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ВЛИЯНИЕ ЗУБНЫХ ПРОТЕЗОВ НА СЛИЗИСТУЮ ОБОЛОЧКУ ПОЛОСТИ РТА

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При изучении причин воспалительных процессов влияние зубных протезов на слизистую оболочку полости рта признаётся одним из ведущих факторов, особенно у пожилых пациентов. Исследования состояния протеолитической системы у ортопедических больных, пользующихся съёмными пластиночными протезами, показали, что нарушение протеолитического баланса является ключевым условием развития воспалительных изменений, в том числе и в полости рта.

Съёмные ортопедические конструкции широко известны как сложные раздражающие факторы для слизистой оболочки протезного ложа. Несмотря на тщательную обработку и своевременную коррекцию базисов протезов, на их внутренних и внешних поверхностях часто сохраняются микропоры, создающие благоприятные условия для адгезии микроорганизмов. Под воздействием различных эндогенных и экзогенных факторов развивается дисбактериоз, который приводит к серьёзным нарушениям состава нормальной микрофлоры полости рта. В результате снижаются защитные и другие полезные функции нормальной микрофлоры, увеличивается риск развития как местных, так и системных патологических процессов.

Одной из важных проблем остаётся реакция тканей протезного ложа на материалы, используемые при изготовлении съёмных зубных протезов. В связи с этим современные исследования направлены на разработку новых материалов с минимальным негативным воздействием на ткани полости рта. Материалы, применяемые при производстве пластиночных протезов, могут существенно способствовать возникновению протезного стоматита. Например, при нарушении технологии полимеризации акриловых пластмасс возможно наличие избыточного количества мономера — токсикогенного агента, который со временем может выделяться в ротовую полость.



Подготовка к протезированию должна включать соблюдение гигиены полости рта, лечение опорных зубов и проведение мероприятий, способствующих надёжной фиксации протеза. Недостаточная подготовка является одной из основных причин осложнений после установки съёмных протезов. Нарушение гигиены может привести к воспалению слизистой оболочки, развитию кариеса и пульпита опорных зубов. Кроме того, неточно изготовленные протезы могут ломаться или смещаться, вызывая дискомфорт и болевые ощущения при использовании. Между протезом и десной не должно быть зазора, однако при этом протез не должен оказывать давление или вызывать трение мягких тканей. В первом случае происходит скопление остатков пищи, во втором — образуются волдыри на слизистой оболочке.

Длительное давление съёмных протезов на мягкие ткани может привести к истончению слизистой оболочки. Более толстая слизистая равномерно распределяет давление по протезному ложу. В то время как истончённая слизистая способствует формированию зон повышенного напряжения под базисом протеза. Увеличение толщины слизистой оболочки до 0,6 мм может незначительно повысить локальное напряжение в тканях.

Литература:

1. Борисова Э.Г. Проблемы оказания ортопедической стоматологической помощи пациентам с хроническим рецидивирующим афтозным стоматитом / Борисова Э.Г., Ягмуров Х.О., Спесивец А.Ф. // Медико-фармацевтический журнал Пульс. 2022. Т. 24. № 4. С.75-79.
2. Борисова Э.Г., Машкова Н.Г., Спесивец А.Ф., Ягмуров Х.О. Результаты клинической оценки состояния съёмных зубных протезов из термопластов // Проблемы стоматологии. 2022.Т. 18, №3.С.139-143.
3. Бородовицина С.И. [и др.]; Основные заболевания слизистой оболочки рта: атлас / ФГБОУ ВО РязГМУ Минздрава России. – Рязань: ОТСиОП, 2019. – 316 с.
4. Булгакова А.И., Азнабаева Л.Ф., Галеев Р.М. Клинико-иммунологическая оценка состояния полости рта у пациентов с ортопедическими



конструкциями, выполненными из разных конструкционных материалов. Медицинский вестник Башкортостана. 2017. Т. 12, № 4. С. 39-42.

5. Булгакова А.И., Шафеев И.Р., Валеев И.В. [и др.] Оценка местного иммунитета полости рта у пациентов с несъемными эстетическими ортопедическими конструкциями и воспалительными заболеваниями пародонта / Пародонтология. 2016. № 2. С. 57-60.
6. Галонский В.Г., Радкевич А.А. Реакция слизистой оболочки опорных тканей протезного ложа на воздействие съемных зубных и зубочелюстных протезов с базисом из литейного сплава «Титанид» и материалов, не проявляющих эффекта запаздывания. Сборник статей межрегиональной научно-практической конференции, посвященной 100-летию стоматологической службы Республики Саха (Якутия). - 2020. С. 221-251.



KUTUBXONA VA KITOB TARG‘IBOTI: MA’RIFAT VA TARAQQIYOT SARI YO‘L

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Annotatsiya

Raqamli asrda kutubxonalar va kitob targ‘ibotining intellektual o‘rish va jamiyat rivoji uchun ahamiyati juda muhimligicha qolmoqda. Ushbu maqola kitob targ‘ibotining zamonaviy kutubxonalar, xususan, O‘zbekiston kontekstidagi ko‘p qirrali ahamiyatini o‘rganadi. Maqolada raqamli axborotning haddan tashqari ko‘pligi keltirib chiqarayotgan muammolar yoritilgan va yorqin mutolaa madaniyatini shakllantirish bo‘yicha innovatsion strategiyalar taklif etilgan. Hujjat kutubxonalarning an‘anaviy omborxonalardan ta‘lim, ijodkorlik va jamiyat bilan ishlash uchun dinamik markazlarga aylanishi zarurligini ta‘kidlaydi. Asosiy e‘tibor raqamli platformalardan foydalanish, hamkorlikni rivojlantirish, qiziqarli tadbirlarni tashkil etish va kutubxona binolarini jozibador markazlarga aylantirishga qaratilgan. Yakuniy tahlilda, samarali kitob targ‘iboti shaxslarning intellektual rivojlanishiga va jamiyatning umumiy taraqqiyotiga hissa qo‘shadi, kutubxonaning bilimga ko‘prik sifatidagi muhim rolini kuchaytiradi.

Kalit so‘zlar

Kutubxona, Kitob targ‘iboti, Mutolaa madaniyati, Ma‘rifat, Taraqqiyot, Raqamli asr, O‘zbekiston, Ta‘lim, Bilim, Jamiyat bilan ishlash.

Dolzarblik va Maqsadlar

Bugungi dunyoda kitoblar va mutolaani targ‘ib qilishning dolzarbligini hech qachon ortiqcha baholab bo‘lmaydi. Onlayn tarzda mavjud bo‘lgan ma‘lumotlarning portlashi bilan odamlar ko‘pincha haddan tashqari ko‘p ma‘lumotga duch kelishadi va ishonchli manbalarni noto‘g‘ri ma‘lumotlardan ajratishga qiynalishadi. Kitoblar, ayniqsa, yaxshi tashkil etilgan nashriyotlar va tasdiqlangan mualliflarning kitoblari chuqur bilim va nozik tushunchaga erishish uchun tuzilgan va ishonchli yo‘lni taklif qiladi. Bundan tashqari, qisqa shakldagi kontent va o‘tkinchi raqamli o‘zaro aloqalar



hukmronlik qilayotgan asrda mutolaa shaxsiy va ijtimoiy rivojlanish uchun zarur bo'lgan **barqaror diqqatni, tanqidiy tahlilni va tasavvurga boy ishtirokni** rag'batlantiradi. O'qish odatlarining, ayniqsa, yosh avlod orasida pasayishi intellektual rivojlanish va madaniy savodxonlikka jiddiy tahdid soladi. Shuning uchun, kutubxonalar tomonidan faol kitob targ'iboti muhim qarshi chora bo'lib xizmat qiladi, bu o'qishning chuqur foydalari ochiq va jozibador bo'lib qolishini ta'minlaydi. Ushbu maqolaning **asosiy maqsadi** kutubxonalar tomonidan kitob targ'ibotining jamiyat taraqqiyotining asosiy toshi sifatidagi ko'p qirrali ahamiyatini yoritishdir. Biz quyidagilarni maqsad qilganmiz:

- Raqamli asrda kuchli mutolaa madaniyatini rivojlantirishning **o'ta muhimligini ta'kidlash**.
- Kitoblarni samarali targ'ib qilishda kutubxonalar duch keladigan **joriy muammolar va imkoniyatlarni aniqlash va tahlil qilish**.
- Kitoblardan foydalanish va ularga bo'lgan qiziqishni oshirish uchun kutubxonalar amalga oshirishi mumkin bo'lgan **innovatsion va amaliy strategiyalarni taklif qilish**.
- Kutubxonalar tomonidan yaratilgan yorqin mutolaa madaniyati individual intellektual o'sishga va kengroq jamiyat rivojlanishiga qanday hissa qo'shishini **ko'rsatish**.

Ushbu jihatlarni o'rganish orqali ushbu maqola kutubxonalarning bilimli, tanqidiy va madaniy boy aholini shakllantirishdagi ajralmas rolini tasdiqlashga intiladi, natijada yanada ma'rifatli va ilg'or kelajak sari yo'l ochadi.

Kirish

Texnologik taraqqiyotning jadal sur'atlari va raqamli axborotning hamma joyda mavjudligi bilan tobora ko'proq belgilanayotgan davrda, kitoblarning doimiy qadri va kutubxonalarning asosiy roli dastlab kamayib borayotgandek tuyulishi mumkin. Biroq, haqiqatdan ham uzoq. Aslida, jamiyatlar raqamli asrning murakkabliklarini yengishga intilar ekan, kitoblarni targ'ib qilish va mustahkam mutolaa madaniyatini rivojlantirish har qachongidan ham muhimroq bo'ldi. An'anaviy tarzda bilim omborlari sifatida ko'rilgan kutubxonalar endi intellektual qiziqishni, tanqidiy fikrlashni va umrbod ta'limni rivojlantirishda muhim rol o'ynaydigan dinamik



markazlarga aylanmoqda. Ushbu maqola kutubxona kontekstida kitob targ'ibotining zamonaviy ahamiyatini o'rganib chiqadi, bu muassasalar ma'rifatli va ilg'or jamiyatni shakllantirishda qanday moslashishi va innovatsiya qilishi mumkinligini tahlil qiladi.

Asosiy qism

Kutubxonaning an'anaviy tasviri, ya'ni jimgina, chang bosgan, kitoblar javonlari bilan to'la joy tasviri tobora dinamik va interaktiv ko'rinishga almashtirilmoqda. Bugungi kutubxonalar jonli jamoat markazlariga, innovatsion markazlarga va umrbod ta'limning muhim vositachilariga aylanmoqda. Bu evolyutsiya, ayniqsa, ularning **kitob targ'ibotiga** nisbatan tobora murakkablashib borayotgan yondashuvlarida yaqqol namoyon bo'ladi, bu hozirda turli auditoriyalarni jalb qilish va o'qishga bo'lgan ishtiyoqni qayta tiklash uchun mo'ljallangan keng strategiyalar spektrini o'z ichiga oladi.

Kitob targ'ibotining rivojlanayotgan landshafti

Ilgari, kitob targ'iboti ko'pincha statik ko'rgazmalar, mualliflar bilan uchrashuvlar va ehtimol mahalliy kitob klubini o'z ichiga olgan. Bu usullar hali ham qimmatli bo'lsa-da, raqamli asr yanada faol va ko'p qirrali yondashuvni talab qiladi. Ijtimoiy media, elektron kitoblar, audiokitoblar va turli onlayn kontent platformalarining paydo bo'lishi odamlarning ma'lumot va ko'ngilochar kontentni iste'mol qilish usulini o'zgartirdi. Kutubxonalar endi gavjum raqamli makonda e'tibor uchun kurashishlari kerak, bu esa innovatsion kitob targ'ibotini har qachongidan ham muhimroq qiladi. Bu nafaqat jismoniy kitoblarni, balki **raqamli savodxonlikni, axborotni farqlashni va hikoya qilishning barcha shakllardagi zavqini** targ'ib qilishni ham o'z ichiga oladi.

Zamonaviy kutubxonalarda samarali kitob targ'ibotining asosiy strategiyalari

Kitoblarni samarali targ'ib qilish va mustahkam mutolaa madaniyatini rivojlantirish uchun zamonaviy kutubxonalar qator strategik tashabbuslarni qo'llamoqda:



1. Raqamli platformalar va ijtimoiy mediadan foydalanish:

○ **Onlayn kitob klublari va forumlari:** O'quvchilar kitoblarni muhokama qilishlari, o'z fikrlari bilan bo'lishishlari va boshqa ixlosmandlar bilan bog'lanishlari mumkin bo'lgan virtual makonlarni yaratish, geografik chegaralarni kesib o'tish.

○ **Ijtimoiy media kompaniyalari:** Instagram, Facebook va TikTok kabi platformalardan foydalanib, qiziqarli kitob tavsiyalari, mualliflar bilan intervyular, adabiy iqtiboslar va kutubxona faoliyatining sahna orti ko'rinishlarini baham ko'rish. Vizual hikoya qilish yosh auditoriyani jalb qilishning kalitidir.

○ **Podkastlar va vebinarlar:** Kitob sharhlari, mahalliy mualliflar bilan muhokamalar yoki adabiy mavzular bo'yicha o'quv mashg'ulotlarini o'z ichiga olgan audio kontent yaratish. Vebinarlar virtual mualliflar bilan suhbatlar yoki yozish va o'qish ko'nikmalari bo'yicha seminarlarga mezbonlik qilishi mumkin.

○ **Elektron kitob va audiokitoblarga kirish:** Keng qamrovli raqamli to'plamlarga sarmoya kiritish va ularga kirishni rag'batlantirish. Ko'pgina o'quvchilar elektron o'quvchilarning qulayligini yoki ishga borishda yoki mashq qilishda kitoblarni tinglash imkoniyatini afzal ko'rishadi.

2. Qiziqarli tadbirlar va dasturlarni yaratish:

○ **Mavzuli o'qish musobaqalari:** Janrlar, mualliflar yoki ma'lum mavzular asosida musobaqalar tashkil etish orqali turli xil o'qishni rag'batlantirish. Gamifikatsiya elementlari, masalan, nishonlar yoki yetakchilar kengashlari, ishtirokni oshirishi mumkin.

○ **Mualliflar tashriflari va seminarlar:** Mualliflar bilan ham shaxsan, ham virtual uchrashuvlar o'tkazish, o'quvchilarga ijodkorlar bilan o'zaro muloqot qilish va ularning asarlari haqida chuqurroq tushunchaga ega bo'lish uchun noyob imkoniyatlar yaratish. Ijodiy yozish yoki kitob sharhi bo'yicha seminarlar ham mashhur bo'lishi mumkin.

○ **Adabiy festivallar va kitob yarmarkalari:** Mahalliy tashkilotlar bilan hamkorlik qilib, adabiyotni nishonlaydigan, bir nechta mualliflar, seminarlar va kitob sotish imkoniyatlarini o'z ichiga olgan keng ko'lamli tadbirlarni o'tkazish.



○ **Avlodlararo dasturlar:** Turli yosh guruhlarini birlashtiruvchi tadbirlarni, masalan, bolalar qariyalarga kitob o'qishi kabi, hikoyalarga umumiy muhabbat va jamoat aloqalarini rivojlantirish.

3. **Kutubxona joylari va xizmatlarini o'zgartirish:**

○ **Zamonaviy va jozibador muhitlar:** Kutubxona joylarini qulay, estetik jihatdan yoqimli va o'qish, o'rganish va hamkorlik qilish uchun qulay qilib loyihalash. Bunga qulay o'rindiqlar, tabiiy yorug'lik va tinch zonalar kiradi.

○ **Mavzuli o'qish burchaklari:** Ma'lum janrlar atrofida (masalan, fantastik o'rmon burchagi, tarixiy salon) o'qish tajribasini oshirish uchun mo'ljallangan maxsus bo'limlar yoki "burchaklar" yaratish.

○ **Shaxsiylashtirilgan tavsiyalar:** Kutubxonachi tajribasidan va ehtimol AI-ga asoslangan vositalardan foydalanib, individual o'qish tarixi va afzalliklariga asoslangan moslashtirilgan kitob takliflarini taqdim etish.

○ **Jamoat markazlari:** Kutubxonalarni nafaqat kitoblar joyi sifatida, balki jamoat yig'ilishlari, seminarlar, ma'ruzalar va fuqarolik ishtiroki markazlari sifatida joylashtirish, shu bilan odamlar oqimini va kitoblarga bo'lgan qiziqishni oshirish.

4. **Hamkorlik va sheriklikni rivojlantirish:**

○ **Maktab va universitetlarga chiqish:** Talabalarning kutubxonadan foydalanishini rag'batlantirish, o'quv rejasi ehtiyojlarini qo'llab-quvvatlash va akademik o'qishni targ'ib qilish uchun ta'lim muassasalari bilan dasturlar ishlab chiqish.

○ **Nashriyot va kitob do'konlari bilan hamkorlik:** Yangi nashrlarga erta kirish yoki mualliflar gastrollari uchun nashriyotlar bilan ishlash va qo'shma targ'ibot tadbirlari uchun mahalliy kitob do'konlari bilan hamkorlik qilish.

○ **Mahalliy bizneslar va notijorat tashkilotlari:** Tadbirlarni birgalikda targ'ib qilish va kengroq auditoriyaga yetib borish uchun boshqa jamoat tashkilotlari bilan hamkorlik qilish. Masalan, mahalliy qahvaxona bilan hamkorlik "O'qish va ichish" tadbiriga olib kelishi mumkin.



Samarali kitob targ'ibotining ta'siri

Kutubxonalar tomonidan muvaffaqiyatli kitob targ'iboti shunchaki kitob aylanish sonini oshirishdan ancha uzoqqa boradi. U shaxslar va jamiyatga butunligicha chuqur ta'sir ko'rsatadi:

- **Intellectual rivojlanish:** Tanqidiy fikrlashni rag'batlantiradi, so'z boyligini kengaytiradi va nuqtai nazarlarni kengaytiradi, bu esa yanada bilimli va tahliliy fuqarolarga olib keladi.
- **Madaniy merosni saqlash va uzatish:** Muhim adabiy asarlar va madaniy hikoyalarning avlodlardan avlodga o'tishini ta'minlaydi, bu esa umumiy meros hissinini shakllantiradi.
- **Empatiya va tushunish:** Turli xil kelib chiqishi bo'lgan hikoyalarni o'qish shaxslarga empatiyani rivojlantirishga, turli nuqtai nazarlarni tushunishga va madaniy nozikliklarni qadrlashga yordam beradi.
- **Umrbod ta'lim:** Doimiy o'qish va intellektual qiziqish odatini singdiradi, bu tez o'zgaruvchan dunyoda shaxsiy o'sish va moslashuvchanlik uchun zarurdir.
- **Jamoatchilikni shakllantirish:** Kutubxonalar va ularning targ'ibot faoliyati ko'pincha jamoat o'zaro aloqasi uchun asosiy nuqta bo'lib xizmat qiladi, ijtimoiy aloqalarni va umumiy qiziqishlarni rivojlantiradi.

Xulosa

Tobora raqamli va tezkor dunyoda kutubxonalarning **kitob targ'ibotidagi** roli nafaqat dolzarb, balki har qachongidan ham muhimroq bo'lib qolmoqda. Muhokama qilinganidek, kutubxonalar endi shunchaki kitoblarning passiv omborlari emas; ular o'quv, madaniy almashinuv va jamiyatni shakllantirish uchun dinamik markazlardir. An'anaviy usullarni raqamli yutuqlar bilan uyg'unlashtirgan innovatsion strategiyalar orqali samarali kitob targ'iboti individual intellektual o'sish va jamiyat taraqqiyotini qo'llab-quvvatlaydigan mustahkam mutolaa madaniyatini rivojlantirish uchun juda muhimdir. Raqamli platformalarni o'zlashtirib, qiziqarli tadbirlarni tashkil etish, o'zlarining jismoniy joylarini jozibador markazlarga aylantirish va strategik sherikliklarni yo'lga qo'yish orqali kutubxonalar turli auditoriya orasida o'qishga bo'lgan ishtiyoqni samarali ravishda qayta tiklashi mumkin. Ushbu sa'y-harakatlarning ta'siri oddiy savodxonlikdan tashqariga



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chiqadi; u **tanqidiy fikrlashni, empatiyani, umrbod ta'limni va madaniy merosni saqlashni** rivojlantiradi. Yakuniy tahlilda, kutubxonalar, o'zlarining maxsus kitob targ'ibot tashabbuslari orqali, bilimga muhim ko'prik bo'lib xizmat qiladi, o'qishning chuqur foydalari ma'rifatli ongini shakllantirishda va millatlar taraqqiyotini boshqarishda davom etishini ta'minlaydi. Ularning uzluksiz evolyutsiyasi va kitoblarni targ'ib qilishga sodiqligi bilim ochiq, tushuncha chuqurlashgan va intellektual qiziqish rivojlangan kelajakni qurish uchun ajralmasdir.



**YAKKASAROY TUMANIDA JOYLASHGAN ECO HOUSE TURAR JOY
MAJMUASINI LOYIHALASH UCHUN GEODEZIK ASOS YARATISH**

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Annotatsiya:

Maqolada turar joy majmualarini qurishda topografik geodezik ishlarni loyihasini ishlab chiqish ketma-ketligi keltirilgan, unda quyidagi masalalar hal etilishi ko'zda tutilgan: Turar joy binolarini loyihalash va qurishda geodezik rejalash ishlari haqida umumiy ma'lumotlar, ko'p qavatli binolarni loyihalashda 2-razryadli poligonometriya yo'lini o'tkazish va IV klass nivelirlash ishlari yoritilgan.

Аннотация: В статье представлена последовательность разработки проекта топографо-геодезических работ при строительстве жилых зданий, которая предусматривает решение следующих вопросов: общие сведения о геодезических планировочных работах при проектировании и строительстве жилых зданий, охватывающие проведение трассы полигонометрии в 2 разряда и нивелирных работ 4 класса при проектировании многоэтажных зданий.

Annotation: The article presents the sequence of development of the project of topographic and geodetic works during construction of residential buildings, which provides for the solution of the following issues: general information on geodetic planning works during design and construction of residential buildings, 2nd categories polygonometry way and 4th class leveling work in the design of a highway.

Kalit so'zlar: poligonometriya, nivelirlash to'ri, koordinatalar, elektron taxometr, geodezik asos, nazorat markalari.



Ключевые слова: полигонометрия, нивелирное сети, геодезические основание, электронный тахеометр, контрольные марки.

Keywords: polygonometry, leveling networks, coordinates, geodetic bases, level, total station, control marks.

Asosiy qism. Turar joy majmusaida geodezik asos yaratishdan asosiy maqsad ko'p qavatli turar joy binolarida geodezik ishlarni bajarish uchuna asos yaratishdan iborat. Ko'p qavatli turar joy binolari qurilishida geodezik asos yaratish uchun birinchi navbatda obyekt joylashgan hudud bilan tanishib chiqamiz, hududning geografik joylashuvi va hudud xarakteristikasini o'rganib chiqamiz. Undan so'ng joyda geodezik asos yaratish uchun oldin rekognossirovka ishlarini amalga oshiramiz. Rekognossirovka ishlarini bajarib bo'lgach, joy holatidan kelib chiqqan holda poligonometriya, triangulatsiya va triloteratsiya to'rlarini barpo qilish talab etiladi. Bizning hududimiz shahar sharoitiga mosligi va joyning kichikligidan kelib chiqqan holda 2-razryad poligonometriya tarmog'ini loyihalashdan boshladik. 2-razryad poligonometirya tarmog'i loyihalashda 6 ta punkt barpo qilindi. Undan so'ng obyekt maydonida aniqlikni oshirish maqsadida IV klass nivelirlash yo'lini barpo qildik. IV klass nivelirlash yordamida biz hududda 12 ta IV klass nivelir piketlarini qo'yib chiqdik. IV klass nivelirlash yo'lini GOL32D niveliri orqali bajardik. Nivelirlash tarmog'ini barpo qilgandan so'ng joyda topografik syomka ishlari olib borildi. Topografik syomka yordamida obyekt joylashgan hududning topografik planini yaratdik. Topografik syomka qilish uchun biz ELLIPS SR01 taxometridan va Auto Cad, Auto Cad Civil 3D dasturlaridan foydalandik. Topografik syomka natijalari yordamida joyning relyef holatini yaratdik. Joyning relyef holati 0,5 m kesimda amalga oshirildi. Geodezik ishlarni bajarib bo'lgach qilingan ishlarni hajmini hisoblash va ketgan ishchi kuchi, ish sifati, qilingan ishlarning moliyaviy hisobotini va smeta jadvalini tuzib chiqdik.

ECO HOUSE ko'p qavatli turar joy majmuasi Toshkent shahri Yakkasaroy tumanida joylashgan. Yakkasaroy tumani – Toshkent shahrining ma'muriy-hududiy tumanlaridan biri. 1981-yilda tashkil etilgan. Toshkent shahrining markaziy qismida joylashgan bo'lib, poytaxtning tarixiy va madaniy jihatdan muhim hududlaridan biri

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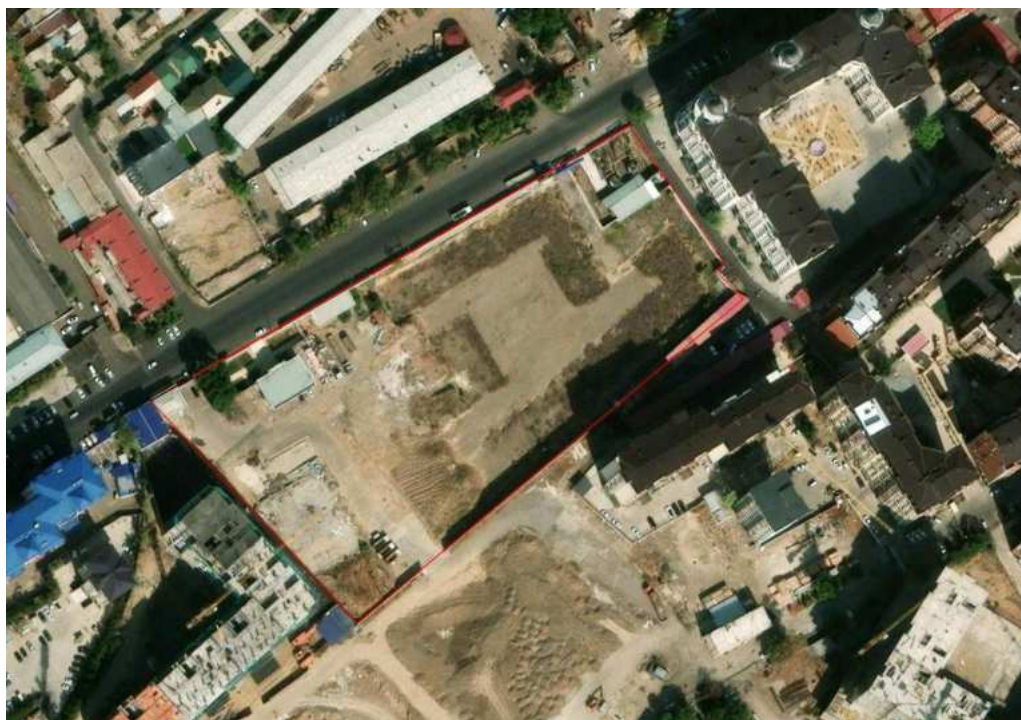
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hisoblanadi. Tuman sharqda Mirobod tumani, shimoli-gʻarbda Shayxontohur tumani, gʻarbda esa Chilonzor tumani bilan chegaradosh.

Yakkasaroy tumani maydoni nisbatan kichik boʻlib, 11,2 km² ni tashkil etadi. Aholi soni esa 2022-yil holatiga koʻra 182 ming kishidan ortiq. Aholi zichligi yuqori boʻlib, bir kvadrat kilometrda oʻrtacha 16 mingdan ortiq kishi toʻgʻri keladi..

Koʻp qavatli turar joy binolari qurilishida geodezik ishlarni olib borish uchun birinchi navbatda obyekt joylashgan hudud bilan tanishib chiqamiz, hududning geografik joylashuvi va hudud xarakteristikasini oʻrganib chiqamiz. Undan soʻng joyda geodezik ishlarni boshlashdan oldin rekognossirovka ishlarini amalga oshiramiz. Rekognossirovka – bu geodezik ishlarni bajarishdan oldin maydonni oʻrganish va dastlabki baholash jarayoni boʻlib, obyektning holati, relyefi, tabiiy va sunʼiy toʻsiqlari, kommunikatsiyalar, geologik va gidrologik sharoitlarini aniqlash uchun amalga oshiriladi. Bu jarayon loyihalash va qurilish ishlari uchun muhim bosqich hisoblanadi.



1-chizma. Toshkent shahri Yakkasaroy tumanida joylashgan
ECO HOUSE turar joy majmuasini joylashuvi

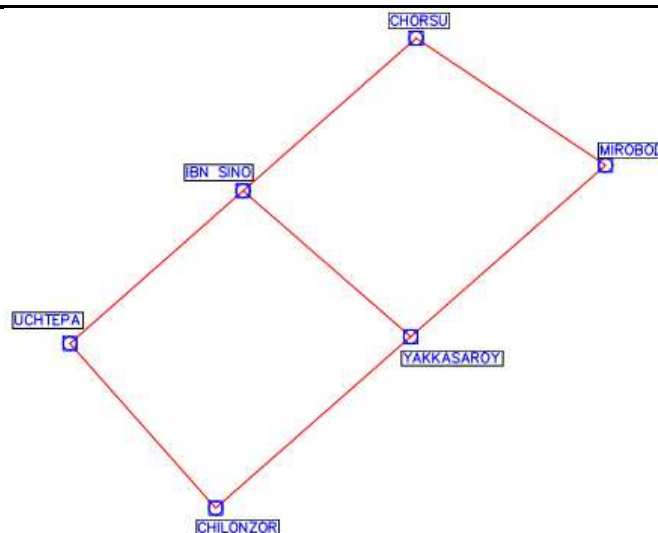


Qo'llaniladigan uslub va metodlar. Turar joy binolarini qurishda poligonometriya o'tkazish. "ECO HOUSE" turar joy binosida 2-razryad poligonometriya yo'li barpo qilindi. Boshqa asosiy geodeziya usullari: triangulyatsiya va triloteratsiya kabi poligonometriya usuli ham ma'lum bir ma'lumotnoma tizimida butun yer yuzasi bo'ylab geodezik tarmoqlarni shakllantirish jarayoni bo'lib, unga nisbatan barcha geodezik o'lchovlar amalga oshiriladi. Amalda, poligonometriya usuli texnik loyihada ko'zda tutilgan nuqtalar orqali poligonometrik o'tishlarni yotqizishdan, tomonlarning burchaklari va uzunliklarini o'lchashdan iborat. Bu o'tish joylarini bir-biriga ulash orqali geodeziya tarmoqlarini qurish mumkin.

Poligonometriya klasslari yopiq ko'pburchaklarni ifodalaydi. 2-klass poligonometriya triangulyatsiya ko'pburchagi ichida yoki yopiq 1-klass poligonometriya ko'pburchaklar tarmog'i shaklida quriladi.

Poligonometriya ishlari o'zining aniqlik darajasiga qarab razryadlarga bo'linadi: 2-razryad – eng yuqori aniqlikdagi ishlar, undan keyin 2-razryadlar turadi. 2-razryadli poligonometriya qurilishda tayanch tarmoq sifatida xizmat qiluvchi asosiy geodezik ishlar sirasiga kiradi. Ushbu razryaddagi ishlar yuqori aniqlikda amalga oshiriladi va millimetrgacha aniqlikda natija beradi. Shu bois, bu darajadagi o'lchovlar faqat malakali mutaxassislar tomonidan, zamonaviy geodezik uskunalar yordamida amalga oshiriladi.

2-razryadli poligonometriya ishlari bir necha bosqichda olib boriladi: tayyorlov ishlari, o'lchov ishlari, hisoblash ishlari va natijalarni rasmiylashtirish. Har bir bosqich o'zining texnik jihatlari bilan ajralib turadi. Tayyorlov bosqichida loyiha hududi aniqlanadi, tayanch nuqtalar joylashuvi rejalashtiriladi, uskunalar (teodolit, taxeometr, elektron masofa o'lchagich) tayyorlanadi. Shu bilan birga, joy tanlashda tekislik, ko'rish yo'nalishlari, xavfsizlik va yoritilish kabi jihatlar ham hisobga olinadi.

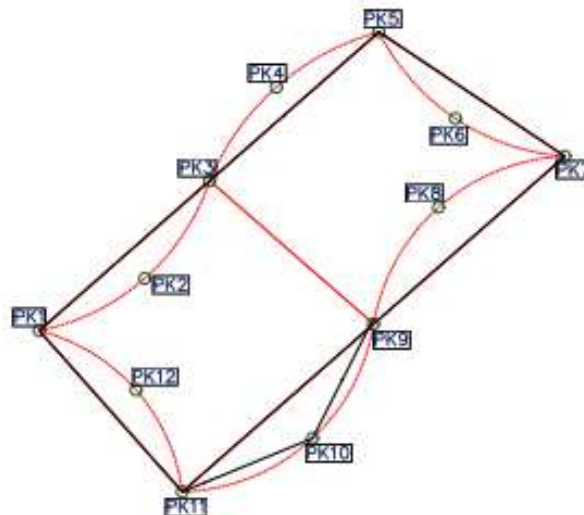


2-chizma. Yakkasaroy tumanida joylashgan ECO HOUSE turar joy majmuasining 2-razryadli [poligonometriya to'ri](#) sxemasi

“ECO HOUSE” turar joy binosini IV-klass nivelirlash ishlarini olib borish.

Davlat nivelir to'ri topografik plan olish va xalq xo'jaligi, davlat mudofasi talablarini ta'minlash uchun bajariladigan geodezik o'lchashlarning balandlik asosi hisoblanadi. Davlat nivelir to'ri I, II, III va IV klass nivelir to'rlariga bo'linadi. I va II klass nivelir to'rlari ilmiy masalalarni yechishda qo'llaniladi: dengiz va okeanlarning sathini aniqlashda, materiklarning asriy ko'tarilishi va cho'kishini, yer qimirlashda uning vertikal siljishini aniqlash bilan shug'ullanadi. III va IV klass nivelir to'rlari topografik plan olish va har xil injener qidiruv tadqiqot ishlari uchun balandlik asosi hisoblanadi. Davlat nivelir to'ri punktlari balandligi Boltiq dengizi sathiga nisbatan katta aniqlikda o'lchanadi. I va II klass nivelir to'ri iloji boricha temir yo'l, shosse va katta daryo qirg'oqlari bo'ylab 3000-4000 km perimetrl yopiq poligon ko'rinishida asosan temir yo'llar, avtomobil yo'llari yoki daryolar qirg'oqlari bo'ylab o'tkaziladi. III va IV klass nivelir to'rlari yuqori klass (I va II klass) poligonlari ichida o'tkaziladi. III klass nivelirlash poligonometriyasi 150 km. dan, IV klass nivelirlash yo'li uzunligi esa 50 km. dan oshmasligi kerak. Hamma klass nivelir yo'llari joyda doimiy belgi bilan har 5 km. da reperlar bilan joyda mahkamlanib boriladi. Seysmoaktiv hududlarda nivelir reperlari orasidagi masofa 2-3 km. dan oshmasligi kerak. Quyidagi nivelir belgilari turlari joyda (yerga

ko'miladi) mahkamlanadi: fundamental reperi, dala (gruntoviy) reperi, qoya (skalniy) reperi, devor(stenniy) reperi.



3-chizma. Yakkasaroy tumanida joylashgan ko'p qavatli turar joy majmuasining IV-klass nivelir yo'li sxemasi

Yakka nivelir yo'lida nisbiy balandlikni o'lchash jarayonidagi xatoliklar ta'sirida yo'l bo'yicha nisbiy balandliklarning yig'indisi boshlang'ich tayanch nuqtalarining balandliklar farqiga teng bo'lmaydi. Ushbu holda yuzaga keladigan bog'lanmaslik xatosi har bir seksiyaning teskari vaznlariga proporsional tarzda teskari ishora bilan tarqatiladi, ya'ni o'lchangan nisbiy balandliklarga tuzatmalar kiritiladi. Tenglashtirish bilan aniqlangan nisbiy balandliklar orqali oraliq reper balandliklarining ishonchliroq qiymatlari aniqlanadi. Yakka nivelir yo'lida dala o'lchash natijalari aniqligiga baho berish to'g'ri va teskari yo'nalish nisbiy balandliklari farqi bo'yicha amalga oshiriladi. yakka nivelir yo'lini tenglashtirishni konkret misolda ko'rib chiqamiz. Misolni yechish-hisoblash jarayonida zaruriy formulalarni va tushuntirishni keltirib o'tamiz. Misol: II-klass markalari oralig'ida o'tkazilgan III-klass yakka nivelir yo'lini tenglashtirish kerak. nivelir yo'li bo'yicha boshlang'ich ma'lumotlar va nisbiy balandliklar sxematik chizmada keltirilgan, ushbu masalani yechish tartibi maxsus tenglashtirish jadvaliga yozib boriladi.



Xulosa. “ECO HOUSE” ko‘p qavatli turar joy binosi qurilishida topografik geodezik ishlari bajarildi. 1 ta tayanch punktiga tayangan holda 2-razryadli poligonometriya yo‘llarini loyihaladik. 2-razryadli poligonometriya yo‘llarining umumiy uzunligi 0.604 km tashkil etildi. Planli asos to‘riga jami 6 ta 2-razryadli poligonometriya punkti loyihalandi.

Balandlik asosi loyihasi sifatida IV-klass nivelirlash yo‘llari barpo etildi. Nivelirlash to‘ri 12 ta nivelirlash yo‘llaridan tashkil topdi. Nivelirlash yo‘llari poligonometriya punktlari orqali o‘tkazildi. Nivelirlash yo‘llarining umumiy uzunligi 0.728 km ga teng.

Hisoblar natijasi loyihalangan IV- klass nivelirlash to‘rini aniqligi bo‘yicha talabga javob berishini ko‘rsatdi.

Loyihalashdagi geodezik asos yaratish ishlari muvaffaqiyatli yakunlandi. Barcha qo‘yilgan masalalar yechildi. 2-razryadli poligonometriya va 4- klass nivelirlash punktlari hudud bo‘yicha qoplandi. Xatoliklar talab doirasidan oshmagan holda aniqlandi. Geodezik asos yaratish davomida barcha ishlar inobotga olindi.

Foydalanilgan adabiyotlar:

1. Jurayeva X.D., Murodqulov L.M. GNSS qabul qiluvchilari haqida ma’lumot va ulardan foydalanish – TAQU, Toshkent, 2023, 265-271 b.
2. Jurayeva H.D, Yuldashev A.O. The Events and Their Types in Geodetic Measurements – “The Peerian Journal”, volume-12, Chexiya, 2022, 114–119 p.
3. Jurayeva H.D., Kelesbaev J.N, Geodezik, topografik va qurilish ishlari uchun mo‘ljallangan yuqori sifatli geodezik asboblarni ishlab chiqarilishi va tadbiq etilishi – “Arxitektura va qurilish sohasida innovatsiya, integratsiya, tejamkorlik” mavzusidagi xalqaro on-line ilmiy amaliy konferensiya, TAQI, Toshkent, 5-6may 2021yil, 224-227 b.
4. H.D. Jurayeva. “Geodetic monitoring for definition of deformation of engineering constructions” – International journal of scientific and technology research, ISSN: 2277-8616. Vol. 9, Issue 02, India – 2020. (Global Impact Factor, IF: 7.466. 1874-1875 pages.



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5. Juraeva X.D., Yuldashev A.O. Geodetic works with the help of global position systems – VIII xalqaro tadqiqot va amaliy konferensiya materiallar. Ta’lim tadqiqatlari va innovatsiyalari, Chili, 1-2 oktyabr 2019, 47-50 b.
6. Jurayeva H.D. Omonov I.X Yer sun’iy yo’ldoshlari – “O‘zbekiston Respublikasida Geodeziya, kartografiya va kadastr ta’lim yo‘nalishi bo‘yicha kadrlarni tayyorlash muammolari va yechimi” Respublika ilmiy-amaliy konferensiyasi. TAQI, Toshkent, 6-noyabr, 2018 yil, 33-35 b.
7. Raximov B.X. Bino va inshootlarni rekonstruksiya qilish. Tashkent. “Economy-Finance” 2008. 96 bet.
8. Jo‘rayev D.O. Geodeziya 2 qism. 77-bet. 2006. Toshkent. O‘zbekiston nashriyoti.
9. Инструкция построения государственной геодезической сети. М., Недра, 1966, 342 с.
10. Saidov B. M. Trimble M3 elektron taxeometri yordamida o‘lchangan natijalarni ishlab chiqish va joyning topografik planini yaratish //Internauka. – 2020. – №. 26-2. – S. 70-72.



MYOMA KASALLIGI: KELIB CHIQISHI, RIVOJLANISH OMILLARI VA DAVOLASH USULLARI

Talabasi: Ibrohimova Ziyoda

Ilmiy rahbar: Nabijonova Nazokat

Qo'qon universiteti Andijon filiali

Annotatsiya:

Ushbu maqola bachadon miomasining kelib chiqish tarixi, kasallikning rivojlanishiga olib keluvchi omillar va zamonaviy davolash usullarini qamrab oladi. Maqolada miomaning ilk bor qanday aniqlangani, uning patofiziologiyasi, genetik va gormonal faktorlar, shuningdek, medikamentoz, jarrohlik va boshqa yordamchi terapiyalar haqida ma'lumot beriladi. Maqola ginekologiya sohasidagi mutaxassislar, tibbiyot talabalari va keng jamoatchilik uchun mo'ljallangan bo'lib, ushbu keng tarqalgan ginekologik kasallik haqida chuqur tushuncha berishga qaratilgan.

Kalit so'zlar: Bachadon miomasi, mioma, bachadon fibromiomasi, ginekologiya, davolash, simptomlar, gormonal omillar, genetik moyillik, embolizatsiya, histerektomiya.

Annotation:

This article covers the history of uterine fibroids (myoma), factors contributing to its development, and modern treatment methods. It provides information on how myoma was first identified, its pathophysiology, genetic and hormonal factors, as well as medicinal, surgical, and other supportive therapies. The article is intended for gynecology specialists, medical students, and the general public, aiming to provide a deep understanding of this common gynecological condition.

Keywords: Uterine fibroids, myoma, uterine leiomyoma, gynecology, treatment, symptoms, hormonal factors, genetic predisposition, embolization, hysterectomy.



Kirish

Myoma kasalligining kelib chiqish tarixi: Myoma, ya'ni bachadon fibromiomasini, ayollar reproduktiv tizimining eng keng tarqalgan o'smalaridan biridir. Uning tarixi qadim zamonlarga borib taqaladi. Qadimgi yunon shifokorlari Gellenizm davridagi matnlarda bachadon o'smalari haqida qayd etishgan, ammo ularni to'g'ri tasniflashga muvaffaq bo'lishmagan. "Myoma" atamasi, ya'ni "mushak o'smasi" ma'nosini anglatadi, zamonaviy tibbiyotga XIX asrda kirib kelgan. Ilk bor XIX asrning o'rtalarida nemis patologiyasi Rudolf Virxov (Rudolf Virchow) bachadon miomasini "fibromioma" deb ta'riflagan va uning mushak to'qimalaridan kelib chiqqanligini ta'kidlagan.

Keyinchalik, XX asrning boshlarida miomaning gormonal bog'liqligi haqidagi gipotezalar paydo bo'ldi, bu esa kasallikning patofiziologiyasini tushunishda muhim qadam bo'ldi. Bugungi kunda mioma haqidagi bilimlarimiz genetik va molekulyar darajadagi tadqiqotlar tufayli sezilarli darajada kengaydi.

Kasallikning rivojlanish omillari

Myoma rivojlanishi murakkab jarayon bo'lib, unga bir qator genetik, gormonal va ekologik omillar ta'sir qiladi.

Gormonal omillar

Myoma rivojlanishida estrogen va progesteron gormonlari asosiy rol o'ynaydi. Mioma o'simalari gormonal faoliyatga ega bo'lib, estrogen va progesteron retseptorlarini o'z ichiga oladi. Homiladorlik, gormonal kontratseptivlarni qabul qilish yoki boshqa gormonal o'zgarishlar mioma o'sishini tezlashtirishi mumkin. Shuning uchun miomalar ko'pincha reproduktiv yoshdagi ayollarda uchraydi va menopauzadan keyin kichrayishga yoki o'sishini to'xtatishga moyil bo'ladi.

Genetik omillar

Tadqiqotlar miomaning oilaviy moyilligi borligini ko'rsatadi. Agar onada yoki opa-singillarda mioma bo'lgan bo'lsa, ayolda mioma rivojlanish ehtimoli ortadi. Ba'zi genetik mutatsiyalar, jumladan MED12 genidagi o'zgarishlar mioma rivojlanishi bilan bog'liq ekanligi aniqlangan. Bu genetik o'zgarishlar bachadon silliq mushak hujayralarining anormal ko'payishiga olib kelishi mumkin.

Boshqa omillar

- Yosh: Myoma ko'pincha 30-50 yoshdagi ayollarda uchraydi.



- Irq: Afro-amerikalik ayollarda mioma rivojlanish ehtimoli yuqoriroq va kasallik og'irroq kechishi mumkin.
- Semizlik: Tana vaznining yuqori bo'lishi estrogen darajasini oshirishi mumkin, bu esa mioma xavfini oshiradi.
- Ovqatlanish: Qizil go'shtni ko'p iste'mol qilish mioma xavfini oshirishi mumkin, meva va sabzavotlarga boy parhez esa xavfni kamaytirishi mumkin.
- Kofein va alkogol: Ba'zi tadqiqotlar kofein va alkogol iste'moli bilan mioma rivojlanishi o'rtasidagi bog'liqlikni ko'rsatgan, ammo bu borada aniq dalillar hali etarli emas.

Davolash usullari

Bachadon miomasini to'liq davolash hozircha mavjud emas, ammo simptomlarni boshqarish va bemorning hayot sifatini yaxshilashga yordam beradigan samarali davolash usullari mavjud. Davolash yondashuvi miomaning hajmi, joylashuvi, simptomlarning og'irligi, bemorning yoshi va homiladorlikni rejalashtirishiga qarab belgilanadi.

Medikamentoz terapiya

Gormonal dorilar: GnRH agonistlari (gonadotropin-relizing gormoni agonistlari) kabi dorilar estrogen va progesteron ishlab chiqarishni bostirib, miomalarning kichrayishiga yordam beradi. Biroq, ular nojo'ya ta'sirlarga ega bo'lib, uzoq muddatli foydalanish tavsiya etilmaydi. Selektiv progesteron retseptor modulyatorlari (SPRM): Ulipristal asetat kabi dorilar miomaning o'sishini to'xtatadi va qon ketishini kamaytiradi. Qon ketishini kamaytiruvchi dorilar: Traneksamik kislota va NSAIDlar (yallig'lanishga qarshi nosteroid dorilar) og'ir hayz qon ketishini kamaytirish uchun ishlatilishi mumkin.

Jarrohlik davolash

Jarrohlik miomaning kattaligi, joylashuvi va bemorning reproduktiv istaklariga qarab belgilanadi.

- Miyomektomiya: Bu jarrohlik usulida faqat miomalar olib tashlanadi, bachadon saqlanib qoladi. Bu, ayniqsa, kelajakda homiladorlikni rejalashtirayotgan ayollar uchun afzalroqdir. Miyomektomiya laparoskopik, histeroskopik yoki ochiq jarrohlik yo'li bilan amalga oshirilishi mumkin.



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- Histerektomiya: Bu bachadonni butunlay olib tashlash jarayonidir. Agar miomalar juda katta bo'lsa, ko'p bo'lsa, simptomlar og'ir bo'lsa va ayol homiladorlikni rejalashtirmasa, bu usul qo'llaniladi.
- Bachadon arteriyalarini embolizatsiya qilish (UAE): Bu invaziv bo'lmagan protsedura bo'lib, unda miomalarni qon bilan ta'minlaydigan arteriyalarga kichik zarralar yuboriladi. Bu zarralar qon oqimini to'xtatib, miomalarning kichrayishiga olib keladi.

Qo'shimcha va yordamchi terapiyalar

- Og'riqni boshqarish: Og'riq qoldiruvchi dorilar va issiq kompresslar og'riqni yengillashtirishga yordam berishi mumkin.
- Ovqatlanish va turmush tarzi: Sog'lom ovqatlanish, jismoniy faollik va stressni kamaytirish umumiy salomatlikni yaxshilashi mumkin.
- Anemiya profilaktikasi: Og'ir qon ketishidan kelib chiqqan anemiyani davolash uchun temir preparatlari tavsiya etilishi mumkin.

Myoma kasalligini davolashda doimiy tadqiqotlar olib borilmoqda va kelajakda yanada samarali, invaziv bo'lmagan davolash usullari paydo bo'lishi kutilmoqda.

Xulosa

Bachadon miomasi (fibromioma) ayollar reproduktiv tizimining keng tarqalgan, ammo murakkab kasalligi bo'lib, uning sabablari to'liq aniqlanmagan bo'lsa-da, gormonal nomutanosiblik va genetik omillarning o'zaro ta'siri kasallikning rivojlanishida muhim rol o'ynaydi. Bugungi kunda miomani to'liq davolash mavjud emas, ammo gormonal terapiya, miyomektomiya kabi jarrohlik usullari va bachadon arteriyalarini embolizatsiya qilish (UAE) kabi minimal invaziv protseduralar bemorlarning hayot sifatini sezilarli darajada yaxshilashga yordam beradi. Kasallikni boshqarishda individual yondashuv, simptomlarni nazorat qilish va asoratlarning oldini olish muhim ahamiyatga ega. Ushbu sohada olib borilayotgan doimiy ilmiy izlanishlar kelajakda kasallikning rivojlanishini to'xtatadigan yoki samaraliroq davolaydigan yangi usullarni yaratishga umid uyg'otadi.



Foydalanilgan adabiyotlar

1. Virchow, R. (1863). Die krankhaften Geschwülste. Hirschwald.
2. Buttram, V. C., & Reiter, R. C. (1981). Uterine leiomyomata: etiology, symptomatology, and management. *Fertility and Sterility*, 36(4), 433-445.
3. Myers, L. S., & Barker, F. G. (2006). A review of uterine fibroids. *Current Opinion in Obstetrics and Gynecology*, 18(2), 226-231.
4. Rein, M. S. (2000). Advances in uterine leiomyoma research. *Journal of the Society for Gynecologic Investigation*, 7(2), 118-125.
5. Wise, L. A., & Laughlin-Tommasetti, J. M. (2016). Epidemiology of uterine fibroids: a systematic review. *Fertility and Sterility*, 105(4), 931-940.
6. Donnez, J., & Jadoul, P. (2002). Uterine fibroids: management options. *Human Reproduction Update*, 8(2), 173-181.
7. Ravina, J. H., Herbreteau, A., Ciraru-Vigneron, A., et al. (1995). Arterial embolisation to treat uterine myomata. *Lancet*, 346(8976), 671-672.
8. Marret, H., Fauconnier, A., Chabbert-Buffet, N., et al. (2012). Clinical practice guidelines on menorrhagia: management of abnormal uterine bleeding before menopause. *European Journal of Obstetrics & Gynecology and Reproductive Biology*, 164(2), 133-138.
9. Stewart, E. A. (2015). Uterine fibroids. *New England Journal of Medicine*, 372(17), 1646-1655.
10. Lumsden, M. A., & Bates, M. (2010). The uterine fibroid problem: a review of the epidemiology, pathophysiology, and management. *Best Practice & Research Clinical Obstetrics & Gynaecology*, 24(5), 651-664.



DIRECTIONS FOR IMPROVING THE SUBSIDY SYSTEM FOR SOCIAL PROTECTION IN UZBEKISTAN

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ABSTRACT

The sphere of social protection is considered one of the priority directions of inclusive development, encompassing several pillars of the Sustainable Development Goals (SDGs). This article analyzes the state subsidy system in Uzbekistan aimed at ensuring social protection, employment, and entrepreneurship support to reduce poverty and unemployment. Comparative analysis with international experiences is also presented, along with conclusions and policy recommendations.

Keywords: Social protection, subsidies, employment, entrepreneurship support.

INTRODUCTION

The **economic role** and **impact of subsidies** are vital, as they help develop specific sectors by financially supporting the population and entrepreneurs engaged in those sectors. This, in turn, ensures job creation. Moreover, such support increases public trust in the government's social policy and raises awareness of the assistance being provided.

Government subsidies are allocated across various categories and mainly focus on key social sectors such as healthcare, education, housing (mortgages), utilities, and other socially significant areas.

MAIN PART

According to **international practice**, subsidies often cover part of the costs that vulnerable social groups are expected to pay—such as for education, healthcare, utilities, or mortgage loans. These may include covering the "down payment" or a



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portion of the interest. Most such subsidies aim to strengthen social protection and reduce poverty.

The **social subsidy system** operates based on relevant legal frameworks, which are regularly updated and improved based on internal and external needs.

- For example, **Kazakhstan** adopted the “Social Code of the Republic of Kazakhstan” in April 2023, regulating all social payments.
- In **Germany**, subsidies are governed by the Federal Law “On the Financing of General Affairs.”
- In other countries, such as the U.S., Japan, and Russia, subsidies are regulated by national legislation and specific government programs.

In line with **global practice**, local authorities can adopt normative documents for their jurisdictions, provided they do not contradict national laws. Local governments in countries like the U.S., Germany, Japan, and Russia have developed plans and programs implemented by designated territorial bodies.

The **amount of subsidies** per individual or business varies by country and is often determined based on the cost of a basic consumption basket or the minimum wage.

- For example, in **Kazakhstan**, subsidy amounts must not be less than 20 times the monthly calculation index used for fines and fees (in 2023, this was 69,000 tenge or ~\$153).
- In **Belarus**, unemployed citizens registered as aspiring entrepreneurs are granted a one-time subsidy equal to 11 times the minimum consumption expenditure (~\$1,300).
- In **the UK**, low-income families receive “Universal Credit” to help pay for heating and housing. More than 8 million families receive a one-time payment of £650 annually from the government.
- In **the U.S.**, the 2024 state budget allocates \$787 billion for social programs, of which \$25 billion (3.2%) is planned specifically for subsidies to vulnerable groups.

The spread of **digital technologies** is creating new opportunities to systematize subsidy management:

- **Kazakhstan** has introduced a “Digital Family Card.”



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- “Smart Data Ukimet” in Kazakhstan and **South Korea**’s “Happiness Connect System” are unified monitoring platforms for subsidies.
- However, many developed countries, including **Russia** and the **U.S.**, have yet to implement a single unified platform for all citizens.

Subsidies are becoming increasingly common in developed countries as a method of social protection and are being constantly refined.

In **Kazakhstan**, subsidies are primarily directed toward agriculture and supporting low-income citizens through social benefits. In 2023, the state allocated \$1.1 billion to agricultural subsidies, which is expected to increase to \$1.2 billion in 2024.

In **Uzbekistan**, state subsidies are allocated to support employment and entrepreneurship. The **table below** summarizes the classification of 2024 subsidies:

Table 1: Classification of Subsidies in Uzbekistan in 2024 for Employment and Entrepreneurship Support

No	Direction	No. of Subsidy Types	For Individuals	For Legal Entities
1	Agricultural development	39	9	30
2	Employment and support for vulnerable entrepreneurship	39	30	9
3	Livestock, fishery, and poultry	14	1	13
4	Export-oriented businesses	34	13	21
5	Tourism development	7	0	7
6	Education sector development	16	1	15
7	Compensation for transport service losses	6	0	6
8	Housing for social support	1	1	0
9	Support for Karakalpakstan's population and businesses	4	4	0
	Total	160	59	101

In 2024, the state bodies responsible for subsidy allocation in Uzbekistan vary. The **Export Promotion Agency** and the **Ministry of Poverty Reduction and Employment** manage the largest shares:



Table 2: Breakdown of Subsidies in 2024 by Responsible Government Agencies

№	Ministry/Agency	No. of Subsidy Types	For Individuals	For Legal Entities
1	Ministry of Preschool and School Education	8	0	8
2	Ministry of Economy and Finance	1	1	0
3	Ministry of Poverty Reduction and Employment	27	20	7
4	Ministry of Higher Education, Science and Innovation	6	1	5
5	Ministry of Water Resources	1	0	1
6	Ministry of Culture and Tourism	7	0	7
7	Ministry of Agriculture	6	0	6
8	Ministry of Investments, Industry and Trade	4	0	4
9	State Committee for Veterinary and Livestock Development	11	0	11
10	Committee for the Development of Sericulture and Wool Industry	10	1	9
11	Agency for Agricultural Services	11	0	11
12	Export Promotion Agency	29	13	16
13	Youth Affairs Agency	19	19	0
	Total	160	60	100

The analysis shows that the majority of subsidies are directed toward employment support, entrepreneurship development, compensation for energy and utility services, and education-related expenses.

Now let us examine **international practices**.

In most developed countries, state subsidies are not provided directly in cash but are delivered in the form of:

- Tax incentives and deductions;
- Partial compensation for services (e.g., housing or energy bills);



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- Targeted support for vulnerable groups (e.g., single mothers, the elderly, people with disabilities);
- Subsidized loans or interest rate support;
- Support for employment and professional retraining.

For instance:

- In **Germany**, social subsidies are provided through the "Hartz IV" system, which includes housing rent assistance, health insurance, and minimum income guarantees.
- In **the USA**, federal programs like SNAP (food stamps) and Medicaid target low-income groups through digital cards and direct service access.
- In **South Korea**, subsidies are increasingly digitalized and allocated based on individual needs, including subsidies for youth employment and affordable housing.
- In **Turkey**, the government uses targeted social support mechanisms, including electronic monitoring of income levels to ensure fair distribution.

Key features of these international systems include:

- Use of digital databases for need-based targeting;
- Strong inter-agency coordination;
- Periodic reassessment of recipients' economic status;
- Accountability and transparency mechanisms in subsidy allocation.

What can be learned for Uzbekistan?

While Uzbekistan has significantly advanced in expanding subsidy programs, several key improvements could be made:

1. **Digitalization and targeting:** Introduce a fully integrated digital platform that collects real-time data on income, employment, and family status for accurate targeting.
2. **Gradual reduction of inefficient subsidies:** Phase out broad subsidies that benefit high-income groups and reallocate them toward vulnerable populations.
3. **Improved monitoring:** Establish an independent monitoring system to evaluate the effectiveness of subsidies and their impact on poverty reduction.
4. **Expansion of non-cash support:** Increase the use of subsidies in the form of tax incentives, service vouchers, and conditional support.



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5. **Public awareness and transparency:** Publish regular reports on subsidy distribution and develop public engagement tools to ensure that citizens are informed and can provide feedback.

CONCLUSION

The role of subsidies in Uzbekistan remains essential for inclusive development, supporting employment, reducing poverty, and ensuring social protection. However, drawing on international experience and embracing modern digital, transparent, and targeted subsidy mechanisms will be vital to improving the system's efficiency and equity. Uzbekistan has a strong opportunity to lead among developing nations in building a modern social protection subsidy system.

References

1. Jumamuratov B.J. "Issues of improving internal audit in budget organizations." // Finance and banking. Electronic scientific journal. 2/2019, 80 p.
2. Kadirov, A., Kh, R., Niyazov, M., & Sh, D. (2020). Improvement of the internal audit and performance of expenditures to budget organizations. Norwegian Journal of Development of the International Science, (49-2), 22-25.
3. Kh, R., Turgunov, T., & Rakhmanov, B. (2020). International experience of local budget management and its directions for application in the country. Norwegian Journal of Development of the International Science, (49-2), 25-27.



**THE ROLE AND PROSPECTS FOR THE USE OF ARTIFICIAL
INTELLIGENCE IN THE DEVELOPMENT OF THE POSTAL AND
PARCEL INDUSTRY IN THE REGION**

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Annotation:

This article examines the impact of artificial intelligence (AI) on the postal and parcel industry in the region, analyzes the current challenges in solving the problems of developing new directions in this area, and develops proposals for the future use of artificial intelligence in postal services.

Keywords: postal, artificial intelligence, parcel, automation, robotics, logistics, warehousing, transportation.

**Mintaqada sun'iy intellektning pochta va posilka sanoatini rivojlantirishda
tutgan o'rni va foydalanish istiqbollari**

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Annotatsiya: Ushbu maqolada mintaqada pochta va posilka sanoatiga sun'iy intellekt (AI)ning ta'siri o'rganilgan va bu sohada yangi yo'nalishlarni ishlab chiqish muammolarini hal qilishning dolzarb vazifalari tahlil qilingan bo'lib, istiqbolda pochta xizmatlarida sun'iy intellektdan foydalanish bo'yicha takliflar ishlab chiqilgan.

