoniyatlari yoritilgan. Shuningdek, loyihalash texnologiyalarining bo'lajak o'qituvchilarning kasbiy kompetensiyalarini oshirishdagi o'rni va metodik tahlil asoslari ilmiy-nazariy jihatdan asoslab berilgan.

Kalit so'zlar: *Loyihalash texnologiyalari, kasbiy-metodik tayyorgarlik, metodik tahlil, kompetensiyaviy yondashuv, loyihaviy faoliyat, pedagogik texnologiyalar*

jorayev159@mail.ru

**ПРОФЕССИОНАЛЬНЫЙ МЕТОДИЧЕСКИЙ АНАЛИЗ
БУДУЩИХ УЧИТЕЛЕЙ ФИЗИКИ НА ОСНОВЕ
ПРОЕКТИРОВАНИЯ ТЕХНОЛОГИЙ.**

Аннотация: В данной статье анализируются вопросы формирования профессионально-методической подготовки будущих учителей физики на основе проектно-технологических методов.

Подчеркиваются возможности использования проектной деятельности в образовательном процессе для развития у учащихся глубокого понимания физических понятий, анализа проблемных ситуаций, методического принятия решений и навыков самостоятельного творчества. Также научно и теоретически обосновывается роль проектно-технологических методов в повышении профессиональных компетенций будущих учителей и основы методического анализа.

Ключевые слова: Проектно-технологические методы, профессионально-методическая подготовка, методический анализ, компетентностный подход, проектная деятельность, педагогические технологии.

jorayev159@mail.ru

PROFESSIONAL METHODOLOGICAL ANALYSIS OF FUTURE PHYSICS TEACHERS BASED ON DESIGN TECHNOLOGIES.

Abstract This article analyzes the issues of forming professional and methodological training of future physics teachers based on design technologies. The possibilities of using project activities in the educational process to develop students' deep understanding of physical concepts, analysis of problem situations, methodological decision-making, and independent creative skills are highlighted. Also, the role of design technologies in improving the professional competencies of future teachers and the foundations of methodological analysis are scientifically and theoretically substantiated.

Keywords: Design technologies, professional and methodological training, methodological analysis, competency-based approach, project activities, pedagogical technologies

Bugungi kunda ta'lim tizimida amalga oshirilayotgan islohotlar bo'lajak o'qituvchilarning kasbiy tayyorgarligiga qo'yiladigan talablarni tubdan o'zgartirmoqda. Ayniqsa, fizika fani o'qituvchilarini tayyorlash jarayonida an'anaviy bilim berishga asoslangan yondashuvdan kompetensiyaviy va faoliyatga yo'naltirilgan ta'lim texnologiyalariga o'tish muhim ahamiyat kasb etmoqda. Shu nuqtayi nazardan, loyihalash texnologiyalari bo'lajak fizika fani o'qituvchilarining kasbiy-metodik tayyorgarligini shakllantirishda samarali vositalardan biri hisoblanadi.

Loyihalash texnologiyalarining mohiyati

Loyihalash texnologiyalari — bu ta'lim oluvchilarning mustaqil yoki guruhli faoliyati asosida muayyan muammoni aniqlash, tahlil qilish va amaliy natijaga erishishga qaratilgan pedagogik texnologiyalardir. Ushbu texnologiyalar o'quv jarayonida nazariy bilimlarni amaliyot bilan uzviy bog'lash imkonini beradi.

Fizika fanini o'qitishda loyihaviy yondashuv fizik hodisa va qonunlarni real hayotiy vaziyatlar bilan bog'lab o'rganishga, tajribalar o'tkazishga hamda ilmiy xulosalar chiqarishga yo'naltiriladi.

Bo'lajak fizika o'qituvchilarining kasbiy-metodik tayyorgarligi

Kasbiy-metodik tayyorgarlik — bu bo'lajak o'qituvchining fanni o'qitish metodikasi, darsni rejalashtirish, ta'lim texnologiyalarini tanlash va qo'llash, o'quvchilarning bilish faoliyatini tashkil etish bo'yicha bilim, ko'nikma va malakalar majmuasidir.