Kalit so'zlar: pochta, sun'iy intellekt, posilka, avtomatlashtirish, robototexnika, logistika, ombor, transport.



**Роль и перспективы использования искусственного интеллекта в
развитии почтово-посылочной отрасли региона**

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Аннотация: В статье рассматривается влияние искусственного интеллекта (ИИ) на почтово-посылочную отрасль региона, анализируются текущие проблемы решения задач развития новых направлений в этой сфере, а также разрабатываются предложения по перспективному использованию искусственного интеллекта в почтовых услугах.

Ключевые слова: почта, искусственный интеллект, посылка, автоматизация, робототехника, логистика, складирование, транспортировка.

INTRODUCTION.

Artificial intelligence is not a new concept to us today. The past decade has seen rapid growth in AI with rapid investment. Artificial intelligence (AI) has become ubiquitous around the world, and the fact that investment in AI is expected to increase by 62% to \$110 billion¹ by 2024 is a testament to how quickly this field is becoming a part of our lives. Artificial intelligence can be applied in many areas, including: transportation, manufacturing, healthcare, education, media, and customer service. In the logistics and supply chain sector, companies are using artificial intelligence to improve and automate the process of creating supply chains. Artificial intelligence (AI) can automate supply chain processes such as demand forecasting, predictive maintenance, and production planning. Global e-commerce platforms are growing at an unprecedented rate as more and more people love to

¹ <https://techcrunch.com/2025/02/11/ai-investments-surged-62-to-110-billion-in-2024-while-startup-funding-overall-declined-12-says-dealroom/#:~:text=AI-,AI%20investments%20surged%2062%25%20to%20%24110B%20in%202024,startup%20funding%20overall%20declined%2012%25&text=Venture%20capitalists%20are%20gobbling%20up,the%20wider%20spectrum%20of%20technology.>



shop online. Instead of spending time and effort going to the store to shop, they can buy everything on e-commerce sites and have the purchased products delivered to their home within a few days. The overall goal of the research is to identify the important role of artificial intelligence in the postal and parcel industry, identify the benefits of AI for the logistics industry, how AI affects the sorting process, as well as identify the final destination and risk when implementing artificial intelligence.

LITERATURE ANALYSIS

A number of scientists have conducted cutting-edge scientific research on the effectiveness of using artificial intelligence and digital technologies in the development of postal communication services. For example: Russell S. in his study “Artificial Intelligence: A Modern Approach” focused on solving problem situations and automatically planning work processes through artificial intelligence[1], Poole D. in his study “Computational Intelligence: A Logical Approach” studied the formation of the ability to perceive the environment using artificial intelligence and the formation of the ability to think about the information received during the work process [2], Agrawal, A. in his study “Studying the Impact of Artificial Intelligence: Prediction and Reasoning, Information Economics and Politics” paid special attention to the fact that artificial intelligence not only predicts the outcome of the work, but also makes decisions about the work planned to be performed with its help[3]. Oskars Vismanis In his research, "Robotic System for Post Office Package Processing," focused on the effective use of artificial intelligence in sorting mail and parcels[4]. A number of studies on postal services have also been conducted by several scientists in Uzbekistan. For example, T.Z. Teshabayev, in his research paper “Problems and Prospects for Creating a Digital Ecosystem in the Postal Service of Uzbekistan” [5], touched upon the effectiveness, problems, and analyses of the use of digital technologies in the provision of postal services in Uzbekistan. During this research, conclusions and recommendations were developed, examining how to increase the effectiveness of artificial intelligence in developing the postal and parcel industry in the region.



RESEARCH METHODOLOGY

Focuses on the role of artificial intelligence (AI) in studying the impact of postal services on economic growth in Uzbekistan. The study used analytical methods and statistical analysis. Local and international research and statistical data are used as an empirical base. The results of this study serve as a basis for developing practical recommendations for improving postal services, introducing digital innovations, and developing the postal sector in the country.

RESULTS AND DISCUSSION

The digital revolution has had and continues to have a profound impact on every industry and profession in the world. The global postal industry is also being impacted by electronic exchange services and e-commerce, and is witnessing a decline in mail volumes, negatively impacting postal revenues. But it is the development of alternative electronic services and e-commerce that is creating many opportunities for the postal sector, and postal companies around the world are creating a huge number of small packages and letters that they need to deliver to consumers door-to-door. According to experts from the Universal Postal Union (UPU), under market pressure, postal services in many countries quickly innovated and introduced a wide range of digital postal services in 4 main groups: e-mail and e-government services, e-commerce, payment, e-financial solutions, and support services, with e-government support services and e-commerce being effectively implemented in many countries.

AI is also revolutionizing the postal system. Today, most postal operators use barcodes as postage stamps. This records information about sender and recipient addresses, as well as customer requests for delivery type, such as priority or standard mail. This allows for faster sorting, additional reliability, and reduced labor at postal centers. Some operators, such as USPS, the Italian Post Office, and DHL, are already using a very new technology in their postal systems - Radio Frequency Identification (RFID).² Although currently more expensive and less environmentally friendly than barcodes, this presents an opportunity for the postal sector to be innovative. Radio-

² <https://www.idtechex.com/en/research-report/rfid-for-postal-and-courier-services-2011-2021/253>



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ID allows for real-time tracking of letters. It can detect delays in letters and parcels, and find solutions to improve performance. In addition, thanks to artificial intelligence, postal operators hope to revolutionize logistics. The new strategy involves vehicles, letter boxes, and even each piece of mail being tagged with an RFID or barcode. Using detectors at the sorting center, the information about the mailing address or its address is sent to a server. Centralizing information in real time allows for better resource allocation. For example, vehicles are automatically registered when entering a sorting center's warehouse and then routed to an empty lot.

The fact that 78% of global companies in the world currently use artificial intelligence or 82% of global companies are exploring the use of artificial intelligence in their organizations, and that the global artificial intelligence market is expected to reach \$1.85 trillion by 2030³, indicates how important artificial intelligence is becoming for any industry.

Today's mail sorting technologies include advanced optical character recognition (OCR)⁴, which allows the machine to classify handwriting to understand printed letters and addresses. This allows the machine to classify handwriting to understand printed letters and addresses. For example, the sorting technology developed by Siemens, currently used by Deutsche Post, can read 90 percent of handwritten addresses.[6]

Many postal service providers in our country, including Uzbekistan Post JSC and BTS Express Cargo Service LLC, have implemented technologies that include software and devices that allow for full control of the process from the moment a shipment is received to its delivery to the customer, operating online.

Another important step in the postal industry is the use of barcodes. Every year, millions of letters and parcels are sent by postal companies. Therefore, a convenient technology is needed to optimize the time, effort and money spent on monitoring and tracking them. Barcodes are emerging to solve this problem. Barcodes use

³ <https://explodingtopics.com/blog/companies-using-ai>

⁴ [https://www.charactell.com/resources/ocr-in-postal-services-and-shipping/#:~:text=Optical%20Character%20Recognition%20\(OCR\)%20is,as%20other%20types%20of%20documents.](https://www.charactell.com/resources/ocr-in-postal-services-and-shipping/#:~:text=Optical%20Character%20Recognition%20(OCR)%20is,as%20other%20types%20of%20documents.)

different encoding or symbology protocols, which differ in terms of usage restrictions or standardization.

Barcodes are designed to solve this problem. Barcodes use a variety of encoding or symbology protocols, which vary in terms of usage restrictions or standardization. Shtrix kodlari bu muammoni hal qilish uchun paydo bo'ladi.

Figure 1

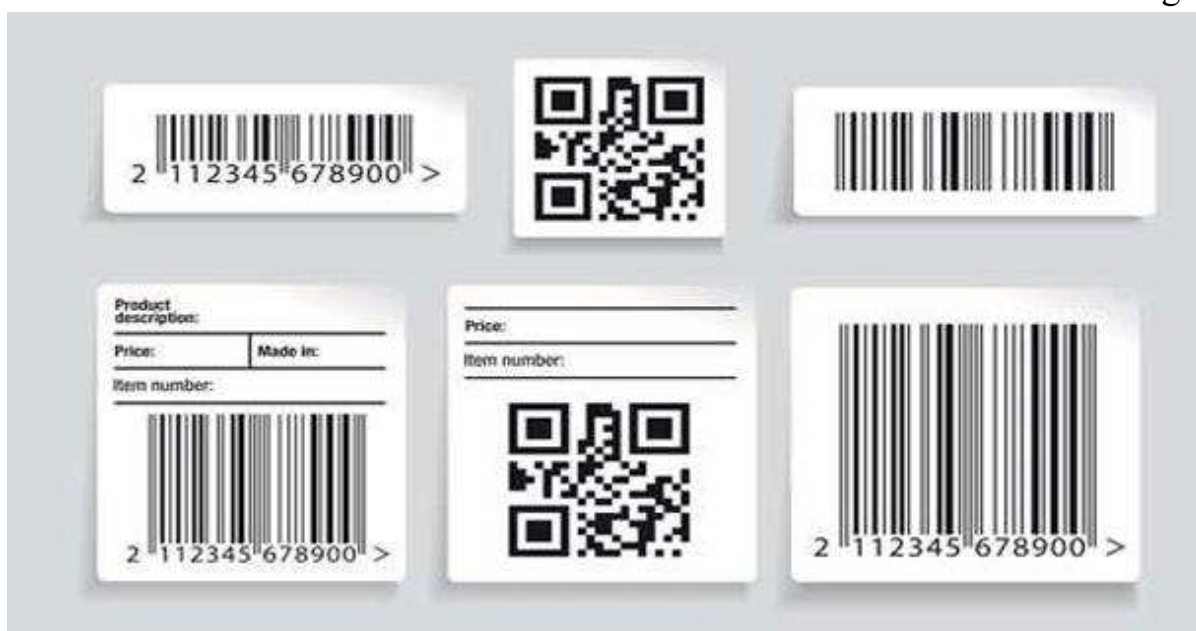


Figure 1. Examples of barcodes used in postal services

There are two most commonly used types of barcodes: One-dimensional or linear barcodes: they are codes represented by a series of parallel lines of varying thickness with a one-dimensional readout. And two-dimensional barcodes: they use different symbols (rectangles, dots, hexagons and other geometric shapes). This matrix format allows for the recording of additional information.

Recent developments in robotics could be a game-changer for the logistics industry. Robots can now recognize, select, manipulate and place a variety of objects at different locations. The technologies developed in recent years have proven to be essential in overcoming the challenge and will enable further advances in logistics and possibly adapt to the demands of other industrial applications, thereby increasing productivity, reliability and profitability. The advantage of this solution is that, in addition to increasing productivity (the robot, for example, does not need

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to eat, take breaks or work out) and accuracy, it also preserves the condition of the packages in the first place, as the robot uses a simple lift and deposit mechanism rather than carelessly dropping the package.

Amazon has 750,000 Kiva robots in its warehouses. These are robots that move shelves toward operators. These autonomous robots walk on a floor covered with QR codes, which allows them to locate themselves in order to transport shelves containing products to customers. Each robot can carry up to 26,500 kg and has an autonomy of 4 to 5 hours on a 5-minute charge. Thanks to this, Amazon has reduced human labor in the warehouse by 70 percent.⁵

Figure 2



Figure 2. Kiva robots in an Amazon warehouse

Today, many courier services calculate their freight rates not only based on the actual weight of the item being transported, but also on its volume or density. If the specific gravity or mass exceeds the actual weight, shipping or freight charges are calculated based on this.

CONCLUSIONS AND SUGGESTIONS

Based on the above information, we can conclude that the integration of advanced technologies such as robotics and artificial intelligence in the provision of postal services in our country will lead to a significant increase in the quality and timeliness

⁵ <https://www.aboutamazon.com/news/operations/amazon-robotics-robots-fulfillment-center>



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of postal services in our country if the stability of postal services is focused on efficiency, transparency, and customer satisfaction, and if such technologies are used in all enterprises providing postal services. In particular, as we have seen in our research, by using artificial intelligence or robotics, which are used by many advanced postal service providers around the world, postal service providers in the region can achieve the following:

- AI technologies can help postal operators optimize logistics processes, improve customer relationships, and diversify their business;
- Security and privacy measures: Ensuring the security and privacy of postal items is becoming increasingly important. This is why, with the help of artificial intelligence, postal operators can implement security measures such as encryption, tamper-resistant packaging, and secure delivery methods.

As the industry continues to adapt to the demands of a digital world, collaboration, innovation, and a commitment to sustainable practices will be essential in shaping the future of postal automation in the country.

References:

1. Russell S, Nerving P. Artificial intelligence: a modern approach. 3rd ed. New Jersey: Pearson Education; 2010.
2. Poole D, Mack worth A, Goebel R. Computational intelligence: a logical approach. New York: Oxford University Press; 1998.
3. Agrawal, A., Ganz, J. S. and Goldfarb, A. (2019), Exploring the impact of artificial Intelligence: Prediction versus judgment, Information Economics and Policy, 47, pp. 1–6. doi: 10.1016/j.infoecopol.2019.05.001.
4. Oskars Vismanis Robotic System for Post Office Package Handling, 28 June 2023.
5. T.Z. Teshabayev, Z.M. Otakuziyeva, Sh.I. Bobokhujaev “Problems and Prospects of Creation of Digital Ecosystem in Postal Service of Uzbekistan” ISBN: 978-94-6252-676-1, ISSN: 2352-5398 Published by Atlantis Press, February 2019
6. Siemens Postal, Parcel & Airport Logistics, <https://www.siemens-logistics.com/en/>



COMPARATIVE ANALYSIS OF TRANSPIRATION IN POTATO GENOTYPES UNDER IN VITRO AND IN VIVO CONDITIONS

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ABSTRACT

This study investigated the process of transpiration in plants under in vitro (laboratory) and in vivo (natural) conditions using four genotypes: S-46, S-73, S-55, and S-17. Results demonstrated that the transpiration rate was significantly higher in vivo compared to in vitro. The highest rate was observed in genotype S-17, indicating its superior adaptability to environmental stresses such as drought and salinity. The study highlights the importance of understanding plant water regulation mechanisms under varying conditions and presents genotype S-17 as a promising candidate for cultivation in arid and saline soils.

Keywords: Transpiration, in vitro, in vivo, plant genotypes, water balance, salinity stress, drought tolerance, physiological response.

INTRODUCTION

Potato (*Solanum tuberosum*.) is one of the most important agricultural crops for global food production, and it is obtained by increasing the yield of these crops through flood and biotechnological methods. Biotechnological diseases, especially in vitro and in vivo conditions, are developing more efficient production of potato products. These processes have advantages such as controlling plants in sterile environments, maintaining genetic diversity, and developing new varieties. Many products have been made available to these computers, and they have analyzed potatoes in depth. However, the development of potatoes in vivo is strongly



influenced by natural soil-climate factors. Studies conducted by MacKerron and Waister (1985) examined how nutrient factors (nitrogen, potassium) and temperature in the soil affect growth processes. This research indicated that improving nutrient availability criteria for potatoes could enhance yield [5]. Additionally, studies by Iwama (2008) demonstrated that soil moisture and the level of saturation with organic matter significantly impact the plant's root system [6]. Transpiration is a key physiological process in plants, involving the loss of water vapor through stomata, which plays a crucial role in maintaining water balance, regulating temperature, and transporting nutrients within the plant (Taiz & Zeiger, 2010). The rate of transpiration is influenced by both genetic and environmental factors, such as temperature, humidity, light intensity, and soil composition. Global agricultural productivity is increasingly threatened by abiotic stresses, particularly drought and soil salinity (FAO, 2023). Therefore, identifying genotypes that can maintain physiological function and growth under these conditions is essential for sustainable agriculture. This study compares the transpiration rates of different plant genotypes under controlled (in vitro) and natural (in vivo) conditions, aiming to assess their adaptability and stress tolerance.

MATERIALS

Plant Material: Four genotypes were selected for the study: S-46, S-73, S-55, and S-17. These genotypes are known for their potential adaptability to saline and drought-prone environments in Uzbekistan.

In Vitro Conditions: Plants were grown in sterile Murashige and Skoog (MS) medium under controlled conditions. Light cycle: 16 hours light / 8 hours dark. Temperature: maintained at 25°C. Transpiration rates were measured using a stomatal chamber method and expressed in mg H₂O/cm²/hour.

In Vivo Conditions: Experiments were conducted in the naturally saline soils of Bukhara region. Soil salinity: 5–7 dS/m, Ambient temperature: 35–40°C, Relative humidity: 25–30%. Transpiration was measured using gravimetric methods over the growing season. **Statistical Analysis:** Each measurement was repeated five times. Data are expressed as mean ± standard deviation. Statistical analysis was conducted using ANOVA ($p < 0.05$ considered significant).

RESULTS

Table 1. Transpiration Rate (mg H₂O/cm²/hour) Genotype In vitro In vivo

Genotype	Transpiration (<i>in vitro</i>)	Transpiration (<i>in vivo</i>)
S-46	2,30 ± 0,15	3,50 ± 0,21
S-73	2,20 ± 0,14	3,40 ± 0,19
S-55	2,10 ± 0,13	3,35 ± 0,18
S-17	2,35 ± 0,16	3,60 ± 0,22

The results clearly indicate that all genotypes showed significantly higher transpiration rates in vivo compared to in vitro conditions. Genotype S-17 exhibited the highest transpiration rate in both conditions, particularly in vivo (3.60 mg H₂O/cm²/hour), suggesting a strong physiological response to environmental stressors.

DISCUSSION

These findings align with previous studies by Slatyer and McIlroy (1961), which demonstrated that high temperatures and low humidity significantly enhance transpiration. The increased transpiration under in vivo conditions can be attributed to environmental factors such as elevated temperature, high light intensity, and soil salinity, which increase evaporative demand. Genotype S-17's high transpiration rate may be due to its well-developed root system and efficient water uptake mechanisms, allowing it to maintain growth and physiological functions under stress. The ability to lose more water while sustaining biomass suggests a functional balance between water acquisition and loss. Under in vitro conditions, the lower transpiration rates are attributed to the controlled, low-stress environment where stomatal activity and water loss are minimized. Nutrient availability, light intensity, and spatial limitations further restrict plant growth and physiological responses. The results from Trejo-Tapia et al. (2002) similarly support the notion that in vitro-grown plants exhibit reduced transpiration due to minimized environmental stressors and regulated humidity levels.



CONCLUSION

Transpiration is a critical indicator of plant adaptability to environmental stresses such as drought and salinity. The study demonstrated that transpiration rates are consistently higher under in vivo conditions due to greater environmental pressures. Among all genotypes tested, S-17 showed superior physiological performance, particularly in natural conditions, with the highest transpiration rate and signs of strong stress tolerance. S-17 is recommended as a promising candidate for cultivation in arid and saline regions due to its efficient water management and adaptability. Future studies should focus on molecular and genetic analyses of transpiration-related traits to better understand the mechanisms behind stress resilience and to enhance plant breeding programs targeting harsh climates.

REFERENCES

1. Murashige, T., & Skoog, F. (1962). A revised medium for rapid growth and bioassays with tobacco tissue cultures. *Physiologia Plantarum*, 15(3), 473-497.
2. George, E. F., & Sherrington, P. D. (1984). *Plant Propagation by Tissue Culture*. Exegetics, Ltd.
3. Trejo-Tapia, G., et al. (2002). Effect of phytopathogens on the growth of potato in vitro. *Plant Science*, 163(1), 143-150.
4. Rocha-Sosa, M., et al. (2013). Hormonal regulation of potato tissue culture. *Journal of Plant Growth Regulation*, 32(2), 255-262.
5. MacKerron, D. K., & Waister, P. D. (1985). The effects of nitrogen and potassium fertilizers on the growth of potatoes. *The Journal of Agricultural Science*, 105(3), 391-398.
6. Iwama, K. (2008). Physiology of the Potato: New Insights into Root System and Adaptation. *American Journal of Potato Research*, 85(1), 39-50.
7. Levy, D., & Veilleux, R. E. (2007). Adaptation of potato to high temperatures and salinity—A review. *American Journal of Potato Research*, 84(6), 487-506.
8. Litaladio, N., & Demirel, Z. (2007). Potato cultivation in saline soils. *Agricultural Water Management*, 89(3),
7. Levy, D., & Veilleux, R. E. (2007). Adaptation of potato to high temperatures and salinity—A review. *American Journal of Potato Research*, 84(6), 487-506.



TALABALARGA DASTURLASHNI O'RGATISHDA SUN'IY INTELLEKTNI QO'LLASH TEZIS

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Bugungi raqamli asrda dasturlashga bo'lgan ehtiyoj kun sayin ortib borayotgan bir vaqtda, an'anaviy o'quv yondashuvlari talabalarni zamonaviy texnologik muhitga to'laonli tayyorlay olmaydi. Shunday bir muhitda sun'iy intellekt texnologiyalarini ta'lim jarayoniga integratsiyalash – o'quvchilarning nafaqat bilim darajasini, balki mustaqil fikrlash, algoritmik tafakkur va muammolarni hal qilish ko'nikmalarini sezilarli darajada rivojlantiradi. Bu tezisda talabalarga dasturlashni o'rgatishda AI (sun'iy intellekt) yordamida interaktiv darslar, avtomatik tahlilchi tizimlar, kod yozishdagi real vaqtli maslahatlar va moslashtirilgan o'quv yo'nalishlaridan foydalanish samarasi yoritiladi. Tadqiqotlar shuni ko'rsatadiki, AI yordami bilan o'qitilgan guruhda o'zlashtirish darajasi 38 foizga yuqori bo'lgan, bu esa sun'iy intellekt dasturlarini ta'limga joriy etish zaruriyatini tasdiqlaydi.

ANNOTATSIYA

Mazkur ishda dasturlash fanini o'rganayotgan talabalar uchun sun'iy intellekt texnologiyalaridan foydalanish orqali ta'lim samaradorligini oshirish masalalari tahlil qilingan. Xususan, individual yondashuv, AI asosidagi tahlilchi vositalar va kodlashtirishni tezlashtiruvchi tizimlar misolida real natijalar ko'rsatib berilgan. Shuningdek, sun'iy intellekt yordamida o'quvchilar faoliyatini monitoring qilish, kamchiliklarni aniqlash va moslashtirilgan topshiriqlar berish imkoniyati orqali dasturlash ta'limi samarali yo'nalishga olib chiqilishi ko'rsatildi.

Kalit so'zlar: sun'iy intellekt, dasturlash ta'limi, interaktiv dars, AI texnologiyalari, avtomatik tahlil, individual yondashuv, o'quv monitoringi, kod yozish algoritmlari



KIRISH

Raqamli transformatsiya zamonaviy ta'lim tizimini tubdan o'zgartirib yubordi. Endilikda bilim berish faqatgina ma'lumot yetkazish bilan emas, balki shaxsiylashtirilgan, adaptiv va interaktiv o'quv jarayonlarini tashkil qilish bilan bog'liq bo'lib qoldi. Dasturlashni o'rganish esa ushbu o'zgarishlarning eng oldingi saflarida bormoqda. Chunki dasturlash — bu nafaqat texnik ko'nikma, balki analitik tafakkur, tizimli yondashuv va ijodiy fikrlashni shakllantiruvchi muhim vositadir. Sun'iy intellekt (SI) bugungi kunda ta'lim sohasiga eng faol kirib kelayotgan innovatsiyalardan biridir. Dasturlashni o'rgatishda SI texnologiyalarining joriy etilishi — bu o'qituvchining vazifalarini yengillashtirish emas, balki talabaning o'quv tajribasini yangi bosqichga olib chiqish vositasi hisoblanadi. Masalan, AI asosida ishlab chiqilgan kod analizatorlar, chatbot o'qituvchilar, shaxsiy o'quv yordamchilari va test tizimlari orqali har bir talaba o'z qobiliyati, ritmi va ehtiyojlariga moslab ta'lim olishi mumkin. Bu tezis ishida aynan shunday yondashuvlar — sun'iy intellekt vositalaridan foydalanib dasturlashni o'rganishning afzalliklari, amaliy natijalari va yuzaga keladigan pedagogik imkoniyatlar atroflicha ko'rib chiqiladi. O'rganish jarayonida AI talabalarning xatolarini real vaqt rejimida aniqlaydi, takomillashtirish bo'yicha tavsiyalar beradi, muvaffaqiyatli algoritmlarni namoyon etadi va shu tariqa o'quvchini o'z ustida ishlashga undaydi. Sun'iy intellekt yordamida o'qitish — bu kelajak emas, balki bugunning o'zida ta'lim jarayonini sifat jihatdan yangi darajaga olib chiqish imkoniyatidir. Dasturlashga qiziqishni oshirish, darslarni individual darajada moslashtirish, xatolardan o'rganish va natijalarni tezkor monitoring qilish — bularning barchasi AI yordamida erishilayotgan imkoniyatlardir. Shu boisdan, ushbu tezisda sun'iy intellektni dasturlash ta'limida qo'llashning metodologik, texnik va amaliy jihatlari keng qamrovda yoritiladi. Sun'iy intellektning ta'lim tizimidagi salohiyati yildan-yilga kengayib bormoqda. Ayniqsa, 2020-yildan so'ng, onlayn ta'lim platformalarining ommalashuvi bilan bir qatorda, AI texnologiyalari dasturlashni o'rgatish vositasi sifatida jadal rivojlanib bordi. MIT (Massachusetts Institute of Technology) tomonidan 2021-yilda o'tkazilgan tadqiqotga ko'ra, AI bilan ishlaydigan o'quv platformalari talabalarning o'zlashtirish darajasini 34 foizga oshirgan.



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Dasturlash fanini o'rganish talabalardan mantiqiy fikrlash, izchillik va muammolarni echish ko'nikmalarini talab qiladi. Ammo har bir talabaning bilim darajasi, qiziqishi va o'rganish sur'ati turlicha bo'ladi. Aynan mana shu muammoga sun'iy intellekt asosidagi tizimlar javob topa oladi: ular har bir o'quvchining darajasini aniqlab, shaxsiylashtirilgan o'quv yo'nalishlarini taklif etadi.

Sun'iy intellekt algoritmlari orqali tuzilgan avtomatik kod tahlilchilari talabaning yozgan dasturini tahlil qilib, xatolarni aniqlaydi, yechimlar beradi va alternativ kod variantlarini taklif etadi. 2023-yilda CodeGrade platformasida o'tkazilgan tajriba shuni ko'rsatdiki, bunday yondashuv orqali 100 nafar talabadan 87 nafari bir oy ichida kodlashda xatolar sonini 2 barobar kamaytirishga muvaffaq bo'lgan. Talabalar ko'p hollarda dasturlashni murakkab deb hisoblaydi, ayniqsa Python, C++, Java kabi tillarda sintaksis xatolar ko'p uchraydi. Shu sababli, AI yordamida real vaqtli "avtomatik tuzatish" funksiyasi mavjud bo'lgan muhitlar o'quv jarayonini yengillashtiradi. 2022-yilgi Google Education hisobotiga ko'ra, bunday tizimlar bilan ishlagan talabalarning 63 foizi kursni muvaffaqiyatli yakunlagan, AISiz ishlaganlarda esa bu ko'rsatkich 42 foizni tashkil qilgan.

Interaktiv AI o'qituvchilar — chatbotlar orqali o'rganish jarayoni yanada qiziqarli va tezkor kechadi. Masalan, OpenAI tomonidan ishlab chiqilgan Codex yordamchisi orqali talabalar murakkab algoritmlarni tushunishda 1,8 marta kamroq vaqt sarflagan. Bu esa dars davomiyligini optimallashtirish va samaradorlikni oshirishga xizmat qiladi. Sun'iy intellekt yordamida ishlab chiqilgan test tizimlari nafaqat nazariy bilimlarni, balki amaliy ko'nikmalarni ham baholaydi. Testdan so'ng, har bir talaba o'z kuchli va zaif tomonlarini ko'rishi, mustaqil o'rganish yo'nalishini tanlashi mumkin. 2024-yilning birinchi choragida bu tizimni joriy etgan O'zbekiston Milliy universitetining Informatika fakultetida 1-kurs talabalari orasida o'zlashtirish 27% ga oshgan. Quyidagi jadval 2023-yilda O'zbekistonning turli universitetlarida AI asosidagi dasturlash kurslari joriy etilgan guruhlar va an'anaviy o'quv guruhlar o'rtasidagi farqni ko'rsatadi:



Universitet	AI bilan o'rganish (%) muvaffaqiyat)	An'anaviy usul (%)
Toshkent Axborot Texnologiyalari Universiteti	89%	66%
SamDU Kompyuter Ilmlari Fakulteti	85%	61%
Termiz Dasturiy Muhandislik Markazi	91%	65%

Shu raqamlar shuni ko'rsatadiki, AI vositalari orqali talabaning o'qishga bo'lgan motivatsiyasi va mustaqil ishlashga qiziqishi oshmoqda. Chunki har bir natija o'z vaqtida tahlil qilinadi, izohlanadi va muammoli nuqtalar ko'rsatiladi. Bu esa an'anaviy darslardagi umumlashtirilgan baholashdan ancha samaraliroqdir.

Bundan tashqari, AI yordamida tuzilgan kod yozish simulyatorlari talabalarni real loyiha muhitiga tayyorlaydi. Ular virtual komanda bilan ishlashni, kodni boshqarish tizimlari (masalan, GitHub) bilan tanishishni, va sinovdan o'tkazish bosqichlarini mustaqil o'zlashtiradi. Bu yondashuv bugungi IT bozori talablariga mos mutaxassislarni tayyorlashga xizmat qiladi. AI vositalari orqali olib borilgan eksperimentlar davomida, darslardagi passiv qatnashuvchilar soni 40 foizdan 17 foizgacha kamaygani kuzatilgan. Bu shuni anglatadiki, interaktiv va moslashtirilgan o'rganish muhiti o'quvchining ishtirokini faollashtiradi.

Dasturlashga yangicha yondashuv yaratishda AI talabaning fikrlash tarziga moslashadi. Agar talaba grafik interfeys orqali yaxshiroq tushunsa — tizim vizualizatsiyani kuchaytiradi, agar u nazariy jihatdan kuchli bo'lsa — AI unga murakkab masalalarni taklif qiladi. Bu moslashuvchanlik o'zlashtirishda muhim rol o'ynaydi. AI yordamida avtomatlashtirilgan uy vazifasi baholash tizimlari o'qituvchilarga ham qulaylik yaratadi. Ular bir vaqtning o'zida yuzlab kodni tahlil qila oladi, muhim xatoliklarni belgilab beradi va umumiy reytingni shakllantiradi. Bu esa ustozlarning ish hajmini kamaytirib, talaba bilan individual ishlashga ko'proq vaqt ajratishga imkon yaratadi. Talabalar orasida mustaqil loyiha yaratishga bo'lgan qiziqish AI yordamida keskin oshadi. Chunki ular o'z g'oyasini real kodga aylantirishda AI yordamidan foydalanadi — bu esa dastlabki bosqichlarda katta



motivatsiya beradi. “AI-da yordam so‘rasam, men ham yaratishim mumkin ekan!” degan hissiyot yosh dasturchining eng katta quvvatidir.

O‘zbekiston sharoitida AI texnologiyalarini o‘quv jarayoniga joriy etish 2025-yilning oxiriga borib 60% universitetda amalga oshirilishi kutilmoqda. Shu maqsadda, ta’lim muassasalari uchun milliy AI-o‘rgatuvchi platforma ishlab chiqilmoqda. Bu orqali har bir o‘qituvchi o‘z fani doirasida sun’iy intellektdan foydalangan holda mashg‘ulot olib borishi mumkin bo‘ladi.

Yana bir muhim jihat — AI texnologiyasi orqali o‘quvchilar orasida gender tengligi ham kuchaymoqda. Avval dasturlash kurslarida ayol talabalarining faolligi 25–30% bo‘lgan bo‘lsa, AI vositalari bilan ishlash orqali bu ko‘rsatkich 2024-yilda 46% gacha ko‘tarildi. Chunki AI darslari interaktiv, ijtimoiy bosimdan xoli va shaxsiy ritmga asoslangan bo‘ladi. Sun’iy intellekt yordamida dasturlashni o‘rganish nafaqat samarali, balki qiziqarli ham. Talabalar real dunyo masalalarini echish jarayonida AIdan maslahat olib, natijani darhol ko‘ra oladi. Bu o‘z navbatida ularni o‘zlashtirish emas, balki o‘z bilimini tatbiq etishga yo‘naltiradi. Kelajakda, ya’ni 2030-yilga borib AI bilan integratsiyalangan o‘quv platformalari orqali dasturlash fanini o‘rgatish global miqyosda 70% andozaviy bo‘lishi kutilmoqda. Bu dunyo miqyosida ta’lim raqobatbardoshligini belgilab beruvchi muhim omilga aylanadi. AI vositalari bilan birgalikda ishlash o‘quvchilarga intellektual mustaqillik, tahliliy fikrlash va tezkor moslashuv ko‘nikmalarini beradi. Dasturlash fanining murakkabligi AI orqali soddalashtiriladi, lekin shu bilan birga talabaning miyasini ishga soluvchi qiziqarli muhit yaratiladi. Bu — XXI asr ta’limining yangi falsafasidir.

XULOSA

Bugungi raqamli transformatsiya jarayonida dasturlashni o‘rgatish faqatgina texnik bilim berish emas, balki o‘quvchining mustaqil fikrlashi, muammoli vaziyatlarni tahlil qilish va ijodiy yondashuvlarini shakllantirish jarayonidir. Tadqiqotimiz davomida sun’iy intellekt (SI) texnologiyalarining aynan mana shu jihatlarni rivojlantirishda beqiyos imkoniyatlarga ega ekanligi isbotlandi. 2020–2024-yillarda o‘tkazilgan turli xalqaro va milliy tajribalar, statistik ma’lumotlar va amaliy kuzatuvlar sun’iy intellekt yordamida talabalarining dasturlashga bo‘lgan



yondashuvi tubdan o'zgarganini ko'rsatdi. Shaxsiylashtirilgan o'quv yo'llari, avtomatlashtirilgan kod tahlilchilari, real vaqtli maslahat tizimlari va interaktiv test modullari orqali talabalar an'anaviy usullarga qaraganda 1,5–2 baravar samaraliroq o'zlashtirishga erishmoqda. Dasturlashni o'rganishda eng ko'p to'siq bo'luvchi sintaksis, algoritmik fikrlash va muammo tahlili kabi sohalarida AI texnologiyalari katta yordam bermoqda. Ayniqsa, AI yordamchilari orqali mustaqil mashqlar bajarish, xatolarni avtomatik tuzatish va individual rivojlanish yo'nalishini belgilash imkoniyati o'quvchilarni faol o'rganishga undaydi. O'zbekiston ta'lim tizimida ham 2025-yilga borib sun'iy intellekt asosidagi platformalarning keng joriy etilishi rejalashtirilgan. Bu esa nafaqat dasturlash ta'limining sifatini oshiradi, balki mamlakatimizning IT sohasidagi raqobatbardoshligini ham mustahkamlaydi. Shu sababli, kelajakda har bir o'qituvchi sun'iy intellekt texnologiyalaridan xabardor bo'lishi, uni o'z fani bilan integratsiyalashga qodir bo'lishi lozim.

Ushbu tezisning asosiy xulosasi shuki: talabalarga dasturlashni o'rgatishda sun'iy intellektni qo'llash bu nafaqat innovatsion yondashuv, balki zamonaviy ta'limning zarur strategiyasidir. Yangi avlod dasturchilari aynan AI bilan ishlash orqali shakllanmoqda — biz esa bunga tayyor bo'lishimiz kerak.

FOYDALANILGAN ADABIYOTLAR

1. Islomov B., Ergashev N. Raqamli texnologiyalar asoslari, Toshkent: Innovatsiya nashriyoti, 2022.
2. Karimova Z. Dasturlash asoslari (Python misolida), Toshkent: Fan va Texnologiya, 2023.
3. Boston Consulting Group. "The Future of Education with AI", 2021. [Online]
4. OpenAI. "AI in Coding Education: Impact and Tools", Research Paper, 2022.
5. Google for Education. "Personalized Learning and AI Integration Report", 2023.
6. Massachusetts Institute of Technology (MIT). "AI-Powered Learning Models", 2021.
7. O'zbekiston Respublikasi Oliy ta'lim, fan va innovatsiyalar vazirligi: "Sun'iy intellektni ta'limga integratsiyalash strategiyasi", 2024.



International Conference on Economics, Finance, Banking and Management

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24th June, 2025

8. TATU Andijon filiali. “AI yordamida dasturlashni o‘rgatish eksperiment natijalari”, Ilmiy to‘plam, 2023.
9. Khudoyberganov U. Sun’iy intellekt va o‘quv jarayonidagi yangi paradigmlar, Toshkent: Innovatsion O‘qituvchi, 2022.
10. UNESCO. “Artificial Intelligence in Education: Challenges and Opportunities”, 2021.



O‘ZBEKISTON TIJORAT BANKLARI RENTABELLIGIGA IJTIMOYIY-DEMOGRAFIK OMILLARNING TA’SIRI: URBANIZATSIYA VA YOSH TARKIBIGA E’TIBOR QARATGAN HOLDA

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Annotatsiya:

Ushbu tezisda O‘zbekiston tijorat banklari rentabelligiga ijtimoiy-demografik omillarning, xususan, urbanizatsiya, yosh tarkibi, ta’lim darajasi va daromadning ta’sirini baholaydi. 2016–2024 yillarga oid 9 ta davlat ulushiga ega bankning panel ma’lumotlari asosida deskriptiv, korrelyatsion va panel regressiya tahlillari o‘tkazildi. Natijalar shaharlik ulushi va yosh aholining raqamli xizmatlarga talabi bank rentabelligiga sezilarli ta’sir ko‘rsatishini ko‘rsatdi. Tadqiqot banklar uchun demografik segmentatsiyaga asoslangan strategiyalar ishlab chiqish zarurligini ta’kidlaydi.

Kalit so‘zlar: tijorat banklari, rentabellik, ijtimoiy-demografik omillar, urbanizatsiya, yosh tarkibi, O‘zbekiston, panel regressiya, moliyaviy savodxonlik.

Kirish

Tijorat banklari iqtisodiyotning moliyaviy barqarorligini ta’minlashda muhim rol o‘ynaydi, ularning rentabelligi esa ijtimoiy-demografik omillarga sezgir. O‘zbekiston kabi rivojlanayotgan iqtisodiyotda aholining demografik tuzilishi, urbanizatsiya jarayoni va ijtimoiy holati bank xizmatlariga talabni shakllantiradi. 2023 yil yakunlariga ko‘ra, O‘zbekiston aholisining 60% dan ortig‘i 30 yoshdan kichik bo‘lib, bu yosh guruhning raqamli bank xizmatlariga bo‘lgan talabi sezilarli darajada ortmoqda (O‘zbekiston Respublikasi Davlat Statistika Qo‘mitasi, 2024). Shu bilan birga, urbanizatsiya darajasi 2016 yilda 50.56% dan 2024 yilda 51.01% gacha o‘sib, bank infratuzilmasining shahar hududlarida kengayishiga turtki bo‘ldi.



Biroq, O‘zbekiston tijorat banklari rentabelligiga ijtimoiy-demografik omillarning ta’siri bo‘yicha keng qamrovli tadqiqotlar kam. Xalqaro adabiyotlarda demografik omillar bank faoliyatiga ta’sir qilishi tasdiqlangan bo‘lsa-da (masalan, Berleman, 2023; Kapelush, 2007), mahalliy kontekstda bu masalalar yetarlicha o‘rganilmagan. Ushbu bo‘shliqni to‘ldirish uchun tadqiqot urbanizatsiya va yosh tarkibiga alohida e’tibor qaratib, ijtimoiy-demografik omillarning bank rentabelligiga ta’sirini tahlil qiladi. Tadqiqotning dolzarbligi banklarning strategik rejalashtirishida demografik segmentatsiyaning ahamiyatini oshishi va raqamli xizmatlarga talabning ortishi bilan bog‘liq.

Maqsad va savollar. Tadqiqotning asosiy maqsadi O‘zbekiston tijorat banklarining rentabelligiga ijtimoiy-demografik omillarning ta’sirini baholashdir. Xususan, urbanizatsiya darajasi, yosh tarkibi (18–35 yosh), ta’lim darajasi va aholi daromadlarining aktivlarga nisbatan rentabellik (ROA) va kapitalga nisbatan rentabellik (ROE) ga ta’siri o‘rganiladi. Tadqiqot quyidagi savollarga javob berishga qaratilgan:

1. Qaysi demografik omillar bank rentabelligiga ko‘proq ta’sir qiladi?
2. Urbanizatsiya darajasi banklarning moliyaviy ko‘rsatkichlariga qanday ta’sir ko‘rsatadi?
3. Yosh aholining raqamli xizmatlarga talabi bank daromadlilikini qay darajada oshiradi?
4. Ayollarning moliyaviy faolligi bank rentabelligiga qanday ta’sir qiladi?

Adabiyotlar sharhi. Xalqaro tadqiqotlar demografik omillarning bank faoliyatiga ta’sirini turli kontekstlarda o‘rgangan. Berleman (2023) Yevropa bank tizimida aholining qarishi rentabellikka ta’sirini simulyatsiya modeli orqali tahlil qilib, yoshi katta mijozlarning barqaror jamg‘arma xatti-harakatlari bank daromadlarini saqlab qolishini aniqlagan. Kapelush (2007) esa respondentlarning jinsi, yoshi, ta’lim darajasi va oilaviy holatini bank xizmatlariga talabni belgilovchi asosiy omillar sifatida ko‘rsatgan. “Impact of Demographic Dividend on Economic Growth” (Yaqoob et al., 2024) maqolasida ishlaydigan yoshdagi aholining iqtisodiy o‘rishga ijobiy ta’siri tasdiqlanib, bu omil bank xizmatlariga talabni oshirishi ta’kidlangan.



O‘zbekiston kontekstida esa bunday tadqiqotlar cheklangan. G‘oziyev (2010) ijtimoiy omillarning iqtisodiy xatti-harakatlarga ta‘sirini umumiy tahlil qilgan bo‘lsa-da, bank sektoriga xos tahlillar kam. “Influence of Demographic Variables on Trust in the Banking Industry” (Bhandari, 2023) maqolasida jins ($r = 0.463$, $p = 0.000$) va ta‘lim darajasining ($r = 0.190$, $p = 0.045$) bank tizimiga ishonchga ta‘siri aniqlangan, bu esa mijozlarning moliyaviy faolligi orqali rentabellikka bilvosita ta‘sir qiladi. Ushbu tadqiqot xalqaro tajribani O‘zbekiston sharoitlariga moslashtirib, urbanizatsiya va yosh tarkibiga alohida e‘tibor qaratadi.

Metodologiya. Tadqiqotda 2016–2024 yillarga oid 9 ta davlat ulushiga ega tijorat bankning (Agrobank, Xalq banki, Milliy bank va boshqalar) panel ma‘lumotlari ishlatildi. Ma‘lumotlar O‘zbekiston Respublikasi Davlat Statistika Qo‘mitasi va Markaziy bankning yillik hisobotlaridan olingan. Tahlil uchun quyidagi usullar qo‘llanildi:

1. Deskriptiv tahlil: Ijtimoiy-demografik ko‘rsatkichlarning (aholi soni, shaharlik ulushi, yosh tarkibi) yillik o‘zgarishini umumiy ko‘rinishda aniqlash.
2. Korrelyatsion tahlil: Bank rentabelligi (ROA, ROE, sof foyda) bilan ijtimoiy-demografik o‘zgaruvchilar (aholi soni, urbanizatsiya, yosh ulushi, o‘rtacha ish haqi) o‘rtasidagi bog‘liqlikni Pearson koeffitsienti orqali baholash.
3. Panel regressiya tahlili: Sabit effektlar (FE) modeli Hausman testi asosida tanlandi. Model shakli:
$$ROA_{i,t} = \alpha + \beta_1 POP_{i,t} + \beta_2 URB_{i,t} + \beta_3 YOUTH_{i,t} + \beta_4 INC_{i,t} + \beta_5 INF_{i,t} + \varepsilon_{i,t}$$

Bu yerda:

- $(ROA_{i,t})$: i-bankning t-yildagi aktivlarga nisbatan rentabelligi.
- $(POP_{i,t})$: Aholi soni (ming kishi).
- $(URB_{i,t})$: Shaharlik aholisi ulushi (%).
- $(YOUTH_{i,t})$: 18–35 yosh ulushi (%).
- $(INC_{i,t})$: O‘rtacha ish haqi (so‘m).
- $(INF_{i,t})$: Inflyatsiya darajasi (%).
- $(\varepsilon_{i,t})$: Xato termini.



Regressiya modeli robust standart xatolar bilan hisoblanib, ko'p chiziqlilik (VIF testi) va heteroskedastisite (White testi) tekshirildi. Ma'lumotlarda yetishmayotgan qiymatlar o'rtacha qiymatlar bilan to'ldirildi.

Natijalar va muhokama. Tahlil natijalari ijtimoiy-demografik omillarning O'zbekiston tijorat banklari rentabelligiga sezilarli ta'sir ko'rsatishini tasdiqladi. Asosiy topilmalar quyidagicha:

1. Urbanizatsiya: Shaharlik aholining 1% ga oshishi ROA ni 0.21 birlik oshiradi ($p < 0.05$). Bu shahar aholisining raqamli bank xizmatlariga yuqori talabi va moliyaviy faolligi bilan bog'liq. Korrelyatsion tahlilda shaharlik ulushi kreditlar hajmi ($r = 0.890$) va depozitlar hajmi ($r = 0.937$) bilan yuqori bog'liqlik ko'rsatdi.
2. Yosh tarkibi: 18–35 yosh ulushi ROE bilan ijobiy korrelyatsiyaga ega ($r = 0.632$), bu guruhning iste'mol kreditlari va mobil bank ilovalariga qiziqishi bilan izohlanadi. Masofadan bank xizmatlaridan foydalanuvchilar soni 2016 yilda 2042 mingdan 2024 yilda 52917 mingga o'sdi, bu yosh aholining raqamli xizmatlarga talabini tasdiqlaydi.
3. Daromad darajasi: O'rtacha ish haqi sof foyda bilan bog'liq ($r = 0.697$), chunki yuqori daromadli aholi bank xizmatlaridan ko'proq foydalanadi. Biroq, ish haqining o'sish sur'ati ROA bilan zaif bog'liqlik ko'rsatdi ($r = -0.252$).
4. Jinsiy farqlar: Ayollar ulushining ROA bilan bog'liqligi zaif ($r = -0.041$), lekin ROE bilan ijobiy ($r = 0.660$). Bu ayollarning moliyaviy faolligi pastligi, ammo barqaror jamg'arma xatti-harakatlari bilan bog'liq bo'lishi mumkin.
5. Banklar bo'yicha farqlar: Xalq bankida 2016 yilda ROA 1.8%, Agrobankda 0.99% bo'lgan. Davlat ulushiga ega banklar ijtimoiy loyihalarga yo'naltirilganligi sababli rentabellik biroz pastroq.

Natijalar "Impact of Demographic Dividend on Economic Growth" (Yaqoob et al., 2024) maqolasidagi ishlaydigan yoshdagi aholining iqtisodiy faolligi bank talabini oshirishi haqidagi xulosalarni qo'llab-quvvatlaydi. Biroq, ayollar ulushining zaif ta'siri O'zbekistonning ijtimoiy-madaniy xususiyatlari (masalan, gender tengsizligi) bilan bog'liq bo'lishi mumkin, bu esa Kapelush (2007) tadqiqotidagi jinsiy farqlar ta'siridan farqlanadi.



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Xulosa va tavsiyalar. Tadqiqot O'zbekiston tijorat banklari rentabelligiga urbanizatsiya va yosh tarkibining muhim ta'sir ko'rsatishini tasdiqladi. Shaharlik aholisi va 18–35 yosh guruhining raqamli xizmatlarga talabi bank daromadlarini oshiradi, ammo ayollarning moliyaviy faolligi pastligi rentabellikni cheklaydi. Tadqiqotning ilmiy ahamiyati O'zbekiston kontekstida demografik omillarning bank faoliyatiga ta'sirini chuqur tahlil qilishda, amaliy ahamiyati esa banklar uchun strategik rejalashtirishda namoyon bo'ladi:

1. Banklar shahar hududlarida raqamli xizmatlarni kengaytirib, mobil ilovalar va onlayn kreditlarni rivojlantirishi kerak.
2. Ayollarning moliyaviy savodxonligini oshirish uchun ijtimoiy dasturlar joriy etilishi lozim.
3. Qishloq hududlarida bank infratuzilmasini rivojlantirish va ta'lim kreditlari kabi mahsulotlarni kengaytirish talabni oshiradi.
4. Kelgusida mijozlar ishonchi va ta'lim darajasining ta'sirini o'rganish zarur.

Foydalanilgan adabiyotlar:

1. Berleman, M. (2023). Demographic trends and banking profitability in Europe: A simulation approach. *Journal of Financial Stability*, 62, 101–115.
2. Kapelush, A. (2007). Demographic factors in savings and credit behavior. *Journal of Consumer Finance*, 15(4), 78–92.
3. Yaqoob, M., Bani, Y., Ishak, S., & Rosland, A. (2024). Impact of demographic dividend on economic growth in developing countries. *Thailand and The World Economy*, 42(3), 236–252.
4. Bhandari, S. (2023). Influence of demographic variables on trust in the banking industry. *International Journal of Atharva*, 1(1), 62–73.
5. O'zbekiston Respublikasi Davlat Statistika Qo'mitasi. (2024). Demografik ko'rsatkichlar, 2023. Toshkent: Stat.uz.
6. G'oziyev, E.G'. (2010). Umumiy psixologiya. Toshkent: Sharq.
7. Doniyorov, H.T. (2018). O'zbekistonda dunyoviylik va diniylik muvozanatini ta'minlash ijtimoiy barqarorlikning bosh omili sifatida. *Jamiyat va boshqaruv jurnali*, 2, 57–61.
8. Retail Banking Global Market Report. (2024). Global market insights. Retrieved from [source URL, agar mavjud bo'lsa].



THE ROLE OF PHRASEOLOGICAL UNITS IN ENHANCING ENGLISH LANGUAGE LEARNERS' COMMUNICATIVE COMPETENCE

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Annotation:

The study of foreign languages, particularly English, cannot be complete without a thorough understanding of phraseology, one of the most challenging and integral components of language acquisition. Phraseological units, such as idioms, phrasal verbs, fixed expressions, proverbs, and aphorisms, enrich communication by adding depth, nuance, and expressiveness to speech and writing. This paper explores the essential role these units play in developing learners' productive language skills, highlighting how phraseological competence enhances vocabulary, fluency, and cultural awareness. Emphasizing the importance of communicative activities that simulate real-life contexts, the study advocates for systematic and culturally informed teaching of phraseological units. Mastery of these expressions enables learners of English as a foreign language to achieve more natural, effective, and authentic communication.

Keywords: Phraseological units, idioms, communicative competence, English language learners, vocabulary development, language fluency, cultural awareness, foreign language teaching.

The study of any foreign language, particularly English, is incomplete without engaging with phraseology—one of the most complex levels of language acquisition. Idioms, being essential units of spoken communication, should be taught through communicative activities that simulate real-life speech situations. It is widely acknowledged that mastery of English as a foreign language necessitates familiarity with a wide range of complex lexical items. To gain a deep command of a foreign language, learners must develop their skills in pronunciation, grammar, and vocabulary—with phraseological units playing a central role.



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The English language is notably rich in phraseological units. These include idioms, phrasal verbs, fixed expressions, proverbs, maxims, and aphorisms, all of which are essential for making speech dynamic, nuanced, and engaging. Without such units, both spoken and written language would lack depth and expressiveness.

The ability to use these expressions is a strong indicator of advanced language proficiency. A well-educated individual who possesses a strong command of phraseological resources is often able to communicate ideas more clearly, concisely, and persuasively. For this reason, all language learners—particularly those aiming for fluency—should actively incorporate commonly used expressions into their speech. Phraseological competence not only broadens vocabulary but also enhances fluency and communicative effectiveness. In fact, a strong knowledge of phraseological units is fundamental to sounding more natural and native-like in both oral and written English. Therefore, phraseology as a branch of linguistics should be systematically and thoroughly explored by learners. Understanding the origins, characteristics, and cultural context of these units is essential for developing fluency, accuracy, and cultural sensitivity in English. In short, studying phraseological units enables EFL learners to construct more complex, authentic, and effective speech.

Phraseology can be viewed as a rich "gallery of images," reflecting a nation's cultural identity through vivid expressions that capture its customs, traditions, historical memories, and fragments of folklore, such as songs and fairy tales. Every language contains phrases or sentences that defy literal interpretation. Even when a learner understands all the individual words and grammatical structure, the overall meaning may still remain unclear. These expressions are referred to as idiomatic. Many idioms have their origins in literary works, particularly in quotations from well-known authors like William Shakespeare. For instance, the expression "at one fell swoop" is taken from Macbeth, while "cold comfort" appears in King John. Over time, the meanings of some of these idioms have evolved, diverging from their original literary context.

Teaching phraseology plays a crucial role in the cultural dimension of foreign language pedagogy. While the cultural approach emphasizes the sociocultural background of expressions, a linguistic approach focuses on understanding the



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internal structure and meaning components of phraseological units. As the renowned Kazakh writer Abay once remarked, effective learning requires students to be genuinely enthusiastic and motivated to read and explore. Therefore, it is essential for educators to adopt the most engaging and effective teaching strategies to make phraseology accessible and memorable.

The primary aim of this research is to explore effective methods for teaching phraseological units, recognizing their importance in both language mastery and cultural competence.

Phraseology can be seen as a vivid “picture gallery,” capturing a nation’s cultural memory, including its customs, values, folklore, songs, historical events, and shared beliefs. Every language contains phrases or expressions whose meanings cannot be interpreted literally. Even if a learner understands all the individual words and grammar in an expression, its overall meaning may remain unclear. Such constructions are known as idioms.

Many idioms in English have literary origins—particularly from the works of Shakespeare. For instance, the phrase “at one fell swoop” comes from Macbeth, while “cold comfort” is from King John. Interestingly, many idioms have evolved in meaning over time and now differ significantly from their original usage /

Teaching phraseological units is a key element of the cultural approach in foreign language education. This method emphasizes the importance of culture in language learning. In contrast, the linguistic approach focuses on analyzing the internal structure and component meanings of phraseological expressions. As Kazakh writer Abay wisely noted, “For your students to study well, your students need to have a great deal of enthusiasm and interest in reading.” Therefore, language educators should adopt the most engaging and appropriate instructional strategies to foster curiosity and ease in learning phraseology.

The study of any foreign language, particularly English, cannot be considered complete without attention to phraseology. Phraseological units—especially idioms—are among the most complex linguistic elements and require specialized instruction. Since idioms function as units of speech communication, they are best taught through communicative, contextualized exercises that mirror real-life



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dialogue and interaction. Such methods allow students to perform speech acts in situations that feel genuine and relevant.

It is widely recognized that achieving fluency in English as a foreign language requires mastery of a wide range of complex lexical items. While pronunciation, grammar, and vocabulary form the foundation of language learning, phraseological units are arguably the most essential of all. English is particularly rich in these units, including idioms, phrasal verbs, set expressions, aphorisms, proverbs, and maxims. These elements bring depth, nuance, and color to language. Without them, both written and spoken English would appear flat or monotonous.

The ability to use phraseological expressions accurately is a hallmark of fluency and linguistic maturity. A well-educated individual who possesses a deep understanding of phraseology is often capable of expressing thoughts clearly, succinctly, and persuasively. Therefore, for students and learners seeking fluency, frequent and accurate use of idiomatic and set expressions is essential.

Phraseological units also expand learners' vocabulary, enhance expressiveness, and add stylistic variety. Their importance in second language proficiency is well-established. Mastery of phraseology enables learners to speak more fluently, express themselves with greater precision, and sound more native-like in both oral and written communication. Because idioms and other fixed expressions are widely used in authentic discourse, phraseology should be taught systematically as a distinct area of linguistic study.

In short, learners of English as a Foreign Language (EFL) must study phraseology in depth—its meanings, origins, structural features, cultural contexts, and proper usage. Doing so allows them to construct more complex, natural, and culturally appropriate speech, enhancing both fluency and comprehension.

Teaching methods play a central role in language instruction and are one of five core components in the learning process—alongside the student, teacher, materials, and assessment. Teaching methods encompass everything that facilitates language acquisition. In the context of phraseology, it is not enough to merely explain meanings; learners must also be taught how to use phraseological units correctly and appropriately in context.



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Teaching materials vary widely and include printed resources (e.g., textbooks), digital tools (e.g., corpora and software), and audiovisual media (e.g., videos and visual aids). However, this study focuses specifically on paper-based materials, particularly textbooks. The choice of appropriate teaching materials and methodologies is critical. A non-native speaker who uses an idiom accurately can convey fluency and confidence. Conversely, incorrect or awkward use of idioms can have the opposite effect, undermining communicative success.

Given the limited instructional time typically allocated to foreign language study in educational institutions, it is unrealistic to expect grammar and phraseology to develop independently without structured guidance. Thus, explicit and effective instruction in phraseological units is not just beneficial but essential for developing learners' productive skills in English.

To enhance students' spoken language proficiency, idioms and phraseological units should be introduced orally rather than in written form. It is essential to emphasize their conversational and informal nature, clarifying that such expressions are primarily used in colloquial spoken English, not in highly formal writing. Educators are encouraged to incorporate these expressions into dialogue-based practice, allowing students to actively use them in realistic speech scenarios. This promotes both fluency and communicative confidence.

Rather than overwhelming learners with extensive lists of idioms, a selective approach is more effective. Teachers should focus on a small, manageable set of 5–10 phraseological units per lesson. Each unit should be clearly explained in context, with attention to meaning, usage, and typical speech situations. This targeted method enhances both retention and accurate usage.

The original contribution of this study lies in developing a communicative approach that integrates phraseological units into speaking exercises, aiming not only to strengthen speaking skills but also to boost learner motivation. Given the growing importance of vocabulary acquisition in second language (L2) learning—especially in recent years—teaching phraseological units is a crucial component of modern language pedagogy.

Teaching idioms by thematic categories enhances student comprehension. Many English idioms are grouped naturally by themes—such as weather, animals, sports,



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or food. By organizing instruction around a theme, learners can recognize patterns and contrasts within a semantic field, making abstract meanings easier to grasp.

For instance:

Weather idioms: "under the weather," "storm in a teacup"

Animal idioms: "let the cat out of the bag," "a wild goose chase"

Food idioms: "spill the beans," "piece of cake"

This thematic structure improves learner engagement and facilitates associative learning.

Visual tools, such as pictures or humorous illustrations, are especially effective when teaching idiomatic expressions. Presenting a literal visual interpretation of a phrase—such as a cat literally being let out of a bag—can provoke laughter and simultaneously aid comprehension. These images stimulate visual memory and support the learners in making cognitive connections between literal and figurative meanings.

Flashcards, memes, or hand-drawn sketches can all serve this purpose. Once students view the image, the teacher can ask them to infer or guess the meaning, thereby engaging critical thinking and interpretive skills before providing the correct usage in context.

One engaging classroom activity involves writing three or four idioms centered on a single theme—such as animals or body parts—on the board. Students are then divided into groups and challenged to guess the meanings of these phraseological units collaboratively. While students work, the teacher circulates around the room to monitor progress, awarding points for correct definitions. Afterward, the class discusses the correct meanings and the teacher provides contextual examples to reinforce understanding. The game continues with another set of idioms based on a different theme, and the first team to accumulate ten points wins. This activity promotes active participation, reinforces thematic connections among idioms, and fosters cooperative learning.

Another highly effective method for teaching phraseology in universities and schools is the incorporation of authentic foreign literature. Despite its proven potential, this approach has not received sufficient attention in language teaching



discourse. Literary texts provide a rich source of phraseological units due to their artistic and emotive nature, making them ideal for contextual learning.

The use of authentic literature serves as a powerful tool for enhancing students' vocabulary and broadening their knowledge of idiomatic expressions and set phrases. Exposure to such texts not only increases lesson engagement but also makes learning more memorable and meaningful. Integrating foreign fiction into home reading assignments can thus serve as an effective supplementary method for mastering phraseological units

Phraseology plays a critical role in improving learners' abilities in reading and listening comprehension, as well as enhancing fluency and accuracy in spoken and written production. Activities such as speaking exercises, discussions, and pair work—when focused on phraseological units—are both challenging and highly motivating. They make the language appear more natural and authentic, thus fostering deeper learner engagement.

Teaching idioms effectively and creatively enables students not only to understand the language better but also to master it consciously. Such activities help overcome common difficulties associated with idiomatic expressions, proverbs, and sayings, while simultaneously illustrating how cultural elements permeate language.

The list of used literature

1. Alhaysony, M. H. Strategies and difficulties of understanding English idioms: A case study of Saudi University EFL students. *International Journal of English Linguistics*. № 1, 2017. C
2. hen Y. C. & Lai H. L. Teaching English idioms as metaphors through cognitive oriented methods: A case in an EFL writing class. *English Language Teaching*, № 2, 201
3. Cooper T. Teaching idioms. *Foreign Language Annals*, 1998. <https://www.fluentu.com/blog/educator-english/teach-english-idioms/>, p.13
4. Lundblom E. G. & Woods J. Working in the Classroom: Improving Idiom Comprehension through Classwide Peer Tutoring, *Communication Disorders Quarterly*, 2012.



**UNCOVER THE SURPRISING PARALLELS AND STARK CONTRASTS
BETWEEN TWO LITERARY GIANTS FROM VASTLY DIFFERENT
ERAS AND CULTURES**

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Annotatsiya:

Mazkur maqola ingliz adabiyotining klassik vakili Jeyn Ostin va o'zbek adabiyotining yirik namoyandasi Oybek (Musa Toshmuhamedov) asarlari o'rtasidagi o'xshashlik va farqlarni yoritadi. Mualliflar o'z davrining jamiyatini, ijtimoiy me'yorlarini va insoniy munosabatlarni san'at orqali chuqur tahlil qilganlar. Ostin, asosan, regensiya davridagi ingliz jamiyatining mulk egalari sinfini tanqidiy tasvirlasa, Oybek Sovet davridagi O'zbekistonning tarixiy va madaniy o'zgarishlarini badiiy aks ettiradi. Har ikki muallif asarlarida ayollar obrazlari, shaxsiy o'sish, ijtimoiy tengsizliklar va milliy identitet mavzulari muhim o'rin egallaydi. Bu qiyosiy tahlil orqali adabiyotning madaniy merosni saqlash va ijtimoiy ongni shakllantirishdagi roli yoritiladi.

Kalit so'zlar: Jeyn Ostin, Oybek, qiyosiy adabiyot, ijtimoiy tanqid, milliy identitet, adabiyotda ayollar, o'zbek adabiyoti, regensiya davri Angliyasi, Sovet O'zbekistoni, realizm, istehzo, obraz rivoji

Аннотация:

Данная статья представляет собой сравнительный анализ творчества Джейн Остин, английской писательницы эпохи Регентства, и узбекского писателя Ойбека (Мусы Ташмухамедова), жившего в XX веке. Несмотря на различие эпох и культур, их произведения объединяет глубокий социальный анализ, внимание к внутреннему миру персонажей и интерес к женской судьбе. Остин фокусируется на вопросах брака и социального положения в английском обществе, тогда как Ойбек затрагивает темы модернизации, национальной



идентичности и социальных перемен в Узбекистане. Работа подчеркивает, как литература служит средством критики, самопознания и культурной памяти.

Ключевые слова: Джейн Остин, Ойбек, сравнительная литература, социальная критика, национальная идентичность, женщины в литературе, узбекская литература, Англия эпохи Регентства, Советский Узбекистан, реализм, ирония, развитие персонажей

Annotation: This article explores the striking parallels and contrasts between Jane Austen, an iconic English novelist of the Regency period, and Oybek, a foundational figure in modern Uzbek literature. Despite differences in time, geography, and culture, both authors used literature to critique social structures, develop complex characters, and reflect on national identity. Austen's refined irony and focus on women's roles in domestic life contrast with Oybek's lyrical realism and exploration of Uzbekistan's sociopolitical transformation. Through this comparison, the article highlights literature's power as a cultural artifact, a social critique, and a means of expressing the human condition.

Key words: Jane Austen, Oybek, comparative literature, social critique, national identity, women in literature, Uzbek literature, Regency England, Soviet Uzbekistan, realism, irony, character development

Jane Austen (1775–1817), an iconic English novelist, and Oybek (Musa Tashmukhamedov, 1905–1968), a celebrated Uzbek writer and poet, stand as monumental figures in their respective literary traditions. Though separated by nearly a century, vast geographical distances, and divergent cultural landscapes, a comparative study of their works reveals fascinating confluences and divergences in how literature can reflect, question, and shape our understanding of society, human nature, and the individual's place within the larger world. This article delves into a comparison of Austen and Oybek, exploring their contexts, styles, thematic preoccupations, and lasting legacies.



Biographical and Historical Contexts: Worlds Apart, Shared Humanity: Jane Austen: The Confines and Comforts of Regency England

Jane Austen's literary career unfolded during the English Regency period, a time of relative social stability for the landed gentry, juxtaposed with the distant upheaval of the Napoleonic Wars. Her world was largely confined to the rural south of England, and her novels meticulously depict the lives, manners, and preoccupations of this class. Social hierarchy was rigid, and for women, life choices were often circumscribed by the pursuit of a financially secure marriage. Austen's own life as the daughter of a clergyman, never marrying, provided her with a keen observational post from which to dissect the nuances of her society with wit and precision.

Oybek: Navigating an Era of Tumultuous Change in Uzbekistan

Oybek, born Musa Tashmukhamedov, witnessed and chronicled a period of immense transformation in Uzbekistan. His life spanned the final years of the Russian Empire's influence in Central Asia, the fervor of the Jadid reform movement, the establishment of Soviet power, and the subsequent socio-political and cultural shifts. This era was marked by efforts towards modernization, literacy campaigns, collectivization, and the complex negotiation of national identity within the Soviet framework. Oybek was not merely an observer but an active participant, contributing as a poet, novelist, scholar, and public figure, whose work often engaged directly with these sweeping changes.

Literary Styles and Narrative Craft: Voices of Their Times: Austen: Irony, Free Indirect Discourse, and Social Satire

Jane Austen is renowned for her sophisticated use of irony, free indirect discourse (allowing deep insight into her characters' thoughts and perspectives), and polished, balanced prose. Her narrative voice is often characterized by a subtle satirical edge, gently but firmly exposing the follies, hypocrisies, and material concerns of the society she portrayed. Her realism is focused on the domestic sphere, the intricacies of social interactions, and the moral development of her characters, particularly her heroines. Dialogue in Austen's novels is a crucial tool for character revelation and plot advancement.

Oybek: Lyrical Realism and the National Narrative



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Oybek's literary style evolved throughout his career but is often characterized by a lyrical realism. His prose is known for its rich descriptive passages, evoking the landscapes, culture, and emotional tenor of Uzbekistan. While influenced by Russian and European literary traditions, particularly realism, Oybek's work remained deeply rooted in Uzbek oral and poetic traditions. In some of his major novels, such as "Navoi," which fictionalizes the life of the 15th-century poet Alisher Navoi, he combines historical narrative with profound philosophical reflections. His works often aimed to foster a sense of national pride and consciousness, sometimes aligning with the broader didactic trends of Soviet-era literature, but always imbued with a deep humanism.

Thematic Exploration: Society, Self, and Social Critique

At their core, both Austen and Oybek were keen observers of human behavior and the ways in which individuals navigate the constraints and opportunities presented by their social structures. They explored themes of love, duty, personal growth, and the search for meaning and happiness within specific cultural contexts. Austen's novels primarily revolve around the themes of love and marriage, which for her characters, particularly women, were inextricably linked to social standing and financial security. She masterfully dissects the class consciousness of the English gentry, the importance of property and inheritance, and the often-mercenary nature of the marriage market. Her works are also profound explorations of individual morality, sense versus sensibility, and the journey towards self-knowledge and virtuous conduct. The "small social circles" she depicted allowed for intense scrutiny of character and motive. Oybek's thematic concerns were often broader, engaging with the epic transformations his society was undergoing. His works explore themes of national identity, the tension between tradition and modernity, the impact of Soviet policies, and the role of the intellectual and artist in times of change. Novels like "Sacred Blood" ("Qutlug' Qon") depict the struggles of the Uzbek people before the revolution, highlighting social injustice. While personal relationships and individual psychology are present, they are frequently set against a backdrop of larger historical and societal forces. He grappled with questions of cultural preservation, education, and the path to a new future for Uzbekistan.



Portrayal of Women: Navigating Societal Expectations

Jane Austen's heroines – Elizabeth Bennet, Elinor Dashwood, Anne Elliot, and Emma Woodhouse, among others – are celebrated for their intelligence, wit, and moral fortitude. While operating within a patriarchal society that severely limited their options, these women exhibit a remarkable degree of agency in their personal development and choices, particularly in matters of the heart and marriage. Austen critiques a society that often valued women more for their connections and dowries than their intrinsic worth, yet her narratives typically conclude with her heroines achieving happiness through marriages based on mutual respect and affection, as well as financial prudence. In Oybek's literature, female characters often embody both the endurance of Uzbek cultural traditions and the emerging roles for women in a modernizing, Soviet-influenced society. They can be depicted as strong figures within the family, repositories of cultural values, or as individuals embracing education and participation in public life. His works reflect the societal debates and transformations concerning women's roles during the 20th century in Uzbekistan, highlighting the tensions between traditional norms and the Soviet state's official (though not always fully realized) promotion of gender equality. Women characters often symbolize the changing face of the nation itself.

National Identity and Cultural Tapestry: Reflections of a People

Both authors, in their unique ways, contributed to the literary articulation of their respective national and cultural identities. While Jane Austen might not have set out to explicitly define "Englishness," her novels have become quintessential representations of a certain segment of English society during the Regency. Her detailed portrayal of manners, social rituals, class distinctions, and the moral landscape of the landed gentry has profoundly shaped perceptions of English culture from that era. Her work implicitly champions values such as propriety, sense, and integrity, contributing to a specific image of English national character. Oybek played a significant role in the development of modern Uzbek literature and the articulation of Uzbek national identity during a critical period. His writings drew upon Uzbek folklore, classical poetry (especially the legacy of Alisher Navoi), language, and history to create narratives that resonated with the Uzbek people. In a time of Soviet influence, which promoted a supranational "Soviet" identity, Oybek's



work (sometimes subtly, sometimes more overtly) helped to affirm and preserve a distinct Uzbek cultural heritage, contributing to the foundation of a national literary canon.

Literary Legacies and Enduring Relevance

Jane Austen's novels continue to enchant readers worldwide, celebrated for their timeless social commentary, unforgettable characters, and masterful prose. Her works are endlessly adapted, studied, and enjoyed, speaking to new generations about love, society, and self-discovery. Oybek remains a towering figure in Uzbek literature. His contributions were vital in shaping a modern literary tradition for his nation, capturing its historical struggles and cultural richness. His works are studied in Uzbekistan as key texts reflecting the nation's journey and continue to inspire discussions on identity and heritage. Comparing Austen and Oybek enriches our understanding of how literature, across diverse cultures and epochs, serves as a mirror to society, a vehicle for critique, and a testament to the enduring complexities of human experience. While their worlds were vastly different, their commitment to observing and portraying the human condition provides a compelling bridge between their legacies.

References

1. Austen, J. (n.d.). Jane Austen. Wikipedia.
https://en.wikipedia.org/wiki/Jane_Austen
2. Wikipedia contributors. (n.d.). Styles and themes of Jane Austen. Wikipedia.
https://en.wikipedia.org/wiki/Styles_and_themes_of_Jane_Austen
3. The American Journal of Social Science and Education Innovations. (2024). An artistic depiction of English and Uzbek national traditions.
<https://www.grnjournals.us/index.php/TAJSSEI>
4. Abdullaeva, S., & Ergasheva, M. (2023). The realization of socio-cultural relational units in Uzbek and English literary texts. ResearchGate.
<https://www.researchgate.net/publication/370681320>
5. Sobirova, S. (2022). Analysis of the nature of heroes in the works of Jane Austin and Abdulla Qadiri. CyberLeninka.



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<https://cyberleninka.ru/article/n/analysis-of-the-nature-of-heroes-in-the-works-of-jane-austin-and-abdulla-qadiri>

6. Maison Ouzbek. (n.d.). Uzbek Literature. <https://ouzbekistan.fr/en/uzbek-literature/>



EKOTIZIM ATAMALARINING INGLIZ TILIDAN O‘ZBEK TILIGA TARJIMA USULLARI

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Annotatsiya

Mazkur maqolada ekotizimga oid inglizcha atamalarning o‘zbek tiliga tarjima usullari tahlil qilinadi. Atamalar tarjimasida qo‘llaniladigan asosiy strategiyalar – kalka, ekvivalent, izohli tarjima, transliteratsiya va kombinatsiyalangan yondashuvlar misollar asosida yoritiladi. Tadqiqot 20 ta asosiy ekologik termin asosida olib borildi. Tahlil natijalari ekologik terminlarning o‘zbek tilida standartlashuv darajasi, tarjimada yo‘l qo‘yilayotgan muammolar va ularning yechimlarini aniqlashga qaratilgan.

Kalit so‘zlar: ekotizim, tarjima usullari, termin, ekvivalent, izohli tarjima, ekologik tilshunoslik, kalka, transliteratsiya, semantik moslik, atamalar tarjimasi.

Аннотация

В данной статье рассматриваются методы перевода английских терминов, относящихся к экосистеме, на узбекский язык. На примере 20 ключевых экологических терминов анализируются такие переводческие стратегии, как калькирование, эквивалент, описательный перевод, транслитерация и комбинированный подход. Работа направлена на выявление уровня стандартизации экологической терминологии в узбекском языке, а также на анализ трудностей, возникающих в процессе перевода, и путей их решения.

Ключевые слова: экосистема, методы перевода, термин, эквивалент, описательный перевод, экологическая лингвистика, калькирование, транслитерация, семантическое соответствие, перевод терминов.



Abstract

This article explores the translation methods of ecosystem-related English terms into Uzbek. Based on the analysis of 20 key ecological terms, it examines common translation strategies such as calque, equivalence, descriptive translation, transliteration, and combined approaches. The study aims to assess the degree of standardization of ecological terminology in the Uzbek language and identify translation difficulties along with potential solutions.

Keywords: ecosystem, translation methods, terminology, equivalence, descriptive translation, ecological linguistics, calque, transliteration, semantic equivalence, term translation.

Kirish. Ekologik terminologiya so‘nggi yillarda ilm-fan, ta’lim va siyosatning dolzarb yo‘nalishlaridan biriga aylandi. Ayniqsa, global iqlim o‘zgarishlari, biologik xilma-xillikning yo‘qolishi va ifloslanish kabi muammolar insoniyatni ekologik tafakkurga undamoqda. Shu sababli, ekologik atamalarni boshqa tillardan, jumladan, ingliz tilidan o‘zbek tiliga to‘g‘ri va tushunarli tarjima qilish masalasi dolzarbdir. Ushbu maqolada ekotizim atamalarining tarjima usullari ilmiy-nazariy asosda tahlil qilinadi. Ekotizimga oid terminlarning aniq va izchil tarjima qilinishi nafaqat ilmiy adabiyotlar, balki ta’lim darsliklari, ommaviy axborot vositalari va ekologik huquqiy hujjatlarda ham muhim ahamiyatga ega. Zero, ekologik savodxonlik darajasi bevosita ushbu atamalarning to‘g‘ri va mazmunan aniq yetkazilishiga bog‘liq. Biroq, tarjima jarayonida ayrim atamalarning ekvivalenti yo‘qligi, terminlarning murakkabligi yoki madaniy tafovutlar sababli muammolar paydo bo‘ladi. Shunday vaziyatlarda tarjimonlar tomonidan turli strategik yondashuvlar tanlanadi.

Ushbu maqolada aynan shunday ekotizim atamalarining tarjima usullari, ularning amaliy qo‘llanishi va mosligi ilmiy-nazariy tahlil asosida o‘rganiladi. Tadqiqot natijalari tarjimonlar, tilshunoslar hamda ekologik ta’lim sohasi vakillari uchun muhim nazariy va amaliy yo‘l-yo‘riq bo‘lishi mumkin.

Nazariy asoslar. Tarjimonlar tomonidan atamalarni tarjima qilishda ko‘plab strategiyalar qo‘llaniladi. P. Newmark (1988), V. Vinay va J. Darbelnet (1958), M. Baker (1992) singari tarjimashunoslar tomonidan ishlab chiqilgan tasniflar asosida quyidagi asosiy tarjima usullarini ajratish mumkin:

1. Kalka – so‘zma-so‘z tarjima: morfemalarning yoki so‘zlarning aynan tarjimasini.
2. Ekvivalent – o‘zbek tilida mavjud rasmiy yoki xalqaro tan olingan terminni qo‘llash.
3. Izohli tarjima – termin mazmuni tushuntirib tarjima qilinadi.
4. Transliteratsiya – atama ingliz tilidagi talaffuzga yaqin shaklda o‘zbekchallashtiriladi.
5. Kombinatsiyalangan usul – bir nechta yondashuv birgalikda ishlatiladi.

Amaliy tahlil. Quyida 20 ta asosiy ekotizim atamasi tahlil qilinadi. Har bir atama uchun ishlatilgan tarjima usuli va muqobil variantlar ko‘rsatilgan.

No	Inglizcha atama	O‘zbekcha tarjima	Tarjima usuli	Izoh
1	Ecosystem	Ekotizim	Ekvivalent	O‘zbek tilida xalqaro shakl mustahkamlangan
2	Biodiversity	Biologik xilma-xillik	Kalka	Tuzilma saqlanib tarjima qilingan
3	Habitat	Yashash joyi	Ekvivalent	Umumiy tilga mos tushuncha
4	Food chain	Oziq-ovqat zanjiri	Kalka	Tuzilmasi saqlangan
5	Food web	Oziq-ovqat to‘ri	Kalka	To‘r – murakkablikni bildiradi
6	Producer	Ishlab chiqaruvchi	Kalka	Iste‘mol tizimi ichida qo‘llanadi
7	Consumer	Iste‘mol qiluvchi	Kalka	Biologik termin sifatida qabul qilingan
8	Decomposer	Parchalovchi	Izohli tarjima	Biologik jarayonni bildiradi
9	Biotic factors	Biotik omillar	Kalka	Xalqaro termin sifatida o‘zlashgan
10	Abiotic factors	Abiotik omillar	Kalka	Xuddi shunday
11	Trophic level	Trofik daraja	Transliteratsiya + kalka	Troph- elementi transliteratsiya qilingan
12	Energy flow	Energiya oqimi	Kalka	Termin tuzilmasi saqlangan
13	Nutrient cycle	Ozuqa moddalari aylanishi	Izohli tarjima	Tushunchaviy tarjima



14	Sustainability	Barqarorlik	Ekvivalent	O'zbek ilmiy adabiyotida keng ishlatiladi
15	Ecological balance	Ekologik muvozanat	Kalka	Tuzilmaviy tarjima
16	Pollution	Ifloslanish	Ekvivalent	Tillararo bir xil ishlatiladi
17	Invasive species	Yot (bosqinchi) turlar	Kombinatsiyalangan	Izohli + ekvivalent
18	Climate change	Iqlim o'zgarishi	Kalka	Tashqi shakl to'liq o'girilgan
19	Carbon footprint	Karbon izi	Kalka + metafora	Tushunchaviy moslashtirish
20	Biosphere	Biosfera	Transliteratsiya	Xalqaro shakl saqlangan

Tahliliy xulosalar. Tahlil shuni ko'rsatadiki, ekotizimga oid terminlarning aksariyati o'zbek tilida **kalka** yoki **ekvivalent** shaklida tarjima qilingan. Bu holat ekologik terminologiyani xalqaro xususiyatini aks ettiradi. Shu bilan birga, ayrim atamalarni tushunarli qilish uchun **izohli tarjima** yoki **kombinatsiyalangan usullar** zarur bo'layapti.

Ayniqsa, yangi kirib kelayotgan atamalar (masalan, carbon footprint, invasive species) o'zbek tilida hali to'liq mustahkamlanmagan. Bu tarjimon oldida muhim vazifani qo'yadi – atama mazmunini saqlagan holda uni kontekstga moslashtirish.

Yuqorida aytilgan tahliliy xulosalardan kelib chiqadigan bo'lsak, ekoterminalogiya bo'yicha ilmiy tadqiqot jarayoniga bo'lg'usi maqsadlar sifatida quyidagilarni olishimiz mumkin.

1. Ekoterminalar uchun yagona atamalar bazasi ishlab chiqilishi kerak.
2. Tarjimonlar ekologik atamalarni kontekstda tahlil qilishga o'rgatilishi lozim.
3. Tilshunoslik va ekologiya fanlari integratsiyalashgan holda o'rganilishi foydali.
4. Ekologik sohadagi matnlar uchun maxsus glossariylar tuzilishi kerak.

Xulosa

Tadqiqot davomida tahlil qilingan 20 ta asosiy ekotizim atamasining tarjimasi ularning ko'p hollarda kalkalash va ekvivalent orqali o'zbek tiliga o'girilayotganini ko'rsatdi. Ayrim hollarda esa izohli tarjima va transliteratsiya usullarining qo'llanilishi atama mazmunining to'liq yetkazilishida muhim rol o'ynaydi. Shuningdek, kombinatsiyalangan yondashuvlar ham terminologik aniqlikni saqlashda muhim omil bo'la oladi.



O‘zbek tilida ekologik terminlarning tarjimasi hali ham izchil standartlashmagan bo‘lib, bu sohaga oid maxsus lug‘atlar, qo‘llanmalar va ilmiy ishlanmalarning ko‘paytirilishi zarur. Tarjimonlar va mutaxassislar uchun terminlarning semantik mohiyatini chuqur anglash va kontekstga mos yondashuvni tanlash muhim hisoblanadi. Kelgusida ekotizim atamalarining tarjima amaliyotiga oid yanada kengroq tahlillar, xalqaro tajriba asosida solishtirma tadqiqotlar olib borilishi, shuningdek, o‘zbek ekologik terminologiyasini tizimlashtirish yo‘lida qo‘shimcha ilmiy ishlar olib borilishi lozim.

Foydalanilgan adabiyotlar:

1. Askarov, A. (2020). Ekologik terminlarning tarjimasi va ularning lingvistik xususiyatlari. Filologiya Ilmiy Jurnali.
2. Baker, M. (1992). In Other Words: A Coursebook on Translation. Routledge.
3. Bassnett, S. (2013). Translation Studies. Routledge.
4. Chesterman, A. (1997). Memes of Translation. John Benjamins.
5. Farghal, M., & Shunnaq, A. (1999). Translation with Reference to English and Arabic. Dar Al-Hilal.
6. Hatim, B., & Munday, J. (2004). Translation: An Advanced Resource Book. Routledge.
7. Newmark, P. (1988). A Textbook of Translation. Prentice Hall.
8. Nida, E.A., & Taber, C.R. (1982). The Theory and Practice of Translation. Brill.
9. Rasulov, A. (2019). Ingliz tilidan o‘zbek tiliga ekologik terminlar tarjimasi: nazariya va amaliyot. O‘zbekiston Milliy Universiteti nashriyoti.
10. Shuttleworth, M., & Cowie, M. (1997). Dictionary of Translation Studies. St. Jerome Publishing.
11. Snell-Hornby, M. (1988). Translation Studies: An Integrated Approach. John Benjamins.
12. Vinay, J.P., & Darbelnet, J. (1958). Comparative Stylistics of French and English. John Benjamins.



ЭФФЕКТИВНОСТИ ПРОВЕДЕНИЯ ЭНДОСКОПИЧЕСКОГО ИССЛЕДОВАНИЯ ПРИ ХРОНИЧЕСКИХ ФРОНТИТАХ

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Актуальность

Риносинуситы встречаются гораздо чаще, чем диагностируются, ведь в некоторых случаях клиническая картина острых синуситов маскируется симптомами острых вирусных инфекций. Но полагают, что синусит при гриппе и ОРВИ следует рассматривать не только как осложнение, но и как проявление. Эндоскопическое исследование дает возможность объективно оценить степень нарушения носового дыхания. Самым надежным способом исследования полости носа, состояния околоносовых пазух и их естественных соустьев является эндоскопия носа, которая играет ключевую роль в установке диагноза, объективной оценке эффективности лечения и выборе оптимального варианта хирургического вмешательства. При помощи эндоскопа можно последовательно осмотреть все отделы полости носа, начиная с преддверия и носового клапана. Обращают внимание на цвет слизистой оболочки, наличие и характер выделений, оценивают размеры носовых раковин, а также состояние глоточной миндалины и устьев слуховых труб.

Цель нашего исследования Изучение эффективности проведения эндоскопии при хронических фронтитах.

Материалы и методы исследования. В период с января 2021 по январь 2024 на базе ЛОР-отделения клиники АГМИ было проведено хирургическое лечение 248 пациентов с хроническим воспалением лобной пазухи (ЛП).

В зависимости от характера изменений в лобной пазухе, вовлечение в патологический процесс других околоносовых пазух (НПП) и наличия функциональных нарушений внутриносовых структур (ФПВНС) выполнялись



следующие виды хирургических вмешательств: эндоназальные фронтотомии (20,9%); эндоназальная фронтотомия с коррекцией внутриносовых структур (ВНС) (6,5%); фронтотомии в составе полисинусотомий (40,3%); полисинусотомии, включавшие фронтотомию и коррекцию ВНС (22,6%); экстраназальные фронтотомии (9,7%). Во всех случаях при выполнении фронтотомии выполнялась передняя этмоидотомия. Во всех случаях экстраназальная фронтотомия сочеталась с эндоназальным подходом.

Результаты

Хронические формы фронтита у 40,15% пациентов сопровождаются функциональными нарушениями полости носа, у 87,9% – функциональными нарушениями остиомеатального комплекса, и в 85,4 % случаев протекают в сочетании с полисинуситами; изолированный фронтит в 31,5% сопровождается функциональными нарушениями полости носа, у 92,19% - функциональными нарушениями остиомеатального комплекса.

При анализе данных КТ и эндоскопического обследования определялись структурные функциональные нарушения ВНС у 38,81%, которые создавали предпосылки нарушения аэродинамику полости носа и требовали хирургической коррекции. Искривление перегородки носа разных видов оказались у пациентов (41,7%). В 17 (54,8%) случаях у пациентов наблюдались гипертрофические изменения нижней носовой раковины. Аномалии строения средней носовой раковины (чаще «concha bullosa»), которые нуждались в хирургической коррекции, наблюдались в соответствии с распределением пациентов у 35,5%. Полипозные изменения участка лобно-носового канала были характерны при длительном (более 1 года) течении воспалительных изменений в лобной пазухе, имели локальный характер (не распространялись за пределы ОМК), и наблюдались у пациентов (38,7%).

При хроническом воспалении лобного синуса у пациентов чаще встречалось комбинированное поражение передней группы ННП – в 10 (32,3, у 17 (40,5%) пациентов фронтоэтмоидит.



Выводы

Использование эндоскопии отвечает запросам современной оториноларингологии, оставаясь актуальным и необходимым в диагностике и лечении хронических воспалений носа и придаточных пазух. Применение эндоскопических методик в лечении пациентов с хроническими воспалительными заболеваниями носа и пазух дает возможность сократить количество рецидивов, что положительно влияет на качество жизни больных.



SHARQIY QORATERANG KÓLIDAGI OQ AMUR BALIG'INING CTENOFARINGODON IDELLA (VALENCIENNES) MORFOLOGIK VA BIOEKOLOGIK XUSISIYATLARI

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Annotatsiya

Ushbu tezista Quyi Amudaryo ta'biyiy suv havzalari ta'rkibiga kiruvchi Sharqiy Qoraterang ko'lidagi o'simlikxo'r baliqlardan keng miqyosta ovlanayo'tgan oq amur balig'ining morfologik va bioekologik xususiyatlari haqida ma'lumotlar keltirilgan. Tadqiqot ovlarida oq amurning ha'rxil o'lshamdagi, yo'sh jihatdan farq qiluvchi va'killari o'rganildi. Bunda morfologik belgilari ma'xsus ixtiologik metodologiya asosida o'lshandi. Keyin bu belgilar ko'lining ta'biyiy muhiti bilan solishtirildi. Ba'rcha tadqiqot natijalari jadvallar bilan keltirilgan.

Ka'lit so'zlar. ixtiologik, bioekologiya, shtangenserkul, dorzal, ventral, pektoral, standart uzunlik, samka, samets,

Oq amur-Cyprinidae oilasiga mansub, suv o'simliklari bilan oziqlanuvchi, yirik o'lchamli daryo va ko'llarda yashovchi baliq turidir. O'zbekiston suv havzalarida u sun'iy yo'l bilan introduksiya qilingan bo'lib, biologik meliorator sifatida katta ahamiyat kasb etadi. Ushbu maqolada turning morfologik va bioekologik xususiyatlarini o'rganish asosida ularning ekologik tizimdagi roli yoritiladi. Tadqiqotda turning tana uzunligi, tana massasi, suyak tizimi, ichki organlar tuzilishi kabi morfologik ko'rsatkichlari bilan birga, yashash muhiti, ozuqalanish turi, ko'payishi va ekologik moslashuv xususiyatlari tahlil qilindi. Tadqiqot O'zbekistonning Amudaryo suv havzalaridan biri bo'lgan Qoraterang ko'lida olib borildi. Namuna sifatida 30 ta oq amur baliqlari tanlab olindi. Tana



o'lchamlari, tana massasi, ichki va tashqi morfologik tuzilmalar laboratoriya sharoitida o'lchab, statistik usullar bilan tahlil qilindi.

1-jadval. Oq amurning ba'zi morfologik ko'rsatkichlari (n = 30)

Ko'rsatkichlar	O'rtacha $\pm$ SD	Minimal qiymat	Maksimal qiymat
Umumiy tana uzunligi (sm)	68.4 ± 5.2	60.2	79.1
Tana og'irligi (kg)	5.6 ± 0.7	4.2	6.9
Bosh uzunligi (sm)	16.5 ± 1.1	14.9	18.7
Quyruq uzunligi (sm)	12.3 ± 0.8	10.9	13.5
Tana balandligi (sm)	14.2 ± 0.9	12.7	15.8

Tadqiqot davomida namunalar asosida bir nechta morfometrik ko'rsatkichlar o'rganildi. Quyidagi natijalar kuzatildi:

Umumiy tana uzunligi o'rtacha $68,4 \pm 5,2$ sm bo'lib, eng qisqa tana uzunligi 60,2 sm, eng uzuni esa 79,1 sm ni tashkil etdi. Bu natijalar tadqiqot ob'ekti bo'lgan organizmlar orasida sezilarli morfologik farqlar mavjudligini ko'rsatadi.

Tana og'irligi $5,6 \pm 0,7$ kg atrofida bo'lib, minimal og'irlik 4,2 kg, maksimal esa 6,9 kg ni tashkil etdi. Og'irlikdagi bu farqlar hayvonlarning yoshiga yoki jinsiy dimorfizmga bog'liq bo'lishi mumkin.

Bosh uzunligi o'rtacha $16,5 \pm 1,1$ sm bo'lib, eng qisqa bosh 14,9 sm, eng uzun bosh esa 18,7 sm bo'lgan. Bu ko'rsatkich bosh-skelet morfologiyasidagi individual farqlarni tavsiflaydi.

Quyruq uzunligi $12,3 \pm 0,8$ sm ni tashkil etib, quyruq uzunligi 10,9 sm dan 13,5 sm gacha o'zgaradi. Quyruq uzunligi harakatlanish va muvozanat uchun muhim ahamiyatga ega bo'lishi mumkin.

Tana balandligi esa $14,2 \pm 0,9$ sm bo'lib, minimal qiymat 12,7 sm va maksimal qiymat 15,8 sm sifatida qayd etilgan. Bu ko'rsatkich organizmlarning umumiy tana proporsiyalarini aniqlashda muhim ahamiyat kasb etadi.

Oq amurning tanasi uzunchoq, yon tomonidan siqilgan bo'lib, u suzishga moslashgan. Bosh kichik, og'zi terminal joylashgan. Tana silliq, tangachalari katta. Ko'zlari nisbatan kichik va yon tomonda joylashgan.



2-jadval. Oq amurning suzgichlar xususiyatlari

Suzgich turi	Soni (oʻrtacha)	Joylashuvi
Koʻkrak suzgichi	15–17	Pektoral
Qorin suzgichi	8–10	Ventral
Anal suzgichi	8–10	Anus sohasida
Orqa suzgich	9–11	Dorsal
Quyruq suzgichi	19–20	Kaudal, yoriqsimon

Jadvalda oq amur baliqlarining asosiy suzgich turlari, ularning oʻrtacha soni va tana boʻylab joylashuvi koʻrsatilgan. Koʻkrak suzgichlari (15–17 dona) pektoral sohada joylashib, baliqning oldinga harakatlanishi va harakatni boshqarishda ishtirok etadi. Qorin suzgichlari (8–10 dona) ventral sohada boʻlib, suzish vaqtida barqarorlikni taʼminlaydi. Anal suzgichi (8–10 dona) esa anus yaqinida joylashgan boʻlib, suzishdagi muvozanat va yoʻnalishni saqlashda yordam beradi. Orqa suzgichi (9–11 dona) dorsal (orqa) qismda joylashib, tananing tik holatda qolishini taʼminlaydi. Quyruq suzgichi esa 19–20 dona suzgich elementlaridan iborat boʻlib, kaudal (quyruq) sohada yoriqsimon shaklda joylashadi va baliqning asosiy harakat kuchini taʼminlovchi suzgich hisoblanadi.

Bu morfologik koʻrsatkichlar baliqning suzish xususiyatlarini oʻrganishda va turning identifikatsiyasi jarayonida muhim rol oʻynaydi.

Oq amur toza, oqimliligi past boʻlgan suvlarni afzal koʻradi. U daslab Oʻzbekistonning daryo va suv omborlariga sunʼiy ravishda kiritilgan boʻlib, ayniqsa, suv oʻsimliklari koʻp joylarda muvaffaqiyatli yashab kelmoqda. Oq amur asosan suv oʻsimliklari bilan oziqlanadi, jumladan qamish, qoʻgʻa, rdest singari suv oʻtari asoʻsiy oziqlik taʼrkibiga kiradi. Oq amur oʻzini faqat oqim boʻlgan daryolarda tabiiy yoʻl bilan koʻpaytiradi. Tuxumlari planktonik, suzuvchi xildadir. Sunʼiy koʻpaytirishda maxsus inkubatsiya sharoitlari talab etiladi.

3-jadval Oq amurning bioekologik xu'sisiyatlari

Ko'rsatkich	Ma'lumotlar
Ko'payish joylari	Oq amur balig'i ko'pincha katta daryolar, ko'llar va suv havzalari kabi sokin suv joylarida ko'payadi.
Suv sharoitlari	Suvning kislorod darajasi yuqori bo'lishi, suv harorati 20-24 °C bo'lishi tavsiya etiladi.
Lichinkalarning rivojlanish muddati	Lichinkalar tuxumdan chiqishidan so'ng, 2-3 kun ichida ozuqa qidirish va rivojlanish boshlanadi.
Samets va samka balig'ining farqi	Sametslari ko'pincha kichikroq va urug'li to'q qizil yoki jigarrang rangga ega, samkalariniki esa katta va yirikroq bo'ladi.
Ko'payishi	Iqlim sharoitiga qarab, ko'payish davri va tuxum qo'yish vaqti o'zgarishi mumkin.
Ozuqa manbalari	Chaboqlar suvo'tlar yoki fitoplankton kabi kichik oziq-ovqat manbalarini qidiradi.
Yovvoyi va madaniy ko'payishi	Oq amur yovvoyi tabiatda oqimda ko'payadi, lekin akvakultura orqali ham ko'paytiriladi.
Tuxum qo'yishi	Oddiy shartlarda, oyda bir xil paytda tuxum qo'yishlar amalga oshadi, lekin harorat va boshqa sharoitlar orasida farqlar mavjud.

Tadqiqot natijalari shuni ko'rsatadiki, oq amur O'zbekiston suv havzalariga moslashgan va ekologik tizimda o'z o'rniga ega. Uning asosiy ekologik roli-suv o'simliklarining ortiqcha o'sishini nazorat qilishdir. Morfologik moslashuvlar (uzun tanasi, silliq tuzilishi, o'simliklarni maydalovchi tishlar) uni ushbu rolni bajarishga imkon beradi.

Oq amur-ekologik muvozanatni saqlovchi va suv omborlarida biologik melioratsiya vazifasini bajaruvchi baliq turidir. Tadqiqotlar shuni ko'rsatadiki, bu turning morfologik va bioekologik xususiyatlari uni ommaviy sun'iy ko'paytirish va xo'jaliklarda yetishtirish uchun muhim hisoblanadi.



Adabiyotlar ro'yxati

1. M. Jumanov, G. Asenov, Z. Bekbergenova, D. Kochanov Qaraqalpaqstannıń haywanat dúnyası. 2020. 615 b.
2. Камиллов Г.К. Рыбы водохранилищ Узбекистана. - Ташкент: Фан УзССР, 1973. - 233 с.
3. Kochanov D.E Qabilbekova A., Shamedov G. Jasaw ortaligına baylanıslı aq amur baligınıń morfologiyalıq ózgesheligi // Túslik aral jaǵalawlarında tábiyiy resurslardan aqılǵa muwapiq paydalanıw: IV Respublikalıq ilimiy teoriyalıq materiýallari. – Nokis: 2015. - B. 120-122.
4. Никольский Г.В. Рыбы бассейна Амура. Москва, Издательство АН СССР, 1956, 551 с
5. Мирабдуллаев И.М., Мирзаев У.Т., Кузметов А.Р., Кимсанов З.О. Ўзбекистон ва қўшни хуудлар балиқлари аниқлагичи. -Ташкент, 2011.-107 б.
6. Никольский Г.В. Рыбы Аральского моря. – М.: 1940. - 215 с.
7. Нуриев Х. Акклиматизированные рыбы водоемов бассейна реки Заравшан. – Ташкент: Фан, 1985. - 101 с.
8. Правдин И.Ф. Руководство по изучению рыб. - М.:Пищевая промышленность, 1966. – 267 с.



**PARALLEL PENS, DIVERGENT PATHS: UNVEILING FEMINIST
THREADS IN ENGLISH AND UZBEK LITERATURE**

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An exploration of Mary Wollstonecraft and Halima Xudoyberdiyeva's contributions to feminist thought through their literary works.

Annotatsiya: Ushbu adabiy taqqosloviy tadqiqot Mary Wollstonecraft va Halima Xudoyberdiyevaning feministik merosini tahlil qiladi. Har ikki adiba o'z davri va madaniy muhitida patriarxal tuzumga qarshi chiqib, ayollar huquqlari va imkoniyatlarini kengaytirishga hissa qo'shgan. Wollstonecraft 18-asr Angliyasida ma'rifatparvarlik g'oyalari asosida ta'lim va ijtimoiy islohotlarni talab qilgan bo'lsa, Xudoyberdiyeva 20-asr O'zbekistonida she'riyat orqali ayollarning orzu-umidlari va muammolarini ifoda etgan. Tadqiqot feministik tafakkurning turli madaniyatlarda qanday namoyon bo'lishini ochib beradi.

Kalit so'zlar: Feminizm, Mary Wollstonecraft, Halima Xudoyberdiyeva, ayollar huquqlari, o'zbek adabiyoti, ingliz adabiyoti, gender tengligi, feministik tanqid, madaniyatlararo taqqoslash

Аннотация : Данное сравнительное литературное исследование посвящено вкладу Мэри Уолстонкрафт и Халимы Худойбердиевой в развитие феминистской мысли. Авторы, каждая в своём историческом и культурном контексте, выступали против патриархальных норм и отстаивали права женщин. Уолстонкрафт, действуя в эпоху Просвещения в Англии XVIII века, использовала философские трактаты, а Худойбердиева — поэзию, чтобы выразить надежды и борьбу узбекских женщин в XX веке. Исследование подчеркивает, как феминизм принимает различные формы в зависимости от культурной среды и литературного жанра.



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Ключевые слова: Феминизм, Мэри Уолстонкрафт, Халима Худойбердиева, права женщин, узбекская литература, английская литература, гендерное равенство, феминистская критика, межкультурное сравнение

Annotation: This comparative literary study explores the feminist contributions of Mary Wollstonecraft and Halima Xudoyberdiyeva. It highlights how each author, within her respective cultural and historical context, advocated for women's empowerment and challenged patriarchal norms. While Wollstonecraft employed Enlightenment ideals and rational argumentation to demand educational and societal reform in 18th-century England, Xudoyberdiyeva used lyrical poetry to articulate the voices and struggles of Uzbek women in the 20th century. The study reveals how feminism manifests through varied cultural lenses and literary forms, emphasizing both the universality and specificity of feminist expression.

Keywords: Feminism, Mary Wollstonecraft, Halima Xudoyberdiyeva, women's rights, Uzbek literature, English literature, gender equality, feminist criticism, cross-cultural comparison

Introduction to Trailblazing Feminist Literary Voices

Feminism, as a diverse and evolving ideology, has found powerful expression in literature across the globe. Writers have often been at the forefront, using their craft to challenge societal norms, advocate for women's rights, and explore the multifaceted experiences of womanhood. This article delves into a comparative analysis of two influential literary figures: Mary Wollstonecraft, a pioneering voice in English feminism, and Halima Xudoyberdiyeva, a celebrated poet who articulated feminist themes within the Uzbek cultural landscape. By examining their works and contexts, we can appreciate the distinct yet sometimes convergent ways feminism has been articulated and championed in different literary traditions.

Mary Wollstonecraft: A Beacon of Early English Feminism

Mary Wollstonecraft (1759-1797) stands as a monumental figure in the history of feminist thought and English literature. Active during the Enlightenment, a period



characterized by emphasis on reason and individual rights, Wollstonecraft extended these ideals to women, who were largely excluded from such considerations.

Championing "A Vindication of the Rights of Woman"

Her most seminal work, *A Vindication of the Rights of Woman* (1792), is a cornerstone of feminist philosophy. In it, Wollstonecraft passionately argued against the prevailing notion that women were naturally inferior to men. Instead, she asserted that the perceived differences were primarily due to a lack of education and societal conditioning that confined women to frivolous pursuits and domestic subservience. She advocated for an educational system that would cultivate women's rational faculties, enabling them to become independent individuals and contributing members of society, rather than mere "alluring mistresses."

Enlightenment Ideals and Societal Critique

Wollstonecraft's feminism was deeply rooted in Enlightenment principles. She believed in the power of reason and argued that women, possessing the same capacity for reason as men, deserved equal rights and opportunities. Her critique extended to the institution of marriage, which she saw as often transactional and oppressive for women, and to the broader patriarchal structures that limited women's participation in public and intellectual life. Her novels, such as *Mary: A Fiction* (1788) and *The Wrongs of Woman, or Maria* (published posthumously in 1798), further explored the emotional and societal constraints faced by women. Wollstonecraft's revolutionary ideas laid crucial groundwork for subsequent feminist movements in the Western world and continue to be studied for their profound insights into gender equality.

Halima Xudoyberdiyeva: Voicing Uzbek Women's Aspirations

Halima Xudoyberdiyeva (1947-2018) was a highly esteemed Uzbek poet, recognized as the "People's Poet of Uzbekistan." Her work is significant for its exploration of women's experiences, feminist themes, and national identity within the unique historical and cultural tapestry of Uzbekistan, particularly during the Soviet era and the subsequent period of independence.



Poetry as a Vehicle for Feminist Expression

Xudoyberdiyeva's poetry served as a powerful medium to articulate the hopes, dreams, struggles, and unfulfilled aspirations of Uzbek women. Her themes often revolved around women's rights, liberation movements, and the challenging of patriarchal norms that constrained women within traditional roles. She didn't shy away from depicting the complexities and paradoxes of women's lives in a society grappling with the interplay of ancient traditions, Islamic values, Soviet influence, and the quest for a modern national identity.

Feminism Intertwined with National and Cultural Identity

Unlike Wollstonecraft's more universalist Enlightenment-based feminism, Xudoyberdiyeva's feminist perspective was deeply embedded in the Uzbek context. Her poetry often celebrated the strength and resilience of Uzbek women while simultaneously critiquing societal limitations. Her work explored themes of motherhood, love, and patriotism, but through a lens that sought to empower women and amplify their voices. Scholars note that her feminism can be seen as a form of Central Asian feminism, one that navigates gender roles within a communal social fabric and aligns the struggle for women's rights with broader national and cultural aspirations. Her contributions were pivotal in shaping modern feminist discourse within Uzbek literature and inspiring future generations.

Juxtaposing Perspectives: Wollstonecraft and Xudoyberdiyeva on Feminism

Comparing Mary Wollstonecraft and Halima Xudoyberdiyeva reveals both striking commonalities in their fundamental feminist goals and significant differences in their approaches, styles, and the socio-cultural contexts that shaped their work. Both writers courageously challenged the status quo and advocated for women's betterment, yet their paths to articulating these concerns were distinct.

Converging Ideals: Shared Commitments to Women's Empowerment

At their core, both Wollstonecraft and Xudoyberdiyeva were champions of women's agency and intellectual capabilities. They both recognized and critiqued the patriarchal structures that limited women's potential and sought to elevate women's



status in society. Wollstonecraft's call for women's education as a means to rationality and independence finds a parallel in Xudoyberdiyeva's poetic articulation of women's intellectual and emotional depth and their desire for self-fulfillment. Both writers believed in women's capacity to contribute meaningfully to society beyond prescribed domestic roles and aimed to dismantle the barriers preventing them from doing so.

Diverging Paths: Contextual Differences in Feminist Expression

The differences in their feminist expressions are largely attributable to their distinct historical, cultural, and literary environments:

- **Era and Intellectual Climate:** Wollstonecraft wrote during the European Enlightenment, leveraging its emphasis on reason and universal rights to build her arguments. Xudoyberdiyeva's work emerged in 20th and early 21st-century Uzbekistan, navigating Soviet ideology, post-Soviet nation-building, and the complexities of Central Asian cultural traditions.
- **Literary Form and Style:** Wollstonecraft primarily used philosophical treatises and essays, employing direct, argumentative prose. Xudoyberdiyeva expressed her feminist ideas through poetry, using evocative language, symbolism, and forms rooted in Uzbek oral and literary traditions.
- **Scope of Feminism:** Wollstonecraft's feminism had a more universal, individualistic orientation, focusing on fundamental human rights applicable across societies. Xudoyberdiyeva's feminism was more context-specific, often intertwining women's liberation with national identity, cultural preservation, and the collective experience of Uzbek women.
- **Nature of Advocacy:** Wollstonecraft's advocacy was often overtly political and aimed at systemic legal and educational reform. Xudoyberdiyeva's advocacy, while equally passionate, was frequently channeled through cultural expression, aiming to shift consciousness and affirm women's value within their specific societal framework.



Echoes in Modern Discourse: Understanding Feminist Literary Criticism

The contributions of writers like Mary Wollstonecraft and Halima Xudoyberdiyeva are not just historical artifacts; they continue to resonate and inform contemporary discussions on gender, equality, and literature. Feminist literary criticism, as a field, provides the tools and frameworks to analyze such texts, understand their historical significance, and trace the evolution of feminist thought. It examines how literature portrays women, challenges or reinforces patriarchal ideologies, and gives voice to marginalized experiences. Engaging with works through a feminist lens allows for a deeper appreciation of the societal impacts of literature and the ongoing struggle for gender justice globally. The video below offers an introduction to the concepts of applying critical lenses, including feminism, to literature.

Understanding how feminist critics approach texts can enrich our reading of both historical and contemporary authors, revealing layers of meaning related to power, gender, and representation. It helps us recognize how writers like Wollstonecraft and Xudoyberdiyeva have not only reflected their times but also actively shaped the discourse on women's roles and rights.

References

1. Botting, E. H. (2006). *Women and Enlightenment in Eighteenth-Century Britain*. Cambridge University Press.
2. Karimova, M. (2020). Feminist motifs in Uzbek women's poetry: A study of Halima Khudoyberdiyeva's lyrical discourse. *Central Asian Literary Review*, 12(3), 45–59.
3. Halima Xudoyberdiyeva – Unionpedia. (n.d.). Retrieved June 15, 2025, from https://en.unionpedia.org/Halima_Khudoyberdiyeva
4. Halima Xudoyberdiyeva: Voice of the aspirations and unfulfilled dreams of Uzbek women. (n.d.). *International Journal of Innovations in Engineering Research and Technology (IJERT)*. <https://www.ijert.org>
5. Jainkwell Publishing. (n.d.). *The depiction of women in Uzbek and English literature*. <https://www.jainkwell.org>
6. Literariness.org. (2019). *Feminist novels and novelists*. <https://literariness.org/2019/02/15/feminist-novels-and-novelists>



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7. Mary Wollstonecraft. (2024). In Wikipedia.
https://en.wikipedia.org/wiki/Mary_Wollstonecraft
 8. Scientists.uz. (n.d.). Exploring gender dynamics in Uzbek literature [PDF].
<https://scientists.uz/gender-literature-uzbekistan>



PRACTICAL ASPECTS OF IMPROVING INTERPERSONAL RELATIONSHIPS IN THE STUDENT COMMUNITY

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ANNOTATION:

Improving interpersonal relationships within the student community is achieved not only through theoretical approaches, but also through well-planned, systematic, and step-by-step practical activities. In this regard, the coherence of psychological and pedagogical interventions, the application of developmental methodologies, training sessions, and diagnostic analyses play a significant role. Interpersonal relationships are a crucial factor in determining each student's social position within the group, communication culture, emotional stability, and adaptability to social roles. Therefore, identifying practical tools to positively shape this process and implementing them in a systematic manner is considered one of the key tasks.

Keywords: students, emotion, diagnostics, students' thinking activity, training, social roles, expressiveness, communication, interaction, feeling of distrust, skepticism, conventionality.

Improving interpersonal relationships within student groups is ensured not only through theoretical approaches, but also through clearly planned, systematic, and step-by-step practical activities. In this regard, the coherence of psychological and pedagogical interventions, the use of developmental methodologies, training sessions, and diagnostic analyses in a complementary manner plays a vital role. Interpersonal relationships serve as a key criterion in determining each student's social position within the group, their communication culture, emotional stability, and adaptability to social roles. Therefore, identifying practical tools for positively shaping this process and implementing them in a systematic manner is considered one of the essential tasks.

From a practical perspective, psychological training sessions are considered one of the most effective methods for improving interpersonal relationships. In particular,



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through socio-psychological training, students acquire skills such as engaging in open and trustworthy communication, expressing themselves, recognizing others' emotions, enhancing empathy, and fostering collaboration. During training sessions, role-playing exercises, problem-based dialogues, interactive tasks, and reflective assignments help students assess their own communicative positions and learn to consciously manage their social behavior. This, in turn, contributes to strengthening social responsibility, culturally appropriate communication, and social cohesion within the group.

In addition, another important practical method for improving interpersonal relationships is fostering social activity within the group — that is, engaging students in collaborative projects, social initiatives, group events, debates, and discussions.

The practical aspects of improving interpersonal relationships within student groups require a multi-stage, planned, and controlled systematic approach. Each type of activity must be carefully selected according to its purpose, format, and scope of psychological impact. Only through such integrated and scientifically grounded practical measures can stability in interpersonal relations, a friendly atmosphere, and psychological well-being be achieved.

In the next stage, we will focus on the correlation analysis between V. Schutz's Interpersonal Relations Questionnaire and the "Diagnostics of Interpersonal Relationships" tool.

Correlation Analysis Between V. Schutz's Interpersonal Relations Questionnaire and the "Diagnostics of Interpersonal Relationships" Method

Factors:	Need for Affiliation	Need for Control	Need for Love
Dominance – Leadership	0,14	0,14	0,12
Independence – Assertiveness	0,17	0,19	0,16
Bluntness – Aggressiveness	0,35*	0,06	0,13
Distrust – Skepticism	0,19	-0,40*	0,08
Obedience – Shyness	0,15	0,13	0,17
Attachment – Submissiveness	0,09	0,15	0,36*
Cooperation – Conventionality	0,38*	0,18	0,31*
Responsibility – Tolerance	0,07	0,34*	0,14



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According to the results of the correlation analysis between V. Schutz's Interpersonal Relations Questionnaire and the "Diagnostics of Interpersonal Relationships," the factor of "need for affiliation" showed positive correlations with the factors "bluntness – aggressiveness" ($r = 0.35$; $p \leq 0.05$) and "cooperation – conventionality" ($r = 0.38$; $p \leq 0.05$). The factor of "need for control" was negatively correlated with "distrust – skepticism" ($r = -0.40$; $p \leq 0.05$) and positively correlated with "responsibility – tolerance" ($r = 0.34$; $p \leq 0.05$). The factor of "need for love" exhibited positive correlations with "attachment – submissiveness" ($r = 0.36$; $p \leq 0.05$) and "cooperation – conventionality" ($r = 0.31$; $p \leq 0.05$).

According to the correlation analysis, the relationship between the factor of "need for affiliation" and the factor of "bluntness – aggressiveness" ($r = 0.35$; $p \leq 0.05$) indicates that this connection is strongly expressed in students who actively initiate interpersonal communication and openly express their opinions, sometimes exhibiting sharp and direct approaches. This association reflects the formation of interpersonal dynamics through social openness and an intrinsic need for communication. An increase in the need for affiliation corresponds with a higher level of bluntness, indicating a reduction of social barriers in communication. Such students actively participate in communicative activities within the group and respond promptly while showing concern for others' opinions. Expressing personal views and expecting attention to them are important for these students, and this can sometimes be manifested in tones close to aggressiveness. This connection is especially strong in students with high openness in social interaction and emotional expressiveness. Consequently, it enhances personal expressiveness and active participation within the student community. Affiliation is not merely a friendly approach but also a clear expression of an internal emotional need in social communication. Bluntness represents a form of this need expressed at times in a sharp and uncontrolled manner. Thus, these two factors harmoniously influence the quality of communication among students and affect their social evaluation. This means that socially active students can make a positive impression through their affiliation; however, when this activity intensifies excessively, there is a risk of aggressive speech style emerging. The clarity of the



boundary between social norms and individual positions in interpersonal communication is connected to the student's Internal culture.

REFERENCES

1. Abraham Maslow Ascending Life: Practical Applications of Maslow's Hierarchy for Professional Fulfillment Independently Published, 2010, 250 p, ISBN: 978-0996453954
2. Carl G. Jung Two Essays on Analytical Psychology Martino Fine Books, 2001, 300 p, ISBN: 978-1684229000
3. Eric Berne Transactional Analysis in Psychotherapy Rare Treasure Editions, 2022, 296 p, ISBN: 978-1774646748
4. Henri Tajfel Social Identity and Intergroup Relations Cambridge University Press, 2010, 546 p, ISBN: 978-0521153652
5. Kurt Lewin Field Theory in Social Science Amer Psychological Assn, 1997, 422 p, ISBN: 978-1557984159
6. Philip G. Zimbardo Psychology According to Shakespeare Prometheus Books, 2024, 344 p, ISBN: 978-1633889606
7. Viktor E. Frankl Man's Search for Meaning Beacon Press, 2000, 200 p, ISBN: 978-0807014271
8. Sigmund Freud The Revised Standard Edition of the Complete Psychological Works Rowman & Littlefield Publishers, 2004, 340p , ISBN: 978-1538176802
7. Mueller, P. A., & Oppenheimer, D. M. (2014). The Pen Is Mightier Than the Keyboard Advantages of Longhand Over Laptop Note Taking. Psychological Science, 0956797614524581.



ОПРЕДЕЛЕНИЕ ОПТИМАЛЬНЫХ ПРЕДЕЛОВ ПРОЦЕССА СУШКИ ПЛОДОВ ШИПОВНИКА С ИСПОЛЬЗОВАНИЕМ МЕТОДА БОКСА– УИЛСОНА

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АННОТАЦИЯ

В данной статье рассматривается задача оптимизации процесса сушки плодов шиповника. Для определения оптимальных условий сушки использован метод Бокса–Уилсона, основанный на градиентном подходе к поиску экстремума. Исследовано влияние параметров сушки, включая инфракрасное излучение, частоту и амплитуду вибрации. На основе экспериментальных данных определены наиболее эффективные условия проведения процесса. Также проведена статистическая оценка с использованием критерия Фишера, по результатам которой установлена влажность высушенного продукта. В статье представлены научные основы оптимизации технологического процесса на базе анализа экстремумов многопараметрических функций.

Ключевые слова: плоды шиповника, процесс сушки, оптимизация, метод Бокса–Уилсона, инфракрасное излучение, вибрация, градиент, параметры сушки, критерий Фишера, влажность, многопараметрические функции.

Введение

Оптимизация - это процесс определения наилучших, то есть оптимальных условий для осуществления технологического процесса. К процессу оптимизации подходят как к математической задаче поиска экстремумов много переменных функций [1].

Метод Бокса–Уилсона основан преимущественно на градиентном методе поиска экстремума (оптимума). Поэтому на первом этапе необходимо оценить



линейную часть модели, чтобы определить составляющие градиента и его направление. Поскольку в реальных условиях исследуемого объекта используются входные переменные, измеряемые в физических величинах, при оценке компонентов градиента следует учитывать значения интервалов изменения каждого фактора [2].

Материалы и методы исследования

Данный метод позволяет осуществлять поиск оптимума в два этапа:

- пошаговое крутое восхождение в области, близкой к оптимуму. На этом этапе эксперименты проводятся сериями в направлении быстрого повышения (или понижения) выходного параметра с целью приближения к оптимуму по градиенту функции;
- непосредственный поиск в области оптимума. На этом этапе используется план эксперимента второго порядка [3].

Математическое описание процесса в нормированных переменных будет выглядеть следующим образом:

$$y = 16,312 - 2,687 \cdot x_1 + 0,187 \cdot x_2 + 0,062 \cdot x_3$$

После того, как уравнение регрессии получено, его адекватность проверяется с помощью критерия Фишера.

$$F_p = \frac{s_{ad}^2}{s_y^2}$$

здесь: s_{ad}^2 - дисперсия адекватности, значение которой рассчитывается по формуле:

$$s_{ad}^2 = \frac{1}{N-m} \sum_{j=1}^N (\bar{y}_j - \hat{y}_j)^2$$

здесь: N – число полного факторного эксперимента; m - число коэффициентов регрессии уравнения; $\bar{y}_j, \hat{y}_j$ – j – m средние экспериментальные и расчетные значения функции отклонения в эксперименте; $N - m = f_{ad}$ степень свободы является числом и зависит от оценки дисперсии адекватности.

Результаты и обсуждения

Если моделируемый объект недостаточно изучен и нет возможности построить детерминированную модель, то математическая модель процесса строится методом экспериментального статического моделирования. При этом статистический материал собирается методом активного или пассивного исследования [3,4].

Проверка модели на адекватность

Средний	По модели	Дисперсия
17,50	18,44	1,7578125
13,50	13,06	0,3828125
19,50	19,56	0,0078125
14,50	14,19	0,1953125
20,50	19,56	1,7578125
13,00	14,19	2,8203125
18,50	18,44	0,0078125
13,50	13,06	0,3828125

Адекватность уравнения регрессии выражается выполнением следующего условия:

$$F_x \leq F_{\text{ж}}$$

Здесь: F-значение критерия Фишера.

Значение критерия Фишера равно: $F=1,78$, число степеней свободы большой и малой дисперсий $k_1 = 7$ и $k_8 = 8$.

Математическое выражение процесса в натуральных переменных выглядит следующим образом:

$$y = 16,312 - 2,687 \cdot (x_1 - 60)/1 + 0,187 \cdot (x_2 - 0,014)/0,008 + 0,062 \cdot (x_3 - 9,05)/0,22$$

из этого:

$$y = 173,23 - 2,687 \cdot x_1 + 23,375 \cdot x_2 + 2,81 \cdot x_3$$

здесь: x_1 -температура сушки, Т; x_2 -амплитуда, А; x_3 частота, F; y- влажность высушенной массы, %.

Полученное математическое выражение содержит линейную составляющую. Поэтому максимальное значение результатов сушки плодов шиповника должно находиться в пределах опытного участка. По этой причине можно изменять результаты сушки плодов шиповника, изменяя режимы процесса. В этом случае рекомендуется использовать метод Бокса-Уилсона для оптимизации параметров исследуемого процесса [2].

Вокруг исходной точки, принятой в качестве центра, строится 2^k -факторный эксперимент. Для определения координат первой точки необходимо воспользоваться следующим произведением [5]:

Затем, согласно процедуре, из всех значений δ_j выбирается максимальное, которое принимается в качестве базового значения. В этом случае $\delta_0 = \delta_1 = 1$. Для переменного фактора максимальное значение принимается за базовое, и для данной переменной выбирается базовый шаг δ_j .

На основе вышеуказанной информации получаем следующую таблицу.