Loyihalash texnologiyalari asosida tashkil etilgan ta'lim jarayoni bo'lajak fizika o'qituvchilarida:

fizik mazmunni chuqur anglash;

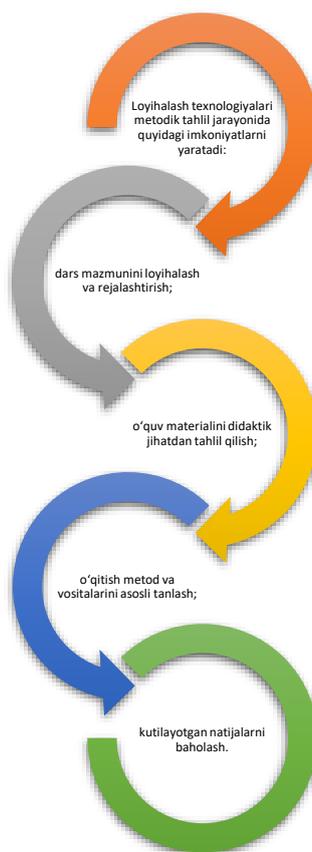
metodik muammolarni tahlil qilish;

innovatsion dars modellarini ishlab chiqish;

ijodiy va tanqidiy fikrlash kabi muhim kasbiy sifatlarni shakllantiradi.

Metodik tahlil jarayonida loyihaviy faoliyat

Metodik tahlil — bu o'qitish jarayonini ilmiy asosda baholash va takomillashtirishga qaratilgan faoliyatdir.



Bo'lajak fizika o'qituvchilari loyihaviy topshiriqlar orqali o'zlarining metodik qarorlarini asoslashni va tahlil qilishni o'rganadilar.

Xulosa qilib aytganda, loyihalash texnologiyalari bo‘lajak fizika fani o‘qituvchilarining kasbiy-metodik tayyorgarligini rivojlantirishda muhim pedagogik vosita hisoblanadi. Ushbu texnologiyalar ta’lim jarayonining samaradorligini oshirib, bo‘lajak o‘qituvchilarda mustaqil fikrlash, metodik tahlil va ijodiy yondashuv ko‘nikmalarini shakllantiradi. Shuning uchun oliy ta’lim muassasalarida fizika o‘qituvchilarini tayyorlash jarayonida loyihalash texnologiyalaridan tizimli va maqsadli foydalanish zarur.

Adabiyotlar ro‘yxati.

B.X.Shaymatov, B.S.Abdullaeva, M.Q.Jo‘raev, “Elektr mashinalari”,
Buxoro: BMTI, 2022 y.-209 b.

1. M.Q.Jo‘rayev, F.J.Xudoynazarov “Elektr mashinalari” fani taraqqiyotining ustuvor yo‘nalishlari Maqola. Academic Research in Educational Sciences VOLUME 2 | ISSUE 11 | 2021 ISSN: 2181-1385 Scientific Journal Impact Factor (SJIF) 2021: 5.723 Directory Indexing of International Research Journals-CiteFactor 2020-21: 0.89 DOI: 10.24412/2181-1385-2021-11-1184-1190

2. Jo‘rayev M. Q. ”Oliy ta’lim muassasalarining elektr energetika yo‘nalishi talabalariga elektr mashinalari fanini hozirgi kunda o‘qitish tahlili”. Toshkent 2021 1–son 18 bet

3. Jo‘rayev M. Q. “Elektr yuritmalari tezligini rostdash usullari” Ilmiy-nazariy va metodik jurnal Buxoro 2021, № 5 114 bet

4. Development of teaching methods in the field of "electrical machines" using new pedagogical technologies 1Jorayev M. K, 2Husenov D. R, 3Sharopov F.K. International Engineering Journal For Research & Development 584-586 p

5. Jo'rayev, M. Q., & Xudoynazarov, F. J. (2021). "Elektr mashinalari" fani Taraqqiyotining ustuvor yo'nalishlari. Academic Research in Educational Sciences, 2(11), 1184-1190. doi:10.24412/2181-1385-2021-11-1184-1190 bet
6. Jurayev Mirjalol Kahramonovich "Software analysis of electric machine science" ISSN:2776-0960 Volume 3, Issue 1 Jan., 2022 143P a g
7. Jo'rayev Mirjalol Qahramonovich "ELEKTR ENERGIYASINI EKSPLUATSIYA QILISHDA TRANSFORMATORLARNING AHAMIYATI" ["PEDAGOGS" international research journal](#) ISSN: 2181-4027_SJIF: 4.995
8. Жўраев М.Қ. Электр юритмалар тезлигини ростлаш усуллари Педагогик маҳорат Илмий-назарий ва методологик журнал Бухоро 2021, №23, 114-118 б,(13.00.02)
9. Jo'rayev M. Q. Scientific methodical bases of the science of electric machines academia: An International Multidisciplinary Research Journal ISSN: 2249-7137Vol.12,Issue09,September 2022 SJIF 2022=8.252 A peer reviewed journal<https://www.indianjournals.com>
10. Jo'rayev M. Q. Ilmiy konferensiya "Elektr mashinalari fanini o'qitish didaktik takomillashtirish jihatlari" INTERNATIONAL CONFERENCE ON DEVELOPMENTS IN EDUCATION SCIENCESAND HUMANITIES International scientific-online conference 4nd part, 2-124 pages Part 4 September 29 CANADA <https://zenodo.org/record/7146065>
11. Jo'rayev M. Q. Ilmiy konferensiya "Elektr mashinalari fani rivojlanish ginezisi va mazmuni" INTERNATIONAL CONFERENCE ON DEVELOPMENTS IN EDUCATION SCIENCESAND HUMANITIES International scientific-online conference 4nd part, 2-124 pages Part 4 September 29 CANADA <https://zenodo.org/record/7146065>