Модель: $y = 173,23 - 2,687 \cdot x_1 + 23,375 \cdot x_2 + 2,81 \cdot x_3$								
Название		Факторы			Результаты			
		Температура сушки, °C	Амплитуда, м	Частота, Гц	Параметры вывода			
Начальная точка		60	0,014	9,05				
Рабочий шаг		1	0,0005	0,005				
Номер шага	Тип эксперимента				По модели	Эксперименты		Средний
					$\bar{y}$	y_2	y_1	y
1	М	59,00	0,0135	9,045	13			
2	М	58,00	0,013	9,04	14			
3	М	57,00	0,0125	9,035	15			
4	Р	56,00	0,012	9,03		18	18	18
5	М	55,00	0,0115	9,025				
6	Р	54,00	0,011	9,02		16	16	16
7	М	53,00	0,0105	9,015				
8	Р	52,00	0,01	9,01		14	12	13
9	М	51,00	0,0095	9,005				
10	Р	50,00	0,009	9		24	22	23
11	Р	49,00	0,0085	8,995		22	20	21
12	Р	48,00	0,008	8,99		20	18	19
13	Р	47,00	0,0075	8,985		18	16	17
14	Р	46,00	0,007	8,98		16	14	15
15	Р	45,00	0,0065	8,975		14	12	13
16	Р	44,00	0,006	8,97		12	10	11
17	Р	43,00	0,0055	8,965		10	8	9
18	Р	42,00	0,005	8,96		8	6	7

Примечание: М-модельные эксперименты; Р-расчётные эксперименты. Цель эксперимента – определить новое направление градиента для процедуры, реализуемой по методу Бокса–Уилсона. Это составляет содержание второго цикла данной процедуры.

Рассчитанное значение критерия Фишера: $F_x=1,78$; число степеней свободы для большой и малой дисперсий соответственно: $k_1=7$ и $k_2=8$. Табличное значение критерия Фишера: $F_j=3,50$.

Сравнение по неравенству $F_h \leq F_j$, то есть $1,78 \leq 3,50$, показывает, что влажность высушенной массы составляет $W=16$.

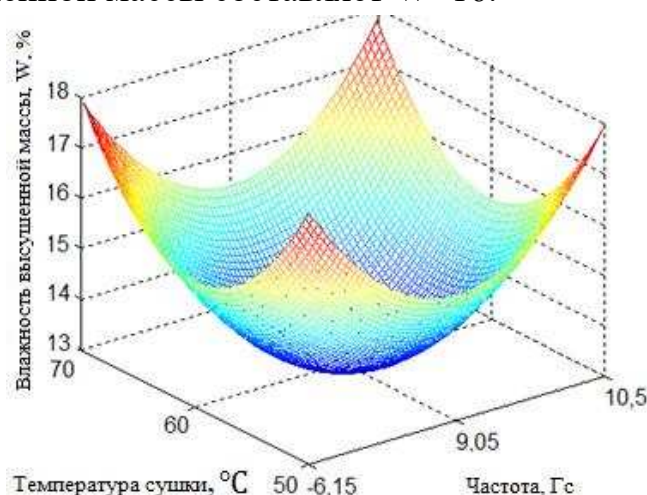


Рис.1. График зависимости влажности высушенной массы от температуры и частоты сушки в сушильном аппарате.

Заключение

В экспериментальной установке была рассмотрена задача моделирования и оптимизации процесса бланшированной сушки экспериментально-статистическим методом, а оптимальные значения процесса были найдены с помощью метода бокса-Вильсона. В программе MATLAB по уравнениям регрессии построены графики зависимости между факторами, влияющими на процесс - температурой сушки, амплитудой, частотой.



Список литературы:

1. Бояринов А.И, Кафаров В.В. Методы оптимизации в химической технологии. Изд. второе, перераб. и доп. - М.: Химия, 1975. - 576 с.
2. Юсуфбеков Н.Р., Мухаммедов Б.Э., Гуломов Ш.М. Системы управления технологическими процессами: Учебное пособие для технических вузов. - Ташкент: Учитель, 1997. - 704 с.
3. Остапчук Н.В. Основы математического моделирования процессов пищевых производств: Учебное пособие. - 2-е изд., перераб. и доп. - К.: Высша школа, 1991. - 367 с.
4. Юсупбеков н.р., Мухитдинов д. п. основы моделирования и оптимизации технологических процессов. - Т.: наука и технологии, 2015. - 440 С.
5. <https://math.semestr.ru/corel/table-fisher.php>. Распределение Фишера (F-распределение)



**BO‘LAJAK TARBIYACHILARDA AKMEOLOGIK YONDASHUV
ASOSIDA TA’LIM JARAYONINI LOYIHALASH KO‘NIKMALARINI
RIVOJLANTIRISH**

Bayzakova Maftuna Adulqosim qizi
Va shakllantirish jarayonlarini tahlil qilish
A.Qodiriy nomli JDPU 2-kurs doktoranti

Annotatsiya:

Ushbu maqolada Bo‘Lajak Tarbiyachilarda Akmeologik Yondashuv Asosida Ta’lim Jarayonini Loyihalash Ko‘Nikmalarini Rivojlantirish Va shakllantirish jarayonlarini tahlil qilish masalalari ko‘rib chiqiladi. Oliy pedagogik ta’lim jarayoni sub’ektlarining pedagogik tafakkurini shakllantirish va rivojlantirish bevosita ta’lim mazmuni yordamida amalga oshiradi

Kalit so‘zlar: Bo‘lajak tarbiyachi, akmeologiya, ta’lim, loyiha, ko‘nikma, oliy pedagogika, sub’ekt, tafakkur, zamonaviy pedagogika, maktabgacha ta’lim.

Аннотация:

В данной статье рассматриваются вопросы разработки и анализа процессов формирования навыков проектирования образовательного процесса у будущих педагогов на основе АКМЕОЛОГИЧЕСКОГО ПОДХОДА. Формирование и развитие педагогического мышления субъектов процесса высшего педагогического образования осуществляется непосредственно с помощью образовательного контента.

Ключевые слова: Будущий педагог, акмеология, образование, проект, умения, высшая педагогика, субъект, мышление, современная педагогика, дошкольное образование.

Abstract:

This article examines the issues of developing and analyzing the processes of formation of the skills of designing the educational process in future educators based



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on the ACMEOLOGY APPROACH. The formation and development of the pedagogical thinking of the subjects of the higher pedagogical education process is carried out directly with the help of educational content.

Keywords: Future educator, acmeology, education, project, skills, higher pedagogy, subject, thinking, modern pedagogy, preschool education.

O'zbekiston ta'lim tizimida zamonaviy pedagogik yondashuvlarni rivojlantirish va kasbiy tayyorgarlik jarayonida yangi metodlarni joriy etish alohida ahamiyat kasb etmoqda. Ayniqsa, maktabgacha ta'lim muassasalari va boshqa tarbiya tizimlarida ishlashga tayyorlanayotgan bo'lajak tarbiyachilarni akmeologik yondashuv asosida shakllantirish dolzarbdir. Bu yondashuv shaxsning kasbiy va shaxsiy jihatdan rivojlanishiga yordam berib, tarbiyachilarning o'z kasbida yuqori natijalarga erishishi uchun asos yaratadi. Akmeologik yondashuvning o'ziga xos jihatlari va ta'lim jarayonini loyihalashdagi o'rni haqida batafsil tushuncha berish ushbu maqolaning asosiy maqsadi hisoblanadi.

Akmeologiya – shaxsning kasbiy maqsadlariga erishishi va o'z imkoniyatlarini ro'yobga chiqarishi yo'lida eng yuqori yutuqlarni egallashni o'rganadigan fan. Bu yondashuv shaxsning faqatgina kasbiy jihatdan emas, balki shaxsiy jihatdan ham rivojlanishini nazarda tutadi. Akmeologik yondashuvning asosiy g'oyasi – insonning o'z kuchli tomonlarini rivojlantirish va zaif tomonlarini bartaraf etishga intilishdir.

Akmeologik yondashuv o'qituvchi va tarbiyachilarda o'z-o'zini tahlil qilish, kasbiy muammolarni hal qilish, innovatsiyalarni tadbiq qilish kabi ko'nikmalarni rivojlantiradi. Bo'lajak tarbiyachilarning kasbiy shakllanish jarayonida ushbu yondashuvning joriy etilishi ular o'z sohasida yuqori samaradorlikka erishishlari, shaxsiy va kasbiy mahoratlarini oshirishlari uchun katta imkoniyat yaratadi.

Bo'lajak tarbiyachilarni o'qitishda akmeologik yondashuv ta'lim jarayonini samarali loyihalashga yordam beradi. Bu yondashuvni ta'lim jarayonida qo'llash tarbiyachilarni quyidagi jihatlar bo'yicha rivojlantiradi:

- **Shaxsiy kompetentsiyalarni rivojlantirish.** Tarbiyachilar kasbiy vaziyatlarda o'zlarini qanday tutish kerakligini, qiyinchiliklarni qanday yengish



mumkinligini bilib olishadi. Ular o'z kuchli va zaif tomonlarini tahlil qilib, kasbiy kompetentsiyalarni oshirish yo'llarini izlaydi.

- **Kasbiy refleksiya.** Tarbiyachilar o'z faoliyatini tahlil qilish va tahlil natijasida xulosa chiqarish orqali o'z ishlarini yanada mukammal qilish imkoniyatiga ega bo'ladilar. Bu esa bolalar bilan ishlash jarayonida sodir bo'lishi mumkin bo'lgan pedagogik vaziyatlarga moslashishga yordam beradi.

- **Innovatsion yondashuv.** Akmeologik yondashuvni o'zlashtirgan tarbiyachilar ta'lim jarayonini kreativ va qiziqarli shaklda loyihalash ko'nikmasiga ega bo'ladilar, bolalarning qiziqishini uyg'otuvchi metodlardan foydalanishga o'rganadilar.

Akmeologik yondashuv asosida ta'lim jarayonini loyihalash quyidagi bosqichlarda amalga oshiriladi:

1. **Diagnostika bosqichi:** Bu bosqichda tarbiyachilar o'z shaxsiy va kasbiy jihatlarini tahlil qilishadi. Ularning kasbiy kuchli va zaif tomonlari, qaysi sohalarda rivojlanish kerakligini aniqlash uchun diagnostik tadqiqotlar o'tkaziladi. Diagnostika yordamida ular qaysi yo'nalishlarga e'tibor qaratishlari kerakligini bilib olishadi.

2. **Maqsad qo'yish va rejalashtirish:** Tarbiyachilar o'zlariga aniq maqsadlar qo'yib, bu maqsadlarga erishish uchun dastlabki reja ishlab chiqadilar. Bu jarayonda ular akmeologik yondashuvni tatbiq qilgan holda o'z faoliyatini rejalashtiradilar. Shuningdek, ular o'z maqsadlariga erishish uchun kerak bo'ladigan resurslarni aniqlab olishadi. Masalan, bolalarning psixologik xususiyatlarini o'rganish va bu asosda individual yondashuvlarni ishlab chiqishlari mumkin.

3. **Faoliyat jarayonini loyihalash va amalga oshirish:** Tarbiyachilar ta'lim jarayonini loyihalash jarayonida ta'lim metodlari va vositalarini tanlaydilar, bolalarning individual ehtiyojlarini inobatga olgan holda mashg'ulotlar ishlab chiqadilar. Ta'lim jarayonida qo'llaniladigan metodlar bolalarning o'z qobiliyatlarini namoyon qilishlariga yordam berishi kerak.

4. **Natijalarni baholash va refleksiya:** Refleksiya bosqichi tarbiyachilarning o'z faoliyatini tahlil qilish imkoniyatini beradi. Ular o'z ishlarini baholab, muvaffaqiyatlari va kamchiliklarini aniqlaydilar. Shu orqali tarbiyachilar kelgusida



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qanday o'zgarishlar kiritish kerakligini bilib oladilar. Bu bosqichda o'z-o'zini baholash orqali rivojlanishga qaratilgan aniq chora-tadbirlar belgilanadi.

Akmeologik yondashuv asosida loyihalangan ta'lim jarayoni tarbiyachilarga bir qator afzalliklar beradi:

- **Shaxsiy o'sishni qo'llab-quvvatlash.** Har bir tarbiyachining o'ziga xos qobiliyat va qiziqishlari inobatga olinadi va rivojlantiriladi.
- **O'z-o'zini anglash va boshqarish.** Akmeologik yondashuv yordamida tarbiyachilar o'zlarining kasbiy faoliyatida nimalarga erishishlari va qanday yo'nalishlarda ishlashlari kerakligini aniqlaydilar.
- **Motivatsiyani oshirish.** Ular o'z yutuqlarini tahlil qilib, kelgusidagi maqsadlariga erishish yo'llarini aniq belgilab oladilar. Bu esa kasbiy motivatsiyani kuchaytiradi.

Akmeologik yondashuvni ta'lim jarayonida tatbiq qilish uchun bir qator metodlar qo'llaniladi:

1. **Trening va seminarlar.** Trening mashg'ulotlari orqali tarbiyachilar kasbiy ko'nikmalarni amalda o'zlashtiradilar va refleksiya qilish imkoniyatiga ega bo'ladilar. Ular shaxsiy rivojlanish rejasini ishlab chiqish bo'yicha mashqlarni bajaradilar.

2. **Individual va guruhii ishlash.** Guruhii ish orqali tarbiyachilar o'zaro tajriba almashadilar, bu esa ularning kasbiy o'sishiga yordam beradi. Individual yondashuv esa har bir tarbiyachining o'ziga xos ehtiyojlarini hisobga olish imkonini beradi.

3. **Refleksiya va o'z-o'zini baholash.** O'z-o'zini baholash metodlari tarbiyachilarga o'z faoliyatini chuqur tahlil qilishga yordam beradi. Bu metodlar orqali tarbiyachilar o'z yutuq va kamchiliklarini aniqlaydilar.

Bo'lajak tarbiyachilarni tayyorlashda akmeologik yondashuvni qo'llash zamonaviy ta'lim talablariga javob beruvchi yuqori malakali mutaxassislar yetishtirishda muhim rol o'ynaydi. Bu yondashuv asosida ta'lim jarayonini loyihalash tarbiyachilarda o'z-o'zini rivojlantirish, kasbiy refleksiya va innovatsion fikrlash ko'nikmalarini



Adabiyotlar ro'yxati:

1. R.A. Zokirova - Maktabgacha ta'lim pedagogikasi. Toshkent: O'qituvchi , 2017 yil
2. N.N. Jo'raev - Pedagogik texnologiyalar va pedagog mahorati. Toshkent: Fan va texnologiya , 2020 yil.
3. Sh. Kurbanov - Ta'limda innovatsion yondashuvlar. Toshkent: Yangi asr avlodi, 2018 yil.
4. I. Musurmonov - Pedagogika va psixologiya asoslari. Toshkent: Sharq, 2019 yil
5. A.A. Ergashov - Pedagogik innovatsiyalar asoslari. Toshkent: O'qituvchi, 2021yil.



GAMIFICATION AS A NEW DIGITAL ASSESSMENT TOOL

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Annotation

The article examines gamification as a modern digital tool for assessing academic achievements. The advantages of this approach are analyzed: increasing learning motivation, developing self-assessment skills, and creating a personalized educational trajectory. The importance of immediate feedback and visualization of progress is emphasized as important factors for the success of gamified assessment. Special attention is paid to digital platforms and technological solutions that make it possible to effectively implement gamified assessment systems in the educational process.

Keywords: digital platforms, gamification of learning, alternative assessment, quiz platforms, role-playing quests, motivational strategies, digital educational technologies.

The modern educational paradigm is being actively transformed under the influence of digital technologies, which leads to the search for new, more effective tools for assessing academic achievements. In this context, gamification is of particular interest – an innovative approach that borrows elements of game design to increase motivation and engagement of students.

Traditional assessment systems often face problems such as low student engagement, the stressful nature of knowledge control, and limited opportunities for prompt feedback. Gamification offers an alternative solution by transforming routine assessment procedures into an exciting process where elements such as scores, badges, progress levels, and rating tables become tools for motivating and visualizing educational outcomes.

Assessment in English Language Teaching (ELT) is an important part of the educational process. Different authors offer different approaches, from traditional tests to alternative methods. Let's look at the key ideas and research.



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For example, Dina Tsagari & Ildikó Csépes explore how teachers can integrate assessment into lessons.¹ Glenn Fulcher discusses the impact of technology on testing.² Brown, H. Douglas supposes assessment is an ongoing process that encompasses a wide domain. Whenever a student responds to a question, offers a comment, or tries out a new word or structure, the teacher subconsciously makes an assessment of the student's performance.³

In the table below, he offers a comparative analysis of traditional and alternative assessment methods.⁴

Traditional Assessment	Alternative Assessment
One-shot, standardized exams	Continuous long-term assessment
Limited, multiple-choice format	Untimed, free-response format
Decontextualized test items	Contextualized communicative tasks
Scores suffice for feedback	Individualized feedback and washback
Norm-referenced scores	Criterion-referenced scores
Focus on the "right" answer	Open-ended, creative answers
Summative	Formative
Oriented to product	Oriented to process
Non-interactive performance	Interactive performance
Fosters extrinsic motivation	Fosters intrinsic motivation

According to this table, it can be concluded that traditional assessment is a standardized method of assessing knowledge (tests, tests, exams) based on quantitative indicators (scores, grades). The alternative is assessment using more flexible methods focused on the learning process, individual progress and quality indicators (projects, portfolios, self-assessment).

In our opinion, traditional assessment is convenient for mass exams, but alternative assessment is better suited for developing soft skills and a deep understanding of the subject. The optimal approach is a reasonable combination of both methods.

¹ Dina Tsagari & Ildikó Csépes Classroom-Based Language Assessment. pp. 30-52. 2011

² Fulcher, G. (2015). *Re-examining Language Testing*. Routledge. pp. 150-175. 2015

³ Brown, H. Douglas, Language Assessment: Principles and Classroom Practices. p.5. 2004

⁴ Brown, H. Douglas, Language Assessment: Principles and Classroom Practices. p.13. 2004



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In modern education, much attention is focused on the issue of introducing games into the assessment process and relevant research is being conducted. For example, Karl M. Kapp believes that Gamification transforms assessment from a stressful event into an exciting process where students see their progress.⁵

Sebastian Deterding believes that Gamification only works if game elements enhance intrinsic motivation rather than replace it.⁶ Richard Sanders suggests that Gamification increases engagement, but its effect on learning depth requires additional research.⁷ A.A. Verbitsky suggests that Gamification is not just entertainment, but it should develop competencies.⁸

Here are some effective game formats for assessing English language skills like Grammarly, Turnitin, ETS e-rater, ELSA Speak, Speechling, Duolingo English Test, Pearson Test of English, Knewton Alta, Coursera, Rosetta Stone, more game focused platforms are Lingualeo, Quizlet, Kahoot!, Quizizz Minecraft Education, NFT-сертификаты.

Task formats in quizzes

Depending on the platform, you can use different types of questions.:

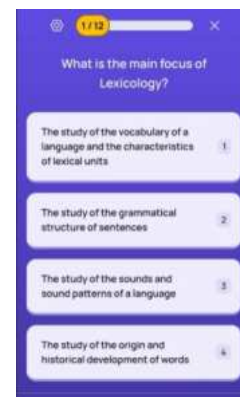
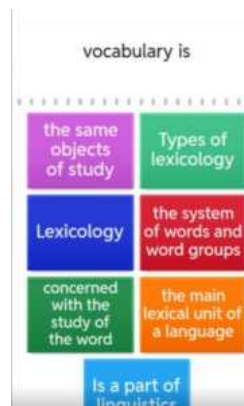
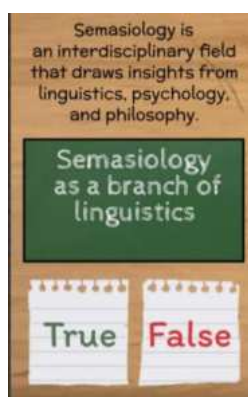
- **Multiple Choice** – for example, "What is the term for words that sound the same but have different meanings?" (Homophones).
- **Matching** – to match terms and definitions (for example, synonym, antonym, homonym).
- **Fill-in-the-blank** – "The study of word origins is called ____." (Etymology).
- **The truth/False** (True/False) – "All idioms can be translated literally." (False).
- **Open questions** (Short Answer) – "Give an example of a borrowed word in English." (for example, "café" from French

⁵ Karl M. Kapp , The Gamification of Learning and Instruction, с. 426. 2012

⁶ Sebastian Deterding, The Lens of Intrinsic Skill Atoms, с.302. 2015

⁷ Richard Landers, Gamification Science, Its History and Future. с.8. 2019

⁸ А.А. Вербицкий, Контекстное обучение в цифровой среде, с. 56. 2020



Advantages of using quiz platforms are automatic verification, interactivity, flexibility (can be used for self-examination or exam) and analytics (tracking student progress).

Gamification has become an innovative and exciting approach to modern assessment, turning traditional assessment methods into a dynamic and interactive process. By integrating game elements such as scores, badges, leaderboards, and assignments into a digital learning environment, teachers and coaches can increase students' motivation, engagement, and learning process.

The key advantage of gamified assessment lies in its ability to make learning more interesting while providing real-time feedback and measurable progress indicators. This approach not only increases student engagement, but also helps to identify their strengths and areas for development in a less stressful atmosphere.

References

1. Dina Tsagari & Ildikó Csépes Classroom-Based Language Assessment. pp. 30-52. 2011
2. Fulcher, G. (2015). *Re-examining Language Testing*. Routledge. pp. 150-175. 2015
3. Brown, H. Douglas, Language Assessment: Principles and Classroom Practices. pp.5,13. 2004
4. Karl M. Kapp, The Gamification of Learning and Instruction, c. 426. 2012



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5. Sebastian Deterding, The Lens of Intrinsic Skill Atoms, c.302. 2015
 6. Richard Landers, Gamification Science, Its History and Future. c.8. 2019
 7. А.А. Вербицкий, Контекстное обучение в цифровой среде, с. 56. 2020



DETERMINING THE MECHANISMS OF DEVELOPMENT OF MINERAL METABOLISM DISORDERS IN CALVES

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Abstract:

This article describes the mechanism of development of diseases of mineral metabolism disorders in calves, clinical signs, and dynamics of changes in hematological parameters depending on age.

Keywords: calves, vitamins, minerals, calcium, phosphorus, parathormone, hemoglobin, glucose, carotene.

Аннотация:

В статье описан механизм развития нарушений минерального обмена у телят, клинические симптомы и динамика изменений гематологических показателей в зависимости от возраста.



Ключевые слова: телята, витамины, минералы, кальций, фосфор, паратгормон, гемоглобин, глюкоза, каротин.

Relevance of the topic. Better satisfaction of the demand of the population of our republic for milk, meat, eggs and other food products largely depends on the development of livestock farming and its efficiency. The production of livestock products is mainly carried out by farms and the private sector. Regularly providing the population of the republic with high-quality livestock products is an urgent task of veterinary science and practice.

As in all sectors of the national economy, the specialization of livestock farms, the organization of farms specializing in livestock farming require constant veterinary control of agricultural animals, timely detection of diseases in young animals, and the implementation of veterinary and zootechnical measures that ensure high productivity through effective treatment and prevention.

The causes of mineral metabolism disorders in calves born from productive cows imported to farms of our republic, where livestock farming is developing on the basis of intensive technologies, and the development of effective and easy-to-use local means for early diagnosis, treatment and prevention are urgent issues.

Vitamins and minerals play a significant role in the growth and development of young animals. Therefore, it is necessary to regularly monitor the amount of vitamins and minerals necessary for the body. It has been found that the deficiency or complete absence of certain vitamins and minerals in the diet of animals leads to significant disruption of vital processes in the body and the emergence of diseases with a long latent period in the body. During such diseases, metabolic processes in the body are disrupted to a certain extent, the body stops growing and developing [1,6,8].

Even the smallest amounts of biologically active substances such as enzymes, hormones, vitamins, growth stimulants, arginine, etc. in the body are chemicals with high physiological activity for the animal body and are of great importance in ensuring the normal functioning of tissues and organs [3,5].

When the amount of Ca^{2+} ions in the blood of animals decreases, vitamin D accelerates its transfer from the bones to the blood. The intensity of calcium



absorption in the intestine and the amount of calcium-binding protein in it decrease from the duodenum to the ileum. Calcium-binding protein bound to vitamin D is present not only in the intestinal mucosa, but also in bone tissue, the pancreas and other organs. Vitamin D also stimulates the absorption of inorganic phosphorus in the duodenum of animals. In the case of calcium and phosphorus deficiency, vitamin D plays a redistributive role by mobilizing calcium and phosphorus from bone tissue and delivering them to bone growth. Vitamin D is abundant in high-quality hay, alfalfa hay, corn silage, fish oil, fish meal, egg yolk, milk, and other products [2,4,7].

Object and methods of research. In order to study the mechanism of development of mineral metabolism disorders in calves, clinical and laboratory examinations were conducted on 1-month-old Simmental calves belonging to the Khikmatov Bunyod farm in Tashkent region. The growth and development indicators of 10 calves separated on the principle of similar pairs up to 3 months of age were studied. Laboratory examinations were conducted in the private veterinary laboratory "Bioqon" located in Tashkent.

The calves in the experiment were clinically examined for appetite, color of mucous membranes, body coat, mobility, condition of teeth and bones, joints, shape of the chest, heart rate and respiratory rate per 1 minute, and body temperature °C.

Considering that the initial period of metabolic disorders in calves is associated with the quality of cow's milk and its timely provision to calves, the acidity (according to Turner), fat content (Gerber method), protein content (Kjeldahl method), milk sugar (Bertrand method), and dry matter content of cow's milk obtained from cows were determined.

Analysis of the results obtained. The chemical composition and biological properties of colostrum from cows were studied. Colostrum is a specific secretion of the mammary gland, which can be secreted by all mammals (including humans). It begins to be produced by the organism individually in each case - from the 6th month of pregnancy and up to the 10th day after birth. In order to study the chemical composition and biological properties of colostrum milked from experimental cows, colostrum milked on the 1st and 3rd days after calving was analyzed for its chemical



composition. The acidity level of colostrum milked from newly calved cows according to Turner on the 1st day after calving was on average 26.6 ± 1.6 (norm - 39.90), on the 3rd day - 33.1 ± 2.3 T. The fat content of cow's milk on the 1st day after calving was $2.7 \pm 0.05\%$ on average, and on the 3rd day - $3.2 \pm 0.05\%$ (Table 1). The protein content of cow's milk from cows was also significantly lower than the norm, and on the 1st day after calving - $11.5 \pm 0.14\%$ (norm - 14.8%), on the 3rd day - $6.2 \pm 0.08\%$. The protein content of cow's milk below the norm may negatively affect the formation of immunity to diseases in newborn calves [9].

The sugar content of cow's milk on the 1st day after calving was $3.2 \pm 0.07\%$ (norm - 3.6%), on the 3rd day - $3.4 \pm 0.08\%$, the dry matter content on the 1st day - $18.5 \pm 1.26\%$ (norm - 21.5%), on the 3rd day - $11.2 \pm 0.27\%$. From these indicators it can be seen that the biological value of cow's milk obtained from cows with micronutrient deficiencies is also low.

The literature contains information about the occurrence of dyspepsia in newborn calves in the first days of life who received cow's milk with low acidity, containing fat, proteins, milk sugar and dry matter below the norm [10]. Such sick calves begin to develop metabolic disorders.

1.- table

Milk parameters of experimental cows

INDICATORS	Days after giving birth			
	1- day	3- day	5- day	7- day
Acidity, °T	$26,6 \pm 1,6$	$33,1 \pm 2,3$	$19,3 \pm 0,70$	$17,2 \pm 2,6$
Fat, %	$2,7 \pm 0,05$	$3,2 \pm 0,05$	$3,3 \pm 0,04$	$3,4 \pm 0,06$
Protein, %	$11,5 \pm 0,14$	$6,2 \pm 0,08$	$4,4 \pm 0,05$	$3,2 \pm 0,05$
Milk sugar, %	$3,2 \pm 0,07$	$3,4 \pm 0,08$	$3,7 \pm 0,05$	$3,6 \pm 0,06$
Dry matter, %	$18,5 \pm 1,26$	$11,2 \pm 0,27$	$10,6 \pm 0,31$	$10,2 \pm 1,13$

Calves were subjected to clinical and hematological examinations starting from the age of one month.

Clinical examinations revealed that at the age of one month, calves showed signs such as pale mucous membranes, increased body cover, change in appetite, poor tooth development, bone deformation, and enlarged joints. These clinical signs were

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observed to be clearly manifested from the month of weaning. It was determined that 4 out of 10 calves examined showed signs of gastroenteritis and bronchopneumonia. During the 1-month period, the average respiratory rate per minute was 25.2 ± 0.34 times, the pulse rate was 96.4 ± 1.2 times, and up to 5 months, the dynamics of changes were 28.2 ± 0.24 and 99.8 ± 1.6 times, respectively.

2- table

Clinical indicators of calves $M \pm m$. $n=10$

№	Inspection time	Body temperature, °S	Number of breaths, per minute	Heart rate, per minute
1	1 monthly	$39,5 \pm 0,05$	$25,2 \pm 0,34$	$96,4 \pm 1,2$
2	2 monthly	$38,9 \pm 0,06$	$24,4 \pm 0,33$	$88,9 \pm 2,2$
3	3 monthly	$39,0 \pm 0,06$	$23,8 \pm 0,31$	$93,5 \pm 1,8$
4	4 monthly	$39,3 \pm 0,04$	$22,5 \pm 0,28$	$98,4 \pm 1,5$
5	5 monthly	$38,9 \pm 0,06$	$28,2 \pm 0,24$	$99,8 \pm 1,6$



Figure 1. Process of clinical examinations in calves

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Hematological indicators in calves were 105.8 ± 2.13 g/l on average at one month of age, 87.9 ± 2.34 g/l at two months of age, 79.6 ± 3.32 g/l, 69.0 ± 3.67 g/l, 68.3 ± 3.35 g/l at three months of age. The number of erythrocytes correspondingly averaged 7.26 ± 0.18 million/ μ l, 5.96 ± 0.14 million/ μ l, 5.39 ± 0.20 million/ μ l, 5.27 ± 0.10 million/ μ l, 5.05 ± 0.18 million/ μ l.

It was found that the number of leukocytes in the blood of calves decreased by an average of 1.69 thousand/ μ l compared to the initial indicators, carotene decreased accordingly to 0.210 ± 0.01 mg%, and glucose decreased to 2.54 ± 0.04 mmol/l. (Table 3)

3- table Calf blood parameters $M \pm m$, $n = 10$.

Age of calves, months	Hemoglobin, g/l	Erythrocytes, million/ μ l	Leukocytes, thousand/ μ l	Carotene, mg%	Glucose, mmol/l
1	$105,8 \pm 2,13$	$7,26 \pm 0,18$	$8,06 \pm 0,36$	$0,238 \pm 0,02$	$3,46 \pm 0,06$
2	$87,9 \pm 2,34$	$5,96 \pm 0,14$	$6,96 \pm 0,50$	$0,238 \pm 0,02$	$2,96 \pm 0,08$
3	$79,6 \pm 3,32$	$5,39 \pm 0,20$	$6,85 \pm 0,62$	$0,231 \pm 0,01$	$2,85 \pm 0,04$
4	$69,0 \pm 3,67$	$5,27 \pm 0,10$	$6,55 \pm 0,48$	$0,222 \pm 0,03$	$2,69 \pm 0,02$
5	$68,3 \pm 3,35$	$5,05 \pm 0,18$	$6,37 \pm 0,44$	$0,210 \pm 0,01$	$2,54 \pm 0,04$

Conclusion

The development of mineral metabolism disorders in calves from the day of their birth is associated with the composition of cow's milk, which is observed in the deficiency of protein, sugar, and fat in it. After the weaning period at 3 months, this pathology is accompanied by symptoms such as anemia, increased body cover, growth retardation, bone deformation, enlarged joints, as well as hypohemoglobinemia and hypoglycemia.



Literature

1. Денисенко В.Н., Абрамов П.Н. Эндемический зоб у телят в условиях Московской области // Ветеринария. - Москва, 2005. №9, С. 40-42.
2. Дульнев В. О профилактике нарушений обмена веществ у коров и диареи телят в зимний период // Молочное и мясное скотоводство. - М.: 2000, №1. С. 20-21.
3. Кондрахин И.П., Левченко В.И. Диагностика и терапия внутренних болезней животных. М.: Изд. ООО "Аквариум-Принт", 2005. С. 652-664.
4. Eshburiyev V.M. Hayvonlarning endemik mikroelementozlari. Monografiya. «N.Doba» XT. Samarqand, 2009.
5. Eshburiyev V.M. Sigirlarda mikroelementozlarning diagnostikasi, davolash va oldini olish bo'yicha tavsiyalar. «N.Doba» XT. Samarqand, 2009.
6. Eshburiyev V.M., Eshburiyev S.B., Djumanov S.M., Veterinariya akusherligi fanidan amaliy-laboratoriya mashg'ulotlari. O'quv qo'llanmasi, Samarqand, 2020. B. - 221-224.
7. Забалуев Г.И. Гиповитаминозы животных // Учебно-методическое пособие М.: Изд-во МГАВМиБ им. И.Скрябина, 2008. -171 с.
8. Кондрахин И.П. Лабораторный контроль при лечении животных Текст. / И.П. Кондрахин // Ветеринария. 2010. - №5. - С. 44-45.
9. Собиров Т., Маннапова М. Ёш хайвонлар ривожланишида оғиз сутининг аҳамияти // Зооветеринария. - Тошкент, 2010. №1, 26-б.
10. Ҳасанов М.М. Ҳайвонлар биокимёси. Тошкент. Ўзбекистон. 1996. 441-446. б.



REGION PEOPLE SUBSIDIARITY AND CULTURAL SUSTAINABILITY DIRECTIONS

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Abstract

This article discusses the principle of subsidiarity in the development of family entrepreneurship, as this principle gives family business entities the right to independently organize and conduct their activities. Family entrepreneurship, as a form of small-scale economic activity, is characterized by local decision-making on the basis of subsidiarity, efficient use of resources, and assessment of development opportunities in accordance with their own needs without external intervention.

Keywords: subsidiarity, business, crafts, resources, exports, econometrics, forecast.

Introduction

The main goal of highlighting regional handicrafts in Uzbekistan based on the principles of subsidiarity and cultural sustainability from an institutional perspective is to ensure the economic and cultural sustainable development of the handicraft sector by encouraging the growth of local initiatives and autonomy in different regions. Through the principle of subsidiarity, each region is enabled to carry out independent economic activities based on its available resources, traditional crafts, and historical heritage. This approach serves to create a scientifically grounded platform for diversifying the regional economy and strengthening regional socio-economic infrastructure.

The principle of cultural sustainability serves as a key guarantee for the long-term development of handicraft activities. The aim of this research is not only to preserve traditional crafts but also to integrate them with modern economic demands, regulate them on an institutional basis, and develop mechanisms for their active inclusion in



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economic processes. Thus, by managing regional handicrafts based on subsidiarity and cultural sustainability, folk crafts can be developed not only as cultural heritage but also as a sustainable economic resource. If the management of regional handicrafts based on the principle of subsidiarity is strengthened, a balance between regional economic development and the preservation of cultural heritage can be ensured. If institutional systems based on cultural sustainability are created within handicraft enterprises, their economic activities will gain both sustainable and innovative characteristics.

Consistent reforms are also underway to improve the system of involving regional populations in the field of folk handicrafts, to teach young people skills in local communities based on the "master-apprentice" tradition, to ensure employment, and to reduce poverty while developing the handicraft sector. Presidential Decree No. PQ-55 of December 20, 2021, "On additional measures for the development of family entrepreneurship and expanding sources of income for the population" [1], and Presidential Decree No. PQ-77 of December 30, 2021, "On further improving the support system for handicraft activities" [2], have been adopted. These decrees aim to increase employment, finance local projects, develop the handicraft sector, support artisans' activities, and provide preferential loans at an annual interest rate of 14% to members of the "Hunarmand" Association. These loans are intended for up to three years for the purchase of tools, spare parts, and raw materials, and for up to 18 months to replenish working capital. They also support the establishment of handicraft development centers, "master-apprentice" schools, the construction of home museums and workshops, or the purchase of buildings and structures for these purposes — all of which have led to positive changes in the field of folk handicrafts. The role of the subsidiarity principle in the development of regional handicraft activities is analyzed. Subsidiarity — the principle of delegating decision-making authority to the lowest possible level — in handicrafts expands the ability of local artisans, family enterprises, and small communities to implement their initiatives independently. This process increases regional economic sustainability and helps transform local cultural values into economic assets. As a result, the freedom, openness to innovation, and self-governing capabilities of folk handicraft activities are enhanced.



Literature Review on the Topic. Foreign economists such as Basco [3] have examined the economic issues of developing folk handicrafts and the digitization of national folk handicrafts in the regions through the development of applied arts by local artisans. Additionally, the positive aspects of family-based handicrafts in the national economy have been studied from the perspective of corporate governance and institutional approaches to the development of handicrafts, with the unique features of these systems explored by scholars such as Banalieva, Eddleston, Zellweger, and Steier [4].

In this direction, Uzbek researchers such as A. O'limasov [5], D.T. Yuldashev, O.M. Pardaeva [6], and others have investigated the theoretical model of the relationship between family business and regional development, highlighting the advantages of folk handicrafts. Their primary focus has been on national handicrafts developed through family business models. However, the economic and social nature of the digitization of folk handicrafts has not yet been thoroughly revealed in these works. Currently, the ongoing efforts in the digitization and future planning of the folk handicraft sector demand a more serious and scientific approach to research in this area.

Research Methodology. In this research, the prospects for the development of the folk handicraft sector were determined using mathematical modeling methods. An empirical model was developed based on the results of regression analysis of trend models within a correlation analysis framework.

Analysis and Key Findings. If mechanisms for independent decision-making are introduced in the handicraft sector based on a subsidiarity-based management model, the competitiveness and export potential of enterprises will increase. Moreover, if regional handicraft activities are developed through an integrated system where cultural heritage is treated as an economic resource, the international recognition of the regional brand will improve. When digital technologies (such as 3D and IoT) are implemented in harmony with the principle of subsidiarity, the efficiency and innovativeness of handicraft production will increase significantly.

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[7]. The objectives of scientifically substantiating the theories of subsidiarity and cultural sustainability within the institutional approach are presented in the table.

Table 1. Directions of Subsidiarity and Cultural Sustainability¹

• Goal	• Task	• Implementation Mechanism
Preserve and develop national heritage	Identify, classify, and promote local craft types	Regional research, creation of catalogs, inclusion in cultural heritage registers
Modernize handicraft technologies	Provide artisans with modern tools and equipment	Government subsidies, establishment of technology centers, organization of training
Support artisans' activities	Provide loans, grants, and tax incentives	Cooperation with commercial banks, grant competitions through artisan associations
Certify products and increase competitiveness	Formalize products based on international standards	Quality control centers, issuance of national brand labels
Expand trade and export opportunities	Establish market linkages	Online trading platforms, participation in international exhibitions, logistics networks
Train personnel and guide them toward crafts	Develop vocational courses and mentorship systems	Vocational training centers, incentives for mentors, youth job fairs
Integrate handicrafts with tourism	Turn craft workshops and exhibitions into tourist attractions	Include craft centers in tourism routes, "Live Craft" projects
Ensure environmental sustainability	Use natural and renewable resources	Eco-craft centers, "green label" system, avoidance of environmental damage

Translation: The methodology for scientifically substantiating the theories of subsidiarity and cultural sustainability, and their place within the institutional approach, includes empirical analysis and statistical methods to assess the performance indicators of regional handicraft enterprises, identify and diagnose current trends, compare foreign and local practices, study the effectiveness of governance models based on subsidiarity and cultural sustainability, and develop a regional development model and forecast parameters for the handicraft sector. Institutional proposals are clarified and improved based on feedback from specialists and practitioners in the field of handicrafts [8].

¹ Author's development as a result of studies



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The development of folk handicraft technologies requires a comprehensive approach at the regional level. Clearly defining the objectives and tasks in this area and scientifically developing mechanisms for their implementation plays a significant role in strengthening regional economies, preserving cultural heritage, and improving public welfare. In our view, supporting local initiatives should begin with promoting family entrepreneurship at the local level — that is, in neighborhoods, villages, and urban microsystems — based on the principle of subsidiarity [9]. For this purpose, regional administrative bodies should provide subsidies, preferential loans, and tax incentives for family business projects. Creating conditions for each family to make independent economic decisions based on their capabilities and resources will enhance their stability and strengthen the local economic system.

References and Sources Used:

1. O‘zbekiston Respublikasi Prezidentining 2021 yil 20 dekabrda «Oilaviy tadbirkorlikni rivojlantirish va aholining daromad manbaini kengaytirishga doir qo‘shimcha chora-tadbirlar to‘g‘risida»gi PQ-55-son // <https://lex.uz>
2. O‘zbekiston Respublikasi Prezidentining 2021 yil 30 dekabrda PQ-77-son “Hunarmandchilik faoliyatini qo‘llab-quvvatlash tizimini yanada takomillashtirish chora-tadbirlari to‘g‘risida” gi Qarori. // <https://lex.uz/docs/5807559>
3. Basco, R. Family business and regional development - A theoretical model of regional familiness. Journal of Family Business Strategy (2015), <http://dx.doi.org/10.1016/j.jfbs.2015.04>
4. Banalieva E.R., Eddleston K.A., Zellweger T.M. When do family firms have an advantage in transitioning economies? Toward a dynamic institution-based view // Strategic Management Journal. – 2015. –T. 36. -№ 9.
5. O‘lmasov A. Oila iqtisodiyoti. Toshkent – “Mexnat”- 1998.;
6. Pardaev M.Q. Oila xo‘jaligi iqtisodiyoti va tadbirkorligi. Samarqand 2001 y.;
7. Norqobilova. F. A. International scientific and practical conference // Iqtisodiy erkinlik indeksi hunarmandchilik sohasini rivojlantirishdagi roli (zenodo.org), 2023. – p 255-257.



IMPROVING TECHNOLOGIES OF REGIONAL FOLK CRAFTS PRODUCTS BASED ON A SYNERGIC APPROACH

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Annotation:

This article explores the integration of 3D technologies and the Internet of Things (IoT) into the field of handicrafts. The main objective is to modernize traditional production processes, improve product quality, enhance production efficiency, and ensure global competitiveness through proposed recommendations and solutions.

Key words: Folk crafts, digital technology, product, patenting, intellectual, subsidy, synergistic, modernization.

Introduction:

As a result of comprehensive measures being implemented in Uzbekistan to develop national handicrafts, folk decorative and applied arts, and to provide all-round support to specialists in this field, the number of folk artisans in our country has increased eightfold in recent years, the number of apprentices has grown ninefold, and the number of people employed in the sector has reached 250,000.

In particular, significant efforts are being made in the regions to further develop the applied art of folk artisans, including the creation of catalogs of national folk craftsmen, the organization of international exhibitions and competitions, and the inclusion of folk artisans in the tourism register. At the same time, it is necessary to take additional measures to fully utilize unused opportunities of family entrepreneur-artisans through a community-based approach, to further expand the system of experience exchange among artisans, and to find new markets for handicraft products.



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The system for involving the regional population in the field of folk crafts is being improved, with reforms steadily continuing to teach young people vocational skills in local communities based on the traditional “master-apprentice” model, ensure their employment, reduce poverty, and develop handicrafts.

In this regard, two key presidential decrees have been adopted: the Resolution No. PQ-55 of the President of the Republic of Uzbekistan dated December 20, 2021, “On additional measures for the development of family entrepreneurship and the expansion of income sources for the population” [1], and the Resolution No. PQ-77 dated December 30, 2021, “On further improving the system of support for handicraft activities” [2].

These resolutions aim to create employment opportunities for the population, finance their projects, develop the handicraft sector, and support the activities of artisans. They stipulate the allocation of preferential loans at an annual rate of 14% to members of the “Hunarmand” Association for purchasing equipment, spare parts, and raw materials for production needs, as well as for establishing handicraft development centers, “master-apprentice” schools, building or purchasing home-museums and workshops, for a period of up to 3 years, and for replenishing working capital for up to 18 months. These measures have led to noticeable positive changes in the field of folk handicrafts.

The digitalization of folk crafts represents a modern form of the development of digital handicrafts that can be observed today. Evaluating the development of folk crafts in the region based on trend models and studying issues related to folk craftsmanship are among the most pressing matters of the present time.

The economic challenges of developing folk crafts and the issues of digitalizing national handicrafts in the regions—particularly through the advancement of applied arts—have been studied by several foreign economists. Notably, Basco [3] has explored aspects of this area, while Banalieva, Eddleston, Zellweger, and Steier [4] have examined the positive aspects of family-based handicrafts in the national economy from the perspective of institutional approaches and corporate governance, highlighting their unique characteristics.

Within Uzbekistan, scholars such as A. O‘lmasov [5], D.T. Yuldashev, and O.M. Pardaeva [6] have investigated the theoretical model of the relationship between



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family business and regional development. Their research focuses mainly on the advantages of folk crafts within the context of family business. However, these works do not fully explore the economic and social nature of digitalization in folk craftsmanship.

At present, the ongoing work in the field of digitalizing folk crafts and identifying future prospects highlights the need for more serious scientific research and in-depth analysis of the issue.

This research makes extensive use of mathematical modeling methods—particularly correlation analysis and regression-based trend modeling—to develop an empirical model for identifying prospects for the development of folk crafts.

There are several systemic issues in the modernization of folk craft technologies using a synergistic approach and in patenting regional handicraft products as intellectual property. Key barriers include a lack of knowledge among artisans and small entrepreneurs in the field of intellectual property, the complexity and cost of obtaining patents, and insufficient access to consultation services.

The integration of digital technologies, especially 3D modeling and IoT devices, into the field of handicrafts offers the possibility to fundamentally modernize the production process. With the help of 3D technologies, it is possible to quickly and accurately design products, prepare personalized orders, and produce models on a large scale. IoT devices enable real-time monitoring of raw material quality, environmental parameters, and technological operations during the production process. This helps improve product quality, ensures efficient use of resources, and enhances production efficiency.

There are certain limitations in implementing digital technologies in the field of handicrafts. First and foremost, there is a lack of necessary technical infrastructure and high costs associated with introducing 3D and IoT technologies. Low levels of digital literacy among local artisans and limited skills in using modern software also hinder effective implementation of these technologies. Furthermore, a conservative attitude and cautious approach toward technological innovations within traditional craft culture slow down the process of innovation integration.

This diagram illustrates the step-by-step process of patenting products as intellectual property. The first stage requires the creation of an original product or technology.



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In the second stage, it is checked whether the innovation meets the requirements for patentability. In the third stage, a prepared patent application is formally submitted. Finally, in the fourth stage, patent rights are protected and maintained. Distinct graphic symbols and colored blocks are used for each stage, reflecting an organized and systematic approach to the patenting process.

Essence of the Synergistic Approach in National Handicrafts
The essence of the synergistic approach lies in modernizing folk craft technologies through the integration of various sectors — traditional handicrafts, modern design, digital technologies, environmentally friendly production, and marketing strategies. This approach harmonizes the strengths of each sector to achieve innovative and functional outcomes.

In conclusion, the expected outcome is the revival and development of traditional crafts that have existed in our country for centuries but are gradually disappearing in recent years. This includes preserving and passing down our national heritage to future generations, promoting our national identity, customs, and traditions to both local and international audiences through handicraft products. It also aims to create employment opportunities for the population in underdeveloped and remote mountainous regions of our republic. Even without advanced technologies, it is possible to produce handicraft products using locally available raw materials (such as wool, silk, leather, clay, wood, metal, etc.), thereby providing a source of income for local communities.

References and Sources Used:

1. Presidential Decree of the Republic of Uzbekistan No. PQ-55 dated December 20, 2021, "On Additional Measures to Develop Family Entrepreneurship and Expand Sources of Income for the Population." // <https://lex.uz>
2. Presidential Decree of the Republic of Uzbekistan No. PQ-77 dated December 30, 2021, "On Measures to Further Improve the System of Supporting Handicraft Activities." // <https://lex.uz/docs/5807559>
3. Basco, R. Family business and regional development – A theoretical model of regional familiness. *Journal of Family Business Strategy* (2015), <http://dx.doi.org/10.1016/j.jfbs.2015.04>



International Conference on Economics, Finance, Banking and Management

Hosted online from Paris, France

Website: econfseries.com

24th June, 2025

4. Banalieva, E.R., Eddleston, K.A., Zellweger, T.M. When do family firms have an advantage in transitioning economies? Toward a dynamic institution-based view. // Strategic Management Journal, 2015, Vol. 36, No. 9.
5. O'Imasov, A. Family Economics. Tashkent – "Mehnat" Publishing House, 1998.
6. Pardaev, M.Q. Family Household Economics and Entrepreneurship. Samarkand, 2001.
7. Norqobilova, F.A. The Role of the Economic Freedom Index in the Development of the Handicraft Sector. International Scientific and Practical Conference // zenodo.org, 2023, pp. 255–257.
8. Arens, R. Complex processes for envelopes of normal noise. // IRE Transactions on Information Theory, Sept. 1957, Vol. IT-3, pp. 204–207.



LINGUISTIC EXPRESSION OF REPROACH AND CRITICISM IN ENGLISH

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Abstract

This paper explores the linguistic means used to express reproach and criticism in English. Reproach and criticism are essential components of interpersonal communication, often used to regulate behavior, express dissatisfaction, or call attention to errors. However, these expressions are often mitigated or softened due to social norms, politeness strategies, and cultural expectations. The study analyzes both direct and indirect forms of criticism, focusing on their grammatical structures, lexical choices, and pragmatic functions in various social contexts.

Keywords: reproach, criticism, politeness strategies, pragmatics, grammatical structures, social context, communicative behavior.

Introduction

Reproach refers to an expression of disapproval or disappointment about someone's actions and in every language, speakers use specific linguistic tools to express dissatisfaction or disagreement. In English, criticism and reproach can take many forms, ranging from blunt statements to highly mitigated expressions. The way criticism is delivered often reflects cultural values such as politeness, face-saving, and indirectness. Understanding how reproach is linguistically expressed helps learners of English navigate complex social interactions effectively. Pragmatic studies on reproach have examined its roles and forms across different languages. Based on Brown and Levinson's politeness theory, reproach is considered a face-threatening act because it endangers the "face" or self-image of the individual being criticized. As a result, people use various strategies to reduce its negative effect. These strategies depend largely on cultural values related to politeness, social hierarchy, and the concept of face [1].



Main body

In English-speaking Western societies, people tend to soften reproaches by using indirect language or hedging. However, how directly someone expresses reproach can also depend on how well the people know each other and how socially distant they are. In contrast, many Asian cultures, emphasize social harmony and tend to avoid direct confrontation. They usually rely on subtle language or non-verbal signals when reproaching others. Likewise, in Arab cultures, reproach is usually moderated by respect for authority and social hierarchy, though it can be more direct when there are close personal relationships involved [2].

Criticism is broader and may include evaluative comments aimed at correcting or judging behavior. Politeness strategies play a significant role in how criticism is phrased, especially in cultures like those of English-speaking countries, where indirectness is valued. Criticism is divided into direct and indirect types. Direct criticism is explicit and leaves little room for interpretation. It is often used in hierarchical relationships or in contexts where clarity is prioritized over politeness.

"You didn't do this correctly." "That was a bad decision." "This is unacceptable."

Indirect criticism, softens the message to reduce the threat to the listener's face. This strategy is more common in professional and academic settings, or among peers.

"Maybe we could try a different approach next time."

"I see what you mean, but have you considered...?"

When giving criticism, especially in professional or interpersonal settings, the way something is said often matters just as much as what is being said. Direct or blunt criticism can come across as harsh or even confrontational. That's why people often use certain linguistic strategies to soften their tone, make their message more diplomatic, and maintain a respectful atmosphere. Below are some of the most common techniques used.

Modal verbs. Modal verbs are frequently used to express suggestions or criticisms in a softer, more tentative way. Instead of sounding like a direct command or judgment, the criticism comes across as a possibility or recommendation. This approach leaves room for discussion and avoids sounding too forceful.

"You might want to revise this part."



“Could you be more careful next time?”

Hedging Language. Hedging involves using words and phrases that make statements less direct or less certain. It can help reduce the impact of criticism and give the listener space to reflect without feeling attacked. Common hedges include: “a bit,” “perhaps,” “seems like,” “might,” “slightly.” These expressions show that the speaker is open to interpretation rather than making absolute claims.

“This might be **slightly** off.”

“It **seems like** the argument could be clearer here.”

Passive Voice. The passive voice is often used to shift the focus away from the person and toward the action or issue itself. This makes the criticism feel less personal and more objective. By avoiding direct blame, this strategy helps maintain a more neutral tone.

“**The report was not submitted on time.**”

(Instead of: “You didn’t submit the report on time.”)

Question forms. Using questions instead of statements is another way to make criticism feel less confrontational. Questions can invite reflection and discussion rather than putting someone on the defensive. This method encourages the other person to consider alternatives or justify their decisions without feeling accused.

“Do you think this was the best way to handle it?”

“Is there a reason this wasn’t included?”

Pragmatic and Cultural Considerations. English-speaking cultures, especially in the UK and North America, often prioritize politeness and indirectness in everyday interaction. Criticizing someone directly is considered rude unless the social context (such as military, emergency, or sports coaching) allows it. In contrast, some cultures view directness as honesty and value it more in criticism. Criticism in English often uses face-saving strategies³:

- Using praise before or after criticism (the “sandwich” method)
- Emphasizing shared goals (“We want this to succeed, so we need to...”) [3]

The way criticism is expressed is greatly influenced by social and contextual factors. Power relations play a key role; for example, a boss may criticize an employee more directly than the other way around [4]. Social distance also matters—people tend to



be more cautious when criticizing strangers than close friends. The context of the interaction, whether public or private, affects the tone and form of criticism as well.

Conclusion

Reproach and criticism in English are not just linguistic actions but social acts influenced by context, relationship, and cultural norms. While English allows for both direct and indirect criticism, the prevailing trend—especially in formal and cross-cultural communication—is toward mitigation and politeness. Language learners and professionals alike benefit from understanding these strategies to communicate effectively and appropriately in English.

Literature

1. Brown P., & Levinson S. C. Politeness: Some universals in language usage. Cambridge University Press, 1987.
2. Baker, M. Translation and conflict: A narrative account. Routledge. (2006)
3. Lakoff, R. The logic of politeness; or, minding your P's and Q's. Chicago Linguistics Society. (1973).
4. Holmes, J. Women, Men and Politeness. Longman. (1995)



TOURISM OPPORTUNITIES OF THE KHOJA ILGOR VILLAGE IN YAKKABAGH DISTRICT

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Annotatsiya:

Ushbu maqolada Qashqadaryo viloyati qishloqlaridan bir bo'lgan Xo'jailg'or qishlog'ining qishloq turizmnidagi ahamiyati hamda istiqbolli turistik imkoniyatlari tahlil etilgan.

Kalit so'zlar. Qashqadaryo qishloqlari, Xo'jailg'or, diniy turizm, qishloq turizmi, ziyorat turizmi, sport turizmi.

Аннотация: В статье анализируется значение передового села Ходжаилгор, одного из сел Кашкадарьинской области, в сельском туризме и его перспективные туристические возможности.

Ключевые слова. Кашкадарьинские села, Ходжалыгар, религиозный туризм, сельский туризм, паломнический туризм, спортивный туризм.

Abstract: The article analyzes the importance of the leading village of Khodjailgor, one of the villages of the Kashkadarya region, in rural tourism and its promising tourism opportunities

Keywords: Kashkadarya villages, Khojalyghar, religious tourism, rural tourism, pilgrimage tourism, sports tourism.

Introduction: The Decree of the President of the Republic of Uzbekistan Sh. Mirziyoyev dated February 3, 2018 No. PF-5326 "On additional organizational measures to create favorable conditions for the development of the tourism potential of the Republic of Uzbekistan", Resolutions dated February 7, 2018 No. PQ-3514



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“On measures to ensure the accelerated development of domestic tourism”, Decree dated January 5, 2019 No. PF-5611 “On additional measures for the accelerated development of tourism in the Republic of Uzbekistan” and the “Concept for the development of the tourism sector in the Republic of Uzbekistan in 2019-2025” approved by this decree, as well as other regulatory legal acts related to this activity, are intended to implement the tasks set out in

The main part. Khoja Ilgor was formed in the 6th century.,, **Khoja” means chief,,Ilgor “means army (head of the army).** According to M. Ochilova, a local resident who has been living in this area since 1950; Khoja Ilgor was originally a high-altitude people who lived on a hill. They came down in the summer to sow crops. They were mainly engaged in agriculture, planting melons, watermelons, and pumpkins. By the middle of the 6th century, Lashkar Bash was seriously injured in a battle with the local population, and he became an Arab. He could not be taken to Arabia, according to legend, he was put on his own horse, and the horse went to that hill and drowned, and when it sank, it turned into a white camel. They decided to bury him on that hill. When they tried to wash the body, there was no water around, but when the head of the Lashkar-e-Bashir struck the hill with his sword, water flowed out. They washed the body, wrapped it in their cloak, and buried it. The head of the Lashkar-e-Bashir was named Khoja Muhammad ibn al-Qasim. Later, 13 large springs appeared on that hill, and the land was very well-watered. After that, people began to settle in the lower part of the hill, engaged in farming and animal husbandry.

In agriculture, they grew wheat, barley, and millet. In agriculture, they grew melons, watermelons, and squash. The Khoja Ilgor hill occupied a very large area and included several hills. One of them was the Sotubabulak hill, which was named after an old wise man who lived there. His name was Sotubabulak Ata, and people from all over the area came to ask him for advice. He predicted that in the near future, the 3rd Sahibquran would be born in these places and rule the world, and that life would be abundant and cheap during his time. Our ancestors, with hope for the future, were sowing seeds of sustenance in the fields with the custom of "anointing the horn" on Navrozi, one day a boy was born in the village of Khoja Ilgor in the Kashkadarya oasis. The baby had the seal of Muhammad SAW on his back. This

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boy was the great Amir Temur. He lived in the area of Khoja Ilgor until he was 8 years old. In 1344, Muhammad Taragai, that is, the father of Amir Temur, came looking for his wife and child and took them to the city of Sharisabz. According to local residents, there are 13 springs in these places, the names of 5 of which are still circulating among the people.

There was a scabies spring, which was said to cure scabies

There was a chilla spring, which was said to cure rashes known as "chilla" that appear on babies during their 40-day chilla, and it still exists

Tort agayini spring

There was a jiyda spring

There was a big spring, which later people called it a big spring.

In addition, there were 5 main hills in the village of Khoja Ilgor, they are:

1. Khoja Ilgor hill.
2. Jiyda bulak hill.
3. Sotubabuluk hill
4. Lalmi hill
5. There were Keskan hills.

Currently, there are 3 of them, Lalmi hill and Keskan hills, living on Khoja Ilgor hill.



Picture 1 Polvontash stone

U. Khudoykulov, who lives on the Khoja Ilgor hill and is an imam, said that this area is currently being maintained under the name "Khoja Ilgor Ota Cemetery" and its area is 27 hectares. It is now also considered a pilgrimage site, with 20-30 people

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visiting it daily, 4,000 during Ramadan and Kurban holidays, and up to 1,000 people on Wednesdays and Fridays. Many pilgrims also come here on May 9th, the Memorial Day. This place is also famous for the large stone that Amir Temur used to lift in his youth, and even now young men compete in lifting this stone, which weighs up to 100 kg. It is also worth noting that scientific research centers have registered 10 old mulberry trees in the Khoja Ilgor cemetery, whose age ranges from 300 to 700 years. There is also a stone of Khoja Ilgor Ota in that place, it is not known when and by whom this stone was placed, but archaeologists have determined that it belongs to the 10th century. In history, crafts and blacksmithing were practiced in these places, and even now there are those pottery and blacksmith workshops there. Members of the Samarkand archaeological excavations found silver coins during the excavations.



Picture 2: 400-year-old mulberry tree



Picture 3: Chilla spring

Tourists from other countries also come to the Khoja Ilgor shrine. Tourists from countries such as Turkey, Russia, China, France, America, and Canada visit.

Recommendation and suggestion: The Khojailgor shrine is one of our holy places, and people, believing in it, bring sheep and cattle as sacrifices to reduce their worries and distribute them to needy families around them as charity. Another attraction is the Chilla spring, which the local population also uses widely when young children



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suffer from chilla. This spring is used by our people as a healing water to treat the skin rash called "chilla", which occurs in 40-day-old babies.

The surrounding area of this area, which is a vivid example of history, consists of dry plains and cultivated fields. Our opinion is that there is little traffic around such a historical place, only older people can be found. If recreational facilities (parks, hotels, parks, health resorts, car parks) are built in those bare areas and these places are improved, it will increase the number of young people visiting our region, the flow of tourists from other regions and foreign countries to our region, and bring significant benefits to our country's economy.

Conclusion:

The Khoja Ilgor village monument in Yakkabog district of Kashkadarya region, for some reason, people are very interested in this historical place, but in our opinion, if we create the following conditions in the vicinity of such a historical village, if we improve the reception of local and foreign tourists and provide them with services, it will allow us to further develop the flow of tourists to this area. Just like every place has its own shortcomings, this village is also not without its shortcomings, and in order to eliminate these shortcomings, we give the following conclusion. The roads in the Khoja Ilgor village area are uneven and in need of repair. If people who come to visit are thirsty or want to eat, they have to walk 500 m. Although there are few pilgrims, they arrive in their own cars or by taxi.

References

1. Resolution of the President of the Republic of Uzbekistan Sh. Mirziyoyev dated February 7, 2018 No. PQ-3514 "On measures to ensure the accelerated development of domestic tourism".
2. Tura Nafasov "Kashkadarya rural chronicle" Tashkent "Mukharrir" publishing house 2009.
3. Jumaboy Rakhmonov – "Great statesman and great commander" Tashkent Ziyos publishing house 2024.
4. Normatov S.A. Development of rural tourism in the Kashkadarya region



International Conference on Economics, Finance, Banking and Management

Hosted online from Paris, France

Website: econfseries.com

24th June, 2025

Use of international experience // Nukus Science and Society Scientific and methodological journal. 2025 P.57-66

5. Normatov S.A. The importance of rural tourism in the economic growth of the Kashkadarya region // Journal of the National University of Uzbekistan. 2024. B.230.232

6. Bayqabilov Kh.M., Normatov S.A., Issues of designing tourist routes in the foothills of the Southern Hissar // Russia "Economy and Society" 2024. B.77-81

7. <https://images.app.goo.gl/67pTMJVgHq1SKxqy8>

8. <https://images.app.goo.gl/AL93Zv3pPv6Y2WNv7>



РОЛЬ ПОЗВОНОЧНЫХ ЖИВОТНЫХ В БИОЦЕНОЗЕ РЫБНОГО ХОЗЯЙСТВА

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Аннотация:

Статья посвящена анализу роли позвоночных животных (рыб, амфибий, рептилий, птиц и млекопитающих) в биоценозах рыбных хозяйств. Рассматриваются их функции в поддержании экологического равновесия, формировании пищевых цепей, регуляции биомассы и влиянии на продуктивность водоемов. Особое внимание уделено практическим аспектам управления биоценозами для повышения эффективности рыбоводства. Выделены как положительные, так и негативные эффекты присутствия позвоночных, а также предложены методы оптимизации их взаимодействия.

Ключевые слова: позвоночные животные, рыбное хозяйство, биоценоз, пищевые цепи, экологическое равновесие, водные экосистемы, биологический контроль.

Введение. Рыбное хозяйство является важной отраслью, обеспечивающей продовольственные ресурсы и экономическую стабильность. Эффективность рыбоводства во многом зависит от состояния биоценоза водоема, представляющего собой сложную сеть взаимодействий между организмами. Позвоночные животные играют центральную роль в этих экосистемах, выполняя функции регуляторов численности популяций, участников круговорота веществ и индикаторов экологического здоровья. В данной статье подробно анализируется вклад рыб, амфибий, рептилий, птиц и млекопитающих в биоценоз рыбных хозяйств, а также рассматриваются методы управления их воздействием для достижения устойчивого развития отрасли. 1. Роль рыб в биоценозе рыбного хозяйства. Рыбы составляют основу биоценоза рыбных хозяйств, являясь как объектом хозяйственной



деятельности, так и ключевым экологическим компонентом. Их роль определяется трофическим уровнем и функциональной специализацией.

1.1. Хищные рыбы. Виды, такие как щука (*Esox lucius*), судак (*Sander lucioperca*) и сом (*Silurus glanis*), регулируют численность мелких рыб и беспозвоночных, предотвращая перенаселение водоема. Например, в прудовых хозяйствах щука эффективно контролирует популяции карася, снижая конкуренцию за кормовые ресурсы. Однако избыточное присутствие хищников может привести к сокращению товарной рыбы, что требует регулирования их численности.

1.2. Растительноядные и детритоядные рыбы. Белый амур (*Ctenopharyngodon idella*) и толстолобик (*Hypophthalmichthys molitrix*) играют важную роль в очищении водоемов от избыточной растительности и фитопланктона. Белый амур потребляет высшую водную растительность, предотвращая зарастание водоемов, а толстолобик фильтрует планктон, снижая риск эвтрофикации. Эти виды повышают качество воды и улучшают условия для выращивания карпа (*Cyprinus carpio*) и других товарных рыб.

1.3. Экологические риски. Неконтролируемая интродукция рыб, например, ротана (*Percottus glenii*), может нарушить баланс биоценоза, так как этот вид активно вытесняет местные популяции. Для предотвращения таких последствий необходимо проводить экологическую экспертизу перед введением новых видов.

2. Влияние амфибий на экосистему рыбных хозяйств. Амфибии, такие как лягушки (*Rana* spp.), тритоны (*Triturus* spp.) и жабы (*Bufo* spp.), занимают промежуточное положение в пищевых цепях водоемов. Их роль в рыбных хозяйствах менее значима, чем у рыб, но имеет экологическое значение.

2.1. Пищевая роль. Личинки амфибий (головастики) питаются водорослями и детритом, способствуя очищению водоема от органических остатков. Взрослые лягушки и жабы потребляют насекомых, включая комаров, чьи личинки могут быть конкурентами рыб за кислород и пространство.

Например, присутствие озерной лягушки (*Pelophylax ridibundus*) снижает численность комаров в прибрежной зоне.

2.2. Конкуренция и хищничество. В некоторых случаях амфибии могут конкурировать с молодь рыб за пищевые ресурсы или становиться жертвами



хищных рыб. Например, головастики могут быть кормом для окуня (*Perca fluviatilis*). Это взаимодействие требует учета при планировании биоценоза.

2.3. Индикаторная функция. Амфибии чувствительны к загрязнению водоемов, и их присутствие или отсутствие служит индикатором экологического состояния. Снижение численности лягушек может сигнализировать о накоплении пестицидов или тяжелых металлов, что важно для своевременной корректировки хозяйственной деятельности.

3. Роль рептилий в биоценозе Рептилии, такие как болотные черепахи (*Emys orbicularis*) и водяные змеи (*Natrix tessellata*), встречаются в водоемах рыбных хозяйств реже, но их влияние может быть значительным.

3.1. Трофическая роль. Болотные черепахи питаются мелкой рыбой, моллюсками и падалью, участвуя в круговороте веществ. Они также потребляют водные растения, дополняя функцию растительноядных рыб. Водяные змеи охотятся на лягушек и мелкую рыбу, регулируя их численность. Например, в водоемах Южного федерального округа России водяные змеи контролируют популяции лягушек, снижая их давление на водные ресурсы.

3.2. Негативное воздействие. В некоторых случаях черепахи и змеи наносят ущерб, поедая молодь товарной рыбы. Для минимизации потерь применяются методы отпугивания или ограничения этих видов из зон интенсивного рыбоводства.

3.3. Экологическое значение. Рептилии способствуют биоразнообразию и являются частью устойчивых экосистем. Их присутствие указывает на достаточную кормовую базу и хорошее состояние водоема.

4. Влияние птиц Ихтиофаги и водоплавающие птицы оказывают значительное воздействие на рыбные хозяйства, вызывая как положительные, так и отрицательные последствия.

4.1. Регуляция популяций. Цапли (*Ardea cinerea*), бакланы (*Phalacrocorax carbo*) и зимородки (*Alcedo atthis*) поедают рыбу, включая слабых и больных особей, что способствует естественному отбору. Например, бакланы в прудовых хозяйствах сокращают численность мелкого карпа, снижая риск перенаселения.



4.2. Экономический ущерб. Ихтиофаги могут существенно сокращать поголовье товарной рыбы. В хозяйствах, расположенных вблизи миграционных путей бакланов, потери могут достигать 10–15% от общего объема. Для защиты водоемов применяются сетчатые заграждения, звуковые отпугиватели и световые сигналы.

4.3. Косвенное влияние. Водоплавающие птицы, такие как утки (*Anas platyrhynchos*) и гуси (*Anser anser*), способствуют распространению семян водных растений и обогащению водоемов органическими веществами. Однако их экскременты могут усиливать эвтрофикацию, что требует контроля за численностью.

5. Роль млекопитающих. Млекопитающие, такие как бобры (*Castor fiber*), ондатры (*Ondatra zibethicus*) и выдры (*Lutra lutra*), оказывают комплексное воздействие на рыбные хозяйства.

5.1. Изменение среды обитания. Бобры создают плотины, которые формируют мелководные зоны, благоприятные для нереста рыб, таких как карась или линь. Однако их деятельность может привести к затоплению прибрежных участков и нарушению водообмена, что негативно сказывается на аэрации водоема.

5.2. Хищничество. Выдры являются активными хищниками, поедая рыбу, включая крупные экземпляры. В небольших водоемах их присутствие может существенно снизить продуктивность хозяйства. Для защиты применяются барьерные методы, такие как ограждения.

5.3. Экологическая роль. Ондатры питаются водной растительностью, дополняя функцию белого амура. Их норы служат убежищами для мелкой рыбы. Присутствие млекопитающих указывает на высокое биоразнообразие и экологическую устойчивость водоема.

6. Практические аспекты управления биоценозами. Для оптимизации роли позвоночных животных в рыбных хозяйствах применяются следующие методы:

6.1. Биологический контроль. Интродукция хищных рыб (например, щуки) для регуляции численности мелких видов или растительноядных рыб для



очищения водоемов. Важно избегать инвазивных видов, таких как ротан, чтобы предотвратить экологические нарушения.

6.2. Физическая защита. Установка сеток, отпугивателей и барьеров для ограничения доступа птиц и млекопитающих к водоемам.

6.3. Мониторинг экосистемы. Регулярный анализ численности позвоночных и состояния воды позволяет своевременно корректировать дисбаланс. Например, снижение популяции лягушек может указывать на загрязнение, требующее очистки водоема.

6.4. Экологический подход. Создание зон естественных биоценозов на периферии хозяйства способствует сохранению биоразнообразия и снижает давление на товарные зоны. **Заключение** Позвоночные животные выполняют разнообразные функции в биоценозах рыбных хозяйств, включая регуляцию численности популяций, участие в круговороте веществ и поддержание экологического равновесия. Их влияние может быть как положительным, так и негативным, что требует комплексного подхода к управлению экосистемами. Разработка экологически безопасных методов регуляции позволит максимизировать продуктивность рыбоводства и обеспечить устойчивость водных экосистем. Перспективы дальнейших исследований связаны с изучением долгосрочных эффектов взаимодействия позвоночных и разработкой инновационных технологий управления биоценозами.

Список литературы:

1. Богущкая Н.Г. Г., Козлов И. В. Рыбы пресных вод России: экологическая роль и видовой состав. – М.: Наука, 2018.
2. Иванов А.П. П. Экология водных биоценозов и их значение. – СПб.: Лань, 2020.
3. Смирнов В.С. С. Управление экосистемами в рыбных хозяйствах. – М.: М: Агропромиздат, 2019.
4. Экологические основы рыбоводства / Под ред. Козлова И.И..И. – М.: М: Колос, 2021.
5. Петрова А.В. В. Биоразнообразие водоемов и его роль в рыбоводстве. – М.: РГАУ-МСХА, А, 2022.



**OLIY TA'LIM TIZIMIDA FLIPPED CLASSROOM TEXNOLOGIYASI
ASOSIDA CHET TILI O'QITISH METODIKASINI
TAKOMILLASHTIRISH (4-SHO'BA)**

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Annotatsiya:

Maqolada "Flipped Classroom" (teskari sinf) texnologiyasining ilmiy-nazariy asoslari, afzallik va kamchiliklari, O'zbekiston oliy ta'lim tizimida, ayniqsa jismoniy tarbiya va sport yo'nalishlarida qo'llash istiqbollari yoritilgan. Adabiyotlar tahliliga tayangan holda, muallif ushbu metodni O'zDJTSU, O'zMU va NamDU jismoniy tarbiya va sport fakultetlari talabalari orasida tajriba tariqasida sinovdan o'tkazish taklifini ilgari suradi.

Kalit so'zlar: flipped classroom, chet tili, mustaqil o'rganish, talaba faolligi, zamonaviy ta'lim texnologiyasi, O'zbekiston oliy ta'lim tizimi.

Kirish

Raqamli transformatsiya va zamonaviy texnologiyalarning ta'lim tizimiga kirib kelishi natijasida o'quv jarayonini takomillashtirish, talabalarni mustaqil fikrlaydigan, kreativ va raqamli savodxonlikka ega shaxs sifatida shakllantirish zarurati ortmoqda. O'zbekiston Respublikasi Prezidentining 2022-yil 12-yanvardagi PQ-81-sonli farmonida xorijiy tillarni o'qitish sifatini oshirishda innovatsion metodlarni keng joriy etish zarurligi ta'kidlangan[1]. Shuningdek, 2022-yil 21-iyundagi PQ-290-sonli qarorda oliy ta'lim muassasalarida ta'lim sifatini oshirish, o'qitish jarayonini zamonaviy texnologiyalar asosida tashkil etish borasida muhim topshiriqlar belgilangan[2]. Shu munosabat bilan, "Flipped Classroom" texnologiyasi chet tilini o'qitishda samaradorligi isbotlangan yondashuv sifatida ilmiy doiralarda keng muhokama qilinmoqda.



Flipped Classroom texnologiyasining mohiyati

“Flipped Classroom” modeli dars jarayonini an’anaviy ketma-ketlikdan teskari tartibga o’zgartiradi: talabalar nazariy bilimni mustaqil tarzda, odatda uy sharoitida (video darslar, maqolalar, podkastlar orqali) o’zlashtiradi, darsda esa olingan bilimni mustahkamlovchi mashg’ulotlar, muhokamalar va amaliy topshiriqlar bajariladi. Bu yondashuv talabaning mustaqil o’rganish, tahlil qilish, muloqotga kirishish va ko’nikmalarni real sharoitda qo’llash kompetensiyalarini rivojlantiradi. Bu texnologiya, xususan, CEFR talablari asosida til ko’nikmalarini kompleks shakllantirishga imkon yaratadi.

So’nggi yillarda xorijiy va mahalliy olimlar tomonidan “Flipped Classroom” texnologiyasining samaradorligi bo’yicha bir qator tadqiqotlar olib borilgan. Xususan, J.Bergmann va A.Sams o’zining fundamental asarida flipped model orqali o’quvchilar o’z vaqtini sinfda mustaqil amaliyotga ko’proq bag’ishlashi, nazariy material esa oldindan o’zlashtirilishini samarali deb topganlar [3].

Zainuddin va Halili tomonidan olib borilgan meta-tahlilda flipped model talabalarning darsdagi ishtiroki va motivatsiyasini sezilarli darajada oshirganligi aniqlangan [4].

Chen, Hsieh, Wu va Marek (2017) ingliz tili ta’limi uchun flipped classroom modelini qo’llab, talaffuz, og’zaki nutq va fikr almashish kompetensiyalarida ijobiy o’zgarishlar qayd etganlar [5].

Mahalliy tajribalarda ham ushbu yondashuv ijobiy baholangan. Masalan, Karimova G. Farg’ona davlat universiteti filologiya yo’nalishi talabalarida flipped modelni sinab ko’rib, talabalarning faol ishtiroki va baholashdagi natijalarining oshganligini ko’rsatgan [6].

Har qanday yangi metod yoki yondashuv paydo bo’lar ekan, uni tadbiq etish jarayonida bir qancha imkoniyatlar eshiklari ochilsa-da, shu bilan birga ba’zi kamchiliklar ham bevosita ko’zga tashlanib qoladi. “Flipped classroom” texnologiyasi quyidagilar kabi afzalliklarni o’z ichiga oladi:

1. **Mustaqil ta’lim:** Talabalar o’z bilimni o’zi shakllantiradi, dars esa muhokama va amaliyot markaziga aylanadi;
2. **Moslashuvchanlik:** Talaba o’z vaqtida, o’z imkoniyati darajasida materialni o’zlashtira oladi;



3. **Til ko'nikmalarining uyg'un rivoji:** Listening, reading, speaking va writing ko'nikmalari bir vaqtda shakllanadi;
4. **Interaktiv resurslardan foydalanish:** Quizlet, Edpuzzle, Kahoot kabi vositalar motivatsiyani oshiradi;
5. **O'qituvchi rolining yangilanishi:** O'qituvchi nazariy bilim beruvchidan ko'ra, yo'naltiruvchi, maslahat beruvchi rolini egallaydi;
6. **Doimiy refleksiya va baholash imkoniyati:** Formativ baholashning real shakllari (video topshiriqlar, peer review (o'zaro baholash)) asosida tahlil yuritish imkoniyati mavjud;
7. **Jismoniy tarbiya yo'nalishlari uchun ham mos kelishi:** Sport bilan band talabalar uchun darsdan tashqari bilim olish imkonini beradi.
O'rganilgan adabiyotlar, tahlillar va nazariyalar shuni ko'rsatadiki, ushbu texnologiya O'zbekiston sharoitida qo'llanilish jarayonida ayrim kamchiliklarni yuzaga chiqarishi mumkin:
 1. **Internet va texnik vositalarning yetishmasligi:** Talabalar yoki o'qituvchilarda zarur resurslar mavjud emasligi;
 2. **O'qituvchilarda raqamli savodxonlik yetarli darajada bo'lmasligi:** Flipped modelni samarali qo'llash uchun malaka talab etiladi;
 3. **Talabaning mustaqil o'rganishga tayyor emasligi:** Intizom va ichki motivatsiya yetishmasligi samaradorlikni pasaytiradi;
 4. **Moslashtirilgan resurslar tanqisligi:** Jismoniy tarbiya yo'nalishi uchun maxsus videodarslar, topshiriqlar kam;
 5. **O'quv yuklamalarining moslashtirilmaganligi:** Ba'zi o'quv dasturlari va baholash tizimlari bu modelga to'liq mos emas.

Amaliyotga tatbiq etish istiqbollari

Tadqiqot doirasida "Flipped Classroom" texnologiyasini O'zDJTSU, O'zMU va NamDU jismoniy tarbiya va sport fakultetlarida sinovdan o'tkazish rejalashtirilmogda. Tanlov ushbu yo'nalishdagi talabalar uchun darsdan tashqari mustaqil o'rganish muhimligi, ularning bandlik darajasi, chet tilini o'rganishga nisbatan turlicha munosabatini hisobga olgan holda asoslangan. Tajriba orqali metodikaning real sharoitdagi samaradorligini aniqlash, til o'rganishga oid metodik



qo'llanmalar ishlab chiqish kutilmoqda. Ushbu sinovlar davomida maxsus tayyorlangan video darslar, interaktiv mashqlar, refleksiya jurnallari va talabalar fikrini aks ettiruvchi so'rovnomalar asosida empirik ma'lumotlar yig'ilishi rejalashtirilmoqda.

Xulosa

“Flipped Classroom” texnologiyasi zamonaviy ta'limning talaba markazida bo'lishini, mustaqil o'rganish ko'nikmalarini shakllantirishini va pedagogik jarayonni samarali tashkil etishini ta'minlaydi. Oliy ta'lim tizimida, ayniqsa jismoniy tarbiya va sport yo'nalishlari uchun bu model dolzarbdir. Tajriba sinovlari orqali texnologiyaning amaliy qiymati aniqlanib, O'zbekistonga moslashtirilgan innovatsion ta'lim tizimini shakllantirishga xizmat qiladi. Kelgusida mazkur model asosida dars berayotgan o'qituvchilar uchun uslubiy qo'llanmalar ishlab chiqish, texnologik platformalar integratsiyasi hamda baholash mezonlarini standartlashtirish zarurati mavjud.

Adabiyotlar ro'yxati

1. O'zbekiston Respublikasi Prezidentining 2022-yil 12-yanvardagi PQ–81-sonli Farmoni.
2. O'zbekiston Respublikasi Prezidentining 2022-yil 21-iyundagi PQ–290-sonli Qarori.
3. Bergmann J., Sams A. (2012). *Flip Your Classroom: Reach Every Student in Every Class Every Day*. ISTE.
4. Zainuddin, Z., & Halili, S. H. (2016). Flipped classroom research and trends from different fields of study. *The International Review of Research in Open and Distributed Learning*, 17(3), 313–340.
5. Chen Hsieh, J. S., Wu, W. C. V., & Marek, M. (2017). Using the flipped classroom to enhance EFL learning. *Computer Assisted Language Learning*, 30(1–2), 1–21.
6. Karimova G. (2021). Flipped Classroom texnologiyasini til o'rganishda qo'llash imkoniyatlari. *Til va Adabiyot Ta'limi*, 4(49), 105–110.



**UZLUKSIZ TA'LIM TIZIMIDA MA'NAVIY TARBIYANI
SHAKLLANTIRISH VA RIVOJLANTIRISHNING DOLZARB
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Annotatsiya

Ushbu maqolada ma'naviy tarbiyaning tarixiy asoslari va uzluksiz ta'lim tizimidagi ma'naviy tarbiyaning shakllanib borishida o'qituvchi mahoratining qanchalik muhimligi haqida so'z boradi. Shuningdek, ma'naviy tarbiyaning jtimoiy munosabatlarda va boshqa jabhalarda o'quvchi yoshlar kamolotidagi ahamiyati ilmiy-pedagogik jihatdan asoslab berilgan. Maqolada adabiyotlarni har tomonlama tahlil qilish va amaliy kuzatishlar orqali O'zbekistondagi mavjud ma'naviy tarbiyaning uzluksiz ta'lim tizimiga kirishi o'rganilgan bo'lib, milliy-ma'naviy tarbiyani ta'lim doirasiga integratsiyalashda qo'llaniladigan yondashuvlar haqida ham fikr yuritilgan. Natijalar Yangi O'zbekiston yoshlarini rivojlanishiga ta'sirini ta'kidlaydi.

Kalit so'zlar: Yoshlar tarbiyasi, ta'lim tizimi, axloqiy me'yorlar, pedagoglar, istiqbollar, xalqaro tajriba almashish, ta'lim-tarbiya metodlari, axloqiy me'yorlar.

Bugungi rivohlanib borayotgan Yangi O'zbekistonda ilm-fan va texnologiyaning takomillashishi nafaqat ta'limga, balki ma'naviy tarbiyani ham shakllanishiga katta e'tibor qaratishni taqozo etmoqda. Shuni ham aytishimiz kerakki, uzluksiz ta'lim tizimida yoshlarning ma'naviy tarbiyasi, uning milliy qadriyatlar asosida rivojlanib



borishi bugungi kunning dolzarb masalasiga aylanib qolmoqda. Uzluksiz ta'lim tizimida ya'ni, maktabgacha ta'limdan boshlab, oliy ta'lim va undan keyingi ta'lim tizimlarida ham shaxsda ma'naviy tarbiyaning yuksak darajada bo'lishi juda muhim omil hisoblanadi.

Ma'naviy tarbiya shaxsni ezgulikka, vatanparvarlikka, insonparvarlik kabi juda muhim fazilatlarni rivojlantirish jarayoni hisoblanib, har tomonlama yetuk shaxsni tarbiyalashimiz va uni o'z vataniga, insoniyatga sadoqatli qilib yetishtirishimizda juda muhimdir.

Uzluksiz ta'lim tizimida ma'naviy tarbiyani shakllantirishda albatta, pedagoglarning o'rni beqiyos. Ular yoshlarga tarixiy shaxslarni hayoti va fazilatlari asosida ta'lim berishsa, badiiy adabiyotlar, teatr va san'at orqali ularning estetik didlarini rivojlantirishsa va milliy urf-odatlar orqali ularda o'zligiga bo'lgan hurmatni shakllantirib borishsa, ma'naviy tarbiya ham yuksak darajda rivojlanib boradi.

Hozirgi sharoitda yoshlarni ochiq fikrlaydigan va dunyoqarashi keng qilib tarbiyalash va ta'lim berish juda zarur. Pedagoglar yoshlarning dunyoqarashi va axloqiy fazilatlarining rivojlanishida asosiy ro'lda turadi. O'qituvchining shaxsiy namunasi, uning nutqi, odobi va qadriyatlarga munosabati o'quvchilarda ongli ravishda o'z aksini topadi. Maktabgacha ta'limdan boshlab oliy ta'limgacha bo'lgan ta'lim jarayonlarda pedagog o'z faoliyatini yoshlarning yosh xususiyatlari va rivojlanish bosqishlarini inobatga olgan holda ma'naviy tarbiyaga alohida e'tibor berishi juda muhim. Pedagog bolalarda boshlang'ich ta'limdanoq o'quvchilar jamoasini tog'ri tashkil eta olsa, tashkiliy faoliyatlarda ularni har tomonlama qo'llab-quvvatlasa va o'quvchilar o'rtasida psixologik iqlim yarata olsagina ma'naviy tarbiya rivojlanib boradi. Albatta, ushbu jarayonlarni to'g'ri tashkil etish uchun pedagogdan faqat kasbiy mahorat emas balki, ma'naviy tayyorgarlik ham talab etiladi. Pedagog ma'naviy jihatdan yetuk bo'lsa zamonaviy bilim va ma'naviy tarbiyani yangicha metodlar orqali olib borsa, bu bolalarda ma'naviy tarbiyani osongina shakllanishidan darak beradi.

Shuni ham ta'kidlab o'tishimiz kerakki, ba'zi ta'lim muassasalarida pedagoglar, oilalarda esa ba'zi ota onalar o'z ustilarida muntazam ishlamasliklari, ma'naviy yetuklik va insoniy fazilatlarni rivojlantirishga yetarli ahamiyat bermasliklari



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natijasida yoshlar uchun namuna bo'la olisholmaydilar va bunda yoshlarning ma'naviy tarbiyasida ham ko'zga ko'rinarli nuqsonlar paydo bo'ladi. O'qituvchi o'z fanidan yetarli bilimga ega bo'lishi mumkin lekin, ma'naviy axloqiy fazilatlariga befarq bo'lsa, uning ta'sirchanlik kuchi kamayadi. Bunga misol qilib shuni aytishim mumkinki, o'qituvchilar bolalarda psixologik iqlimni to'g'ri yarata olmasalar, o'quvchilarning o'rtasida turli nizolar kelib chiqadi. Ya'ni tadbirlar yoki loyihalarga qatnashishda o'qituvchi sinfning fikrini tinglamasa, ularning hissiyotlariga e'tibor bermasa va sust o'zlashtiruvchi o'quvchilarni ushbu loyiha va tadbirlarda qo'llab-quvvatlamasa ma'naviy tarbiyaning nuqsonlari ko'payib boraveradi va yoshlarda bir-birlariga bo'lgan o'zaro hurmat, ishonch kabi tushunchalar yo'qolib ketadi. Shuningdek, ba'zi oilalarda farzand tarbiyasi ikkinchi o'ringa tushib qolmoqda. Ijtimoiy va iqtisodiy muammolar ota-onani farzand bilan yaqin muloqotdan chetlashtirmoqda. Raqamli texnologiyalar va ijtimoiy tarmoqlarning salbiy ta'sirida bolalar va o'smirlar virtual dunyoda ko'proq vaqt o'tkazmoqda, bu esa hayotning muhim qadriyatlarini anglashga xalaqit beradi. Ijtimoiy tarmoqlarda joylanayotgan va yoshlar tomonidan faol kuzatilayotgan ko'p kontentlar ma'naviy qadriyatlarga zid bo'lgan g'oyalarni targ'ib qiladi.

Ta'lim muassasalarida esa tarbiya ishlarining yetarlicha tizimli olib borilmasligi natijasida darslarda ko'proq bilimga urg'u beriladi, tarbiya esa ikkinchi darajali bo'lib qolmoqda. O'qituvchilarning pedagogik mahorati, tarbiyaviy yondashuvi har doim ham yetarli darajada emas. Zamonaviy hayot tezligi va madaniyatsizlik virusining tarqalishibbilan g'arbcha hayot tarziga ko'r-ko'rona ergashish kuchayib bormoqda. Milliy urf-odat, odob-axloq me'yorlariga nisbatan loqaydlik kuchaymoqda. Yoshlarda hayotga nisbatan maqsadsizlik va mustaqil fikrning yetishmasligida ko'pgina yoshlar o'z oldiga ma'naviy yoki hayotiy yuksak maqsad qo'ya olmayapti. Bunday holat ma'naviy tarbiyani shakllantirish va rivojlantirishning dolzarb masalaga aylanayotganini ko'rsatmoqda.

Pedagoglar ko'p yillik ish stajiga va yuksak darajada kasbiy mahoratga ega bo'lishlari muhim, lekin ma'naviy tarbiyani to'g'ri tashkil eta olish qobiliyatiga ham egamilar? Ushbu savolga to'laqonli javob topilsagina, yoshlarda uzluksiz ta'lim bilan birgalikda ma'naviy tarbiya ham rivojlanib boradi. Axir aytishadiku: "Ta'lim

- bu bilim berish, tarbiya esa insonni hayotga tayyorlashdir. Tarbiyasiz ta'lim - daraxtsiz bog'ga o'xshaydi".



Bugungi kundagi yoshlarning ijtimoiy va ma'naviy befarqlikda ulg'ayishlari, axloqiy qadriyatlarga nisbatan sovuqqonligi, turli giyohvandlik moddalarning keng tarqalayotganligi bularning hammasi ma'naviy tarbiyadagi nuqsonlar tufaylidir.

Mening fikrimcha, pedagoglar faoliyatida malaka oshirish tizimini yangicha yondashuvlar orqali takomillashtirilsa, yoshlarning ta'limi va tarbiyasi bo'yicha doimiy tarzda xalqaro tajribalar almashinuvi yo'lga qo'yilsa va eng muhimi pedagoglarning attestatsiya imtihonlarida faqat kasbiy bilimlari sinovdan o'tkazilmay, ularning yoshlarda qay darajada ma'naviy tarbiyani shakllantira olish qobiliyatlari ham sinovdan o'tkazilsa maqsadga muvofiq bo'lar edi. Agar yuqorida sanab o'tilgan jarayonlar uzluksiz tarzda yo'lga qo'yilsa, nafaqat yoshlarning



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ma'naviy tarbiyasida balki uzluksiz ta'lim tizimida ham yuksak darajada rivojlanishni kuzatishimiz mumkin bo'ladi.

Uzluksiz ta'lim tizimida pedagoglarning attestatsiya imtihonlarida ularning yoshlarda qay darajada ma'naviy tarbiyani shakllantira olish qobiliyatini tekshirish yo'lga qo'yilsagina, yoshlarda ma'naviy ong va qadriyatlar shakllanadi chunki, bu fazilatlarni bola faqat oilasidan olibgina qolmay, o'qituvchisidan ham namuna qilib oladi. Shu yo'sinda pedagoglarning mahoratlari oshib borsa, yoshlar ijtimoiy ma'suliyatni his etadilar ya'ni, o'z oilasi va Vatani oldida javobgarlikni his qilishadi, befarq bo'lishmaydi. Bungunki kunda dolzarb muammoga aylanib borayotgan, salbiy illatlar zo'ravonlik, giyohvandlik kabi salbiy hodisalarga nisbatan kuchli immunitet hosil bo'ladi va shu tarzda mustaqil va ijobiy fikrlaydigan avlod yetishib chiqadi. Bu esa o'z-o'zidan jamiyatimizda kuchli rivojlanishga olib keladi. Qisqacha qilib aytganda, o'qituvchilar ma'naviy tarbiyani berishga jiddiy tayyorlansa va bu tizim adolatli ishlasa, jamiyat ko'proq madaniyatli, adolatli, taraqqiy etgan va mustahkam bo'ladi.

- **Yaponiyaning** maktablarida bolalarga tozalikka rioya qilish, kattalarga hurmat, tartib va ijtimoiy ma'suliyatni o'rgatish asosiy o'rinda turadi.
- **Janubiy Koreyada** ta'lim tizimi va oilalarda odob-axloq, madaniyat va qattiq mehnat qadriyatlari talqin qilinadi.
- **Norvegiya davlatida** esa, shaxsiy erkinlik inson huquqlari va o'zaro hurmat tarbiyaning markazida turadi.
- **Finlandiyada** ham har bir shaxsning ruhiy rivojlanishi va jamiyatda o'z o'rnini topishi muhim deb qaraladi.

Bundan shuni tushinishimiz mumkinki, rivojlangan davlatlarning aksariyati nafaqat ta'lim jihatidan, balki ma'naviy tarbiya jihatidan ham o'z ustunligini ko'rsatmoqda. Shu bois, bizning mamlakatimizda ham o'z kelajagimiz uchun yosh avlodning ma'naviy rivojlanishiga katta e'tibor qaratishimiz zarur.

Albatta, yana bir muhim narsani e'tibordan chetda qoldirmasligimiz zarur, ya'ni yoshlarning ma'naviy tarbiyasi bilan shug'ullanish faqat maktab yoki universitet vazifasi emas. Oila va jamiyat ham yoshlarning ma'naviy tarbiyasi yuksak darajada bo'lib ulg'ayishlarida muhim ahamiyatga ega. Bolani yoshligidan oilasi uning ma'naviy jihatdan nuqsonlarsiz bo'lishini ta'minlasa va bunga



pedagoglar ham befarq bo'lishmasa, jamiyatning barcha jabhalarida yuksalish bo'ladi. Shuningdek, **Ma'naviy-axloqiy tarbiyani oshirishda oila - tarbiyaning birinchi maktabi hisoblanadi. Mazkur muammoning bartaraf etish yo'li sifatida birinchidan, ota-onalarga psixologik-pedagogik bilim beruvchi seminarlar tashkil etish, farzand bilan mehrli va mas'uliyatli muloqotga e'tiborni kuchaytirish lozim.**

Ikkinchidan, **maktab va o'qituvchi rolini kuchaytirish lozim. Bunda darslardan tashqari tarbiyaviy soatlar, davra suhbatlari va dramatizatsiyalashgan o'yinlar o'tkazib turish, har bir fan o'qituvchisining darslariga ma'naviy-axloqiy qadriyatlar integratsiya qilinishi kerak.**

Uchinchidan, **ma'naviy yetakchilarni maxsus tayyorgarligini oshirish lozim. Bunda mahalladan, maktabdan chiqqan namunali yoshlar faoliyatini ommalashtirish, o'quvchilar orasida liderlik salohiyati bor bolalarga tarbiyaviy tashabbuslar berish, media va madaniyat vositalaridan to'g'ri foydalanish ko'nikmalarini hosil qilish, ma'naviy film, kitob, audio va video kontentlar asosida diskussiya tashkil etish, mobil ilovalar orqali ijobiy qadriyatlarni targ'ib qilish (masalan, kunlik hadis, odob darslari ilovasi) kerak.**

To'rtinchidan, **innovatsion yondashuvlar asosida ma'naviy-axloqiy tarbiyaga oid interaktiv platformalar yaratish, tarbiya jarayoniga teatr, animatsiya, musiqiy vositalarni jalb etish maqsadga muvofiq bo'lar edi.**

Bugungi kunda ma'naviy tarbiya har qachongidan ham muhimroq. Yoshlarda axloqiy qadriyatlar sustlashayotgan bo'lsa, bu - jamiyatning e'tiborini yo'qotayotganidan dalolat. Barcha bo'g'inlar - oila, maktab, mahalla, ommaviy axborot vositalari, ijtimoiy tarmoqlar birgalikda harakat qilgandagina bu muammoni hal etish mumkin.

Xulosa qilib shuni aytishim mumkinki, bugungi globallashtirish davrida uzluksiz ta'lim bilan bir qatorda ma'naviy tarbiya ham alohida ahamiyat kasb etmoqda. Jamiyatda faqatgina ilmiy bilim va yangi texnologiyalar emas, axloqiy fazilatlar va ruhiy yetuklik ham jamiyat taraqqiyotining asosi hisoblanadi. Yuqorida ko'rib o'tkanimizdek dunyodagi ilg'or davlatlarning ta'lim tizimida ma'naviy tarbiyaga katta e'tibor bergan holda yoshlarni nafaqat bilimli, balki ijtimoiy ma'suliyatli, madaniyatli, fuqarolik burchini his qiladigan shaxs sifatida voyaga



yetkazmoqdalar. Biz ham o'z yurtimizda ushbu yondashuvlarni va berilgan tavsiyalarni qo'llasak, kelajakda ilmi va ma'naviy yetuk jamiyatni shakllantirishga to'laqonli erishgan bo'lamiz va albatta talimda va boshqa sohalarda ham yuqori natijalarga erishamiz deb hisoblasak bo'ladi.

Foydalanilgan adabiyotlar ro'yxati:

1. Maxkamov, U. I., & Ismoilova, D. M (2021). Umumiy o'rta ta'lim maktablarida tarbiyaviy ishlarning shakllari va usullari. Academic research in educational sciences, 2(4), 380-386.
2. Ulfat, M., & Dlafruz, I (2020). Tarbiya- yuksak ma'naviyat beshigi. Academic research in educational sciences.
3. Maktabgacha ta'lim tashkilotlari pedagoglarining malaka oshirish tizimini takomillashtirish: dolzarb masalalar, nazariy yondashuvlar va istiqbollar. Abdunazarova N. F. maqolasi.
4. Valiyeva Feruza Rashidovna, Abdunazarova Nargiza Fatxullayevna, Zakirov Alisher Akbarovich SCOPUS. The importance of ensuring the mental, physical, spiritual development of educators of pre-school educational organizations.
5. Uzluksiz ma'naviy tarbiya jarayonida o'qituvchi mahorati. N,U. Maxkamova maqolasi.



LABORATORY DIAGNOSIS OF AUTOIMMUNE DISEASES

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Annotation

Autoimmune diseases are a heterogeneous group of pathologies characterised by impaired immunological tolerance and the production of autoantibodies directed against the body's own tissues. Effective laboratory diagnostics plays a key role in early detection, monitoring and prediction of the course of these diseases. This review considers modern methods of laboratory diagnostics of autoimmune diseases, including serological, molecular-biological and functional tests, and evaluates their specificity and sensitivity in clinical practice [3,4,5].

Keywords: autoimmune diseases, systemic lupus erythematosus, rheumatoid arthritis, immunoenzyme analysis, autoimmune thyroiditis;

Introduction

Autoimmune diseases cover a wide range of nosological units, including systemic lupus erythematosus (SLE), rheumatoid arthritis (RA), systemic scleroderma, autoimmune thyroiditis, celiac disease and others. According to epidemiological studies, the prevalence of autoimmune diseases is steadily increasing, which makes it necessary to improve the methods of their laboratory diagnosis. The diagnostic



process includes identification of autoantibodies, determination of inflammatory markers, analysis of the functional state of the immune system and application of molecular technologies [1,2,6].

Serological diagnostics. The central place in the laboratory diagnosis of autoimmune diseases is occupied by serological analysis for the presence of specific autoantibodies. The most significant methods include:

- **antibodies ELISA (enzyme-linked immunosorbent assay) - widely used to quantify autoantibodies such as antinuclear (ANA), anticardiolipin antibodies, anti-CCP (anti-cyclic citrullinated peptides), etc.**
- **- Indirect immune fluorescence assay (IIFA) - used to detect ANA on Hep-2 cells, allowing visualisation of the type of fluorescent glow associated with specific autoimmune pathologies.**
- **- Immunoblotting and immunoprecipitation - have high specificity and are used to clarify the spectrum of autoantibodies, particularly in SLE, scleroderma, and myositis.**

Additional information about the severity of the disease and the activity of the inflammatory process is provided by: C-reactive protein (CRP) and erythrocyte sedimentation rate (ESR) are non-specific but sensitive markers of systemic inflammation [7,8,9,10].

- **- Cytokines (IL-6, TNF- α , IFN- γ)** reflect the level of activation of the immune system and are involved in the pathogenesis of many autoimmune diseases. Additional information about the severity of the disease and the activity of the inflammatory process is provided by: C-reactive protein (CRP) and erythrocyte sedimentation rate (ESR) are non-specific but sensitive markers of systemic inflammation.
- **- Organ-specific enzymes and hormones - e.g. thyroid hormones and thyroperoxidase antibodies in autoimmune thyroiditis [21,22,23,24].**
- **Molecular genetic methods.** With the introduction of molecular diagnostics it has become possible to identify predisposition to autoimmune diseases. The most popular are: **Определение HLA- types (e.g. HLA-B27 in ankylosing spondylitis).**
- **- PCR analysis to detect polymorphisms of genes associated with autoimmune reactions. NGS**



- **(next-generation sequencing)** is a promising area for studying gene expression and detecting pathogenetically significant mutations [16,17,18,19,20].

- **Cellular immunological tests.** Assessing the functional status of cells in the immune system is also important:

- **- Immunophenotyping by flow cytometry** - allows to determine the ratio of lymphocyte subpopulations and the presence of activation markers. Cellular immunological tests. Assessment of the functional state of the cells of the immune system is also important:

- **- Lymphocyte proliferation tests** - used in the evaluation of immunodeficiency states and autoimmune pathologies.

Prospects and challenges. Despite the wide variety of laboratory methods, the diagnosis of autoimmune diseases remains challenging due to their clinical and immunological polymorphism. The combination of different techniques, the use of multi-analyses and the development of artificial intelligence (AI)-based algorithms represent promising avenues to improve diagnostic accuracy and patient stratification [11,12,13,14,15].

Conclusion. Laboratory diagnostics is an integral component of the management of patients with autoimmune diseases. Modern methods allow not only to confirm the diagnosis, but also to assess the disease activity, predict its course and monitor the effectiveness of therapy. The development of high-tech and multidisciplinary approaches opens new horizons in understanding autoimmune pathology and personalising medical care.

References

1. Abduhakimov B. A. et al. Bolalar va o'smirlarda birlamchi tuberkulyozning o'ziga xos kechish xususiyatlari va klinik-laboratoriya usullari //Ta'lim innovatsiyasi va integratsiyasi. – 2024. – T. 32. – №. 3. – С. 139-143.
2. Бердиярова Ш. Ш. и др. Клинико-лабораторная диагностика фолиевой кислотодефицитной анемии //TADQIQOTLAR. UZ. – 2024. – T. 49. – №. 3. – С. 46-53.



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3. Umarova T. A., Kudratova Z. E., Axmadova P. Role of conditionally pathogenic microflora in human life activities //Web of Medicine: Journal of Medicine, Practice and Nursing. – 2024. – T. 2. – №. 11. – C. 29-32.
4. Muhamadiyeva L. A., Kudratova Z. E., Sirojeddinova S. Pastki nafas yo'llari patologiyasining rivojlanishida atipik mikrofloraning roli va zamonaviy diagnostikasi //Tadqiqotlar. Uz. – 2024. – T. 37. – №. 3. – C. 135-139.
5. Umarova T. A., Kudratova Z. E., Norboyeva F. Modern aspects of etiology and epidemiology of giardias //Web of Medicine: Journal of Medicine, Practice and Nursing. – 2024. – T. 2. – №. 11. – C. 25-28.
6. Isomadinova L. K., Daminov F. A. Glomerulonefrit kasalligida sitokinlar ahamiyati //Journal of new century innovations. – 2024. – T. 49. – №. 2. – C. 117-120.
7. Umarova T. A., Kudratova Z. E., Maxmudova H. Mechanisms of infection by echinococcosis //Web of Medicine: Journal of Medicine, Practice and Nursing. – 2024. – T. 2. – №. 11. – C. 18-21.
8. Даминов Ф. А., Исомадинова Л. К., Рашидов А. Этиопатогенетические и клинико-лабораторные особенности сальмонеллиоза //TADQIQOTLAR. UZ. – 2024. – T. 49. – №. 3. – C. 61-67.
9. Umarova T. A., Kudratova Z. E., Baxromova M. Autoimmune diseases: new solutions in modern laboratory diagnostics //International Conference on Modern Science and Scientific Studies. – 2024. – C. 78-81.
10. Бердиярова Ш. Ш. и др. Узловой зоб и его клинико-лабораторная диагностика //TADQIQOTLAR. UZ. – 2024. – T. 49. – №. 3. – C. 38-45.
11. Umarova T. A., Kudratova Z. E., Muhsinovna R. M. The main purpose of laboratory diagnosis in rheumatic diseases //International Conference on Modern Science and Scientific Studies. – 2024. – C. 82-85.
12. Umarova T. A., Kudratova Z. E., Ruxshona X. Contemporary concepts of chronic pancryatitis //International Conference on Modern Science and Scientific Studies. – 2024. – C. 11-15.
13. Хамидов З. З., Амонова Г. У., Исаев Х. Ж. Некоторые аспекты патоморфологии неспецифических язвенных колитов //Молодежь и медицинская наука в XXI веке. – 2019. – С. 76-76.



14. Umarova T. A., Kudratova Z. E., Muminova G. Instrumental diagnostic studies in chronic pancreatitis //International Conference on Modern Science and Scientific Studies. – 2024. – С. 16-20.
15. Атамурадовна М.Л., Рустамовна Р.Г., Эркиновна К.З. Роль современных биомаркеров в изучении различных поражений головного мозга //Достижения науки и образования. – 2020. – №. 10 (64). – С. 88-90.
16. Рустамова Г. Р., Мухамадиева Л. А. Современные аспекты клинко-лабораторных методов исследования острой ревматической лихорадки //International scientific review. – 2020. – №. LXVI. – С. 106-110.
17. Кудратова З.Е. и др. Роль цитокиновой регуляции при обструктивном синдроме атипичного генеза у детей // Анналы Румынского общества клеточной биологии. – 2021. – Т. 25. – №. 1. – С. 6279-6291.
18. Erkinovna K. Z. et al. Bronchial obstruction syndrome in young children with respiratory infections of different etiology: features of clinical manifestations and immune response //Проблемы науки. – 2021. – №. 1 (60). – С. 60-62.
19. Кудратова З.Е. и др. Хламидийные инфекции (внутриклеточная инфекция) в развитии бронхита // TJE-Tematics journal of Education ISSN. – 2021. – С. 2249-9822.
20. Kudratova Z. E. et al. Principles of therapy of chlamydial and mycoplasma infections at the present stage //Вопросы науки и образования. – 2021. – №. 28 (153). – С. 23-26.
21. Rustamova G. R., Kudratova Z. E. CHRONIC ENDOMETRITIS OLD ISSUES NEW POSSIBILITIES //Western European Journal of Medicine and Medical Science. – 2024. – Т. 2. – №. 5. – С. 12-14.
22. Erkinovna K. Z., Rustamovna R. G., Suratovna H. F. LABORATORY MARKERS OF PERINATAL HYPOXIC DAMAGE TO THE CENTRAL NERVOUS SYSTEM IN NEWBORNS //Наука, техника и образование. – 2020. – №. 10 (74). – С. 102-104.
23. Mukhamadiev L. A., Rustamova G. R., Kudratova Z. E. IMMEDIATE RESULTS OF COMPLEX TREATMENT OF CHILDREN WITH CHRONIC TONSILLITIS AND CHRONIC ADENOIDITIS ASSOCIATED WITH CMV



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AND EBV //Western European Journal of Medicine and Medical Science. – 2024.
– T. 2. – №. 5. – C. 20-24.

24. Umarova T. A., Kudratova Z. E., Norxujayeva A. Etiopathogenesis and modern laboratory diagnosis of prostatitis //International Conference on Modern Science and Scientific Studies. – 2024. – C. 6-10.



MODERN METHODS OF LABORATORY DIAGNOSTICS

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Abstract

Laboratory diagnostics plays a key role in modern medicine, providing more than 70% of the information needed for diagnosis, monitoring the course of diseases and assessing the effectiveness of therapy. Modern technologies are rapidly evolving, expanding the possibilities of diagnostics and increasing its accuracy, specificity and speed. This article discusses the main directions of laboratory diagnostics development, including molecular genetic methods, high-throughput sequencing, immunochemical technologies, process automation and the integration of artificial intelligence [1,2,3,4].

Keywords: laboratory diagnostics, sequencing, serological tests, immunological tests, genetic mutations, biomarkers;

Laboratory diagnostics plays a key role in modern medicine, providing more than 70% of the information needed for diagnosis, monitoring the course of diseases and assessing the effectiveness of therapy. Modern technologies are rapidly developing, expanding the possibilities of diagnostics and increasing its accuracy, specificity and speed. This article reviews the main directions of laboratory diagnostics



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development, including molecular genetic methods, high-throughput sequencing, immunochemical technologies, process automation and artificial intelligence integration [5,6,7,8].

Modern medical practice is unthinkable without laboratory diagnostics, which is the basis of evidence-based medicine. Traditional methods such as microscopy, biochemical analysis and serological tests are complemented by innovative technologies that allow detection of minimal concentrations of biomarkers, detection of genetic mutations and prognosis of disease course. Increasing demands for personalised medicine are driving the adoption of increasingly accurate and informative diagnostic solutions [9,10,11,12].

Molecular genetic methods. Molecular diagnostics occupies one of the leading positions among modern trends. Polymerase chain reaction (PCR) remains the 'gold standard' in the detection of infectious agents and mutations. Classical PCR is being replaced by more sensitive and highly specific methods such as digital PCR (dPCR) and loop isothermal amplification (LAMP) [13,14,15].

Additionally, next-generation sequencing (NGS) methods allow analysing the entire genome or transcriptome, which significantly expands the diagnostic possibilities for cancer, hereditary and infectious diseases.

Immunochemical and biosensor diagnostics. Enzyme-linked immunosorbent assay (ELISA), chemiluminescence and immunochromatography methods provide high sensitivity in the detection of antigens, antibodies and other biomolecules [16,17,18,19,20].

Modern biosensors, including nanotechnology platforms and biochips, enable rapid real-time diagnostics. An example is the use of point biochips (lab-on-a-chip) in the diagnosis of COVID-19, oncopathologies and cardiovascular diseases.

Automation and robotisation of laboratory processes. The development of automated analysers and laboratory information systems (LIS) is improving reproducibility and reducing the impact of human error. High-throughput laboratories use robotic platforms that provide 24/7 sample processing, as well as automatic interpretation and archiving of results [21,22,23,24].



Artificial intelligence and digital diagnostics

Artificial Intelligence (AI) and machine learning based systems are being actively implemented in the interpretation of laboratory data, especially in haematology and microbiology. AI algorithms can recognise pathological cells, perform differential analysis and predict clinical outcomes.

In addition, telediagnostics and the integration of laboratory data with electronic medical records contribute to increasing accessibility and personalisation of care.

Immunochemical and Biosensor Diagnostics

Enzyme-linked immunosorbent assay (ELISA), chemiluminescence and immunochromatography methods provide high sensitivity in the detection of antigens, antibodies and other biomolecules.

Modern biosensors, including nanotechnology platforms and biochips, enable rapid real-time diagnostics. An example is the use of point biochips (lab-on-a-chip) in the diagnosis of COVID-19, oncopathologies and cardiovascular diseases.

Conclusion

Modern laboratory diagnostic methods are a synthesis of innovative biotechnology, automation and digital solutions. Their implementation significantly increases the efficiency of healthcare, allowing not only to detect diseases faster and more accurately, but also to predict their development. The prospects for the development of this field are associated with further improvement of technologies, reduction of their cost and expansion of clinical application.

References

1. Abduhakimov B. A. et al. Bolalar va o'smirlarda birlamchi tuberkulyozning o'ziga xos kechish xususiyatlari va klinik-laboratoriya usullari //Ta'lim innovatsiyasi va integratsiyasi. – 2024. – T. 32. – №. 3. – C. 139-143.
2. Бердиярова Ш. Ш. и др. Клинико-лабораторная диагностика фолиево́й кислотодефицитной анемии //TADQIQOTLAR. UZ. – 2024. – T. 49. – №. 3. – C. 46-53.



International Conference on Economics, Finance, Banking and Management

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Website: econfseries.com

24th June, 2025

3. Umarova T. A., Kudratova Z. E., Axmadova P. Role of conditionally pathogenic microflora in human life activities //Web of Medicine: Journal of Medicine, Practice and Nursing. – 2024. – T. 2. – №. 11. – C. 29-32.
4. Muhamadiyeva L. A., Kudratova Z. E., Sirojeddinova S. Pastki nafas yo'llari patologiyasining rivojlanishida atipik mikrofloraning roli va zamonaviy diagnostikasi //Tadqiqotlar. Uz. – 2024. – T. 37. – №. 3. – C. 135-139.
5. Umarova T. A., Kudratova Z. E., Norboyeva F. Modern aspects of etiology and epidemiology of giardias //Web of Medicine: Journal of Medicine, Practice and Nursing. – 2024. – T. 2. – №. 11. – C. 25-28.
6. Isomadinova L. K., Daminov F. A. Glomerulonefrit kasalligida sitokinlar ahamiyati //Journal of new century innovations. – 2024. – T. 49. – №. 2. – C. 117-120.
7. Umarova T. A., Kudratova Z. E., Maxmudova H. Mechanisms of infection by echinococcosis //Web of Medicine: Journal of Medicine, Practice and Nursing. – 2024. – T. 2. – №. 11. – C. 18-21.
8. Даминов Ф. А., Исомадинова Л. К., Рашидов А. Этиопатогенетические и клинико-лабораторные особенности сальмонеллиоза //TADQIQOTLAR. UZ. – 2024. – T. 49. – №. 3. – C. 61-67.
9. Umarova T. A., Kudratova Z. E., Baxromova M. Autoimmune diseases: new solutions in modern laboratory diagnostics //International Conference on Modern Science and Scientific Studies. – 2024. – C. 78-81.
10. Бердиярова Ш. Ш. и др. Узловой зоб и его клинико-лабораторная диагностика //TADQIQOTLAR. UZ. – 2024. – T. 49. – №. 3. – C. 38-45.
11. Umarova T. A., Kudratova Z. E., Muhsinovna R. M. The main purpose of laboratory diagnosis in rheumatic diseases //International Conference on Modern Science and Scientific Studies. – 2024. – C. 82-85.
12. Umarova T. A., Kudratova Z. E., Ruxshona X. Contemporary concepts of chronic pancryatitis //International Conference on Modern Science and Scientific Studies. – 2024. – C. 11-15.
13. Хамидов З. З., Амонова Г. У., Исаев Х. Ж. Некоторые аспекты патоморфологии неспецифических язвенных колитов //Молодежь и медицинская наука в XXI веке. – 2019. – С. 76-76.



14. Umarova T. A., Kudratova Z. E., Muminova G. Instrumental diagnostic studies in chronic pancreatitis //International Conference on Modern Science and Scientific Studies. – 2024. – С. 16-20.
15. Атамурадовна М.Л., Рустамовна Р.Г., Эркиновна К.З. Роль современных биомаркеров в изучении различных поражений головного мозга //Достижения науки и образования. – 2020. – №. 10 (64). – С. 88-90.
16. Рустамова Г. Р., Мухамадиева Л. А. Современные аспекты клинко-лабораторных методов исследования острой ревматической лихорадки //International scientific review. – 2020. – №. LXVI. – С. 106-110.
17. Кудратова З.Е. и др. Роль цитокиновой регуляции при обструктивном синдроме атипичного генеза у детей // Анналы Румынского общества клеточной биологии. – 2021. – Т. 25. – №. 1. – С. 6279-6291.
18. Erkinovna K. Z. et al. Bronchial obstruction syndrome in young children with respiratory infections of different etiology: features of clinical manifestations and immune response //Проблемы науки. – 2021. – №. 1 (60). – С. 60-62.
19. Кудратова З.Е. и др. Хламидийные инфекции (внутриклеточная инфекция) в развитии бронхита // TJE-Tematics journal of Education ISSN. – 2021. – С. 2249-9822.
20. Kudratova Z. E. et al. Principles of therapy of chlamydial and mycoplasma infections at the present stage //Вопросы науки и образования. – 2021. – №. 28 (153). – С. 23-26.
21. Rustamova G. R., Kudratova Z. E. CHRONIC ENDOMETRITIS OLD ISSUES NEW POSSIBILITIES //Western European Journal of Medicine and Medical Science. – 2024. – Т. 2. – №. 5. – С. 12-14.
22. Erkinovna K. Z., Rustamovna R. G., Suratovna H. F. LABORATORY MARKERS OF PERINATAL HYPOXIC DAMAGE TO THE CENTRAL NERVOUS SYSTEM IN NEWBORNS //Наука, техника и образование. – 2020. – №. 10 (74). – С. 102-104.
23. Mukhamadiev L. A., Rustamova G. R., Kudratova Z. E. IMMEDIATE RESULTS OF COMPLEX TREATMENT OF CHILDREN WITH CHRONIC TONSILLITIS AND CHRONIC ADENOIDITIS ASSOCIATED WITH CMV



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AND EBV //Western European Journal of Medicine and Medical Science. – 2024.
– T. 2. – №. 5. – C. 20-24.

24. Umarova T. A., Kudratova Z. E., Norxujayeva A. Etiopathogenesis and modern laboratory diagnosis of prostatitis //International Conference on Modern Science and Scientific Studies. – 2024. – C. 6-10.



MODERN LABORATORY DIAGNOSTICS FOR HEART DISEASES: A REVIEW OF METHODS AND CLINICAL SIGNIFICANCE

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Abstract

Cardiovascular diseases (CVD) remain the leading cause of morbidity and mortality worldwide.

Effective diagnosis of these pathologies requires a comprehensive approach, including instrumental and laboratory methods. Laboratory diagnostics plays a key role in early detection, risk stratification, monitoring of disease progression, and evaluating therapy effectiveness. This article provides an overview of modern laboratory markers used in cardiovascular diseases, as well as their significance in clinical practice [1,2,3,4].

Keywords: laboratory diagnostics, therapy, biomarkers, myocardium, myocardial infarction, thrombus;

Introduction

According to the World Health Organization, cardiovascular diseases annually claim more than 17 million lives. Timely diagnosis and therapeutic intervention allow for a significant reduction in mortality and complications. In recent years, laboratory



medicine has achieved significant success in developing specific and sensitive biomarkers that reflect the functional state of the myocardium, vascular endothelium, inflammatory and thrombotic processes [5,6,7,8].

Cardiospecific biomarkers of myocardial damage

1. Troponins (cTnI and cTnT)
2. The most sensitive and specific markers of cardiomyocyte necrosis.
3. High-sensitivity troponin tests (hs-cTn) allow for early detection of acute myocardial infarction.
4. Troponin levels are also used for risk stratification and prognosis in unstable angina and other acute coronary syndromes.
5. Creatinine phosphokinase-MV (KFK-MV)
6. It is inferior to troponins in specificity, but it is used in dynamic observation for recurrent heart attacks, as well as in combination with other markers.
7. Myoglobin
8. It rapidly increases in the blood when muscles, including the myocardium, are damaged, but it has low specificity for the heart [9,10,11,12].

Heart failure biomarkers

1. Natriuretic peptides (BNP and NT-proBNP)
2. Released in response to the stretching of the heart ventricle walls.
3. High values correlate with the severity of chronic heart failure and prognosis.
4. They are used both in diagnostics and in monitoring the response to therapy.

Marker indicators of inflammation and atherogenesis

1. C-reactive protein (highly sensitive, hs-CRP)
2. Indicates the presence of systemic inflammation.
3. Elevated levels are associated with a high risk of atherosclerosis, coronary heart disease, and acute vascular events.
4. Lipoproteins and apolipoproteins
5. Dyslipidemia is a key risk factor for cardiovascular disease.



6. The levels of total cholesterol, LDL, HDL, triglycerides, as well as apolipoprotein B and A1 are determined.
7. Modern methods include the determination of low-density lipoproteins and lipoprotein (a) - an independent predictor of atherothrombosis [13,14,15].

Hemostasiological markers

1. D-dimer
2. Elevated levels may indicate thrombosis, including deep vein thrombosis, TELA, and myocardial infarction. Used in the differential diagnosis of acute cardiovascular diseases.
3. Homocysteine. Elevated levels are associated with endothelial dysfunction and accelerated development of atherosclerosis [16,17,18].

Genetic and molecular diagnostics. Modern approaches include the identification of gene polymorphisms associated with the risk of cardiovascular disease, such as mutations in the genes of lipoprotein receptors, angiotensin-converting enzyme, coagulation factors, and others. Genetic testing is especially relevant for familial forms of hypercholesterolemia and cardiomyopathies [19,20,21,22,23,24].