12. Jorayev Mirjalal Kahramonovich OPINIONS OF UZBEK AND FOREIGN SCIENTISTS IN TEACHING THE SCIENCE OF ELECTRIC MACHINES 76-80 British Journal of Global Ecology and Sustainable Development <https://journalzone.org/index.php/bjgesd/article/view/317> ISSN (E): 2754-9291

13. Джураев Мирджалал Кахрамонович, Камалов Камал Малик угли «Синхронные машины», инновационные методы в обучении <http://www.ijaretm.com/> ISSN:2349-0012

14. Jo'rayev Mirjalol Qahramonovich, Jafarov Sobir Talab o'g'li, Nizomov Nozimjon Zafar O'g'li, Kamolov Kamol Malik o'g'li “Qadoqlash sexidagi qo'llanilgan elektr yuritmani boshqarish blokini takomillashtirish orqali maxsulot namligini mo'tadil saqlash” <https://wordlyknowledge.uz/> ISSN : 2181-4341

15. Жўраев М.Қ., Software Analysis of Electric Machine Science, Research Jet Journal of Analysis and Invertions IF-7.6, <https://reserchjet.academiascience.org/index.php/rjai/article/view/414> ISSN 2776-0960

16. Jo'rayev Mirjalol Qahramonovich, Jafarov Sobir Talab o'g'li “Methodology of teaching experimental work, organization of independent work in technical higher education institutions <https://www.eijmr.org/index.php/eijmr/article/view/192>

17. Jo'rayev, M. Q., Rashidov, H. H., & Murodov, A. O. (2023). Texnika oliy ta'lim muassalarida fanlarning amaliy ko'nikmalarni oshirishning qiyosiy tahlillari. Innovative development ineducational activities, 2(21), 4–11. <https://doi.org/10.5281/zenodo.10138064>

18. Jo'rayev Mirjalol Qahramonovich, Po'latov Bexruz Zafarovich, Ravshanov Abbas Yashin o'g'li, Rashidov Hamrozbek Hayotovovich International conference pedagogical reforms and their solutions VOLUME1, ISSUE2, 2024 <https://worldlyjournals.com/index.php/PRS/article/view/860>

19. Jo‘rayev Mirjalol Qahramonovich. (2025). Elektr mashinalari va yuritmalari” fanini o‘qitishdagi innovat-siyalar va ilg‘or xorijiy tajribalarning pedagogik tahlili. Journal of new century innovations, 79(2), 199-203. ISSN: 2181-368X <https://scientific-jl.com/new/article/view/23565>

20. Jo‘rayev Mirjalol Qahramonovich. (2025). Oliy ta‘lim tizimida darslarida talabalarning axborotlar bilan ishlash kompetensiyasini rivojlantirishning pedagogik tahlili. Journal of new century innovations, 79(2), 204-208. ISSN: 2181-368X <https://scientific-jl.com/new/article/view/23566>

21. Jo‘rayev Mirjalol Qahramonovich. (2025). Oliy ta‘lim tizimida axborotlar va ularning manbalari bilan ishlash kompetensiyasini rivojlantirishning pedagogik tahlili. Journal of new century innovations, 79(2), 209-213. ISSN: 2181-368X <https://scientific-jl.com/new/article/view/23567>

22. Jo‘rayev Mirjalol Qahramonovich, Rashidov Hamrozbek Hayotovovich “Elektrotexnika va elektronika” fanini o‘qitisha zamonaviy pedagogik texnologiyalari tahlili. ISSN 2181-4341. VOLUME 8, ISSUE 2, MARCH, 2024

<https://worldlyjournals.com/index.php/IFX/article/view/1312>