Innovative directions

- MicroRNA (miRNA)
- New promising biomarkers reflecting the expression of genes involved in the development of myocardial hypertrophy, ischemia, and fibrosis.
- They are being studied as potential tools for non-invasive diagnosis and prognosis.
- Metabolomics and proteomics. A comprehensive analysis of the patient's metabolic and protein profiles allows for the assessment of systemic changes in cardiovascular disease, the identification of new markers, and the individualization of therapy.



Conclusion

Laboratory diagnostics in cardiology went beyond just confirming a myocardial infarction. Modern biomarkers provide multi-level assessment of the cardiovascular system, allow for predicting complications, choosing treatment tactics, and evaluating its effectiveness. The introduction of new technologies, including molecular genetic methods and next-generation biomarkers, contributes to the formation of a personalized approach in cardiology practice.

References

1. Abduhakimov B. A. et al. Bolalar va o'smirlarda birlamchi tuberkulyozning o'ziga xos kechish xususiyatlari va klinik-laboratoriya usullari //Ta'lim innovatsiyasi va integratsiyasi. – 2024. – T. 32. – №. 3. – C. 139-143.
2. Бердиярова Ш. Ш. и др. Клинико-лабораторная диагностика фолиево-кислорододефицитной анемии //TADQIQOTLAR. UZ. – 2024. – T. 49. – №. 3. – C. 46-53.
3. Umarova T. A., Kudratova Z. E., Axmadova P. Role of conditionally pathogenic microflora in human life activities //Web of Medicine: Journal of Medicine, Practice and Nursing. – 2024. – T. 2. – №. 11. – C. 29-32.
4. Muhamadiyeva L. A., Kudratova Z. E., Sirojeddinova S. Pastki nafas yo'llari patologiyasining rivojlanishida atipik mikrofloraning roli va zamonaviy diagnostikasi //Tadqiqotlar. Uz. – 2024. – T. 37. – №. 3. – C. 135-139.
5. Umarova T. A., Kudratova Z. E., Norboyeva F. Modern aspects of etiology and epidemiology of giardias //Web of Medicine: Journal of Medicine, Practice and Nursing. – 2024. – T. 2. – №. 11. – C. 25-28.
6. Isomadinova L. K., Daminov F. A. Glomerulonefrit kasalligida sitokinlar ahamiyati //Journal of new century innovations. – 2024. – T. 49. – №. 2. – C. 117-120.
7. Umarova T. A., Kudratova Z. E., Maxmudova H. Mechanisms of infection by echinococcosis //Web of Medicine: Journal of Medicine, Practice and Nursing. – 2024. – T. 2. – №. 11. – C. 18-21.



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24th June, 2025

8. Даминов Ф. А., Исомадинова Л. К., Рашидов А. Этиопатогенетические и клинико-лабораторные особенности сальмонеллиоза //TADQIQOTLAR. UZ. – 2024. – Т. 49. – №. 3. – С. 61-67.
9. Umarova T. A., Kudratova Z. E., Baxromova M. Autoimmune diseases: new solutions in modern laboratory diagnostics //International Conference on Modern Science and Scientific Studies. – 2024. – С. 78-81.
10. Бердиярова Ш. Ш. и др. Узловой зоб и его клинико-лабораторная диагностика //TADQIQOTLAR. UZ. – 2024. – Т. 49. – №. 3. – С. 38-45.
11. Umarova T. A., Kudratova Z. E., Muhsinovna R. M. The main purpose of laboratory diagnosis in rheumatic diseases //International Conference on Modern Science and Scientific Studies. – 2024. – С. 82-85.
12. Umarova T. A., Kudratova Z. E., Ruxshona X. Contemporary concepts of chronic pancryatitis //International Conference on Modern Science and Scientific Studies. – 2024. – С. 11-15.
13. Хамидов З. З., Амонова Г. У., Исаев Х. Ж. Некоторые аспекты патоморфологии неспецифических язвенных колитов //Молодежь и медицинская наука в XXI веке. – 2019. – С. 76-76.
14. Umarova T. A., Kudratova Z. E., Muminova G. Instrumental diagnostic studies in chronic pancreatitis //International Conference on Modern Science and Scientific Studies. – 2024. – С. 16-20.
15. Атамурадовна М.Л., Рустамовна Р.Г., Эркиновна К.З. Роль современных биомаркеров в изучении различных поражений головного мозга //Достижения науки и образования. – 2020. – №. 10 (64). – С. 88-90.
16. Рустамова Г. Р., Мухамадиева Л. А. Современные аспекты клинико-лабораторных методов исследования острой ревматической лихорадки //International scientific review. – 2020. – №. LXVI. – С. 106-110.
17. Кудратова З.Е. и др. Роль цитокиновой регуляции при обструктивном синдроме атипичного генеза у детей // Анналы Румынского общества клеточной биологии. – 2021. – Т. 25. – №. 1. – С. 6279-6291.
18. Erkinovna K. Z. et al. Bronchial obstruction syndrome in young children with respiratory infections of different etiology: features of clinical manifestations and immune response //Проблемы науки. – 2021. – №. 1 (60). – С. 60-62.



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24th June, 2025

19. Кудратова З.Е. и др. Хламидийные инфекции (внутриклеточная инфекция) в развитии бронхита // TJE-Tematics journal of Education ISSN. – 2021. – С. 2249-9822.
20. Kudratova Z. E. et al. Principles of therapy of chlamydial and mycoplasma infections at the present stage //Вопросы науки и образования. – 2021. – №. 28 (153). – С. 23-26.
21. Rustamova G. R., Kudratova Z. E. CHRONIC ENDOMETRITIS OLD ISSUES NEW POSSIBILITIES //Western European Journal of Medicine and Medical Science. – 2024. – Т. 2. – №. 5. – С. 12-14.
22. Erkinovna K. Z., Rustamovna R. G., Suratovna H. F. LABORATORY MARKERS OF PERINATAL HYPOXIC DAMAGE TO THE CENTRAL NERVOUS SYSTEM IN NEWBORNS //Наука, техника и образование. – 2020. – №. 10 (74). – С. 102-104.
23. Mukhamadiev L. A., Rustamova G. R., Kudratova Z. E. IMMEDIATE RESULTS OF COMPLEX TREATMENT OF CHILDREN WITH CHRONIC TONSILLITIS AND CHRONIC ADENOIDITIS ASSOCIATED WITH CMV AND EBV //Western European Journal of Medicine and Medical Science. – 2024. – Т. 2. – №. 5. – С. 20-24.
24. Umarova T. A., Kudratova Z. E., Norxujayeva A. Etiopathogenesis and modern laboratory diagnosis of prostatitis //International Conference on Modern Science and Scientific Studies. – 2024. – С. 6-10.



LABORATORY DIAGNOSIS OF HEREDITARY DISEASES: A REVIEW OF MODERN METHODS AND THEIR CLINICAL SIGNIFICANCE

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Annotation

Hereditary diseases are a group of pathologies caused by mutations in the genetic material transmitted by inheritance. Timely and accurate laboratory diagnosis of such diseases is crucial for early intervention, prognosis and genetic counselling. This review article focuses on modern methods of laboratory diagnosis of hereditary diseases, including molecular genetic, biochemical and cytogenetic approaches, and their integration into clinical practice [5,6,7].

Keywords: hereditary diseases, chronic diseases, molecular biology, biochemical methods, diagnosis;

Introduction

Hereditary disorders constitute a significant proportion among congenital and chronic pathologies, especially in paediatric and genetic practice. According to WHO, about 5% of newborns suffer from various forms of inherited disorders. Due to progress in molecular biology and bioinformatics, the possibilities of early diagnosis have significantly expanded, which allows not only to improve the quality



of life of patients, but also to implement prenatal and neonatal screening strategies [8,9,10].

Classification of laboratory diagnostic methods. Methods of laboratory diagnostics of hereditary diseases can be conditionally divided into several main groups [21,22,23,24]

Polymerase chain reaction (PCR) can detect point mutations, deletions, and insertions in specific regions of DNA.

- **DNA sequencing, including Sanger and high-throughput sequencing (NGS)**, is used to analyse single genes as well as whole exomes or genomes.

2. **Fluorescence in situ hybridisation (FISH)** is used to detect chromosomal rearrangements and microdeletions.

3. **Microarray technology** provides simultaneous testing of multiple genetic markers.

1. **Cytogenetic Methods**

2. **Karyotyping** allows the determination of numerical and structural abnormalities of chromosomes.

4. **High-resolution** cytogenetic analysis is used when subtelomeric rearrangements are suspected.

5. **Biochemical methods**

Used in inherited metabolic disorders such as phenylketonuria, galactosemia, and accumulation diseases.

Metabolite levels (e.g. amino acids, organic acids) are analysed in serum, urine and liquor.

Platforms such as tandem mass spectrometry (MS/MS) are used.

The role of neonatal screening. Neonatal screening is a public programme for the early detection of a number of inherited diseases. In most countries, it includes the detection of pathologies such as hypothyroidism, phenylketonuria, cystic fibrosis and adrenogenital syndrome. The use of highly sensitive laboratory methods makes it possible to diagnose the disease before symptoms appear and to start therapy in a timely manner [11,12,13,14,15].

Genetic counselling and ethical considerations. The results of laboratory diagnosis of inherited diseases play an important role in the genetic counselling



process. Detection of pathogenic mutations in a patient or carriers in parents requires a sensitive approach and ethical standards, including confidentiality, informed consent and the right to not know the diagnosis. The role of neonatal screening. Neonatal screening is a public programme for the early detection of a range of inherited diseases. In most countries, it includes the detection of pathologies such as hypothyroidism, phenylketonuria, cystic fibrosis and adrenogenital syndrome. The use of highly sensitive laboratory methods makes it possible to diagnose the disease before symptoms appear and to start therapy in a timely manner [16,17,18,19,20].

Conclusion

Laboratory diagnosis of inherited diseases is an integral part of modern medicine, providing the basis for personalised therapy, reproductive choice and prevention. Advances in technologies such as NGS and bioinformatics analysis continue to transform diagnostic approaches, making them more accurate, accessible and informative. However, along with technical progress, issues of standardisation, data interpretation and interdisciplinary collaboration between specialists remain relevant.

References

1. Abduhakimov B. A. et al. Bolalar va o'smirlarda birlamchi tuberkulyozning o'ziga xos kechish xususiyatlari va klinik-laboratoriya usullari //Ta'lim innovatsiyasi va integratsiyasi. – 2024. – T. 32. – №. 3. – C. 139-143.
2. Бердиярова Ш. Ш. и др. Клинико-лабораторная диагностика фолиево́й кислотодефицитной анемии //TADQIQOTLAR. UZ. – 2024. – T. 49. – №. 3. – C. 46-53.
3. Umarova T. A., Kudratova Z. E., Axmadova P. Role of conditionally pathogenic microflora in human life activities //Web of Medicine: Journal of Medicine, Practice and Nursing. – 2024. – T. 2. – №. 11. – C. 29-32.
4. Muhamadiyeva L. A., Kudratova Z. E., Sirojeddinova S. Pastki nafas yo'llari patologiyasining rivojlanishida atipik mikrofloraning roli va zamonaviy diagnostikasi //Tadqiqotlar. Uz. – 2024. – T. 37. – №. 3. – C. 135-139.



International Conference on Economics, Finance, Banking and Management

Hosted online from Paris, France

Website: econfseries.com

24th June, 2025

5. Umarova T. A., Kudratova Z. E., Norboyeva F. Modern aspects of etiology and epidemiology of giardiasis //Web of Medicine: Journal of Medicine, Practice and Nursing. – 2024. – Т. 2. – №. 11. – С. 25-28.
6. Isomadinova L. K., Daminov F. A. Glomerulonephritis associated with cytokines //Journal of new century innovations. – 2024. – Т. 49. – №. 2. – С. 117-120.
7. Umarova T. A., Kudratova Z. E., Maxmudova H. Mechanisms of infection by echinococcosis //Web of Medicine: Journal of Medicine, Practice and Nursing. – 2024. – Т. 2. – №. 11. – С. 18-21.
8. Даминов Ф. А., Исомадинова Л. К., Рашидов А. Этиопатогенетические и клинико-лабораторные особенности сальмонеллеза //TADQIQOTLAR. UZ. – 2024. – Т. 49. – №. 3. – С. 61-67.
9. Umarova T. A., Kudratova Z. E., Baxromova M. Autoimmune diseases: new solutions in modern laboratory diagnostics //International Conference on Modern Science and Scientific Studies. – 2024. – С. 78-81.
10. Бердиярова Ш. Ш. и др. Узловой зоб и его клинико-лабораторная диагностика //TADQIQOTLAR. UZ. – 2024. – Т. 49. – №. 3. – С. 38-45.
11. Umarova T. A., Kudratova Z. E., Muhsinovna R. M. The main purpose of laboratory diagnosis in rheumatic diseases //International Conference on Modern Science and Scientific Studies. – 2024. – С. 82-85.
12. Umarova T. A., Kudratova Z. E., Ruxshona X. Contemporary concepts of chronic pancreatitis //International Conference on Modern Science and Scientific Studies. – 2024. – С. 11-15.
13. Хамидов З. З., Амонова Г. У., Исаев Х. Ж. Некоторые аспекты патоморфологии неспецифических язвенных колитов //Молодежь и медицинская наука в XXI веке. – 2019. – С. 76-76.
14. Umarova T. A., Kudratova Z. E., Muminova G. Instrumental diagnostic studies in chronic pancreatitis //International Conference on Modern Science and Scientific Studies. – 2024. – С. 16-20.
15. Атамурадовна М.Л., Рустамовна Р.Г., Эркиновна К.З. Роль современных биомаркеров в изучении различных поражений головного мозга //Достижения науки и образования. – 2020. – №. 10 (64). – С. 88-90.



International Conference on Economics, Finance, Banking and Management

Hosted online from Paris, France

Website: econfseries.com

24th June, 2025

16. Рустамова Г. Р., Мухамадиева Л. А. Современные аспекты клинико-лабораторных методов исследования острой ревматической лихорадки //International scientific review. – 2020. – №. LXVI. – С. 106-110.
17. Кудратова З.Е. и др. Роль цитокиновой регуляции при обструктивном синдроме атипичного генеза у детей // Анналы Румынского общества клеточной биологии. – 2021. – Т. 25. – №. 1. – С. 6279-6291.
18. Erkinovna K. Z. et al. Bronchial obstruction syndrome in young children with respiratory infections of different etiology: features of clinical manifestations and immune response //Проблемы науки. – 2021. – №. 1 (60). – С. 60-62.
19. Кудратова З.Е. и др. Хламидийные инфекции (внутриклеточная инфекция) в развитии бронхита // TJE-Tematics journal of Education ISSN. – 2021. – С. 2249-9822.
20. Kudratova Z. E. et al. Principles of therapy of chlamydial and mycoplasma infections at the present stage //Вопросы науки и образования. – 2021. – №. 28 (153). – С. 23-26.
21. Rustamova G. R., Kudratova Z. E. CHRONIC ENDOMETRITIS OLD ISSUES NEW POSSIBILITIES //Western European Journal of Medicine and Medical Science. – 2024. – Т. 2. – №. 5. – С. 12-14.
22. Erkinovna K. Z., Rustamovna R. G., Suratovna H. F. LABORATORY MARKERS OF PERINATAL HYPOXIC DAMAGE TO THE CENTRAL NERVOUS SYSTEM IN NEWBORNS //Наука, техника и образование. – 2020. – №. 10 (74). – С. 102-104.
23. Mukhamadiev L. A., Rustamova G. R., Kudratova Z. E. IMMEDIATE RESULTS OF COMPLEX TREATMENT OF CHILDREN WITH CHRONIC TONSILLITIS AND CHRONIC ADENOIDITIS ASSOCIATED WITH CMV AND EBV //Western European Journal of Medicine and Medical Science. – 2024. – Т. 2. – №. 5. – С. 20-24.
24. Umarova T. A., Kudratova Z. E., Norxujayeva A. Etiopathogenesis and modern laboratory diagnosis of prostatitis //International Conference on Modern Science and Scientific Studies. – 2024. – С. 6-10.



SIFATNI BOSHQARISH RAQOBAT KURASHIDA KORXONANI MUVAFFAQIYATINI TA'MINLOVCHI OMIL

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Annotatsiya: Raqobatning turlari juda ham ko'p bo'lib, ularni turli nuqtai nazar yordamida har xil turkumlash mumkin. Eng keng tarqalgan raqobat turlari narxli va narxsiz raqobat turlaridir.

Annotation: There are many types of competition, and they can be categorized in different ways using different perspectives. The most common types of competition are price and non-price competition.

Kalit so'zlari: Yuqori narxli raqobat kamdan-kam bozor sharoitida qo'llaniladigan usul bo'lib, u xuddi marketingdagi "qaymog'ini olish" strategiyasiga yaqin usul.

Ключевые слова: Высокая ценовая конкуренция — метод, редко используемый в рыночных условиях, и он аналогичен стратегии «сливок» в маркетинге.

Raqobat - bu korxonalarning bozorni adolatli bo'lib olish uchun xarakati va kurashi hisoblanadi. Adolatli deganda, sog'lom raqobtalashuv natijasida real haridorlar ishonchini qozonish tushuniladi. Raqobatning turlari juda ham ko'p bo'lib, ularni turli nuqtai nazar yordamida har xil turkumlash mumkin. Eng keng tarqalgan raqobat turlari ***narxli va narxsiz*** raqobat turlaridir.

Narxli raqobat - bu ikki va undan ortiq ishlab chiqaruvchilarni sotilayotgan mahsulotning narxini arzonlashtirish hisobiga ko'proq sotish tushuniladi. Narxli raqobatni o'zini ham ikki turga ajratib ko'rsatish mumkin: yuqori va past narxli raqobat.



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Past narxli raqobatda ishlab chiqaruvchilar mahsulotning sifatiga emas, balki uni ishlab chiqarish uchun sarflanadigan xarajatlarni kamaytirish yoki zarar evaziga iste'molchilarni ko'proq jalb etishni ko'zlaydilar. Raqobatning bu usuli raqobatchilar soni cheklangan va iste'molchilarining daromadi nisbatan past bo'lgan bozorlarda qo'l keladi. Umuman olganda, raqobatlashuvning ushbu usulini barcha bozorlarda va har qanday sharoitda ham qo'llab bo'lavermaydi. Undan foydalanish uchun bozor mexanizmlarini diqqat bilan o'rganish va tahlil etish zarur. Chunki, bu usul juda ham qaltis bo'lib, bunda iste'molchilar ishonchini yo'qotish ehtimolligi yuqori bo'ladi.

Yuqori narxli raqobat kamdan-kam bozor sharoitida qo'llaniladigan usul bo'lib, u xuddi marketingdagi "qaymog'ini olish" strategiyasiga yaqin usul. Unga ko'ra, ikkita bir-biriga o'xshash tovar ishlab chiqargan korxonalarning bittasi o'z mahsulotini bozorda tez tanitish maqsadida qimmat narxda sotishni boshlaydi. Bu usul daromadi yuqori bo'lgan istemolchilar bozorida samara beradi. Chunki, iste'molchilarning asosiy qismi mahsulotning funksiyalaridan foydalanish uchun emas, balki maqtanish yoki rag'bat uchun sotib oladilar. Bu holda qimmat mahsulotni arzoniga nisbatan ko'proq sotib oladilar va bu tovarning brendini ham kuchaytiradi. Lekin bu usul ham qaltis bo'lib, undan ustalik va mahorat bilan foydalanmaslik korxonani tubsiz jarga uloqtiradi. Raqobatlashuvda narx richaglaridan foydalanish mutaxassislardan chuqur tahlil va tadqiqotlarni talab etgani singari narxsiz raqobatni ham tavakkalchiligi yuqori bo'ladi.

Narxsiz raqobat korxonalarda ishlab chiqarilayotgan mahsulotning sifatini oshirish natijasida iste'molchilar ishonchini qozonishga qaratilgan. Marketing faoliyatini ham eng nozik taraflaridan biri mahsulotni bozorda taklifini amalga oshirilganda, iste'molchilar hohishidagi mahsulotni sotishdir. Narxsiz raqobatning o'ziga xos jihati aynan shu bozor mexanizmi g'oyasidan samarali foydalanishdir. Ya'ni iste'mol va raqobat yuqori bo'lgan bozorda mahsulotni boshqalar mahsulotidan sifatini biroz oshirish natijasida iste'molchilar diqqatini jalb qilish bo'lib hisoblanadi. Raqobatlashuvning bu usuli, birchi iste'mol tovarlari bozorida va brendi yuqori mavqeyga ega bo'lgan korporatsiyalar bozorida juda muhim ahamiyatga ega. Masalan, kir yuvish kukunlari bozorida har kukun ishlab chiqaruvchi korxona mahsulotini boshqa raqobatchilar mahsulotidan ajratib



turuvchi xususiyati mavjud bo'ladilar va ular bu yutuqni reklamalar orqali bo'rtirib ko'rsatishga xarakter qiladilar. Brendi yuqori mavqega ega tovarlar bozori, masalan sensorli mobil apparatlar bozorida Samsung, Eppl, El-Dji va Eych-Ti-Si mahsulotlarini butun dunyo taniydi va ularning boshqasidan ajralib turadigan birgina sifat ko'rsatkichi bozordagi iste'molchilar hohishini tez o'zgarishiga olib keladi. Masalan ulardagi kameraning megapikselini yangi darajaga ko'tarilishi qolgan kompaniyalar mahsuloti sifatining shu darajaga ko'tarilgunga qadar bozordagi sotuvi birinchi o'ringa chiqib ketadi. Bu ham narxsiz raqobatda sifatning yangi ko'rinishi natijasida bozor segmentini vaqtincha intervensiyasining samarasi bo'lib hisoblanadi.

Mahsulot sifatini korxonalarda boshqarish va tashkil etish masalalarining bir jihati marketing faoliyatiga bevosita bog'liq bo'lib, ishlab chiqarilayotgan mahsulotning sifat ko'rsatkichlari bozor talablari asosida ishlab chiqiladi. Marketing faoliyati orqali ishlab chiqilishi rejalashtirilgan mahsulotning sifatiga bo'lgan bozor talabi o'rganiladi va u ham avvaldan rejalashtiriladi. Marketing tadqiqotini o'tkazadigan mutaxassislar savollar anketasiga mahsulot sifati va narxiga oid savollarni kiritadilar hamda mahsulotni ishlab chiqarishda narx yoki sifat ustunligini belgilaydilar. Agar iste'molchilar pastroq sifatli mahsulotni arzon narxga sotib olishga tayyor bo'lsalar, sifat darajasi bozor talabiga moslashtiriladi.

Marketing konsepsiyasiga binoan maqsadli bozor ehtiyojlari va talablarini aniqlash - bu tovar sifatiga bog'liq degan fikrlar ham mavjud. Ya'ni, korxonalar o'zlari tomonlaridan ishlab chiqarilayotgan mahsulotning sifatiga qarab, maqsadli bozorni tanlaydilar. Lekin bu fikr amaliyotga to'g'ri kelmaydi. Sababi tovar iste'molchini emas, iste'molchi tovarni tanlaydi. Maqsadli bozorni aniqlash korxona imkoniyatlari doirasida amalga oshiriladi va shu bozordagi tovar sifati ham iste'molchilar hohishidan kelib chiqib rejalashtiriladi. Agar tovar sifati rejalashtirilib so'ng maqsadli bozor tanlansa, tovar o'z iste'molchilarini topa olmasligi mumkin. Shu sababli, maqsadli bozorni tanlashda korxonalar o'z imkoniyatlarini, bozor talab qilgan sifat darajasini va xarajatlarini taroziga solib, optimal variantni aniqlaydilar. Mazkur fikrlardan ko'rinadiki, tovar sifatini raqobatli bozorda aniqlashni bir qator o'ziga xos jihatlari mavjud bo'lib, ular quyidagilardan iborat:
Bozorlarda marketing tadqiqotlari o'tkaziladi va tahlil etiladi;



Xulosalarga qarab maqsadli bozor tanlanadi;

Maqsadli bozorning marketing strategiyasi ishlab chiqiladi. Unda raqobat usuli tanlanadi. Agar narxsiz raqobat qo‘llanilsa:

Iste’molchilari ehtiyojini qondirish uchun sifat rejalashtiriladi va uni boshqarish ishlari tashkil etiladi.

Sifatni rejalashtirish korxonadan mablag‘ va xarajatlarni talab etadi. Har qanday ko‘zlangan mahsulot sifatiga erishish sifat va ishlab chiqarish samaradorligi o‘rtasidagi bir qator muammolarni hal etib olishni talab qiladi. Muammolarni aniqlanishi esa korxoning bozordagi muvaffaqiyatini ta’minlaydi. Bu muammolar quyidagilardan iborat:

Korxonaning zararsizlik nuqtasi mavjudmi?

Zararsizlik nuqtasida rejalashtirilgan mahsulot sifatiga erishsa bo‘ladimi?

Rejalashtirilgan mahsulot sifatini o‘rnini qoplaydigan boshqa sifat darajalari bo‘yicha variantlar mavjudmi?

Agar shunday variantlar mavjud bo‘lsa, ular o‘rtasidagi xarajatlarning farqi musbatmi yoki manfiymi?

Tanlangan mahsulot sifati va ishlab chiqarish samaradorligi o‘rtasida qanday proporsional bog‘liqlik bor?

Tanlangan sifat oshirilganda samaradorlik ortadimi yoki kamayadimi?

Agar ortsda, uning oxirgi nuqtasidagi mahsulotni ishlab chiqarish uchun korxona imkoniyatlari yetarli?

Agar kamaysa, uning optimal yechimi necha qiymatga teng?

Mahsulot sifatining qaysi darajasida ishlab chiqarish samaradorligi unga to‘g‘ri proporsional bog‘liqlikda bo‘ladi?

Shu kabi savollar o‘z yechimini topishi korxona optimal sifat darajasini aniqlagan va raqobatga tayyor bo‘ladi. Bunda ishlab chiqarish samaradorligi va sifat bitta nuqtada muvozanatlashganligini kuzatish mumkin.

Mahsulot sifati bozordagi raqobatga bilvosita ta’sir etishi ham mumkin. Bunda sifatni tasdiqlovchi hujjatlar raqobat kurashida tayanch bo‘ladi ammo u mahsulot sifatini belgilangan standartlarga muvofiq kelgandagina amal qiladi. Sifatni tasdiqlovchi asosiy xujjatlar bo‘lib, muvofiqlik sertifikatleri va xalqaro standartlashtirish tashkilotining sifat sertifikatleri bo‘lib xizmat qiladi. Bunday



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sertifikatlarning mavjudligi korxonalarga o'z mahsulotini bozorda raqobatchilarga nisbatan ishonchli sotuvida va eksport qilinishadi qo'l keladi. Sifat sertifikatlarining mavjudligi iste'molchilar tomonidan ishlab chiqaruvchi tomonidan taklif etilgan mahsulotga nisbatan ishonch tuyg'usini shakllantiradi. Ayniqsa, xorijiy hamkorlar bilan kelishuvda, dillerlar geografiyasining kengayishida ISO sertifikatlarining o'rni juda ham muxim. Ya'ni, xalqaro sertifikatlar shartnoma tuzish uchun eng muxim xujjatlardan biri bo'lib hisoblanadi.

Bozor iqtisodiyoti sharoitida o'zini xurmat qilgan har bir korxona tovar va uning sifat tavsiflarini muntazam takomillashtirishga xarakat qiladi.

Marketingda tovar sifati 4 satxga bo'linadi:

1.satx-andozaga mosligi. Bu satxda sifatli mahsulot ishlab chiqarish andozasi yoki boshqa me'yoriy xujjatlar talablariga mos keladi yoki mos kelmaydi deb baholanadi.
2.satx-foydalanishga mosligi. Bu satxda mahsulot bozorda talabga ega bo'lishi uchun nafaqat andozalarning majburiy talablariga, balki foydalanish talablariga javob berishi shart.

3.satx-bozorning amaliy talablariga mosligi. Ideal variantda bu haridorni tovarning yuqori sifatli va arzon narxli bo'lishi haqidagi talablarini bajarishdir.

4.satx-haridorning latent (ichidagi, ochiq oydin ko'rinmaydigan) talablariga mosligi. Bu satxda haridorlar o'zlari aniq xis qilmagan, noaniq extiyojlarni qondiradigan tovarlarni afzal ko'radilar.

Nixoyat, firmalarning ko'pchiligi marketing tizimining maqsadi qator omillari, jumladan, tovar sifati bilan tavsiflanadigan xayot sifatini yaxshilash deb hisoblaydilar. Shunday ekan, tovarlar sifati marketing tayanib to'rgan omillardan biridir.

Foydalanilgan adabiyotlar ro'yxati.

- 1.O'zbekiston Respublikasining "Mahsulotlar va xizmatlarni sertifikatlashtirish to'g'risida"gi Qonuni, 1993 yil 28 dekabr // «NORMA» axborot-qidiruv tizimi
- 2.O'zbekiston Respublikasining "Metrologiya to'g'risida"gi Qonuni, 1993 yil 28 dekabr // «NORMA» axborot-qidiruv tizimi.



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- 3.O'zbekiston Respublikasining "Oziq-ovqat mahsulotining sifati va xavfsizligi to'g'risida"gi Qonuni, 1997 yil 30 avgust // «NORMA» axborot-qidiruv tizimi.
- 4.O'zbekiston Respublikasining "Texnik jihatdan tartibga solish to'g'risida"gi Qonuni, 2009 yil 23 aprel // «NORMA» axborot-qidiruv tizimi.
- 5.O'zbekiston Respublikasi Vazirlar Mahkamasining "O'zbekiston Respublikasida ishlab chiqariladigan tovarlarga shtrixli kodlashni joriy etish to'g'risida"gi 1999 yil 21 sentyabrdagi 438-sonli Qarori // «NORMA» axborot-qidiruv tizimi.
- 6.Zaynutdinov Sh. N. va boshqalar. Menejment asoslari. T., Moliya, 2001.
- 7.Ilenkova S.D. i dr. upravlenie kachestvom. -M.: izdatelskoe ob'edinenie «YuNITI», 1999.
- 8.Kotler F. Marketing menedjment: Ucheb. posob. 11-izd. - M., 2005. -800s.
- 9.Raxmonov F. A. Advantages of Introducing Quality Management System in Textile Companies of the Republic //Texas Journal of Multidisciplinary Studies. – 2022. – T. 11. – S. 95-97.
- 10.Turapov U. O'., Muldanov F. R., Raxmonov F. A. ShAXSNING BIOMETRIK XUSUSIYatLARI ANIQLASHDA YuZ TASVIRNI SEGMENTLASH, IDENTIFIKATSIYatLASH, FILTRLASH, YuZ BELGILARINI AJRATISH MEZONLARINI QO'LLASH MUOMMOLARI //Conferencea. – 2022. – S. 15-22.
- 11.Rakhmanov F. CREATION OF EFFECTIVE CABLES AND ITS APPLICATIONS EFFECTIVENESS CALCULATION //Science and innovation. – 2023. – T. 2. – №. A2. – S. 188-190.
12. Rakhmanov Furqat Abdukhakimovich, CREATION OF EFFECTIVE CABLES AND ITS APPLICATIONS EFFECTIVENESS CALCULATION SCIENCE AND INNOVATION INTERNATIONAL SCIENTIFIC JOURNAL VOLUME 2 ISSUE 2 FEBRUARY 2023 str. 188.



MAMLAKATIMIZ TARAQQIYOTINING MUHIM OMILI YASHIL ENERGETIKA

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Annotatsiya

Qayd etilganidek, biz sohani isloh etishni, birinchi galda, Jahon banki, Osiyo taraqqiyot banki hamda Osiyo infratuzilmaviy investitsiyalar banki, Yevropa tiklanish va taraqqiyot bankining yetakchi ekspertlari bilan maslahat qilishdan boshladik.

Абстрактный

Как уже отмечалось, мы начали реформирование сектора, предварительно проконсультировавшись с ведущими экспертами Всемирного банка, Азиатского банка развития, Азиатского банка инфраструктурных инвестиций и Европейского банка реконструкции и развития.

Kalit so'zlar.urg'u, yashil taraqqiyot, o'tish strategiyasi, uglevodorod energiyasi, Zero, Yevropa tiklanish, "Goldwind", "Sungrow", "Jolywood", "Longi", chora-tadbirlar.

Ключевые слова: акцент, зеленое развитие, стратегия перехода, углеводородная энергетика, Zero, восстановление Европы, «Goldwind», «Sungrow», «Jolywood», «Longi», меры.

Bugun insoniyat yangi tahdidlar oldida turibdi. Yer shari aholisi muttasil ko'payishda davom etyapti, tabiiy resurslar zaxirasi esa shiddat bilan qisqarmoqda. Bu esa dunyo mamlakatlarini tang ahvolga solib qo'yayotir. Shu bois dunyo bo'yicha katta kuch bilan yashil energetik (qayta tiklanuvchi energiya manbalari) tizimiga o'tishga urg'u berilmoqda. Buning ikki muhim asosiy sababi bor. Avvalo,



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sal ilgariroq aytib o‘tilganidek, dunyo miqyosida energiya hosil qiladigan manbalar tugab boryotgani bo‘lsa, ikkinchi sababi atmosferaga zararli chiqindi gazlar chiqarilishi hisobiga havoning keskin ifloslanishi va global iqlim muammolari vujudga kelayotganidir. Ekspertlar vaziyatni o‘nglash uchun jahon iqtisodiyotida “yashil taraqqiyot” tamoyillarini joriy etish zarurligini ta’kidlamoqda. Mazkur yondashuv BMT Barqaror taraqqiyot maqsadlarida ham o‘z ifodasini topgan. Bu borada yurtimizda ham davlatimiz rahbari boshchiligida jiddiy islohotlar olib borilayotir. Ma’lumki, 2019 yilda O‘zbekiston “Yashil iqtisodiyot”ga o‘tish strategiyasini qabul qildi. Unda yaqin o‘n yilda mamlakatda uglerod sarfini keskin kamaytirish, iqtisodiyotning barcha tarmoqlarida ekologik toza va resurs tejamkor texnologiyalarni joriy etish, qayta tiklanuvchi, samarali energiya manbalaridan keng foydalanish ko‘zda tutilgan. Tadqiqotlardan ma’lum bo‘lishicha, O‘zbekiston uglevodorod energiyasi — neft, gaz, ko‘mirdan foydalanish hisobiga har yili yalpi ichki mahsulotning kamida 4,5 foizini yo‘qotmoqda. Qolaversa, mamlakatdagi energiya ishlab chiqaruvchi quvvatlarning salkam yarmi eskirgan. Ularni tiklash yoki modernizatsiyalash katta mablag‘ni talab qiladi. Buning o‘rniga ham iqtisodiy, ham ekologik jihatdan samarali bo‘lgan “yashil energetika”ga o‘tish ming chandon afzal. Zero, butun dunyo shu yo‘lni tanlayapti. E’tiborlisi, O‘zbekiston Markaziy Osiyo davlatlaridan birinchi bo‘lib mazkur harakatga qo‘shildi. Mohiyatan olib qaraganda, ikki yil avval qabul qilingan “Yashil iqtisodiyot”ga o‘tish strategiyasi yurtimizning “yashil taraqqiyot” sari yuz burganini anglatadi. Joriy yilning 27 dekabr kuni O‘zbekiston Respublikasi Prezidenti Shavkat Mirziyoyev “yashil energetika” sohasidagi yirik qo‘shma loyihalarni ishga tushirishga bag‘ishlangan tantanali marosimda ishtirok etdi. Unda davlatimiz rahbari mamlakatda “yashil energetika”ni rivojlantirishning 2030 yilgacha strategik dasturi haqida muhim mulohazalarni bildirdi. Qayd etilganidek, biz sohani isloh etishni, birinchi galda, Jahon banki, Osiyo taraqqiyot banki hamda Osiyo infratuzilmaviy investitsiyalar banki, Yevropa tiklanish va taraqqiyot bankining yetakchi ekspertlari bilan maslahat qilishdan boshladik. Ayni chog‘da bir qator qonun hujjatlariga o‘zgartirishlar kiritish va yangi qarorlarni qabul qilish orqali energetika tarmog‘ida bozor tamoyillariga asoslangan mustahkam qonunchilik bazasi yaratildi. Sohada ma’muriy-buyruqbozlik mexanizmlari va monopoliyadan voz kechib, zamonaviy boshqariladigan ochiq va



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shaffof tizimga o'tildi. Xususiy sektor va xorijiy kompaniyalarning kirib kelishi uchun qulay imkoniyatlar yaratildi. Energetika vazirligi, shuningdek, har bir yo'nalish bo'yicha mas'ul va javobgar bo'lgan yangi tashkilotlar tuzildi. Ilk bor 100 foiz to'g'ridan-to'g'ri xorijiy investitsiyalar hisobidan Karmana va Nurobod tumanlarida 2 ta quyosh stansiyasi ishga tushirilib, shu kunga qadar 1 milliard kilovatt soat "yashil" elektr energiyasi ishlab chiqarildi. Shu sa'y-harakatlarning mantiqiy davomi sifatida mamlakatimiz tarixida yana bir yorqin sahifa ochildi. Ya'ni umumiy quvvati ikki ming to'rt yuz megavatt bo'lgan oltita yirik quyosh va shamol stansiyalari tarmoqqa ulanmoqda. Jumladan, O'zbekistonning yaqin do'sti, keng qamrovli hamkori bo'lgan Birlashgan Arab Amirliklarining "Masdar" kompaniyasi tomonidan Jizzax, Samarqand va Surxondaryo viloyatlarida 3 ta quyosh elektr stansiyasining birinchi bosqichi barpo etildi. Bundan tashqari, ushbu nufuzli kompaniya tomonidan Tomdi tumanida barpo etilayotgan zamonaviy shamol stansiyasining 100 megavatti ishga tushirilmoqda. Qolaversa, "Gezhouba" kompaniyasi bilan Buxoro va Qashqadaryo viloyatlaridagi quyosh stansiyalarining dastlabki 400 megavattli generatsiyasi boshlanadi. Eng e'tiborli jihati shundaki, ushbu barcha loyihalar davlat-xususiy sheriklik asosida, to'g'ridan-to'g'ri xorijiy investitsiyalar hisobidan amalga oshirildi. Umumiy qiymati 2 milliard dollarlik bu loyihalar hisobidan yiliga 6 milliard kilovatt soat elektr ishlab chiqarilib, ikki milliard kub metr tabiiy gaz tejaladi. Ayni chog'da 2 million xonadon uzluksiz va kafolatli elektr energiyasi bilan ta'minlanadi. Sanoat va xizmatlar sohasida esa 4 milliard dollarlik qo'shilgan qiymat yaratiladi. Bizning strategik sherigimiz va yirik savdo hamkorimiz bo'lgan Xitoy ishtirokidagi loyihalar ilgari tajribada kuzatilmagan qisqa muddatda – 9 oy ichida ishga tushirilganini alohida mamnuniyat bilan ta'kidlash zarur. Gap shundaki, jahonda ishlab chiqarish zanjiri va logistika bilan bog'liq muammolar kuchayib borayotganiga qaramasdan, biz bu borada "Goldwind", "Sungrow", "Jolywood", "Longi" kabi kompaniyalar bilan samarali ish olib bormoqdamiz. Biz nima uchun "yashil energetika" rivojiga bu qadar katta rag'bat va e'tibor qaratyapmiz? Chunki, biz, eng avvalo, 2030 yilga borib sanoat hajmini ikki karra oshirishni, metallurgiya, neft-kimyo va mashinasozlik kabi sohalarni sifat jihatdan mutlaqo yangi darajaga ko'tarishni o'z oldimizga maqsad qilib qo'yganmiz. Umumiy qiymati 150 milliard dollarlik 500 dan ziyod yirik sanoat



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va infratuzilma loyihalarini amalga oshirishni ko'zlayapmiz. Bu ulug'vor niyatlarimizga erishish uchun bizga kafolatli va barqaror energiya resurslari suv va havodek zarur. Hisob-kitoblarga ko'ra, kelgusi olti yilda mamlakatimizda elektr energiyasiga bo'lgan talab hozirgi 83 milliarddan 120 milliard kilovatt soatga o'sishi kutilmoqda. Buni, birinchi galda, qayta tiklanadigan energiya hisobidan qoplaymiz. Ikkinchidan, global muammoga aylangan iqlim o'zgarishining salbiy ta'sirini yumshatish bo'yicha tinimsiz izlanyapmiz. Xalqaro sammitlarda muhim taklif va tashabbuslarni faol ilgari suryapmiz. Yaqinda Dubayda BMTning Iqlim o'zgarishi bo'yicha konferensiyasi doirasida dunyo mamlakatlari "yashil" generatsiyani uch barobar oshirishga kelishib oldi. O'zbekiston bu tashabbusni to'liq qo'llab-quvvatlaydi va 2030 yilgacha "yashil energetika" manbalarini 27 gigavattga yetkazish uchun faol investitsiya siyosatini izchil davom ettiradi. Uchinchidan, mamlakatimizda "yashil energetika" bo'yicha nihoyatda ulkan salohiyat mavjud. Yaratganning o'zi bergan bu buyuk imkoniyatdan unumli foydalanib, uni xalqimiz manfaatlariga yo'naltirishimiz zarur. Sohoni rag'batlantirish maqsadida quyosh panellari o'rnatishga imtiyozli kredit va subsidiyalar ajratish, ishlab chiqarilgan elektr energiyasini kafolatli sotib olish bo'yicha "Quyoshli xonadon" tizimini yo'lga qo'ydik. Shu yilning o'zida yurtimizda 50 ming xonadon va tadbirkorlar tomonidan quyosh panellari o'rnatildi. Mamlakatimizda 7 milliondan ortiq uy-joylar borligini hisobga olsak, bu investorlar uchun katta bozor yaratishini alohida qayd etmoqchiman. To'rtinchidan, hozirgi kunda global miqyosda "yashil" energiyadan ishlab chiqarilgan mahsulotlarga alohida ustunlik berilmoqda. "Yashil energiya" sertifikatini keng joriy qilinmoqda. O'zbekiston kelgusida aniq reja va qat'iy sa'y-harakatlar orqali "yashil energiya"ni Osiyo va Yevropa mamlakatlari bozoriga ham yetkazib berish bo'yicha dastlabki qadamlarni tashlayapti. Shu o'rinda ta'kidlash kerakki, davlat rahbari yuqaridagi loyihalarni bajargan va unda ishtirok etgan hamkor davlatlar va kompaniyalarga xalqimiz nomidan minnatdorlik bildirdi. Shu bilan birga, xorijiy hamkorlarni "yashil energetika" sohasidagi butlovchi va ehtiyot qismlar ishlab chiqarishda mahalliy korxonalar bilan yaqin kooperatsiya aloqalarini yanada kuchaytirishga chaqirdi. Prezidentimiz o'z ma'ruzasi yakunida mazkur chora-tadbirlarni izchil davom ettirib, raqobatli bozor mexanizmlariga bosqichma-bosqich olib borish, xususan, bu yo'lda yaqinda energetika bozori regulatorini



tashkil etish bo'yicha muhim qarorni qabul qilinganligini, hozir yurtimizda 9 gegavattli 22 ta quyosh va shamol elektr stansiyalarini qurish loyihalari ustida jadal ish olib borilayotganligini, shu bilan birga, yangi generatsiya quvvatlarini yetkazish uchun infratuzilmani yanada yaxshilashga alohida urg'u berilajagini alohida ta'kidlab o'tdi. Umuman olganda, mamlakatda aholi soni va daromadlari ko'paymoqda. Bunday sharoitda, turgan gapki, energetika resurslariga bo'lgan talab ham ortadi. "Yashil iqtisodiyot"ning muhim komponenti qayta tiklanadigan energiya manbalarini yaratish va foydalanish hisoblanadi. Bu jihatdan O'zbekistonning salohiyati ancha yuqori. Xalqaro moliyaviy institutlarning hisob-kitobiga qaraganda, respublikada muqobil energiya (ayniqsa, quyosh energiyasi)ning yillik zaxirasi 270 million tonna shartli yoqilg'i ekvivalentiga teng. Bu real ehtiyojimizdan uch karra ko'pni tashkil etadi. Boz ustiga, "yashil energetika" sohasidagi loyihalarni amalga oshirish O'zbekistonda yaqin o'n yilda qayta tiklanadigan energiya manbalari ulushini 3 barobardan ziyodga ko'paytirish imkonini beradi. Bu iqtisodiyotimiz uchun mislsiz foyda keltiradi.

Xulosa o'rnida aytish mumkinki, mamlakatning "yashil energetika"ga jadallik bilan o'tishi, avvalo, mintaqada ekologik muvozanatni ta'minlash, tabiiy resurslardan oqilona foydalanish va aholining energiyaga bo'lgan ehtiyojini ta'minlashda muhim ahamiyat kasb etadi.

Foydalanilgan adabiyotlar ro'yxati.

1. Vaxabov A.V., Xajibakiyev Sh.X., Tashmatov Sh.A., Butaboyev M.T.. Yashil iqtisodiyot. Darslik. – T.: "Universitet", 2020, 296 bet.
2. <https://www.tuni.fi/en/news/professor-mikko-hokka-conducts-research-to-improve-energy-efficiency-and-develop-safe-lightweight>
3. https://ewikiuz.top/wiki/Daniel_Yergin#cite_note-quest-epicc-49
4. Beder S. 2017, "Environmental economics and ecological economics: the contribution of interdisciplinary to understanding, influence and effectiveness", Environmental Conservation, vol. 38, № 2, 140-150 pp.
5. Абдурахманов А. А. «Экономика и общество» №10(89) 2021 www.iupr.ru роль стандартизации и повышения качества продукции.



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6. Абдурахманов Азиз Абдухаликович. оценка неопределенности измерений в цифровую эру // академический исследовательский журнал if-7.4 январь 2023 том 1 выпуск.



ISHCHI SUYUQLIK ROTOR-FILTRLI QURILMADA GIDRVALIK QARSHILIGINING ENERGIYA ISTEMOLIGA TA'SIRI

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Annotatsiya

Qurilmani loyihalashda ushbu parametrlarni ham inobatga olish zarur. δ va dsh ga bog'liq holda qarshilik koeffitsientini aniqlash bo'yicha ko'plab ilmiy tadqiqot ishlari olib borilgan. Ilmiy-tadqiqot ishlarida qarshilik koeffitsientini aniqlash murakkab harakterga ega va turli chetga chiqishlarni talab etganligi sababli umumiy qonunlar asosida tajriba yo'li bilan aniqlangan.

Абстрактный. Эти параметры также необходимо учитывать при проектировании устройства. Было проведено много научных исследований для определения коэффициента сопротивления в зависимости от δ и dsh . Поскольку определение коэффициента сопротивления в научных исследованиях является сложным и требует различных отклонений, его определяют экспериментально на основе общих закономерностей.

Kalit so'zlari: shtuser, Rotor-filtrli, zichligi, koeffitsient, gidravlik qarshilik, prinsip, maqbul qiymatda, chang zichligi, to'rtli material, rotorni aylantirish, suyuqlik .

Ключевые слова: Штусер, ротор-фильтр, плотность, коэффициент, гидравлическое сопротивление, принцип, допустимое значение, плотность пыли, материал сетки, вращение ротора, жидкость.

Rotor-filtrli qurilmaga [1] berilayotgan ishchi suyuqlik-ka (suv) ta'sir qiluvchi gidravlik qarshilik filtrlovchi materialning [2] kontakt yuzasiga suyuqlikni ejeksiya hosil qilib sepuvchi shtuseriga (4) bog'liq bo'lib, bu jarayonda shtuser (4)

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teshigining diametri asosiy rol o'ynaydi va qurilmaning tozalash samaradorligi hamda changli gazni tozalash uchun energiya sarfini belgilashda muhim ahamiyatga ega. Qurilmani loyihalashda shtuser (4) teshigi diametri va unga bog'liq holda shtuserlar soni shunday tanlanishi kerakki, suyuqlikning minimal sarfida ham filtrlovchi to'rtli material kontakt yuzasi uzunligi bo'yicha teng taqsimlansin va kontakt yuzada maqbul qiymatda suyuqlik qatlami hosil qilsin. Suyuqlik qatlamining maqbul qiymati qurilmaning me'yoriy va barqaror gidrodinamik rejimda ishlashini ta'minlaydi.

Rotor-filtrli qurilmada suyuqlikka ta'sir qiluvchi umumiy gidrvalik qarshiliklarni [3,4,5] adabiyotlarda berilgan hisoblash tenglamalaridan foydalanib quyidagicha yozish mumkin. Bunga ko'ra, umumiy yo'qotilgan bosim quyidagiga teng bo'ladi, Pa:

$$\Delta P_{\text{cyto}} = P_{\kappa} + P_{\text{uu}},$$

bunda P_{κ} – suyuqlik oqadigan quvur ichidagi geometrik bosim bo'lib, u quyidagi tenglama bo'yicha aniqlanadi, Pa [5]:

$$P_{\kappa} = \rho g H,$$

bunda ρ – suyuqlik zichligi, kg/m³; g – erkin tushish tezlanishi, m/s²; H – suyuqlik sathi balandligi, m.

P_{sh} – suyuqlikni teshikdan oqib chiqishidagi yo'qotilgan bosim bo'lib, u Darsi-Veysbaxa tenglamasi bo'yicha aniqlanadi, Pa [5]:

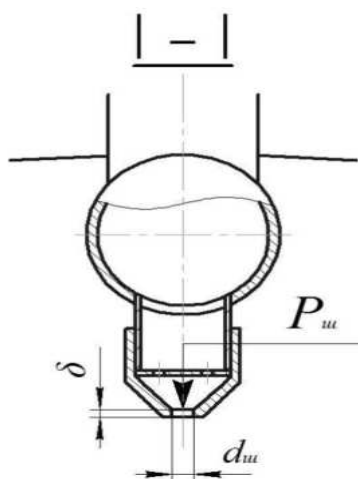
$$P_{\text{uu}} = \xi_{\text{uu}} \frac{\rho \cdot v_c^2}{2},$$

bunda v_s – suyuqlikni teshikdan oqib chiqishdagi tezligi, m/s; ξ_{sh} – suyuqlikni shtuser teshigidan oqib chiqishidagi qarshilik koeffitsienti bo'lib, u shtuser teshigining qalinligi δ va teshik diametiri d_{sh} ga bog'liq. 1-rasm. Qurilmani loyihalashda ushbu parametrlarni ham inobatga olish zarur. δ va d_{sh} ga bog'liq holda qarshilik koeffitsientini aniqlash bo'yicha ko'plab ilmiy tadqiqot ishlari olib borilgan. Ilmiy-tadqiqot ishlarida qarshilik koeffitsientini aniqlash murakkab harakterga ega va turli chetga chiqishlarni talab etganligi sababli umumiy qonunlar asosida tajriba yo'li bilan aniqlangan. Rotor-filtrli qurilmaga berilayotgan ishchi suyuqlikning shtuser teshigidan oqib chiqishidagi qarshilik koeffitsientini

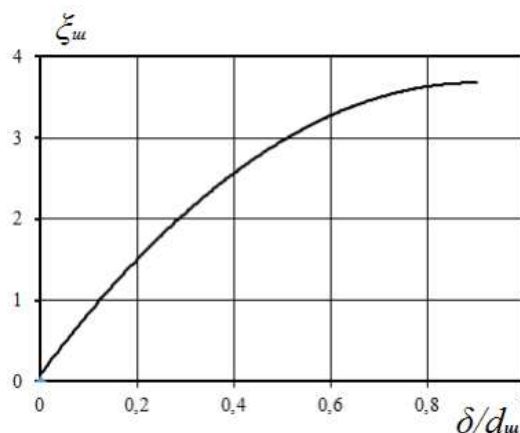
aniqlashda tajriba usulidan foydalanamiz. 2-rasmda quvur teshigi qarshilik koeffitsientini quvur teshigi qalinligining teshik diametriga nisbatiga bog'liq holda o'zgarish grafigi tasvirlangan [6].

Qurilmaning bitta shtuseri teshigidan oqib chiqadigan suyuqlikning tezligini aniqlash maqsadida Bernulli tenglamasini tadbiq etib [7], quvurdagi bosim P_k va shtuser teshigidagi bosim P_{sh} ni teng deb qabul qilamiz. U holda (4) tenglamani quyidagi ko'rinishda yozish mumkin bo'ladi [7].

$$\rho_c g H = \xi_{uu} \frac{v_c^2 \cdot \rho_c}{2}.$$



1-rasm. Shtuser teshigidagi gidravlik qarshilikni hisoblash sxemasi



2-rasm. Shtuser teshigi qarshilik koeffitsenti ξ_{sh} ning teshik qalinligi δ va diametri d_{sh} ga bog'liqligi Hosil qilingan (4) tenglamadan suyuqlik tezligini aniqlaymiz, m/s:

$$g_c = \sqrt{\frac{2(\rho_c g H)}{\rho_c \xi_{uu}}} = \sqrt{\frac{2gH}{\xi_{uu}}},$$

(5) tenglikdan qurilmaning bitta shtuseri teshigidan oqib chiqayotgan suyuqlik sarfini aniqlash mumkin bo'ladi, m³/soat:

$$Q_c = 3600\pi R^2 v_c = 3600\pi R^2 \sqrt{\frac{2gH}{\xi_{uu}}}.$$

Qurilmaga ishchi holatda berilayotgan suyuqlik yordamida filtrlovchi to'rtli material kontakt yuzasini to'rtliq namlash va changli gazlarni yuqori tozalash samaradorligiga erishish uchun shtuserlar soni filtrlovchi to'rtli materialning kontakt yuzasi uzunligi bo'yicha tanlanadi. U holda (6) tenglamani quyidagi ko'rinishda yozish mumkin bo'ladi, m³/soat.

$$Q_c = 3600\pi R^2 v_c = 3600n\pi R^2 \sqrt{\frac{2gH}{\xi_{uu}}},$$

bunda n – filtrlovchi to'rtli materialning kontakt yuzasiga suyuqlikni sochuvchi shtuserlar soni, dona. 7) tenglamadan foydalanib rotor-filtrli qurilmaga berilayotgan ishchi suyuqlikning umumiy sarfini aniqlash imkoniga ega bo'lamiz. Ho'l usulda changli gazlarni tozalovchi qurilmalarning tozalash samaradorligi jarayonni amalga oshirish uchun sarflangan energiya orqali aniqlanadi. K.T.Semrauning [8] tadqiqot ishidan ma'lumki, tozalash samaradorligi qurilmaning gidravlik qarshiligiga bog'liq bo'lib, qurilma o'lchami va konstruksiyasiga bog'liq emas. Bunda umumiy energiya sarfi suyuqlik yordamida changli gazlarni tozalashga sarflanishi zarur [8,9,10,11,12]. Rotor-filtrli qurilmada ham energiya sarfi qurilmaning changli gaz kirish va chiqish qismi, forsunkalari, suyuqlik yordamida changli gazni tozalashda, rotorni aylantirish uchun hamda nasos va ventilatorlardagi ishqalanish hisobiga sarflangan energiyani o'z ichiga oladi. Qurilmada suyuqlik oqimiga sarflangan energiya, rotorni aylantirish hamda changli gaz oqimini qurilmadan o'tishida ishqalanishiga sarflangan aniq energiya miqdorini hisoblash murakkab jarayon bo'lganligi sababli, K.T.Semrauning tadqiqot ishidan foydalanib umumiy energiya sarfini quyidagi tenglama bo'yicha taqribiy hisoblaymiz. Hisoblashning ushbu uslubi konstruksiyasi va ish prinsipi turlicha bo'lgan ho'l usulda changli gazlarni

tozalash qurilmalariga qo'llanilganda $\pm 10\%$ xatolik beradi. Rotor-filtrli qurilmaning umumiy energiya sarfi quyidagi tenglama bo'yicha aniqlanadi, $\text{kJ}/1000\text{m}^3$ [8];

$$K_{P\Phi A} = \Delta P_c + \Delta P_{cb} \frac{V_{\text{сую}}}{V_{\text{газ}}} + \frac{N_{P\Phi A}}{V_{\text{газ}}},$$

bunda ΔP_c – suyuqlik berilmagan qurilmaning gidravlik qarshiligi, Pa; ΔP_{cb} – suyuqlik berilgan qurilmaning gidravlik qarshiligi bo'lib, u gaz bilan birga kirayotgan chang zichligiga bog'liq bo'ladi, Pa; $V_{\text{сую}}$ – suyuqlikning hajmiy sarfi, m^3 ; $V_{\text{газ}}$ – changli gazning hajmiy sarfi, m^3 ; $N_{P\Phi A}$ – rotorni aylantirish, suyuqlik va gazni uzatish uchun sarflanadigan quvvat, Wt ;

Foydalanilgan adabiyotlar ro'yxati:

1. Исомидинов А.С. Разработка эффективных методов и устройств очистки пылевых газов химической промышленности: Дисс. PhD. Ташкент, 2020. – 18 с.
2. Исомидинов А. С. Исследование гидравлического сопротивления роторно-фильтрующего аппарата // Universum: технические науки. 2019. – №. 10-1 (67).
3. Эргашев Н. А. Исследование гидравлического сопротивления пылеулавливающего устройства мокрым способом // Universum: технические науки. – 2020. – №. 4-2 (73). – С. 59-62.
4. Мадаминова Г. И., Тожиев Р. Ж., Каримов И. Т. Барабанное устройство для мокрой очистки запыленного газа и воздуха // Universum: технические науки. – 2021. – №. 5-4 (86). – С. 45-49.
5. Rasuljon, T., Azizbek, I., & Abdurakhmon, S. (2021). Research of the hydraulic resistance of the inertial scrubber. Universum: технические науки, (7-3 (88)), 44-5
6. Isomidinov A.S., Karimov I.T., Tojiev R.J. Searching the losing of hydraulic pressure in rotor-filter gas cleaner apparatus // Scientific-technical journal. – 2021. – T. 3. – № 1. – С. 69–72.
7. Абдурахманов А. А. «Экономика и общество» №10(89) 2021 www.iupr.ru роль стандартизации и повышения качества продукции
8. Абдурахманов Азиз Абдухаликович. оценка неопределенности измерений в цифровую эру // академический исследовательский журнал if-7.4 январь 2023 том 1 выпуск



ISTE'MOLCHILAR YUKLAMASINI, ELEKTR ENERGIYASI GRAFIGI

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Annotatsiya

Iste'molchilar yuklamasi o'zgarmas qiymatga ega bo'lmay, balki u vaqt, oy, yil bo'yicha va fasllarga qarab o'zgarib turadi. Bundan tashqari, xalq xo'jaligini rivojlanishi va aholi farovonligini oshishi tufayli yuklamalarni muntazam ravishda o'sishi mavjud.

Абстрактный

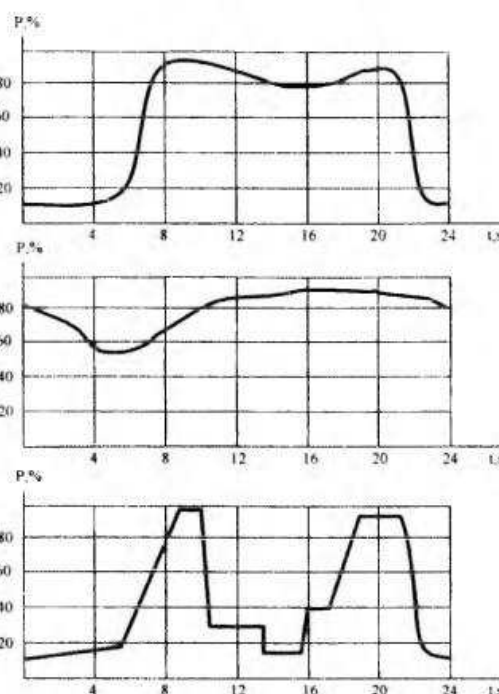
Нагрузка потребителей не имеет фиксированной величины, а меняется во времени, месяце, году и в зависимости от сезона. Кроме того, в связи с развитием национальной экономики и повышением благосостояния населения происходит регулярное увеличение нагрузок.

Kalit so'zlar. ES. EUL, stansiya, Grafik, kommunal-maishiy, grafik, Eksploatatsiya, koeffitsiyent, Maksimal yuklanis, grafik, Reaktiv, maksimum, faslli.

Ключевые слова. ЭС. ЭУЛ, станция, График, коммуна, график, Эксплуатация, коэффициент, Максимальная нагрузка, график, Реактивный, максимальный, сезонный.

Har bir loyihalanayotgan va qurilayotgan elektr tarmog'i iste'moichilarni yuqori sifatli elektr energiya bilan ishonchli ravishda ta'minlashi shart. Hisoblar uchun dastlabki asosiy ma'lumotlar, bu iste'molchilarni yuklamalari, stansiya va podstansiyalar joylashgan mintaqalar to'g'risidagi ma'lumotlardir. Iste'molchilar yuklamasi o'zgarmas qiymatga ega bo'lmay, balki u vaqt, oy, yil bo'yicha va fasllarga qarab o'zgarib turadi. Bundan tashqari, xalq xo'jaligini rivojlanishi va aholi farovonligini oshishi tufayli yuklamalarni muntazam ravishda o'sishi mavjud.

Masalan. hozirgi vaqtda televizoriarni o'zi 1940-yillarda bo'lgan mamiakatdagi hamma elektr stansiyalami quvvatiga teng quvvatni iste'mol qiladi. Elektr energiyani iste'mol qilish tartibiga energetika uskunolari; ES. EUL va transformator podstansiyalarini ishlash tartibi bog'liqdir. Elektr yuklamalari grafigi deb, abssissa o'qida vaqt va ordinata o'qida esa yuklama o'lchamida, tokda yoki yuklama maksimumiga nisbatan foizda qo'yilgan grafikka aytiladi va bu qandaydir bir keltirilgan vaqt bo'yicha elektr energiyani qabul qilingan miqdori haqida taassurot beradi. Grafiklar sutka bo'yicha, faslli, yillik aktiv va reaktiv yuklamalar grafigiga bo'linadi. Sanoat iste'molchilari yuklamalar grafigining turlari ishlab chiqarishdagi texnologiya jarayonlarini xususiyatlariga bog'liq. Kommunal-maishiy korxonalarning yuklamalar grafigi yorituv uskunolari tufayli o'ziga xos to'satdan o'zgaruvchan xarakterga egadir. Masalan 3.1.1 a,b,d-rasmlarda mashinasozlik zavodining (a), kimyoviy ishlab chiqarishning (b), maktab yoki instituting (d) grafiglari keltirilgan.



1 -rasm. Iste'molchilarning har xil shakllardagi yuklamalar grafigi.

Rasmdan ko'rinib turibdiki, bu grafiklar bir-birlaridan ancha farq qiladi. Yuklamalar grafiglari asosida elektr uskunolari va elektr tarmoqlarini ishlash tartibini tahlil qilish

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va hisoblash, har bir vaqt oralig'ida elektr tarmoqlarida yuklamani oshishi va rivojlanishini hisobga olib, elektr iste'moli tartibini yaxshilash chora-tadbirlari ko'riladi. Yuklamalar grafigi elektr qabul qiluvchilarni ko'rilayotgan hisoblash oralig'ida iste'mol qilayotgan quvvatini rejalashtirish uchun sutkalik eng katta faol quvvatni aniqlashga kerak bo'ladi. O'rtacha yuklamalar Korxonalarining hisobiy yuklamalarini aniqlashda va elektr ta'minoti tizimidagi energiya sarfini, nobudgarchiligini hisoblashda o'rtacha yuklamasi hisobiy yuklamaning eng kichik qiymati to'g'risida ma'lumot beradi. Umumiy holda ma'lum oraliqdagi o'rtacha quvvat quyidagicha ifodalanadi:

$$P_{o'rt.} = \frac{1}{t} \int_0^t p dt \quad Q_{o'rt.} = \frac{1}{t} \int_0^t q dt$$

Eksploatatsiya sharoitida guruh iste'molchilarining o'rtacha quvvatlari 44 aktiv va reaktiv energiya hisoblagichlarining ko'rsatkichlari asosida ushbu munosabatlar orqali topiladi:

$$P_{o'rt.} = \frac{\mathcal{E}_a}{t_s}; \quad Q_{o'rt.} = \frac{\mathcal{E}_r}{t_s}; \quad S_{o'rt.} = \sqrt{P_{o'rt.}^2 + Q_{o'rt.}^2}$$

Bu yerda, $\mathcal{E}_a$, $\mathcal{E}_r$ - aktiv va reaktiv elektr energiyalarining ko'rilayotgan t_s vaqt oralig'idagi sarfi. Korxonaning elektr ta'minotini loyihalash bosqichida guruh iste'molchilarining eng katta yuklamali smenasidagi o'rtacha quvvatini quyidagicha aniqlash mumkin:

$$P_{o'rt.} = K_{ish.a} \cdot P_{nom}$$

Bu yerda, P_{nom} - iste'molchilarning nominal quvvatlarini yig'indisi bo'lib, takroriy qisqa muddatli rejimda ishlovchi iste'molchilarni UD=100% rejimga keltirish kerak; $K_{ish.a}$ - guruh iste'molchilariga tegishli bo'lgan ishlatilishi koeffitsiyenti. Eng yuklangan smenaga reaktiv quvvatning o'rtacha qiymatini guruh iste'molchilari uchun shunday topiladi:

$$Q_{o'rt.} = K_{ish.r} \cdot Q_{nom} \quad \text{yoki} \quad Q_{o'rt.} = P_{o'rt.} \cdot \tan \varphi$$

Bu yerda, $\tan \varphi$ ni qiymatini topishda ma'lumotnomalarda har xil guruh iste'molchilarga uchun berilgan quvvat koeffitsientidan foydalaniladi. Sex yoki korxonaning yillik o'rtacha quvvati ushbu munosabatdan aniqlanadi:

$$P_{o'rt.} = \frac{\partial_{a.y}}{T_y}; \quad Q_{o'rt.} = \frac{\partial_{r.y}}{T_y}$$

Ifodadagi $\partial_{a.y}$ - yillik iste'mol qilingan aktiv energiya miqdori (kVt*soat); $\partial_{r.y}$ - yillik iste'mol kilingan reaktiv energiya miqdori (kVAr*soat); T_y - korxonaning yillik ish vaqti(soat). Faza bo'yicha oldinda boruvchi toklar hosil qiluvchi iste'molchilarning(sinxron mashinalar, statik kondensatorlar) reaktiv 45 quvvatlari manfiy ifoda bilan qabul qilinadi. O'rta kvadratik yuklamalar Vaqtni har qanday oralig'ida (interval) o'rta kvadratik yuklama quyidagicha aniqlanadi.

$$P_{o'rt.kv.} = \sqrt{\frac{1}{T} \int_0^T P^2(t) dt}; \quad Q_{o'rt.kv.} = \sqrt{\frac{1}{T} \int_0^T Q^2(t) dt}; \quad I_{o'rt.kv.} = \sqrt{\frac{1}{T} \int_0^T I^2(t) dt}$$

Bu yerda, T - vaqtni ko'rilayotgan davri; $Q_{o'rt.kv.}$ – elektr energiya tarmoqlarida quvvat koeffitsiyenti($\cos\phi$) oshganda, quvvat isrofi kamayishini baholash uchun zarur bo'lgan kattalik.

Maksimal yuklama P_m - vaqtning ma'lum oralig'idagi o'rtacha quvvatning eng katta qiymati. Maksimal yuklanish - vaqtni u yoki bu davrida, ma'lum bir kutilayotgan tezlikda hosil bo'lishi bilan xarakterlanadi. Davomiyligi bo'yicha ikki xil maksimal yuklanish turi mavjud: 1. Elektr ta'minlash tarmoqlarida sistema elementlarini qizishi va maksimal quvvat isrofi bo'yicha tanlashda, vaqt davomiyligi bo'yicha turlicha (10, 15, 30, 60, 120 min) uzoq maksimal yuklanishlar. 2. Tarmoqlardagi kuchlanish tebranishlarini tekshirish uchun, kontaktli tarmoqlardagi kuchlanish yo'qolishini aniqlash uchun, tarmoqlarni el. dvigatellarni o'z-o'zidan ishga tushish shartlari asosida tekshirish uchun, saqlagichlarning eruvchan qismlarini tanlash uchun, maksimal tokli rele himoyasini ishga tushish tokini hisoblash uchun, davomiyligi 1÷2 sek. bo'lgan qisqa muddatli maksimal yuklanishlar kerak bo'ladi. Elektr tarmoqlari yuklamalarini loyihalashtirishda ayrim hamda bir toifa elektr qabul qiluvchilarni andazali grafiklari asos qilib olinadi. Andazali grafiklar ko'p sonli bir xil ko'rinishli elektr iste'molchilari uchun o'lchov va o'zi yozadigan asboblari ko'rsatkichlari asosida quriladi. Sutka bo'yicha tajribadan bir xil olingan natijalami ishlab chiqish, ko'rilayotgan elektr iste'molchilari uchun quvvatni o'rtacha qiymatini aniqlash va yaqinlashtirilgan andazali grafigini qurish imkonini beradi. Reaktiv quvvat iste'molchilari uchun



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elektr tarmoqlarini loyihalashda quvvat koeffitsiyenti qiymatini aktiv quvvatni eng katta va eng kichik qiymatlari iste'molini har xil vaqt oralig'ida yoki o'zgarmas deb qabul qilinadi. Kimyoviy ishlab chiqarishda, yuklama sutka bo'yicha maksimal qiymatga yaqindir, maktabda esa ertalabki o'quvchilar maktabga kelgandagi, kechki qorong'i tushib yana yorituv uskunalarini yoqishga to'g'ri kelgandagi ikki maksimum bo'ladi. Shunday har xil grafiklar va statistik ma'lumotlarga asosan ayrim mintaqalarni elektr ta'minot grafigi va umuman energetika tizimlarini grafigi tuziladi. Yuklamalar grafigi tarmoqlarni hisoblashda dastlabki zarur ma'lumot hisoblanadi. Energiya iste'molchisining tuzilishi (xususiyatlari) va elektr yuklamalarini qiymatlari ehtimollik xarakteriga egadir, shuning uchun hisoblangan (oldindan rejalangan) grafiklar haqiqiy grafiklardan ko'pincha farq qiladi.

ADABIYOTLAR

1. Липкин Б.Ю., “Электроснабжение промышленных предприятий и установок”, Учебник. –М.: “Высшая школа”, 2010.
2. Кудрин Б.И., “Электроснабжение промышленных предприятий”, Учебник. –М.: Интермет Инжиниринг, 2005.
3. Qodirov T.M., Alimov X.A., “Sanoat korxonalarining elektr ta'minoti”, O'quv qo'llanma, ToshDTU. –T.: 2006.
4. Qodirov T.M., Alimov X.A., Rafiqova G.R., “Sanoat korxonalari va fuqaro binolarining elektr ta'minoti”, O'quv qo'llanma, ToshDTU, – T.: 2007.



EKOLOGIK MUAMMOLAR ENERGETIKA SOHASIDA

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Annotatsiya

Energiya iste'moli o'sishidagi birinchi sakrash odamlar olov yoqishni va undan ovqat pishirish va uylarini isitish uchun foydalanishni o'rganganlarida sodir bo'ldi. Bu davrda energiya manbalari o'tin va inson mushaklarining kuchi edi.

Абстрактный. Первый скачок в потреблении энергии произошел, когда люди научились разводить огонь и использовать его для приготовления пищи и обогрева своих домов. В этот период источниками энергии были древесина и мышечная сила человека.

Kalit so'zlar. Sivilizatsiya, konvertatsiya, energetikaning rivojlanish, Atmosferaga, zarracha, neft va gaz kondensati, Prognoz, post industrial, Gidrosferaning ifloslanish, Yadro texnologiya.

Ключевые слова: Цивилизация, конверсия, развитие энергетики, Атмосфера, твердые частицы, нефть и газовый конденсат, Прогноз, постиндустриальный, Загрязнение гидросферы, Ядерные технологии.

Energiya iste'moli inson mavjudligi uchun zaruriy shartdir. Iste'mol qilinadigan energiya mavjudligi har doim inson ehtiyojlarini qondirish, uning umrini ko'paytirish va hayot sharoitlarini yaxshilash uchun zarur bo'lgan. Energiya inqirozi- bu energiya resurslariga bo'lgan talab ularning yetkazib berishdan sezilarli darajada yuqori bo'lgan hodisa. Sivilizatsiya tarixi - bu energiyani konvertatsiya qilishning tobora ko'proq yangi usullarini ixtiro qilish, uning yangi manbalarini ishlab chiqish va pirovardida energiya iste'molini oshirish tarixi. Energiya iste'moli o'sishidagi birinchi sakrash odamlar olov yoqishni va undan ovqat pishirish va



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uyalarini isitish uchun foydalanishni o'rganganlarida sodir bo'ldi. Bu davrda energiya manbalari o'tin va inson mushaklarining kuchi edi. Zamonaviy dunyoda energetika ijtimoiy ishlab chiqarish taraqqiyotini belgilovchi asosiy tarmoqlarni rivojlantirish uchun asosdir. Barcha sanoati rivojlangan mamlakatlarda energetikaning rivojlanish sur'atlari boshqa tarmoqlarning rivojlanish sur'atlaridan oshib ketdi. Shu bilan birga, energiya atrof-muhitga va odamlarga salbiy ta'sir ko'rsatadigan manbalardan biridir. Atmosferaga (kislorod iste'moli, gazlar, namlik va qattiq zarrachalar tashlamasi), gidrosferaga (suv iste'moli, sun'iy suv havzalarini yaratish, ifloslangan va isitiladigan suvlarni oqizish, suyuq chiqindilar) va litosferaga (qazib olinadigan yoqilg'ilarni iste'mol qilish, landshaftning o'zgarishi) ta'sir qiladi. Energiyaning atrof-muhitga salbiy ta'sirining qayd etilgan omillariga qaramay, energiya iste'molining ortishi keng jamoatchilik orasida katta tashvish tug'dirmadi. Bu 70 - yillarning o'rtalariga qadar davom etdi, mutaxassislar iqlim tizimiga kuchli antropogen bosimni ko'rsatuvchi ko'plab ma'lumotlarga ega bo'ldilar, bu esa energiya iste'molining nazoratsiz o'sishi bilan global falokat xavfini tug'diradi. Ushbu o'zgarishning asosiy sabablaridan biri energiya ekanligiga ishoniladi. Energiya deganda inson faoliyatining energiya ishlab chiqarish va iste'mol qilish bilan bog'liq har qanday sohasi tushuniladi. Energetika tarmog'ining muhim qismi organik yoqilg'i (neft, ko'mir va gaz) yonishi natijasida ajralib chiqadigan energiya iste'moli hisobiga ta'minlanadi, bu esa o'z navbatida atmosferaga juda ko'p miqdordagi ifloslantiruvchi moddalarning chiqishiga olib keladi. Bunday soddalashtirilgan yondashuv allaqachon jahon iqtisodiyotiga haqiqiy zarar yetkazmoqda va rivojlanishning sanoat bosqichini yakunlash uchun zarur bo'lgan energiya iste'moli darajasiga etib bormagan mamlakatlar, shu jumladan O'zbekiston iqtisodiyotiga halokatli zarba berishi mumkin. Energetika sektori qisman javobgar bo'lgan issiqxona effektiga qo'shimcha ravishda, sayyora iqlimiga bir qator tabiiy sabablar ta'sir qiladi, ulardan eng muhimi quyosh faolligi, vulqon faolligi, Yer orbitasining parametrlari va o'z - o'zidan tebranishlarni o'z ichiga oladi. Muammoni to'g'ri tahlil qilish faqat barcha omillarni hisobga olgan holda mumkin, shu bilan birga, albatta, yaqin kelajakda global energiya iste'moli qanday bo'ladi, insoniyat haqiqatan ham energiya sohasida qat'iy cheklovlarni o'rnatishi kerakmi degan savolga aniqlik kiritish kerak Umumiy qabul qilingan tasnif asosiy energiya



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manbalarini tijorat va notijoratga ajratadi. Tijorat energiya manbalariga qattiq (ko'mir va qo'ng'ir tosh, torf, moyli slanets, smola qumlari), suyuq (neft va gaz kondensati), gazsimon (tabiiy gaz) yoqilg'isi va birlamchi elektr energiyasi (atom, gidro, shamol, geotermal, quyosh, suv oqimi va to'lqin stantsiyalari). Notijorat manbalarga boshqa barcha energiya manbalari (o'tin, qishloq xo'jaligi va sanoat chiqindilari, hayvonlarning mushaklari va odamlarning o'zlari) kiradi. Umuman olganda, jahon energetikasi jamiyat rivojlanishining butun sanoat bosqichida, birinchi navbatda, tijorat energiya manbalariga (umumiy energiya iste'molining taxminan 90%) asoslangan. Shuni ta'kidlash kerakki, mamlakatning butun guruhi mavjud bo'lib, ularning katta aholisi o'z mavjudligini deyarli faqat notijorat energiya manbalari orqali qo'llab-quvvatlaydi. So'nggi 50-60 yildagi ma'lumotlarga asoslangan energiya iste'molining turli prognozlar shuni ko'rsatadiki, taxminan 2025 yilgacha global energiya iste'molining joriy o'rtacha o'sish sur'ati davom etishi kutilmoqda - yiliga taxminan 1,5% va aholi jon boshiga global iste'molning barqarorlashuvi namoyon bo'ldi. 2100 yilga kelib aholi jon boshiga energiya iste'molining o'rtacha jahon darajasining sekin pasayishi boshlanadi. Shu bilan birga, jami energiya iste'moli 2050 yildan keyin barqarorlashuvga aniq tendentsiyani va hatto oxirigacha biroz pasayishni ko'rsatadi. Prognozni ishlab chiqishda e'tiborga olinadigan eng muhim omillardan biri bu qazib olinadigan organik yoqilg'ilarni yoqish asosida global energiya resurslarining mavjudligi. Agar aniqlangan qayta tiklanadigan zahiralarni hisobga oladigan bo'lsak, ko'mir zaxiralari neft va gaz zaxiralaridan sezilarli darajada oshib ketganligi sababli, ushbu senariy bo'yicha jahon energetikasining rivojlanishi bir asrdan ko'proq vaqt davomida resurslar nuqtai nazaridan ta'minlangan deb aytish mumkin. Shunday qilib, dunyoda jon boshiga energiya iste'moli barqarorlashuvning aniq tendentsiyasini ochib beradi. Shuni ta'kidlash kerakki, bu jarayon taxminan 25 yil oldin, ya'ni global iqlim o'zgarishi haqidagi hozirgi taxminlardan ancha oldin boshlangan. Tinchlik davrida bunday hodisa sanoat davri boshlanganidan beri birinchi marta kuzatilmoqda va dunyo mamlakatlarining yangi, post industrial rivojlanish bosqichiga ommaviy o'tishi bilan bog'liq bo'lib, unda aholi jon boshiga energiya iste'moli doimiy bo'lib qolmoqda. Hozirda energiyani rivojlantirish bo'yicha ko'plab prognozlar mavjud. Biroq, prognozlash usullari



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takomillashtirilganiga qaramay, prognozchilar noto'g'ri hisob-kitoblardan himoyalangan va 40-50 yil vaqt oralig'ida prognozlarining katta aniqligi haqida gapirish uchun yetarli asosga ega emaslar. Inson har doim oldinga harakatni ta'minlash uchun imkon qadar ko'proq energiyaga ega bo'lishga intiladi. Ilm-fan va texnologiya unga har doim ham o'sib borayotgan hajmlarda energiya olish imkoniyatini bermaydi. Ammo, tarixiy taraqqiyot shuni ko'rsatadiki, insoniyatning yana bir sifat sakrashini amalga oshirishga va yanada tezroq qadamlar bilan yangi yutuqlarga erishishga yordam beradigan yangi kashfiyotlar va ixtirolar paydo bo'ladi. Biroq, energiya manbalarining kamayishi muammosi hamon saqlanib qolmoqda. Yerning resurslari qayta tiklanadigan va tiklanmaydigan manbalarga bo'linadi. Birinchisiga quyosh energiyasi, Yerning issiqligi, okean suvlari va o'rmonlar kiradi. Quyosh va Yer mavjud ekan, ular mavjud bo'lishdan to'xtamaydi. Qayta tiklanmaydigan resurslar tabiatan to'ldirilmaydi yoki juda sekin, odamlar tomonidan iste'mol qilinganidan ancha sekin to'ldiriladi. Yerning ichaklarida yangi qazilma yoqilg'ilarning paydo bo'lish tezligini aniqlash juda qiyin. Shu munosabat bilan ekspert baholari 50 martadan ko'proq farq qiladi. Agar biz eng katta raqamni qabul qilsak ham, Yerning ichaklarida yoqilg'ining to'planish tezligi hali ham uni iste'mol qilish tezligidan ming baravar kam. Energiyaning atrof-muhitga ta'sirining asosiy shakllari quyidagilardan iborat. 1. Insoniyat hali ham energiyaning asosiy qismini qayta tiklanmaydigan resurslardan foydalanish orqali oladi; 2. Atmosferaning ifloslanishi: issiqlik effekti, atmosferaga gazlar va changlarning chiqishi; 3. Gidrosferaning ifloslanishi: suv havzalarining issiqlik bilan ifloslanishi, ifloslantiruvchi moddalarning chiqindilari; 4. Energiya tashuvchilarni tashish va chiqindilarni yo'q qilish, energiya ishlab chiqarish jarayonida litosferaning ifloslanishi; 5. Atrof-muhitning radioaktiv va zaharli chiqindilar bilan ifloslanishi; 6. GESlar tomonidan daryolarning gidrologik rejimining o'zgarishi va buning natijasida suv oqimining ifloslanishi; 7. Elektr uzatish liniyalari atrofida elektromagnit maydonlarni yaratish; Yaqin kelajakda insoniyat qazib olinadigan yoqilg'ilarning cheklanishini his qilishini hisobga olsak, energiya iste'molining doimiy o'sishini energiyaning o'sib borayotgan salbiy oqibatlari bilan moslashtirishning ikki yo'li mavjud. 1. Energiyani tejash. Taraqqiyotning energiya tejashga ta'siri darajasini bug' dvigatellari misolida ko'rsatish mumkin. Ma'lumki,



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100 yil avval bug‘ mashinalarining samaradorligi 3-5 foizni tashkil etgan bo‘lsa, hozir bu ko‘rsatkich 40 foizga yetdi. 70-yillardagi energetik inqirozdan keyingi jahon iqtisodiyotining rivojlanishi ham insoniyatning bu yo‘lda katta zaxiralarga ega ekanligini ko‘rsatdi. Resurs va energiyani tejovchi texnologiyalardan foydalanish rivojlangan mamlakatlarda yoqilg‘i va materiallar sarfini sezilarli darajada kamaytirishni ta‘minladi. 2. Energiya ishlab chiqarishning toza shakllarini ishlab chiqish. Muammoni, ehtimol, energiyaning muqobil turlarini, ayniqsa qayta tiklanadigan manbalardan foydalanishga asoslangan turlarini rivojlantirish orqali hal qilish mumkin. Biroq, bu yo‘nalishni amalga oshirish yo‘llari hali aniq emas. Hozirgacha qayta tiklanadigan manbalar global energiya iste‘molining 20 foizidan ko‘pini ta‘minlamaydi. Ushbu 20% ga asosiy hissa biomassa va gidroenergetikadan foydalanishga to‘g‘ri keladi. Hozirgi vaqtda elektr energiyasining asosiy qismi issiqlik elektr stansiyalarida (IES) ishlab chiqariladi. Keyingi o‘rinlarda odatda gidroelektrostansiyalar (GES) va atom elektr stansiyalari (AES) turadi. 1) Issiqlik elektr stansiyalari. Dunyoning aksariyat mamlakatlarida issiqlik elektr stansiyalarida ishlab chiqariladigan elektr energiyasi ulushi 50% dan ortiq. Odatda issiqlik elektr stansiyalarida yoqilg‘i sifatida ko‘mir, mazut, gaz va slanets ishlatiladi. Ko‘pgina hisob-kitoblarga ko‘ra, sayyorada ko‘mir 100-300 yilga, neft 40-80 yilga, tabiiy gaz esa 50-120 yilga yetadi. Issiqlik elektr stantsiyalarining samaradorligi o‘rtacha 36-39% ni tashkil qiladi. Yoqilg‘i bilan birga issiqlik elektr stansiyalari sezilarli miqdorda suv iste‘mol qiladi. 2 million kVt quvvatga ega odatdagi issiqlik elektr stansiyasi kuniga 18000 t ko‘mir, 2500 t mazut va 150 000 m³ suv iste‘mol qiladi. Issiqlik elektr stansiyalarida chiqindi bug‘ni sovutish uchun kuniga 7 million m³ suv sarflanadi bu esa sovutish hovuzining issiqlik bilan ifloslanishiga olib keladi. Issiqlik elektr stansiyalari atrof-muhitning yuqori radiatsiya va zaharli ifloslanishi bilan ajralib turadi. Buning sababi shundaki, oddiy ko‘mir va uning kulida uranning bir qator zaharli elementlar yer qobig‘iga qaraganda ancha yuqori konsentratsiyalarda mavjud. Atom elektr stansiyalaridan foydalanishning asosiy muammolari qatoriga quyidagilar kiradi. 1. Reaktor xavfsizligi. Barcha zamonaviy turdagi reaktorlar insoniyatni Chernobilga o‘xshash global avariya xavfi ostida qoldiradi. Bunday baxtsiz hodisa loyihachilarning aybi, operator xatosi yoki terroristik hujum natijasida sodir bo‘lishi mumkin. Yadro erib ketishi bilan eng yomon stsenariy



yuzaga kelganda reaktor yadrosining ichki o'zini o'zi himoya qilish printsipli reaktorlarni loyihalashda o'zgarmas talab bo'lishi kerak. Yadro texnologiyasi murakkab. Ba'zi turdagi baxtsiz hodisalar yuzaga kelishi mumkinligini tushunish uchun ko'p yillik tahlil va to'plangan tajriba kerak bo'ldi. Xavfsizlik noaniqliklari hech qachon oldindan to'liq hal etilmaydi. Ularning katta qismi faqat yangi reaktorlar ishlaganda topiladi.

Foydalanilgan adabiyotlar ro'yxati:

1. Нармуродова Г. Analysis of peculiarities of symbols in the expression of condolence in English and Uzbek languages //Зарубежная лингвистика и лингводидактика. – 2024. – Т. 2. – №. 3. – С. 202-205.
2. Kizi n. g. i. the indicator of the use of verbal and non-verbal forms of communication in the speech etiquette of condolences in english and uzbek //American Journal of Interdisciplinary Research and Development. – 2023. – Т. 16. – С. 230-233.
3. Narmurodova G. I. Q. Yosh avlodga ingliz tilini o'rgatishda madaniyatlararo muloqot masalalarining o'rni va ahamiyati //Oriental renaissance: Innovative, educational, natural and social sciences. – 2022. – Т. 2. – №. Special Issue 20. – С. 765-769.
4. Narmurodova G. I. O'zbek madaniyatida ta'ziya marosimlarining hududiy jihatdan farqlanishi va o'ziga xos xususiyatlari //Oriental renaissance: Innovative, educational, natural and social sciences. – 2022. – Т. 2. – №. Special Issue 20. – С. 733-739.



MEASUREMENT CONDITIONS FOR METROLOGICAL SUPPLY OF PRODUCTION

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Annotatsiya

Mahsulot sifati ko'rsatkichlari parametrlarini o'lchash natijalarining ishonchliligi normal shartli o'lchovlarni hisobga olgan holda o'lchov vositalarini to'g'ri tanlash orqali erishiladi.

Аннотация

Достоверность результатов измерения параметров показателей качества продукции достигается за счет правильного выбора средств измерений с учетом нормальных условий измерения.

Kalit so'zlar: Metrologik ta'minot, o'lchash shartlari, o'lchov natijasi, normal sharoit, o'lchash asboblari, sifat ko'rsatkichlari, o'lchash xatolar.

Ключевые слова. Метрологическое обеспечение, условия измерения, результат измерения, нормальные условия, средства измерений, показатели качества, погрешности измерений.

Metrological support of production should ensure the optimization of process control, ensure the efficiency of processes, maintain the quality of manufacturing, storage and operation of products, taking into account the receipt of measurement results depending on the accepted conditions [1].

Measurement conditions have a significant impact on the measurement result and include ambient temperature, relative humidity, atmospheric pressure, mains voltage and much more, according to the work being done.

To quantify product indicators, it is necessary to: select parameters, characteristics; establish the degree of confidence with which the selected parameters should be determined; establish standards of accuracy; choose methods and means of



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measurement to achieve the required accuracy; ensure the operability of measuring instruments by linking them to the corresponding exemplary ones with the provision of periodic verification and calibration of measuring instruments; ensure that the required conditions for measurements are taken into account or created; provide processing of measurement results and evaluation of error characteristics. Consistent observance of these requirements contributes to obtaining reliable measurement results, thereby ensuring the unity of the measurements [4].

Depending on the types of products and their parameters, the measurement conditions affect the measurement results. Therefore, operators must take measures to eliminate emerging errors in the measurement results, compensate them, take into account their influence by introducing corrections, and also strive to create normal measurement conditions.

Normal measurement conditions are measurement conditions characterized by a set of values or ranges of values of influencing quantities under which a change in the measurement result is neglected due to smallness. The normal value of the influence quantity is the value of the influence quantity set as the nominal value. As normal values or the range of normal values of influencing quantities, the ambient air temperature is usually taken - 20 ± 5 ° C; atmospheric pressure - 101.325 ± 3.3 kPa (760 ± 25 mmHg); relative humidity - 30-80% [5].

The indicated normal conditions for the use of measuring instruments, as a rule, are not the working conditions for their operation. Therefore, for measuring instruments, the range of values of the influencing quantity is usually determined, specified in the technical specifications

or standards, at which the value of the additional error should not exceed the established limits.

The main error of measuring instruments is usually calculated for the normal value, to which the results of many measurements performed under different conditions are reduced.

The normal range of values of the influencing quantity is the range of values of the influencing quantity, within which the change in the measurement result under its influence can be neglected in accordance with the established accuracy standards. The accuracy standards when choosing measuring instruments in accordance with



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the purpose is the accuracy class of measuring instruments, expressed by the limits of permissible (basic and additional) errors, as well as other characteristics that affect accuracy. The limits of permissible basic and additional errors of measuring instruments are established for each accuracy class in the form of absolute, relative and reduced errors.

The limits of permissible basic error are the extreme (largest and smallest) deviations of the values of the nominal static transformation function established for normal conditions, at a given confidence level, located symmetrically on both sides of this function. The limits of permissible basic error contain random and systematic error components. The limits of permissible additional error are the largest and smallest permissible values of additional error caused by measurement conditions that differ from normal.

In addition, it should be noted that under working conditions, measuring instruments can be affected by external influences that do not directly affect the measurement results (aggressive environments, dustiness), mechanical influences (shocks, shaking, vibrations), as well as radiation and electromagnetic fields during actions of which it is impossible to make an accurate measurement [3].

In this regard, measuring instruments designed to operate under these conditions are protected by special devices. Depending on the degree of protection from external influences and resistance to them, measuring instruments are divided into ordinary, vibration-resistant, dust-proof, splash- and moisture-proof, gas-proof, spark-proof, explosion-proof, etc. Under specific measurement conditions, the use of measuring instruments with one or another type of protection allows selection in relation to specific working conditions.

The correct acquisition of measurement results is determined by the following three conditions:

- Measurement results are expressed in legal units;

References:

1. Isroilov F. M., Rakhmonov F. A. ugli Ungarov DY HIGH RESPONSIBILITY (SENSITIVITY) AND ACCURACY OF TEMPERATURE SENSORS FACTORS



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OF ACHIEVEMENT AND RELIABLE OPERATION //International Academic Research Journal Impact Factor. – 2023. – Т. 7. – С. 163-169.

2. Raxmonov F. A. Advantages of Introducing Quality Management System in Textile Companies of the Republic //Texas Journal of Multidisciplinary Studies. – 2022. – Т. 11. – С. 95-97.

3. Турапов У. Ў., Мулданов Ф. Р., Рахмонов Ф. А. ШАХСНИНГ БИОМЕТРИК ХУСУСИЯТЛАРИ АНИҚЛАШДА ЮЗ ТАСВИРНИ СЕГМЕНТЛАШ, ИДЕНТИФИКАЦИЯЛАШ, ФИЛЬТРЛАШ, ЮЗ БЕЛГИЛАРИНИ АЖРАТИШ МЕЗОНЛАРИНИ ҚЎЛЛАШ МУОММОЛАРИ //Conferencea. – 2022. – С. 15-22.

4. Qizi Y. N. H. et al. Heating Furnaces Management //Central Asian Journal of Theoretical and Applied Science. – 2023. – Т. 4. – №. 3. – С. 18-20.

5. Abdukhakimovich R. F. CREATION OF EFFECTIVE CABLES AND ITS APPLICATIONS EFFECTIVENESS CALCULATION //Science and innovation. – 2023. – Т. 2. – №. 2. – С. 188-190.



XALQARO ISO STANDARTLARINING QO‘LLANILISHI MAHALLIY SHAHARSOZLIK FAOLIYATI MISOLIDA

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Annotatsiya:

Xalqaro standartlarni mahalliy mahsulotlarni ishlab chiqarish va xizmat ko‘rsatish jarayonida qo‘llanilishi raqobatbardoshlikni ta‘minlaydi, ISO ga a‘zo davlatlar esa texnik qo‘mitalar faoliyatida faol ishtirok etish orqali o‘z manfaatlarini ximoya qilishga va xalqaro me‘yoriy hujjatlarni o‘zlarida joriy etishga erishadilar. Xalqaro standartlar, asosan, maxsulotlarni inson xayoti va sog‘lig‘iga, atrof-muxitga xavfsizligi, o‘zaroalmashuvchanlik va texnik mosligi talablarini va sinov uslublarini o‘z ichiga oladi. O‘zbekiston Respublikasi Prezidentining 13.03.2020 yildagi PF-5963-sonli Farmonida O‘zbekiston Respublikasi hududida milliy me‘yoriy hujjatlar bilan bir vaqtda shaharsozlik faoliyati sohasida texnik jihatdan tartibga solish sohasidagi xorijiy me‘yoriy (xususan,xalqaro) hujjatlar qo‘llanilishi kerakligi belgilangan.

Аннотация: Использование международных стандартов в производстве и обслуживании местной продукции обеспечивает конкурентоспособность, а страны-члены ИСО могут защищать свои интересы и международные нормативные документы, активно участвуя в деятельности технических комитетов, их внедрения в себе. Международные стандарты в основном включают требования безопасности продукции для жизни и здоровья человека, экологической безопасности, интероперабельности и технической совместимости, а также методов испытаний. В Постановлении Президента Республики Узбекистан №ПФ-5963 от 13.03.2020 иностранные нормативные (в частности, международные) документы в области технического регулирования в сфере градостроительства должны применяться



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одновременно с национальными нормативными документами. на территории Республики Узбекистан.

Kalit so'zlari: Standartlashtirish, ISO, TQ, Katalogi (ISO Catalogue), ISO Bulletin, Strategiyasi, Muxandislik-geologik, ISO/TMBG TQ, Halqaro standartlar, (ISO, HEK va boshqalar), Davlatlararo standartlar (GOST), Milliy standartlar, loyixalash.

Ключевые слова: Стандартизация, ISO, TQ, Каталог (ISO Catalogue), Бюллетень ISO, Стратегия, Геологическая инженерия, ISO/TMBG TQ, Международные стандарты (ISO, HEK и др.), Межгосударственные стандарты (ГОСТ), Национальные стандарты, проектирование.

Kirish

Standartlashtirish bo'yicha xalqaro tashkilot (ISO) ning Nizomida «Tashkilotning maqsadi, dunyo miqyosida xalqaro tovar-ayirboshlashni va o'zaro yordamni rivojlantirishga yordam ko'rsatish, xamda intellektual, ilmiy, texnik va iqtisodiy faoliyat sohalarida xamkorlikni kengaytirish» ekanligi ko'rsatilgan. ISO ning texnik qo'mita (TQ) lari tomonidan yaratilgan standartlar, rahbariy xujjatlar, qoidalar tashkilotga a'zo davlatlar tomonidan milliy standartlar sifatida qo'llanilishi mumkin. ISO standartlari yuqori malakali mutaxassislar tomonidan fan va texnika yutuqlari asosida ishlab chiqiladi va ular ko'plab mamlakatlar tomonidan bir vaqtda qo'llaniladi, bu standartlarni O'zbekistonda qo'llanilishi esa mamlakatimiz iqtisodiyotiga katta imkoniyatlar yaratishi mumkin. Masalaning qo'yilishi. Xalqaro standartlarni mahalliy mahsulotlarni ishlab chiqarish va xizmat ko'rsatish jarayonida qo'llanilishi raqobatbardoshlikni ta'minlaydi, ISO ga a'zo davlatlar esa texnik qo'mitalar faoliyatida faol ishtirok etish orqali o'z manfaatlarini ximoya qilishga va xalqaro me'yoriy xujjatlarni o'zlarida joriy etishga erishadilar. Xalqaro standartlar, asosan, maxsulotlarni inson xayoti va sog'lig'iga, atrof-muxitga xavfsizligi, o'zaroalmashuvchanlik va texnik mosliligi talablarini va sinov uslublarini o'z ichiga oladi. Mahsulotlarning bevosita sifatiga aloqador ko'rsatkichlar aksariyat hollarda korxona (tashkilot)lar me'yoriy xujjatlarida belgilanadi. ISO xar yili standartlar Katalogi (ISO Catalogue), MXlar bibliografik ko'rsatkichi, amalga oshirilgan ishlar



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Xisobotini va ikki yilda bir marta Texnik dasturini nashr etadi. ISO doimiy faoliyati to'g'risidagi axborotlar oylik byulleten (ISO Bulletin)da berib boriladi. O'zbekiston Standartlashtirish bo'yicha milliy idorasi 1994 yildan boshlab ISO ning xaqiqiy a'zosi xisoblanadi. ISO ning texnik qo'mitalari tomonidan hozirda 25000 ga yaqin turli sohalarga oid me'yoriy xujjatlar ishlab chiqilgan. ISO tashkilotining "ISO 2030 Strategiyasi" deb nomlangan 2021-2030 yillarga mo'ljallangan rejasida "Xayotni oddiyroq, xavfsizroq va yaxshiroq qilamiz" shiori qabul qilingan. "ISO 2021-2030 Strategiyasi bizning qarashlarimizni (nima uchun biz shu ishlarni qilayapmiz), bizning vazifamizni (nima qilayapmiz va buni qanday qilayapmiz), maqsadlarimizni (o'z maqsadimiz va mo'ljalimizni amalga oshirish uchun nimalarga erishishimiz kerak) va ustuvor niyatlarimizni (maqsadlarni amalga oshirish uchun resurslarimizni nimalarga qaratishimiz kerak) belgilaydi. Ushbu ustuvorliklar muntazam ravishda ko'rib chiqilishi va kerak bo'lganda, dunyodagi har qanday o'zgarishlarga javob berish uchun sozlanishi mumkin bo'lgan tarzda ishlab chiqilgan". ISO / TC 98 texnik qo'mitasi tomonidan inshootlarni qurilishi va ularni loyixalash, qurilish materiallari va konstruksiyalariga talablarni o'z ichiga oluvchi ko'plab standartlar ishlab chiqilgan. Xususan, shu texnik qo'mita tomonidan inshootlarni loyixalashga tegishli quyidagi standartlar ishlab chiqilgan:

ISO 23469: 2005 Inshootlarni loyihalash asoslari - Muxandislik-geologik ishlarni loyixalashda seysmik ta'sirlar (Bases for design of structures — Seismic actions for designing geotechnical works);

ISO 22111: 2019 Konstruksiyalarni loyihalash asoslari – Umumiy talablar (Bases for design of structures — General requirements);

ISO 21650: 2007 Qirg'oq inshootlariga to'lqinlar va oqimlarning ta'siri (Actions from waves and currents on coastal structures).

ISO 15928-3: 2015 Uylar – Ko'rsatgichlarni tavsiflash - Qism 3: Konstruksiyalar mustahkamligi (Description of performance — Part 1: Structural safety)

ISO 13824: 2020 Konstruksiyalarni loyihalash asoslari - Konstruksiyalarni o'z ichiga oluvchi tizimlarning riskini baxolashning umumiy prinsiplari (Bases for design of structures — General principles on risk assessment of systems involving structures)



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ISO 13823: 2008 Konstruksiyalar mustaxkamligini loyixalashning umumiy prinsiplari (General principles on the design of structures for durability)

ISO/TMBG TQ tomonidan suv yo'llari, portlar va dambalarning xamda gidrotexnik inshootlarning qurilishi bo'yicha me'yorlarni belgilovchi ISO standartlari ishlab chiqilgan.

O'zbekiston Respublikasi Prezidentining "Qurilish sohasida davlat boshqaruvi tizimini tubdan takomillashtirish chora-tadbirlari to'g'risida" gi 02.04.2018 yildagi PF-5392-son Farmonida Shaharsozlikning zamonaviy usullari, me'yorlari va qoidalari hamma joyda ham joriy etilmayotganligi, texnik jihatdan tartibga solish sohasidagi MHlar eskirgan va arxitektura-qurilish ishlarining innovatsion usullaridan keng foydalanilishini hisobga olmayotganligi ko'rsatilgan bo'lib, bunday kamchiliklar loyiha-smeta hujjatlari va qurilish sifatiga salbiy ta'sir qilayotganligi qayd etilgan.

Yechish usuli. O'zbekiston Standartlashtirish bo'yicha milliy idorasining me'yoriy xujjatlar davlat fondida 40 mingdan ortiq me'yoriy xujjatlar ro'yxatga olingan: O'zbekiston milliy standartlari, Halqaro standartlar, (ISO, HEK va boshqalar), Davlatlararo standartlar (GOST), chet mamlakatlarning milliy standartlari va boshqalar. O'zbekiston milliy standarti O'z DSt ISO/IEC 21 da xalqaro standartlar (xususan, ISO standartlari)ni O'zbekistonda milliy standart sifatida qo'llash tartibi belgilangan. O'zbekistonda xozirda 2000 dan ziyod ISO standartlari va qo'llanmalari milliy standartlar sifatida iqtisodiyotning turli soxalarida joriy etilgan. O'zbekistonda qo'llanilayotgan qurilish va loyihalash sohasidagi me'yoriy xujjatlarning aksariyati xalqaro xujjatlarga uyg'unlashtirilmagan. ISO tashkiloti tomonidan oxirgi yillarda qurilish va loyixalash soxasidagi, qurilish materiallariga texnik talablarga tegishli ko'plab me'yoriy xujjatlarning ishlab chiqilgan bo'lib, ularning aksariyati mamlakatimizda joriy etilmagan.

O'zbekiston Respublikasi Prezidentining 13.03.2020 yildagi PF-5963-sonli Farmonida O'zbekiston Respublikasi hududida milliy me'yoriy hujjatlar bilan bir vaqtda shaharsozlik faoliyati sohasida texnik jihatdan tartibga solish sohasidagi xorijiy me'yoriy (xususan,xalqaro) hujjatlar qo'llanilishi kerakligi belgilangan.



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O‘zbekiston milliy standarti O‘z DSt ISO/IEC 21 da belgilangan tartibga ko‘ra, xalqaro ISO standartlarini O‘zbekistonda milliy standart sifatida to‘liq to‘g‘ridan-to‘g‘ri yoki bosqichma-bosqich qo‘llash mumkin.

O‘zbekiston Respublikasi “Standartlashtirish to‘g‘risida” Qonuniga asosan “Milliy standartlar mamlakatimiz ilm-fani va xorijiy ilm-fan yutuqlariga asoslanishi hamda ushbu Qonunning, boshqa normativ-huquqiy hujjatlarning, shuningdek O‘zbekiston Respublikasi ishtirokidagi xalqaro shartnomalarning talablariga zid bo‘lmasligi kerak”, “O‘zbekiston Respublikasida xalqaro (mintaqaviy) standartlar va xorijiy mamlakatlarning standartlari qo‘llanilishi mumkin. O‘zbekiston Respublikasi hududida xalqaro (mintaqaviy) standartlar va xorijiy mamlakatlarning standartlari Standartlashtirish bo‘yicha milliy organning ularni amalga kiritish to‘g‘risidagi qarori asosida milliy standartlar bilan teng ravishda qo‘llaniladi” deb ko‘rsatilgan. Qayd etilganlarga asosan, O‘zbekistonda xalqaro ISO standartlarini milliy standartlar sifatida to‘liq to‘g‘ridan-to‘g‘ri qo‘llash amaliyotidan keng foydalanish maqsadga muvofiq bo‘ladi. Inshootlarni loyixalash, qurish bo‘yicha tizimni takomillashtirish maksadida quyidagi tadbirlarni amalga oshirish zarur: qurilish va loyixalash sohasida standartlashtirishni boshqaruv asoslarini xalqaro tajribadan kelib chiqqan holda takomillashtirish; halqaro va mintaqaviy standartlarni loyixalash va qurilishda keng ko‘lamda qo‘llanilishini ta‘minlash; halqaro me‘yorlarga uyg‘unlashtirilgan umumiy va maxsus texnik reglamentlarni ishlab chiqish va joriy etish; loyihalash va qurilish xamda inshootlar konstruksiyalari va materiallari uchun milliy standartlarga mavjud xalkaro (regional) me‘yoriy hujjatlarni asos kilib olinishini rag‘batlantirish; loyihalash va qurilish soxasidagi mahalliy davlat boshqaruv idoralarining tegishli xalqaro (regional) tashkilotlar faoliyatidagi ishtirokini jadallashtirish; O‘zbekistonda loyihalash, qurilishga tegishli xalqaro, xududiy va rivojlangan mamlakatlar standartlarini davlat tiliga tarjima qilish, ularni milliy standartlar sifatida joriy etishning samarali mexanizmini amaliyotga kiritish kerak.

Natijalar. Berilgan takliflarning O‘zbekistonda loyihalash, qurilish amaliyotiga joriy etilishi:

shaharsozlik va shaharsozlik faoliyatining normativ-huquqiy bazasini yanada takomillashtirish va yangilash, idoraviy qurilish norma va qoidalarini ishlab



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chiqishni muvofiqlashtirish, loyihalash, qurilish, qurilish materiallari va buyumlarini ishlab chiqarish sohasida standartlashtirish ishlarini takomillashtirish, maxalliy qurilish va loyihalash faoliyatini xamda qurilish materiallari sanoatining raqobatbardoshligini oshirishga erishish imkonini beradi.

Xulosa

O'zbekistonda amalda bo'lgan shaharsozlik bo'yicha qonunchilik talablarini xalqaro talablarga uyg'unlashtirish, loyihalash, qurilishga tegishli ISO standartlarini O'zbekiston milliy standartlari sifatida to'liq joriy etish kerak. Xalqaro standartlarni O'zbekistonda to'g'ridan-to'g'ri qo'llash amaliyotidan keng qo'llash kerak. Bu bozor tamoyillarini mamlakatda keng joriy etishga qaratilgan reformalarga mos keladi va O'zbekistonning dunyo bozoridagi raqobatbardoshligini oshirishga olib keladi.

Foydalanilgan adabiyotlar:

1. O'zbekiston Respublikasining «Standartlashtirish to'g'risida» gi Qonuni (Qonun hujjatlari ma'lumotlari milliy bazasi, 04.11.2022 y., 03/22/800/0990-son)
2. O'zbekiston Respublikasi Prezidentining "Qurilish sohasida davlat boshqaruvi tizimini tubdan takomillashtirish chora-tadbirlari to'g'risida" gi 02.04.2018 yildagi PF-5392-son Farmoni
3. O'zbekiston Respublikasi Prezidentining "O'zbekiston Respublikasi qurilish sohasida islohotlarni chuqurlashtirish bo'yicha qo'shimcha chora-tadbirlar to'g'risida" gi 13.03.2020 yildagi UP-5963-sonli Farmoni



**ISO 9000 STANDARTLAR BO'YICHA MAHSULOT ISHLAB
CHIQRISHNI TASHKIL ETISH**

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Annotatsiya:

Bu seriyadagi standartlar sifat tizimlarni korxonalarda tadbiq etishga mo'ljallangan xalqaro modellar bo'lib hisolanadi. Ishlab chiqarishi rivojlangan chet davlatlarda sifat tizimi bo'lmagan korxona yoki firma bilan ishlab bo'lmaydi.

Аннотация: Стандарты данной серии считаются международными моделями внедрения систем качества на предприятиях. В развитых зарубежных странах невозможно работать с предприятием или фирмой, не имеющими системы качества.

Kalit so'zlari: ISO, xalqaro modellar, IEC/CEI, CEN, CENELEC, ETSI, ITU, OIML, BIPM, WELMEC, EUROMET, akkreditatsiya, qimmatli qog'ozlar, elektroaloqa.

Ключевые слова: ISO, международные модели, IEC/CEI, CEN, CENELEC, ETSI, ITU, OIML, BIPM, WELMEC, EUROMET, аккредитация, ценные бумаги, телекоммуникации.

Mahsulotlarni ishlab chiqarishda oxirgi paytlarda 9000 seriyadagi ISO xalqaro standartlar to'g'risida ko'p ma'lumotlar berilmoqda. Bu seriyadagi standartlar sifat tizimlarni korxonalarda tadbiq etishga mo'ljallangan xalqaro modellar bo'lib hisolanadi. Ishlab chiqarishi rivojlangan chet davlatlarda sifat tizimi bo'lmagan korxona yoki firma bilan ishlab bo'lmaydi. Chunki birinchidan hech qanday kafolat yo'q, ikkinchidan esa siz shartnoma tuzganingizda ham siz bilan ishlovchi boshqa sub'ektlar bundan boxabar bo'lganlarida ularning sizga nisbatan ishonchlari



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kamayishi mumkin. Shu sababdan kelib chiqib, sifat tizimlariga nihoyatda jiddiy ahamiyat berishimiz kerak. Hozirda respublikamizda xalqaro sifat tizimlarini tadbiq etgan yoki unga harakat qilayotgan korxonalar soni kun sayin ko'payib bormoqda. Qimmatli qog'ozlar kombinati, tizimlari asosan ISO 9001, ISO 9002 va ISO 9003 standartlarida ko'zda tutilgan bo'lib bu modellar o'zaro ko'lami bilan farq qiladi (1-jadval).

ISO ning sifat ta'minoti xususidagi asosiy standartlari:

ISO 9000, "Sifatni umumiy boshqarish va sifatni ta'minlash bo'yicha standartlar.

Tanlash va qo'llash bo'yicha rahbariy ko'rsatmalar";

ISO 9001, "Sifat tizimlari, loyihalashda va (yoki) ishlab chiqarishda, yig'ishda va xizmat ko'rsatishda sifatni ta'minlaydigan model";

ISO 9002, "Sifat tizimlari. Ishlab chiqarishda va yig'ishda sifatni ta'minlaydigan model";

ISO 9003, "Sifat tizimlari. Tugal nazoratda va sinovlarda sifatni ta'minlaydigan model";

ISO 9004, "Sifatni umumiy boshqarish sifat tizimlarining elementlari. Rahbariy ko'rsatmalar";

ISO 10011, "Sifat tizimlarini tekshirishda rahbariy ko'rsatmalar";

ISO 10012, "O'lchash vositalarining sifatini ta'minlaydigan talablar".

1-jadval

Xalqaro standartlar, standartlashtirish, metrologiya, sertifikatlash, akkreditatsiya, sifatni boshqarish tizimlari sohasi faoliyat ko'rsatayotgan xalqaro va mintaqaviy tashkilotlar

Belgisi	Tashkilot nomi
ISO	International Organization for Standardization – Xalqaro standartlashtirish tashkiloti
IEC/CEI	International Electrotechnical Commission – Xalqaro elektrotexnika komissiyasi
CEN	European Committee for Standardization – Yevropa standartlashtirish qo'mitasi
CENELEC	European Committee for Electrotechnical Standardization – Elektrotexnika va elektronika sohasida Yevropa standartlashtirish qo'mitasi
ETSI	European Telecommunications Standards Institute – Telekommunikatsiya sohasida Yevropa standartlashtirish instituti
ITU	International Telecommunication Union – Xalqaro elektroaloqa birlashmasi
OIML	International Organization of Legal Metrology – Qonunchilik metrologiyasi xalqaro tashkiloti



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BIPM	Le bureau International des Poids et Mesures – Xalqaro o‘lchov va tarozilar Byurosi
WELMEC	Organization of European national legal metrology services – G‘arbiy Yevrova qonunchilik metrologiyasi tashkiloti
EUROMET	European Collaboration on Measurement Standards – Yevropa etalonlar hamkorligi
EOQ	European Organization for Quality – Yevropa sifat tashkiloti
EA	European Accreditation of Certification - Yevropa akkreditatsiya hamkorligi
UN/ECE	United Nations Economic Commission for Europe – BMT Yevropa iqtisodiy komissiyasi
ILAC	International Laboratory Accreditation Cooperation - Laboratoriyalar akkreditatsiyasi xalqaro hamkorligi. Xalqaro laboratoriyalarni akkreditatsiya qilish tashkiloti (ILAC) to‘laqonli a‘zolari ro‘yxati
APLMF	Asia-Pacific Legal Metrology Forum – Osiyo-Tinch okeani qonunchilik metrologiyasi Forumi
IFAN	International Federation of Standards Users – Standartlar foydalanuvchilarini xalqaro federatsiyasi
COPANT	Pan American Standards Commission – Panamerika standartlar komissiyasi
IrDA	The IrDA is an association of companies from around the globe focused on providing IR standards to ensure the quality and interoperability of the Infrared Technology – AT-texnikasi sohasida standartlarni joriy etish uyushmasi
IAF	International Accreditation Forum - Xalqaro akkreditatsiya qilish forumi. Xalqaro akkreditatsiya qilish forumi (IAF) to‘laqonli a‘zolari ro‘yxati

“Xalqaro standartlar” hayotimizning barcha jabhalarida, xalq xo‘jaligining, sanoatning, mashinasozlik va boshqa tarmoqlari uchun o‘ta zarur bo‘lgan, standartlashtirish tushunchalari, umumiy ma’lumotlar hamda uning davlat tizimi, sertifikatlashtirish, sifat tizimlari va sifat boshqaruvi kabi masalalari xususida yetarli va zarur ma’lumotlar keltirilgan. Bular bilan bir qatorda Xalqaro standartlashtirish tashkiloti uch tilda atamalar lug‘ati yaratgan bo‘lib, mahsulot sifatini ta’minlash sohasida ulariing ta’riflarini ham ishlab chiqqan. Bulardan tashqari ISO/MEK(Xalqaro elektrotexniki komissiyasi) tomonidan ham bir qancha me’yoriy xujjatlar ishlab chiqilgan. O‘zbekiston Respublikasida shtrix-kodlar tobora keng tadbiq etib kelinmoqda. 1999 yili O‘zbekiston texnik jihatdan tartibga solib agentligi qoshidagi metrologiya, standartlashtirish va sertifikatlashtirish sohasidagi mutaxassislarni tayyorlash va malaka oshirish institutida shtrix-kodlar masalalari bilan shug‘ullanuvchi markaz tashkil etildi. Ushbu markazning ta’sis etilishidan



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maqsad - mahsulotlarni avtomatlashtirilgan tarzda identifikatsiyalash borasidagi muammolarni hal etish va bu faoliyatni keng ravishda targ'ib yetishdir. Albatta, bunda xalqaro me'yoriy hujjatlarni hisobga olgan holda kodlashning standartlashtirilishi alohida ahamiyatga egadir. O'zbekiston Respublikasida shtrixli kodlashning tarbiq etilishi eng avvalo, 1996 yilning 26 aprelida qabul qilingan "Iste'molchilarning huquqlarini himoya qilish to'g'risida" nomli qonunning 4 moddasida ko'rsatilgan - iste'molchining xarid qilinayotgan mahsulot haqida zarur va ishonchli ma'lumot olish xuquqini amalga oshirishda yangi zamin yaratadi.

ADABIYOTLAR:

1. CFA Institute. Standards of Practice Handbook, Eleventh Edition 2014. CFA Institute (June 17, 2014), 290 pages.
2. Information Resources Management Association (USA). Standards and Standardization: Concepts, Methodologies, Tools, and Applications Hardcover. Isr. 2015, 1675 pages.
3. Ismatullaev P.R., Maksudov A.N., Abdullaev A.X., Axmedov B.M., A'zamov A.A. Metrologiya standartlashtirish va sertifikatlashtirish. –T.: O'zbekiston, 2001. - 360 b.
4. Шертайлаков Гайрат Муродович, старший преподаватель; Каримов Шавкат, старший преподаватель; Абдурахманов Азиз Абдухаликович, ассистент; Кудратова Гульноза Тохировна Комментарий к номеру "Молодой учёный". № 6 (140) vi. февраль 2017 г. ISSN 2072-0297.
5. Абдурахманов А. А. «Экономика и общество» №10(89) 2021 www.iupr.ru роль стандартизации и повышения качества продукции
6. Абдурахманов Азиз Абдухаликович. оценка неопределенности измерений в цифровую эру // академический исследовательский журнал if-7.4 январь 2023 том 1 выпуск



РАЗРАБОТКА И ИССЛЕДОВАНИЯ РЫЧАЖНЫХ-ШАРНИРНЫХ МУФТ ДЛЯ ТРАНСПОРТНЫХ СРЕДСТВ

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Аннотация:

В статье рассматривается анализ карданных механизмов. На основании анализа была разработана новая конструкция рычажно-шарнирной муфты для карданных механизмов транспортных средств, обеспечивающих повышение кинематических и эксплуатационных характеристик привода, а также приведены структурный анализ рычажно-шарнирной муфты с составными кинематическими парами, включающие упругие элементы.

Annotation: The article deals with the analysis of cardan mechanisms. On the basis of the analysis, a new design of a lever-articulated coupling for cardan mechanisms of vehicles was developed, providing an increase in the kinematic and operational characteristics of the drive, as well as a structural analysis of a lever-articulated coupling with composite kinematic pairs, including elastic elements.

Ключевые слова: лента, шкив, натяжения, угол, ролик, серьга, шарнир, момент, сбегающий, набегающий, ветви, механизм, движения, звено, подвижность, избыточный, связь, упругий, элемент, пара, эффективность, долговечность, износ, привод.

Key words: Key words: tape, pulley, tension, angle, roller, earring, hinge, moment, escaping, running, branches, mechanism, movements, link, mobility, excess, connection, elastic, element, pair, efficiency, durability, wear, drive .



Моменты, мощности на большие расстояния передаются карданными валами. При этом в процессе работы этих валов происходит не сносность и перекос осей данных валов. Это приводит к преждевременному выходу из строя передачи. Кроме того, значительно уменьшается КПД передачи. Обычно, в этих передачах приводов транспортных средств применяют рычажные муфты, в частности «крестовины». Кинематические возможности существующих рычажных муфт ограничены. На современном этапе развития транспортных средств, технологических машин, основная тенденция основывается на увеличении мощности, скорости, при минимальных затратах, при больших КПД.

Поэтому создание более эффективных конструкций рычажно-шарнирной муфты.

Из проделанного анализа карданных механизмов можно отметить для карданных механизмов транспортных средств, обеспечивающих повышение кинематических и эксплуатационных характеристик привода - является важной проблемой следующие их недостатки: ограниченность кинематических возможностей, ограниченность скоростных режимов; повышенный износ кинематических пар и низкая долговечность; ограниченность угла между валами, большое расхождение кинематических характеристик ведущего и ведомого валов; ограниченность применения в промышленности, особенно в транспортных и сельхозмашинах.

Для ликвидации указанных недостатков нами разработаны ряд новых конструкций карданных механизмов в виде рычажных-шарнирно муфт.

На рис 1. представлена схема рычажной-шарнирной муфты, которая содержит два составных кривошипа 1,5 и две перекрещивающихся скобообразных шатуна 7, расположенных между ними. В составном кривошипе 1, установлена пружина 2, ведущий вал 3, ведомый вал 4. В ведомом валу установлен составной кривошип 5, а в ведомой части механизма составной кривошип имеет пружину 6, и соединён с рычагом 8. Рычаг 8 соединен одним концом со скобообразным шатуном 7 посредством сферического шарнира 10, а другим концом с составным кривошипом 5 посредством цилиндрического шарнира 9. Рычажная муфта передает вращательные движения под углом осей

валов 0 до 90°. При этом обеспечивается плавность вращения ведомого вала. Это уменьшает вибрации и колебания, а также снижает пиковую нагрузку карданного вала. Шарнирно-рычажную муфту можно использовать в сельхозмашинах.

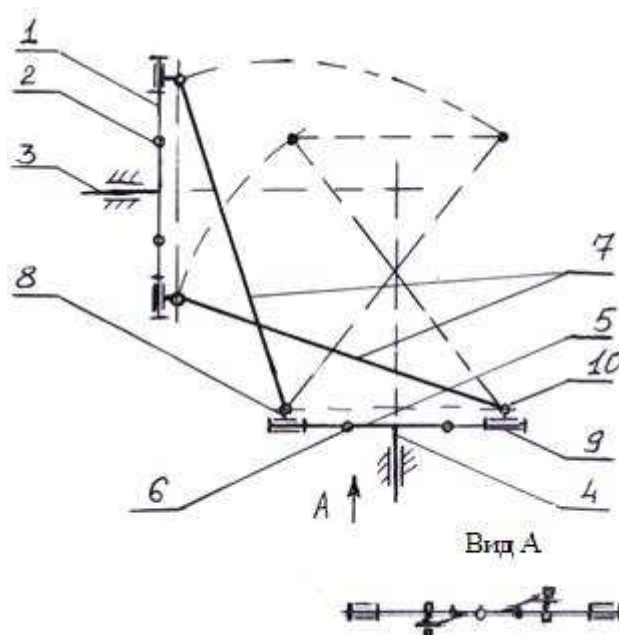


Рис. 1. Шарнирно- рычажная муфта шарнирно – рычажное муфта с составными кривошипами.

Следует отметить, что при использовании формулы Сомова-Мальшева [1] степень подвижности рекомендуемого механизма будет отрицательным. В действительности в механизме одна обобщенная координата- угловые перемещения валов. При этом ведущее звена входной вал, а ведомое звено- выходной. Число независимых контуров в механизме.

$$K = P_5 - \Pi = 10 - 8 = 2. \quad (1).$$

где P_5 - количество кинематических пар пятого класса;

Π - количество подвижных звеньев .

Определение избыточных связей механизма определяем из формулы (1)

$$q = w - 6\Pi + 5 P_5$$

где $w=1$ степень подвижности механизма

$P_{(1)}$ количество кинематических пар i -того класса .

При этом



$$q=1-6\cdot 8+5\cdot 10=3$$

Полученные избыточных связей можно определить и используя формула Озоля [1]

$$q= w+6K-f= 1+6\cdot 2-10=3$$

где K-количество независимых контуров механизме, f-Общее число неподвижностей или количество кинематических пар пятого класса.

Для устранения избыточных связей в механизмах обычно используют. увеличение подвижностей (уменьшением класса). Кинематических пар или включением дополнительных звеньев и кинематических пар в нашем случае ликвидируются избыточные связи, а также увеличивается кинематические не только возможности а частности можно увеличить угол α

Вывод:

1. Рекомендуется новый механизм с конструкцией рычажно-шарнирной муфтой составными кинематическими парами 5 го класса.
2. Рычажно-шарнирная муфта имеет широкий диапазон угловых и радиальных смещений по сравнению с известными конструкциями карданных шарниров (муфт) и поэтому и разработка ее теории оправдана и актуальна

Литература

1. Артоболевский И.И. Теория механизмов и машин. М, изд. Наука., 1975г.
2. Джураев А, Давидбаев Б, Зулпиев С, Умаров Б. Патент Р. Узб FAP 20120041, FAP 00780 Бюлл. №12, 2012г
3. Джураев А., Давидбаев Б.Н., Мирзаханов Ю.У., Зулпиев С.М., и др. Шарнирно-рычажная муфта //Патент Кыргызской Республики. 116.
4. А.Джураев, Б.Н.Давидбаев, Н.Б.Давидбаева. Разработка и расчет шарнирно-рычажных муфт карданных механизмов \\\ Монография. Изд. LAP Lambert Academic Publishing. 2021.–120с.
5. А.Джураев, Б.Н.Давидбаев, С.М.Зулпиев, Н.Б.Давидбаева. Структурный, кинематический и динамический анализ рычажно – шарнирной муфты с упругими элементами карданных механизмов \\\ Фергана, Фергона, 2013 г
6. А Джураев, Б Давидбаев, С Зулпиев Структурный анализ рычажно-шарнирной муфты \\\ ФерПИИ илмий техника журналы», Фергана, 30



ТЕОРЕТИЧЕСКИЙ и ПРАКТИЧЕСКИЙ АНАЛИЗ К ПОНЯТИЮ УМНЫХ И ИНТЕЛЛЕКТУАЛЬНЫХ СИСТЕМЫ.

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Аннотация:

В статье приведены определения, различные атрибуты и признаки SMART GRID в наиболее развитых странах. Установлено, что существующие и перспективные схемные и конструктивные решения, позволяющие автоматизировать процесс управления режимами городских электрических сетей в условиях SMART GRID, весьма разнообразны. Сформулированы и представлены основные направления развития автоматической системы управления режимами SMART GRID.

Ключевые слова: SMART GRID, интеллектуальные сети, схема, информация, режим, управление, направление развития.

Abstract:

In the article are given the definitions of the SMART GRID, its various attributes and characteristics in most developed countries. It is revealed that the existing and future circuit and constructive solutions that can automate the process of managing modes of urban electric networks under the SMART GRID conditions are manifold. Therefore, the present article presents and features the main directions of development of automatic control modes of the SMART GRID.

Keywords: the SMART GRID, smart networks, diagram, information, mode, management, development direction.



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Основным компонентом системы электроснабжения любой местности являются электрические сети, которые способны осуществлять распределение электроэнергии по территории города с помощью городских (в основном кабельных) сетей 6-10 кВ и содержит трансформаторные подстанции (Т11) и линии, соединяющие центры питания (ЦП) с ТП и ТП между собой, а также распределительные сети до 1000 В, питающие потребителей электрической энергии [4]. При этом сети 35-110 кВ и выше называются электроснабжающими, а сборные шины 6-10 кВ питающих подстанций - центрами питания городских сетей.

Необходимость разработки универсальной промышленно-вычислительного комплекса, основными его функциями которого являются: создание модели электрической сети в реальном времени и решение основных технических задач эксплуатации городских сетей - расчет и анализ режима, оптимизация точек разреза, оценка чувствительности максимальных токовых защит, расчет и анализ емкостных токов замыкания на землю и зарядных токов и т. д.

Инновации в функционировании электроэнергетики, повышение требований к технологическим аспектам отрасли, в поисках систем надежности в большинстве развитых стран предопределили переход к модернизации электрических сетей энергосистем на основе инновационной организационной структуры SMART GRID (интеллектуальных/ умных электрических сетей). При этом модернизация предполагает не только обновление основных производственных фондов, текущих и инвестиционных активов электрических сетей (проводников, трансформаторов, средств измерения и передачи информации, коммутационных аппаратов, паспортизации...), но и обеспечение энергетической безопасности и эффективности (энергетической и экономической) за счет нового типа сетей - «интеллектуальной» модели.

Несмотря на отсутствие в мировой практике единой трактовки определения понятия SMART GRID, данный термин (умные или интеллектуальные сети) официально используется с 2003 года и используются ее различные атрибуты и признаки [3].



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В западных странах SMART GRID связывают, прежде всего, с интеграцией возобновляемых источников энергии с электроэнергетическими системами и формированием у электрических сетей активных и адаптивных свойств, таких как самодиагностика и самовосстановление. Также акцент делается на соединенные в единую информационную сеть и позволяющие оптимизировать расход энергии в разное время суток.

В России SMART GRID называется интеллектуальной электроэнергетической системой с активно-адаптивной сетью (ИЭС ААС). Под ней понимается комплекс электрооборудования (воздушные линии передачи, трансформаторы, выключатели и т. п.), подключенный к генерирующим источникам и потребителям на новых принципах, технологиях передачи и управления процессами. Предполагается объединение на новом технологическом уровне электрических сетей, потребителей и производителей электроэнергии в единую автоматизированную систему с активно-адаптивной сетью[4].

Информационная система SMART GRID строится на оперативно-информационных комплексах (ОИК), включающих: устройства телеизмерения параметров режима электрической системы, сбора и агрегирования информации, каналы связи, базы данных, системы оперативного отображения параметров режима, программного обеспечения, обрабатывающего результаты телеизмерений и формирующего задания для объектов диспетчерского управления, электронные журналы - средства регистрации событий и диспетчерских команд.

Для того чтобы электрическая сеть превратилась в SMART GRID, недостаточно внедрения на ее объектах отдельных «умных» элементов. Требуется также адекватное информационное обеспечение, т. е. создание единого информационно-технологического пространства.

Известно, что в правовом поле SMART GRID опирается на пять семейств международных стандартов, два из которых посвящены общей информационной модели (CIM), необходимой для оперативного сбора и обмена данными между аппаратурой и сетями. Для этой цели целесообразно иметь современные базы данных городских электрических сетей и



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телемеханические средства сбора и передачи информации. В информационном поле важнейшим элементом SMART GRID в сетях любого уровня является цифровая подстанция [7].

Информация с цифровых подстанций SMART GRID концентрируется и передается на следующий уровень управления - в SMART-диспетчерские, потому что цифровые подстанции в присутствии постоянного обслуживающего персонала не нуждаются.

Например, ИЭС ААС России представляет собой систему электроэнергетики нового поколения, основанную на мультиагентном принципе организации и управления ее функционированием и развитием с целью обеспечения эффективного использования всех ресурсов (природных, социально-производственных, человеческих) для надежного, качественного и эффективного электроснабжения потребителей за счет гибкого взаимодействия всех субъектов (всех видов генерации, электрических сетей и потребителей) на основе современных технологических средств и единой интеллектуальной иерархической системы управления. Важнейшая роль в ИЭС ААС отводится активно-адаптивной электрической сети как технологической инфраструктуре электроэнергетики, наделяющей интеллектуальную энергосистему принципиально новыми свойствами [6].

В Беларуси термин «SMART GRID» в распределительных электрических сетях определен СТП 09110.47.104-11 ГПО «Белэнерго». В соответствии с SMART GRID представляет собой систему нового поколения, интегрирующую производителей, потребителей электроэнергии и электрические сети, образуя единое информационное и коммуникационное пространство. SMART GRID позволяет в реальном времени отслеживать и контролировать режимы работы всех участников процесса выработки, передачи и потребления электроэнергии, оперативно реагировать в автоматическом режиме на изменения параметров и осуществлять бесперебойное электроснабжение с максимальной экономической эффективностью при снижении влияния человеческого фактора.

Внедрение интеллектуальной сети «SMARTGRID» в Кыргызстане, позволило бы энергетическим компаниям управлять всей сетью энергосбережения как



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единой системой, т.е. модель управления интеллектуальными электроэнергетическими системами открывает возможности развития будущего страны. У потребителей появилась бы возможность точного регулирования расхода энергии в домах и квартирах.

Однако нельзя не сказать и трудностях при внедрении системы, одной из которых является- недостаточное понимание необходимости модернизации в электроэнергетике. Данная программа требует колоссальных преобразований электрических сетей, требующие больших денежных ресурсов, которые окупаются в течение длительного периода времени.

Выводы:

1. SMART GRID –комменсализм информационных технологий, электроэнергетики, электроники, телекоммуникаций, сенсоров, программного обеспечения и математики.
2. SMART GRID представляет собой самоуправляемую, интеллектуальную, распределенную, сверхдиагностирующуюся и сверхвосстанавливающуюся систему, состоящую из информационно-телекоммуникационной и электроэнергетической частей, в которой активно-адаптивными сетями объединены в единое информационно-коммутационное пространство комплекс электрооборудования и клиенты, которые одновременно могут являться потребителями и производителями электроэнергии.

Литература:

1. Адаптация зарубежных проектов на территории Кыргызской Республики <https://vesti.kg/politika/item/55661-chertezhi-dlya-modernizatsii-tets-bishkeka-na-40-ne-byli-adaptirovany-pod-zakony-kr.html>
2. Интеллектуальные электрические сети в России - предпосылки [Электронный ресурс] // Умные сети и интеллектуальные энергетические системы. Режим доступа: <http://venture-biz.ru/energetika-energoberezhenie/290-intellektualnye-seti>.
3. Кобец, Б. Б. Инновационное развитие электроэнергетики на базе концепции SMART GRID / Б. Б. Кобец, И. О. Волкова. М.: ИАЦ Энергия, 2010. 208 с.



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4. Козлов, В. А. Городские распределительные электрические сети / В. А. Козлов. Л.: Энер-гоиздат, 1982. 224 с.
5. Скопинцев В.А. Качество электроэнергетических систем: надежность, безопасность, экономичность, живучесть. – М.: Энергоатомиздат, 2009.
6. Савина, Н. В. Инновационное развитие электроэнергетики на основе технологий SMART GRID / Н. В. Савина. Благовещенск: Амурский гос. ун-т, 2014. 136 с.
7. SMART GRID или умные сети электроснабжения [Электронный ресурс] // Энэка. Инженерно-консалтинговая компания. Режим доступа: http://www.eneca.by/ru_smartgrid0/.



ENDOKRINOLOGIK KASALLIKLARNI TEKSHIRISH VA PARVARISH QILISHNING ZAMANAVIY USULLARI

Toshpulatova Mayira Erkinovna

Payariq Abu Ali ibn Sino nomidagi jamoat salomatligi texnikumi

Maxsus fanlar kafedrası katta o'qituvchisi

Adilova Sojida Xurramovna

Payariq Abu Ali ibn Sino nomidagi jamoat salomatligi texnikumi

Maxsus fanlar kafedrası yetakchi o'qituvchisi

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texnikumi Maxsus fanlar kafedrası katta o'qituvchisi

Annotatsiya:

Endokrinologik kasalliklar — bu inson organizmining gormonlar ishlab chiqaruvchi bezlari faoliyatidagi buzilishlar natijasida yuzaga keladigan murakkab va ko'p qirrali patologiyalar to'plamidir. Gormonlar organizmning turli tizimlari va organlari faoliyatini tartibga soluvchi kimyoviy moddalardir. Ularning miqdori yoki faoliyatidagi o'zgarishlar organizmda ko'plab buzilishlarga olib keladi. Shu sababli endokrinologik kasalliklarni aniqlash, tekshirish va samarali davolash zamonaviy tibbiyotning dolzarb yo'nalishlaridan biri hisoblanadi.

Kalit so'zlar: zamonaviy texnologiyalar, tibbiy markazlar, endokrin tizimi, gormonlar, gipofiz bezi.

Endokrin tizimning asosiy bezlari qatoriga qalqonsimon bez, gipofiz, buyrak usti bezlari, qandli diabet bilan bog'liq pankreas, jinsiy bezlar va boshqalar kiradi. Har



bir bez o'ziga xos gormonlarni ishlab chiqaradi va ularning muvozanati organizmning sog'lom ishlashi uchun juda muhimdir. Masalan, qalqonsimon bez tomonidan ishlab chiqariladigan tiroksin va triyodotironin gormonlari metabolizmni tartibga soladi, gipofiz bezining o'sish gormoni esa organizmning o'sishi va rivojlanishida muhim rol o'ynaydi. Shu bois, bezlarning ish faoliyatidagi har qanday buzilish jiddiy sog'liq muammolariga olib kelishi mumkin. Endokrin kasalliklarni tekshirishda birinchi navbatda laborator tahlillar muhim ahamiyatga ega. Qon va siydikdagi gormonlar darajasini aniqlash orqali bezlarning faoliyati baholanadi. Ushbu tahlillar yordamida gipofunksiyalar, gipertrofiyalar yoki gormon ishlab chiqarishdagi boshqa nomutanosibliklar aniqlanadi. Laborator diagnostika usullari doimiy ravishda takomillashib borayotgani sababli, endokrinologlar aniq va tez natijalarga erishish imkoniga ega bo'lmoqda.[1]

Zamonaviy tasviri diagnostika usullari ham endokrin kasalliklarni aniqlashda muhim vosita hisoblanadi. Ultrasonografiya (USG) qalqonsimon bez va boshqa bezlarning strukturaviy o'zgarishlarini aniqlashda keng qo'llaniladi. Kompyuter tomografiya (KT) va magnit-rezonans tomografiya (MRT) esa bezlarning chuqur anatomik o'zgarishlarini, o'smalar mavjudligini aniqlashda yordam beradi. Endoskopik usullar esa bezlarning ichki tuzilishini ko'rish va biopsiya olish imkonini beradi. Biopsiya natijalari esa patologik to'qimalarni mikroskopik tahlil qilish orqali aniq tashxis qo'yishga yordam beradi. Davolashda individual yondashuv muhim ahamiyatga ega. Har bir bemorning kasallik tarixi, simptomlari, laborator va tasviri diagnostika natijalari asosida davolash rejasi ishlab chiqiladi. Konservativ davolash usullari asosan gormon preparatlarini qabul qilishdan iborat bo'lib, ularning dozalari va turi bemorning holatiga qarab belgilanadi. Masalan, gipotiroidizm da tiroid gormonlari preparatlari buyuriladi, qandli diabetda insulin yoki og'zaki glyukoza darajasini pasaytiruvchi dorilar qo'llaniladi. Shuningdek, hayot tarzini o'zgartirish, to'g'ri ovqatlanish, jismoniy faollikni oshirish kabi tavsiyalar ham davolash jarayonining muhim qismidir.[2]

Jarrohlik usullari esa bezlarda o'smalar yoki boshqa patologik o'zgarishlar mavjud bo'lganda qo'llaniladi. Masalan, qalqonsimon bezning yirik o'smalarini olib tashlash, gipofiz bezidagi adenomaning jarrohlik yo'li bilan davolanishi kabi amaliyotlar zamonaviy texnologiyalar yordamida amalga oshiriladi. Endokrin



jarrohlik sohasidagi rivojlanish bemorlarga minimal invaziv va xavfsiz usullarni taklif etmoqda. Yangi texnologiyalar endokrinologiyada katta imkoniyatlar yaratmoqda. Molekulyar biologiya va genetik tadqiqotlar yordamida kasalliklarning asosiy mexanizmlari o'rganilmoqda. Bu esa maqsadli terapiya usullarini ishlab chiqishga olib keladi. Masalan, ba'zi o'smalar yoki genetik kasalliklar uchun maxsus dori vositalari ishlab chiqilmoqda. Shuningdek, telemeditsina va sun'iy intellekt texnologiyalari yordamida bemorlarni uzoqdan kuzatish, ularning holatini real vaqt rejimida tahlil qilish va davolash rejalarini moslashtirish imkoniyatlari kengaymoqda. Bu ayniqsa uzoq hududlarda yashovchi bemorlar uchun katta yordam beradi.[3]

Endokrinologik kasalliklar ko'pincha surunkali bo'lib, uzoq muddatli parvarishlashni talab qiladi. Shu sababli bemorning hayot sifatini yaxshilashga qaratilgan kompleks yondashuv zarur. Bu jarayonda dietani tartibga solish, jismoniy faollikni oshirish, stressni boshqarish va muntazam tibbiy kuzatuvlar muhim o'rin tutadi. Bemorlarni psixologik qo'llab-quvvatlash ham muhim, chunki surunkali kasalliklar ko'pincha ruhiy holatga salbiy ta'sir ko'rsatadi. Oilaviy va ijtimoiy muhitda ham bemorlarni qo'llab-quvvatlash, ularning sog'lom hayot tarzini davom ettirishlariga yordam berish zarur. Profilaktika choralari endokrin kasalliklarni oldini olishda katta ahamiyatga ega. Sog'lom turmush tarzini qo'llab-quvvatlash, muntazam tibbiy ko'riklardan o'tish, xavf omillarini kamaytirish muhimdir. Ayniqsa, qandli diabet, qalqonsimon bez kasalliklari va boshqa surunkali endokrin patologiyalar rivojlanishining oldini olish uchun erta tashxis va profilaktika choralarini ko'rish zarur. Buning uchun aholining tibbiy savodxonligini oshirish, sog'lom ovqatlanish, faol hayot tarzini targ'ib qilish kabi ishlar amalga oshirilmoqda.[4]0

Endokrinologik kasalliklarni tekshirish va davolashda multidisipliner yondashuv zarur. Bu jarayonda endokrinologlar, genetiklar, jarrohlar, psixologlar va boshqa mutaxassislar birgalikda ishlaydi. Bemorning umumiy holati, kasallikning bosqichi va boshqa omillar hisobga olinadi. Shunday yondashuv kasalliklarni samarali boshqarish va bemorlarning hayot sifatini sezilarli darajada yaxshilash imkonini beradi. Zamonaviy endokrinologiyada ilm-fan va texnologiyalarning integratsiyasi yangi davrni boshlab berdi. Genomika, proteomika, metabolomika kabi sohalar



kasalliklarni chuqur o'rganishga imkon yaratmoqda. Bu esa individual terapiya va oldini olish strategiyalarini ishlab chiqishda muhim ahamiyatga ega. Kelajakda sun'iy intellekt va katta ma'lumotlar tahlili yordamida endokrin kasalliklarni yanada samarali boshqarish imkoniyatlari yanada kengayadi.[5]

Xulosa:

Xulosa qilib aytganda, endokrinologik kasalliklarni tekshirish va parvarish qilishning zamonaviy usullari nafaqat kasalliklarni erta aniqlash va samarali davolashni ta'minlaydi, balki bemorlarning hayot sifatini yaxshilashga xizmat qiladi. Laborator va tasviriy diagnostika vositalarining rivojlanishi, yangi dori preparatlari, jarrohlik texnologiyalari va ilmiy yutuqlar endokrinologiyaning zamonaviy ko'rinishini shakllantirmoqda. Kompleks parvarishlash, profilaktika va multidisipliner yondashuv esa surunkali kasalliklarni boshqarishda muhim rol o'ynamoqda. Shu tariqa, endokrinologiya sohasidagi zamonaviy usullar inson sog'lig'ini saqlash va yaxshilashda muhim vosita bo'lib xizmat qilmoqda.

Foydalanilgan adabiyotlar:

1. Rahmatullayev Sh. Endokrinologiya asoslari. Toshkent: "Universitet" nashriyoti, 2006. – 212 b.
2. Karimov A., Islomov B. Endokrin kasalliklarni tashxislash va davolash metodlari. Toshkent: "Medpraktika" nashriyoti, 2015. – 180 b.
3. Qodirov M. Endokrin tizim kasalliklari va ularning zamonaviy davolash usullari. Samarqand: "Ilm-fan" nashriyoti, 2018. – 240 b.
4. Tursunova G. Endokrinologiya va diabetologiya. Toshkent: "Tibbiyot" nashriyoti, 2020. – 300 b.
5. Usmonov R. Endokrin tizim kasalliklarining laborator diagnostikasi. Toshkent: "Fan va texnologiya" nashriyoti, 2017. – 150 b.
6. Mirzaev S., Normatov D. Zamonaviy endokrinologiyada diagnostika va terapiya. Toshkent: "Meditsina" nashriyoti, 2019. – 275 b.
7. Xolmatov E. Endokrin kasalliklarni profilaktika va parvarishlash usullari. Toshkent: "Sog'lom hayot" nashriyoti, 2021. – 190 b.



MAVZU: REANIMATSION KASALLIKLARNI ALOHIDA PARVARISH QILISH

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Annotatsiya:

Reanimatsion kasalliklarni alohida parvarish qilish zamonaviy tibbiyotda muhim o'rin tutadi. Reanimatsiya bo'limiga kiradigan bemorlar ko'pincha hayot uchun xavfli holatda bo'lib, ularning sog'lig'i va hayotini saqlab qolish uchun maxsus e'tibor va parvarish talab etiladi. Reanimatsion kasalliklar ko'plab tibbiy yo'nalishlarni qamrab oladi va ularning har biri uchun o'ziga xos yondashuvlar mavjud.

Kalit so'zlar: reanimatsion kasalliklar, zamonaviy texnologiyalar, tibbiyot, hamshiralar, shifokorlar, bemor, individual yondashuv.

Reanimatsion parvarishning asosiy maqsadi bemorning hayotiy funksiyalarini barqarorlashtirish, asoratlarning oldini olish va tiklanishni tezlashtirishdir. Bu jarayonda bemorning nafas olish, yurak-qon tomir faoliyati, asab tizimi va boshqa muhim tizimlari doimiy nazorat qilinadi. Reanimatsiya bo'limida ishlaydigan



shifokorlar va hamshiralar yuqori malakaga ega bo'lib, zamonaviy texnika va uskunalardan foydalanadilar. Reanimatsion kasalliklarni parvarishlashda individual yondashuv muhim ahamiyatga ega. Har bir bemorning kasallik tarixi, umumiy holati va organizmning javobi hisobga olinadi. Parvarish jarayonida bemorning fiziologik ko'rsatkichlari muntazam o'lchanadi, shu jumladan qon bosimi, yurak urishi, nafas olish tezligi, kislorod darajasi va boshqalar. Ushbu ko'rsatkichlar asosida davolash rejasi doimiy ravishda yangilanadi va moslashtiriladi. [1]

Reanimatsiya bo'limida bemorlarning infektsiyalarga chalinish xavfi yuqori bo'lganligi sababli, antiseptik va gigiyenik qoidalarga qat'iy rioya qilinadi. Har bir bemor uchun alohida asbob-uskunalar va kiyimlar ishlatiladi. Shuningdek, bemorning tanasini toza saqlash, terini muntazam parvarish qilish, yotish joyini to'g'ri tashkil etish kabi jihatlar ham muhimdir. Bu chora-tadbirlar bemorning holatini yaxshilashga, asoratlarning oldini olishga yordam beradi. Reanimatsion parvarishda oziqlantirish o'ta muhim hisoblanadi. Ko'pincha bemorlar og'iz orqali ovqatlana olmaydi, shuning uchun enteral yoki parenteral oziqlantirish usullari qo'llaniladi. Oziqlantirish rejasi bemorning energetik ehtiyojlari, kasallik holati va metabolik jarayonlari hisobga olinib belgilanadi. To'g'ri va vaqtida oziqlantirish organizmning tiklanish jarayonlarini tezlashtiradi va immun tizimini mustahkamlaydi. [2]

Reanimatsiya bo'limida bemorlarning og'riqni boshqarish va psixologik holatini yaxshilash ham katta ahamiyatga ega. Og'riqni kamaytirish uchun analgetiklar va boshqa dorilar qo'llaniladi. Shu bilan birga, bemorlarning ruhiy holatini nazorat qilish, ularni qo'llab-quvvatlash va psixologik yordam ko'rsatish kerak. Bu, ayniqsa, uzoq muddatli reanimatsiya jarayonida muhimdir. Reanimatsion kasalliklarni parvarish qilishda fizioterapiya va rehabilitatsiya usullari ham keng qo'llaniladi. Bu usullar bemorning harakatlanishini tiklash, mushaklarni mustahkamlash va qon aylanishini yaxshilashga yordam beradi. Reanimatsiya davrida harakat cheklangan bemorlarda tromboz va boshqa asoratlarning oldini olish uchun muntazam jismoniy mashqlar va maxsus muolajalar tavsiya etiladi. Bemorlarning holatini doimiy monitoring qilish va zarur bo'lganda tezkor tibbiy yordam ko'rsatish reanimatsion parvarishning ajralmas qismidir. Zamonaviy tibbiyotda bu maqsad uchun turli diagnostik uskunalar va monitoring tizimlari mavjud. Ular yordamida bemorning



holatidagi eng kichik o'zgarishlar ham darhol aniqlanib, tegishli choralar ko'riladi. [3]

Reanimatsion kasalliklarni alohida parvarish qilishda jamoaviy ish muhim o'rin tutadi. Shifokorlar, hamshiralar, fizioterapevtlar, psixologlar va boshqa mutaxassislar birgalikda ishlab, bemorning holatini yaxshilashga harakat qiladilar. Har bir mutaxassis o'z sohasida malakali bo'lib, o'zaro hamkorlikda reabilitatsiya jarayonini samarali tashkil etadi. Shuningdek, oilaviy a'zolari ham parvarish jarayoniga jalb qilish tavsiya etiladi. Bemorning yaqinlari uni qo'llab-quvvatlash, ruhiy yordam berish va zarur bo'lganda yordam ko'rsatishda muhim rol o'ynaydi. Bu esa bemorning tezroq tiklanishiga ijobiy ta'sir ko'rsatadi. Reanimatsion kasalliklarni parvarish qilishda zamonaviy texnologiyalarni qo'llash ham samaradorlikni oshiradi. Masalan, avtomatlashtirilgan monitoring tizimlari, ventilatorlar, infuzion pompalar va boshqa uskunalar bemorning holatini doimiy nazorat qilish va optimal davolashni ta'minlash imkonini beradi. Shuningdek, telemeditsina va masofaviy kuzatuv usullari ham reanimatsiyada qo'llanilmoqda. Bemorlarning huquqlari va insoniy qadr-qimmatini reanimatsion parvarish jarayonida alohida e'tiborga olinadi. Har bir bemorning roziligi, shaxsiyati va maxfiyligi hurmat qilinishi kerak. Bu esa parvarish sifatini oshirish va bemorning psixologik holatini yaxshilashga xizmat qiladi. [4]

Xulosa:

Xulosa qilib aytganda, reanimatsion kasalliklarni alohida parvarish qilish murakkab va ko'p qirrali jarayon bo'lib, yuqori malakali mutaxassislar, zamonaviy texnologiyalar va individual yondashuvni talab qiladi. Bu jarayon bemorning hayotini saqlab qolish, asoratlarning oldini olish va uning tezroq tiklanishini ta'minlashga qaratilgan. Parvarishning har bir bosqichi ehtiyotkorlik bilan rejalashtirilishi va amalga oshirilishi lozim. Shu sababli, reanimatsiya bo'limidagi ishlar doimiy o'zgarib turuvchi sharoitlarga moslashishi va zamonaviy tibbiyot standartlariga javob berishi kerak. Reanimatsion parvarishning samarali tashkil etilishi bemorning hayot sifatini yaxshilash va sog'ayish jarayonini tezlashtirishda muhim omil hisoblanadi.



Foydalanilgan adabiyotlar:

1. Rahmatullayev Sh. Reanimatsiya va intensiv terapiya asoslari. Toshkent: “Universitet” nashriyoti, 2015. – 320 b.
2. Islomov A., Xolmatov B. Klinik reanimatsiya va parvarish. Toshkent: “Medpress” nashriyoti, 2018. – 280 b.
3. Tursunov M. Reanimatsion kasalliklar va ularni davolash usullari. Toshkent: “Fan va texnologiya” nashriyoti, 2017. – 250 b.
4. Karimov S. Reanimatsiya bo‘limida parvarishlash texnologiyalari. Toshkent: “Tibbiyot” nashriyoti, 2019. – 300 b.
5. Jabborov N. Reanimatsion terapiya va bemorlarni qo‘llab-quvvatlash. Toshkent: “Ilm ziyo” nashriyoti, 2020. – 275 b.
6. Qodirov D. Kasalliklarni intensiv parvarishlash metodlari. Toshkent: “Universitet” nashriyoti, 2016. – 260 b.
7. Mirzaev R. Reanimatsiya va intensiv terapiya qo‘llanmasi. Toshkent: “Medik” nashriyoti, 2021. – 310 b.



HOSPITAL ADMISSION: A COMPREHENSIVE OVERVIEW

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Abstract

Hospital admission is a critical component of modern healthcare, serving as a gateway to diagnostic, therapeutic, and rehabilitative services. This article provides an overview of the patterns, causes, and consequences of hospital admissions, with a focus on medical, demographic, and systemic factors influencing admission rates. Trends in emergency versus elective admissions, the role of chronic disease, and the impact of health system design are also discussed. Understanding these elements is essential for optimizing healthcare delivery and improving patient outcomes.

Keywords: Hospital admission, healthcare utilization, chronic disease, emergency department, healthcare systems

Introduction

Hospital admission is a cornerstone of healthcare systems worldwide. It represents the transition from outpatient or emergency care to inpatient services and is crucial for diagnosing, treating, and managing a wide array of health conditions. Hospital admissions can be lifesaving and serve as a vital interface between the individual and the healthcare infrastructure. However, they also reflect broader trends in population health, healthcare delivery, system efficiency, and economic sustainability.

Types of Hospital Admission

1. Emergency Admissions

These are unplanned and typically result from acute illnesses or injuries such as heart attacks, strokes, infections, trauma, or sudden worsening of chronic conditions. Patients are usually admitted through emergency departments, and these cases require urgent evaluation and intervention.



2. Elective Admissions

Elective admissions are planned in advance for diagnostic procedures, surgical interventions, or the management of chronic diseases. They are scheduled based on clinical necessity and resource availability, and they usually occur when the patient's condition is stable.

3. Day Case Admissions

Some admissions are designed for procedures that do not require overnight stays, such as minor surgeries or diagnostic tests. These are increasingly common in modern healthcare systems due to advancements in technology and minimally invasive procedures.

4. Readmissions

These occur when a patient returns to the hospital shortly after discharge, often within 30 days. Readmissions may be planned (e.g., staged surgeries) or unplanned due to complications, poor post-discharge support, or premature discharge.

Determinants of Hospital Admission

Patient-Level Factors

- **Age:** Older adults are more likely to be admitted due to multiple chronic conditions, frailty, and reduced physiological reserve.
- **Chronic Diseases:** Conditions like diabetes, heart failure, chronic obstructive pulmonary disease (COPD), and cancer often necessitate hospital stays for management or complications.
- **Socioeconomic Status:** Individuals from disadvantaged backgrounds tend to have higher admission rates due to limited access to preventive and primary care.
- **Mental Health and Substance Use:** Patients with mental health disorders or substance abuse issues frequently require hospitalization, either for medical stabilization or psychiatric support.



System-Level Factors

- **Primary Care Access:** Strong primary care systems can reduce unnecessary hospital admissions through preventive care and early intervention.
- **Health Policy and Insurance:** Insurance coverage, reimbursement structures, and healthcare regulations all affect admission patterns and availability.
- **Hospital Capacity:** Bed availability, staff levels, and resource distribution influence how hospitals manage admission decisions, especially during high-demand periods.

Trends in Hospital Admission

Hospital admission rates vary globally and over time. In high-income countries, advances in outpatient care, early discharge planning, and better disease prevention have led to a decline in certain types of admissions. Conversely, rising chronic disease prevalence and aging populations have increased demand for hospital services. Emerging infectious diseases, like pandemics, can temporarily overwhelm admission capacity and alter standard operating procedures.

There is also a growing emphasis on reducing avoidable admissions. These include hospitalizations for conditions that could be effectively managed with timely outpatient care, such as asthma, diabetes complications, or hypertension crises.

Outcomes of Hospital Admission

Clinical Outcomes

Hospitalization often leads to accurate diagnosis, effective treatment, and recovery. However, it can also be associated with risks, including hospital-acquired infections, medication errors, falls, and delirium in elderly patients. The quality of care during admission and discharge planning is crucial for patient safety and recovery.

Economic Impact

Hospital admissions are among the most expensive components of healthcare systems. Costs include room and board, diagnostics, treatment, staffing, and follow-up care. Managing admission rates is a key strategy for controlling healthcare expenditures, especially in publicly funded systems.



Social and Psychological Effects

For many patients, hospitalization can be a stressful experience. Being away from home, undergoing invasive procedures, and facing uncertainty about one's health can contribute to anxiety or depression. Family disruption and caregiving burdens also increase during hospital stays.

Strategies to Optimize Hospital Admission

1. Preventive Care and Health Promotion

Encouraging healthy behaviors, chronic disease management, and early screening can reduce the need for hospitalizations.

2. Improved Emergency Department Triage

Efficient triage systems help prioritize patients who truly need inpatient care, reducing unnecessary admissions.

3. Care Coordination and Case Management

Multidisciplinary teams and care coordinators can help manage patients with complex needs, preventing hospitalization through home care or outpatient services.

4. Telemedicine and Remote Monitoring

These technologies allow healthcare providers to manage patients remotely, reducing the need for physical hospital visits and enabling earlier interventions.

5. Enhanced Discharge Planning

Comprehensive discharge protocols, including patient education, follow-up appointments, and home support, can lower readmission rates and improve outcomes.

Challenges in Hospital Admission

- **Resource Constraints:** Limited beds, staffing shortages, and budget pressures can delay admissions or affect quality of care.
- **Health Inequities:** Disparities in healthcare access lead to differences in admission rates among various population groups.
- **Aging Population:** As life expectancy rises, so does the demand for hospital services, particularly for chronic and degenerative conditions.



- **Pandemics and Public Health Crises:** Large-scale health emergencies can overwhelm hospitals, requiring adaptive admission protocols and surge capacity planning.

Conclusion

Hospital admission is a vital function of healthcare systems, enabling effective treatment of acute and chronic illnesses. While necessary in many circumstances, unnecessary or preventable admissions contribute to healthcare inefficiencies, higher costs, and patient burden. By addressing the underlying determinants, improving care integration, and leveraging technology, healthcare systems can optimize hospital admissions to ensure better outcomes, sustainability, and equity. Let me know if you'd like this formatted for publication, translated, or adapted to a specific audience such as policymakers, healthcare professionals, or students.

REFERENCES

1. OECD. Health at a Glance 2023: Health expenditure by type of service [oecd.org](https://www.oecd.org).
2. OECD. Health at a Glance 2023: Avoidable hospital admissions .
3. Mirel LB, Carper K. Expenses for Hospital Inpatient Stays, 2010. AHRQ MEPS Statistical Brief #401 meps.ahrq.gov.
4. Verywell Health. What Are Diagnostic-Related Groups (DRG)? [verywellhealth.com](https://www.verywellhealth.com).
5. American Hospital Association. 2024 Costs of Caring Report [aha.org](https://www.aha.org)+2[aha.org](https://www.aha.org)+2[hfm-magazine.com](https://www.hfm-magazine.com)+2.
6. Peterson-KFF Health System Tracker. How costly are common health services in the U.S.? [kff.org](https://www.kff.org)+2[healthsystemtracker.org](https://www.healthsystemtracker.org)+2[newyorker.com](https://www.newyorker.com)+2.
7. RAND via Axios. Employers pay hospitals 224% of Medicare rates [axios.com](https://www.axios.com).
8. Health Affairs via CMS. National Health Care Spending in 2022 [healthaffairs.org](https://www.healthaffairs.org).



MASSAJ USULLARI VA TURLARI

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Annotatsiya:

Ushbu maqolada massajning asosiy turlari, qo'llash usullari, organizmga ta'siri hamda terapevtik va profilaktik maqsadlarda qo'llanishi tahlil qilinadi. Shuningdek, massajning amaliy ahamiyati va uni bajarishda e'tibor qaratiladigan asosiy jihatlar yoritiladi.

Kalit so'zlar: Massaj, klassik massaj, nuqtaviy massaj, segmentar massaj, limfa drenaji, rehabilitatsiya.

Massaj – bu tana yuzasiga mexanik ta'sir ko'rsatish orqali qon aylanishi, limfa oqimi, mushaklar va asab tizimi faoliyatini yaxshilashga qaratilgan muolajadir. U qadim zamonlardan beri Xitoy, Hindiston, Misr va Gretsiyada shifobaxsh vosita sifatida qo'llanilgan. Hozirgi zamonaviy tibbiyotda esa massaj terapevtik, rehabilitatsion va profilaktik vosita sifatida keng qo'llaniladi.

Massaj organizmga quyidagi yo'llar bilan ta'sir ko'rsatadi:

Mexanik ta'sir – teri, mushaklar, qon-tomirlar va limfa tizimiga to'g'ridan-to'g'ri bosim orqali;

Reflektor ta'sir – asab tugunlari orqali ichki a'zolarining faoliyatini tartibga solish;

Biokimyoviy ta'sir – biologik faol moddalar (endorfin, serotonin) ajralishini rag'batlantirish orqali og'riqni kamaytirish va holatni yaxshilash.



MASSAJNING ASOSIY TURLARI

1. Klassik (gigiyenik) massaj-bu eng keng tarqalgan va universal massaj turi bo‘lib, quyidagi usullarni o‘z ichiga oladi:

Silash (glajenie): Teri va ostki to‘qimalarni asta-sekin silab chiqish. Qon aylanishini faollashtiradi.

Ishqalayish (rastiranie): To‘qimalarda qon oqimini yaxshilab, shishlar va ortiqcha suyuqlikni kamaytiradi.

Ezish (razminanie): Mushaklarni chuqurroq massaj qilib, ularning tonusini oshiradi.

Urish (pokhlopyvanie): Asab tizimini rag‘batlantiradi va mushaklarga jonlanish beradi.

Vibratsiya: Mushaklarni bo‘shashtirish va og‘riqni kamaytirish uchun qo‘llaniladi.

Massajni quyidagicha turlari bor

1. Terapevtik (davolovchi) massaj-klinik amaliyotda keng qo‘llaniladi. Terapiyada yordamchi muolaja sifatida ishlatiladi. Boshqa davolash usullari bilan kompleks qo‘llanilganda yuqori samaradorlikka ega.

Qo‘llanish sohalari-orqa-umurtqa muammolari (osteoxondroz, radikulit), bo‘g‘im og‘riqlari (artroz, artrit), nevrologik sindromlar (nevralgiya, parez, falajlik), shikastlanishlardan so‘ng reabilitatsiya davri.

2. Segmentar reflektor massaj-orqa miya segmentlariga to‘g‘ridan-to‘g‘ri bog‘liq bo‘lgan reflektor zonalarga ta‘sir ko‘rsatish orqali ichki a‘zolar faoliyatini yaxshilaydi. Afzalliklari-dori vositalarisiz ichki a‘zolari stimulyatsiya qilish, surunkali holatlarda qo‘llash mumkinligi;

3. Nuqtaviy massaj (akupressura)-sharq tabobati asosida shakllangan. Tana yuzasida joylashgan biologik faol nuqtalarga barmoq bosimi orqali amalga



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oshiriladi. Xususiyatlari-nozik va ehtiyotkorlik bilan bajariladi. Og‘riqni kamaytirish, uyquni yaxshilash, asabiylikni pasaytirishda qo‘llaniladi.

4. Sport massaji-sportchilarda jarohatlarning oldini olish, mushaklarni tayyorlash va charchoqni bartaraf etish maqsadida qo‘llaniladi.

Turlari:

Tayyorlov massaji (mashg‘ulotgacha).

Oraliq massaj (o‘yinlar oralig‘ida);

Tiklovchi massaj (mashqdan keyin);

Reabilitatsion massaj (jarohat yoki ortiqcha zo‘riqishdan so‘ng).

MASSAJ USULLARI VA TEXNIKALARI

Har bir massaj turi o‘ziga xos texnikani talab qiladi. Muhim jihatlar quyidagilardan iborat:

Harakat yo‘nalishi- asosan yurak tomonga yo‘naltirilgan bo‘lishi kerak.

Kuch darajasi-bemorning yoshi, holati va kasallik xususiyatiga qarab tanlanadi.

Davomiyligi- bir seans odatda 10–30 daqiqa davom etadi.

Kurs davomiyligi- 7–15 seansgacha bo‘lishi mumkin.

QARSHI KO‘RSATMALAR

Yuqori harorat, O‘tkir yallig‘lanish, Teri yuqumli kasalliklari, Onkologik kasalliklar
Yurak yetishmovchiligi, Tromboflebit.

XULOSA

Massaj – bu oddiy muolaja bo‘lib ko‘rinsa-da, u chuqur fiziologik va terapevtik ta’sirga ega. Uning to‘g‘ri bajarilishi kasalliklarni davolash va oldini olishda muhim rol o‘ynaydi. Massajni professional darajada o‘rganish va amalda to‘g‘ri qo‘llash, bemor salomatligini tiklashda samarali natijalar beradi.



FOYDALANILGAN ADABIYOTLAR

1. Антипова, О. Н. Массаж: теория и методика. — М.: ГЭОТАР-Медиа, 2019.
2. Назарова, Т. А. Основы лечебного массажа. — СПб: Специальная литература, 2020.
3. Nurmatova, G. R. Davolovchi jismoniy tarbiya va massaj. — Toshkent: O'zbekiston Tibbiyot Akademiyasi, 2021.
4. Qodirov, A. Sh. Fizioterapiya va reabilitatsiya asoslari. — Toshkent: TMA nashriyoti, 2022.
5. Степанова, И. В. Массаж и лечебная физкультура при заболеваниях опорно-двигательного аппарата. — М.: Медицинская книга, 2018.
6. Ross, M. & Wilson. Anatomy and Physiology in Health and Illness. — Elsevier, 2021.
7. Khan, A. Therapeutic Massage: Principles and Practice. — Churchill Livingstone, 2020.
8. Ўзбекистон Республикаси Соғлиқни сақлаш вазирлиги. Davolash-fizkultura va massaj bo'yicha uslubiy qo'llanma. — Toshkent, 2023.



MEDIATSIYA INSTITUTINING HUQUQIY ASOSLARI VA RIVOJLANISH BOSQICHLARI

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Kirish

Zamonaviy huquqiy tizimlarda fuqarolik, iqtisodiy, mehnat, oila va boshqa turdagi nizolarni tezkor, samarali va insonparvarlik tamoyillari asosida hal qilish zarurati tobora ortib bormoqda. Shu munosabat bilan, muqobil nizolarni hal etish usullaridan biri — mediatsiya instituti global miqyosda keng e'tirof etilmoqda. Mediatsiya — bu suddan tashqari, ixtiyoriy asosda amalga oshiriladigan kelishuvga erishish jarayoni bo'lib, taraflar o'rtasidagi nizo va kelishmovchiliklarni tinch yo'l bilan hal etishni maqsad qiladi. Bu jarayonni neytral va mustaqil shaxs — mediator olib boradi.

Mediatsiyaning asosiy ustunliklari — bu vaqt va mablag' tejallishi, maxfiylik, tomonlarning teng huquqliligi va o'zaro hurmat asosida muloqot olib borilishi, shuningdek, o'zaro munosabatlarni saqlab qolish imkoniyatidir. Dunyodagi rivojlangan davlatlar, jumladan AQSh, Singapur, Niderlandiya, Buyuk Britaniya kabi mamlakatlar ushbu institutni nafaqat sudlar bilan integratsiyalashgan tarzda, balki ijtimoiy barqarorlikka xizmat qiluvchi vosita sifatida qo'llamoqdalar [1].

O'zbekiston Respublikasida ham oxirgi yillarda huquqiy tizimni liberallashtirish, sud yukini kamaytirish va fuqarolarning huquqiy madaniyatini oshirish doirasida mediatsiya institutiga alohida e'tibor qaratilmoqda. Xususan, 2018-yilda "Mediatsiya to'g'risida"gi Qonunning qabul qilinishi ushbu yo'nalishda tarixiy qadam bo'ldi. Mediatsiya mexanizmining qonunchilik darajasida tartibga solinishi uni huquqiy muomalaga kiritdi va asta-sekin jamiyatda mustahkam o'rin egallashiga zamin yaratdi [2].

Shuningdek, ushbu institutning xalqaro tajribalarga, jumladan Singapur modeli asosida tahlil qilinishi, O'zbekistonda mediatsiyaning rivojlantirishning istiqbolli yo'nalishlarini belgilab berishga yordam beradi. Mediatsiya nafaqat huquqiy nizolarni hal qilish, balki ijtimoiy totuvlikni mustahkamlash, fuqarolik jamiyati institutlarini rivojlantirish vositasi sifatida ham muhim ahamiyat kasb etadi.



Mediatsiya institutining huquqiy asoslari

Mediatsiya institutining huquqiy asoslari mazkur institutning davlat tomonidan tan olinishi, qonunchilikda mustahkamlanishi va uning amaliy mexanizmlarining ishlab chiqilishi bilan bog'liq. O'zbekistonda mediatsiyaning huquqiy asoslarini shakllantirish jarayoni bosqichma-bosqich va izchil amalga oshirilmoqda. Bu borada asosiy normativ-huquqiy hujjat 2018-yil 3-iyulda qabul qilingan "Mediatsiya to'g'risida"gi O'zbekiston Respublikasi Qonunidir.

Mazkur Qonun 5 bob va 29 moddadan iborat bo'lib, unda mediatsiya institutining asosiy tushunchalari, prinsiplari, mediatorlarning huquqiy maqomi, mediatsiya tartibi va uni qo'llash doiralari aniq belgilab berilgan. Qonun mediatsiyaning ixtiyoriylik, taraflarning tengligi, oshkoralikdan xoli maxfiylik, vositachining xolisligi va mustaqilligi kabi prinsiplarni o'z ichiga oladi. Mediatsiya jarayonida tomonlar o'zaro kelishgan holda nizoni tinch yo'l bilan hal qilishga erishadilar [3]. Shuningdek, O'zbekiston Respublikasi Fuqarolik protsessual kodeksiga, Iqtisodiy protsessual kodeksiga va Ma'muriy sud ishlarini yuritish kodeksiga ham mediatsiya institutiga oid qo'shimcha normalar kiritilgan. Jumladan, sudlar ishni ko'rib chiqishdan oldin yoki uning har qanday bosqichida tomonlarga mediatsiyani taklif qilishi mumkin. Sud jarayonlarida ishtirok etayotgan tomonlar mediator orqali kelishuvga erishsalar, bu kelishuv sud qaroriga tenglashtiriladi va ijro uchun majburiy bo'ladi.

Singapur tajribasi bilan solishtirish

Mediatsiya instituti Singapurda yuqori darajada rivojlangan va huquqiy tizimning muhim elementiga aylangan. Singapur hukumati mediatsiyani nizolarni hal qilishning samarali, arzon va tezkor usuli sifatida ilgari suradi. 1997-yilda tashkil etilgan Singapur Mediatsiya Markazi (Singapore Mediation Centre, SMC) bu borada yetakchi rolni o'ynaydi. SMC orqali har yili minglab nizolar muvaffaqiyatli hal qilinadi. Mediatsiya Singapurda nafaqat fuqarolik va iqtisodiy nizolarda, balki xalqaro tijorat nizolarida ham keng qo'llaniladi [4].

Singapur hukumati 2017-yilda "Singapore Convention on Mediation" (rasman: United Nations Convention on International Settlement Agreements Resulting from Mediation) ni tashabbus qilib, uni qabul qildirdi. Bu xalqaro konvensiya xalqaro



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miqyosdagi mediatsiya orqali erishilgan kelishuvlarni tan olish va ijro etishni ta'minlashni ko'zda tutadi. Singapur konvensiyasi bugungi kunda ko'plab davlatlar tomonidan ratifikatsiya qilingan va u xalqaro savdoda mediatsiyaning rolini mustahkamlashda muhim vosita hisoblanadi.

O'zbekiston va Singapur tajribasi o'rtasida bir qancha umumiyliklar bilan bir qatorda farqlar ham mavjud. Umumiy jihatlar shundan iboratki,

1. Har ikkala davlatda ham mediatsiya maxsus qonun orqali tartibga solinadi.
2. Mediatsiya ixtiyoriylik, xolislik, maxfiylik kabi prinsiplar asosida olib boriladi.
3. Mediatsiya institutini keng jamoatchilikka tanitish va malakali mediatorlarni tayyorlashga e'tibor beriladi.

Farqli jihatlar:

1. Singapurda mediatsiya keng qamrovli va xalqaro savdo nizolarini hal qilish vositasi sifatida ham faol qo'llaniladi.
2. Singapurda mediatsiya bo'yicha markazlashtirilgan, yuqori malakali va raqamlashtirilgan xizmatlar tizimi mavjud, O'zbekistonda esa bu tizim endigina shakllanmoqda.
3. Singapurda sudlar mediatsiyaga yo'naltirish vakolatiga ega va bu keng qo'llanilayotgan bo'lsa, O'zbekistonda bu amaliyot hali keng ommalashmagan.

O'zbekiston Singapur tajribasidan quyidagi jihatlarida o'rnak olishi mumkin:

- Mediatsiyaning xalqaro savdo va investitsiya nizolarida qo'llanish doirasini kengaytirish;
- Mediatsiya markazlarining texnologik infratuzilmasini rivojlantirish;
- Mediatorlar malakasini oshirish uchun xalqaro standartlarga mos o'quv dasturlarini ishlab chiqish;
- Mediatsiyaga oid xalqaro konvensiyalarga qo'shilish va ularni milliy qonunchilik bilan uyg'unlashtirish [5].

Mediatsiya institutining rivojlanish bosqichlari

Mediatsiya instituti tarixan qadimiy jamiyatlarda mavjud bo'lgan nizolarni murosa bilan hal qilish an'alariga asoslangan. Ammo zamonaviy huquqiy kontekstda u bir



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necha bosqichda shakllanib, bugungi holatga yetib kelgan. Mediatsiya institutining rivojlanish bosqichlarini quyidagicha tavsiflash mumkin:

An'anaviy murosas institutlari (Qadimgi davr – XX asr boshlarigacha) Qadimgi Sharq, Rim va Yunon jamiyatlarida, shuningdek islom huquqida nizolarni keksalar, diniy arboblardan yoki urug' oqsoqollari orqali hal qilish an'analari mavjud bo'lgan. Bunda asosiy maqsad taraflar o'rtasida adolatli kelishuvga erishish va ijtimoiy barqarorlikni saqlash bo'lgan. O'zbek xalq urf-odatlarida ham "oqsoqollar murosasi" mediatsiyaning mahalliy ko'rinishi sifatida namoyon bo'lgan.

Rasmiylashuv bosqichi (XX asr o'rtalaridan) XX asrda, ayniqsa Ikkinchi jahon urushidan so'ng, industrial davlatlar sud tizimidagi yuklamani kamaytirish va taraflar o'rtasida barqaror munosabatlarni saqlab qolish uchun mediatsiyani muqobil nizolarni hal qilish usuli sifatida qonunchilikka kiritishni boshladilar. AQSh, Kanada va G'arbiy Yevropa davlatlari bu borada yetakchi bo'ldi. 1960-yillarda AQShda "Alternative Dispute Resolution (ADR)" konsepsiyasi paydo bo'ldi.

Institutlashtirish va xalqaro integratsiya (XXI asr boshidan) So'nggi yigirma yillikda mediatsiya global miqyosda rivojlanib, xalqaro tashkilotlar tomonidan ham tan olindi. 2018-yilda BMT tomonidan qabul qilingan "Singapore Convention on Mediation" bu institutni xalqaro savdo nizolarida ham samarali qo'llash imkonini yaratdi. Mediatsiya nafaqat davlatlar ichida, balki xalqaro nizolarni hal qilishda ham muhim vosita sifatida qaralmoqda [6].

O'zbekistonda rivojlanish bosqichi (2018-yildan hozirgacha) O'zbekistonda mediatsiya instituti mustaqil ravishda faqat 2018-yildan keyin huquqiy asosda shakllana boshladi. "Mediatsiya to'g'risida"gi Qonun qabul qilinishi bilan bir qatorda mediatsiya markazlari tashkil qilindi, mediatorlar ro'yxatdan o'tkazilmoqda va bu yo'nalishda mutaxassislar tayyorlanmoqda. Ayni vaqtda mediatsiya oilaviy, mehnat, iqtisodiy va fuqarolik nizolarini hal qilishda qo'llanilmoqda. Rivojlanishning bu bosqichi mediatsiyani sud-huquq tizimining ajralmas bo'g'iniga aylantirish sari qadamdir.

Xulosa

Mediatsiya instituti zamonaviy huquqiy tizimlarda adolat, tezlik va ijtimoiy barqarorlik tamoyillarini uyg'unlashtirgan muhim vosita sifatida shakllanmoqda. U



sud-huquq tizimining to'liq funksional qismi emas, balki uni samarali to'ldiruvchi, jamiyatda kelishuv madaniyatini rivojlantiruvchi yondashuvdir. O'zbekiston misolida olib qaralganda, mediatsiya so'nggi yillarda tez sur'atlar bilan rivojlanmoqda. Ayniqsa, 2018-yilda "Mediatsiya to'g'risida"gi Qonunning qabul qilinishi bilan mazkur institutning huquqiy poydevori yaratildi. Qonuniy bazaning shakllanishi, mediatorlarning tayyorlanishi, mediatsiya markazlarining ochilishi va jamiyatda bu institutning qabul qilinishi — ularning barchasi tizimli rivojlanishning muhim bosqichlari bo'ldi.

Shu bilan birga, Singapur tajribasi bilan solishtirganda, O'zbekiston hali mediatsiyani institutsionallashtirish va xalqaro darajada tan olish yo'lida dastlabki qadamlarda turibdi. Singapurda bu institut mustahkam qonunchilik, ilg'or IT infratuzilmasi, professional mediatorlar bazasi va xalqaro konvensiyalar bilan uyg'unlashgan. Bu esa O'zbekiston uchun ham nafaqat o'rganiladigan, balki moslashtiriladigan ilg'or tajriba bo'lib xizmat qilishi mumkin.

Mediatsiyaning muvaffaqiyatli ishlashi nafaqat qonunchilik asoslari, balki ijtimoiy ong, huquqiy madaniyat va ishonch muhitiga ham bevosita bog'liq. Shu sababli, uni keng joriy qilishda aholining huquqiy ongini oshirish, mediatorlar sifatini nazorat qilish, davlat va nodavlat institutlarining hamkorligini kuchaytirish dolzarb masalalardandir.

Kelgusida mediatsiyaning rivojlanishi fuqarolik, mehnat, iqtisodiy, oilaviy, ekologik va boshqa turdagi nizolarni murosali hal etish vositasi sifatida yanada keng qo'llanilishi kutilmoqda. Bu nafaqat sudlar yukini kamaytiradi, balki jamiyatda hamjihatlik va murosali madaniyatini shakllantiradi. Mediatsiya instituti — bu faqat nizoni hal qilish vositasi emas, balki madaniyat va ishonch mehanizmidir.

Foydalanilgan adabiyotlar ro'yxati

1. Azizova D.M. – Muqobil nizolarni hal qilish tizimining O'zbekistondagi bosqichlari, Toshkent Davlat Yuridik Universiteti maqolalar to'plami, 2022.
2. Gulyamov S.S. – Mediatsiya va arbitraj: nazariya va amaliyot, Toshkent: Adolat nashriyoti, 2021.
3. Menkel-Meadow, C. – Mediation and Its Techniques, Aspen Publishers, USA, 2017.



International Conference on Economics, Finance, Banking and Management

Hosted online from Paris, France

Website: econfseries.com

24th June, 2025

4. Boulle, L. – Mediation: Principles, Process, Practice, LexisNexis, London, 2016.
5. UNCITRAL (2019) – United Nations Convention on International Settlement Agreements Resulting from Mediation (Singapore Convention on Mediation), UN publication.
6. Tursunov A. A. – Fuqarolik ishlari bo'yicha sudlar faoliyatida mediatsiyaning o'rni, TDYU Ilmiy jurnali, 2023.



ВЛИЯНИЕ СОЦИАЛЬНОЙ СРЕДЫ НА ФОРМИРОВАНИЕ КОМПЕТЕНТНОСТНОГО МЫШЛЕНИЯ У СТУДЕНЧЕСКОЙ МОЛОДЕЖИ

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Аннотация

Современное образование направлено не только на передачу знаний, но и на формирование компетентностного мышления, позволяющего студентам эффективно применять полученные знания в различных жизненных и профессиональных ситуациях. В данной работе рассматривается влияние социальной среды — семьи, учебного заведения, сверстников, средств массовой информации и цифровых технологий — на развитие компетентностного мышления у студенческой молодежи. Особое внимание уделяется роли социокультурных факторов, межличностных взаимодействий и образовательной среды в процессе становления мышления, ориентированного на самостоятельное принятие решений, критический анализ и адаптацию к меняющимся условиям. Анализируются как позитивные, так и негативные воздействия социальной среды, а также предлагаются рекомендации по созданию благоприятных условий для развития компетентностного подхода в вузах.

Ключевые слова: социальная среда, компетентностное мышление, студенческая молодежь, образовательная среда, межличностные отношения, когнитивное развитие, социальное влияние

Введение

В условиях стремительного развития информационного общества и роста требований к квалификации специалистов возрастает значимость формирования компетентностного мышления у студентов. Это мышление предполагает способность комплексно использовать знания, умения и



личностные качества для решения задач в профессиональной и социальной сферах. Особенность компетентностного подхода заключается в ориентации на результат, активную позицию обучающегося и развитие критического, системного и творческого мышления.

Одним из ключевых факторов, влияющих на становление мышления личности, является социальная среда, в которой она формируется. Социальная среда включает в себя не только ближайшее окружение (семья, друзья, однокурсники), но и более широкий социум — образовательные учреждения, культурную среду, цифровое пространство, социальные сети и СМИ. Именно под воздействием этих факторов у студента формируются установки, ценности, способы мышления и поведения, которые затем определяют его компетентностный уровень.

В данной работе акцент сделан на изучении взаимосвязи между характеристиками социальной среды и уровнем развития компетентностного мышления у студентов. Актуальность темы обусловлена необходимостью совершенствования образовательной политики и создания таких условий, при которых социальное окружение способствует личностному и интеллектуальному росту молодежи.

Проблема влияния социальной среды на формирование мышления молодежи является предметом междисциплинарного научного интереса на протяжении последних десятилетий. В психологии, педагогике, социологии и когнитивных науках данное направление рассматривается как одно из ключевых в контексте развития личности, образования и социализации молодого поколения.

В классических трудах Л.С. Выготского и А.Н. Леонтьева подчеркивается, что мышление человека формируется в процессе социальной деятельности и под влиянием социального окружения. Идея о «зоне ближайшего развития» Выготского напрямую указывает на роль социальной среды, в частности — педагогов, сверстников и взрослых, как катализаторов развития познавательных способностей и мышления.

Современные исследования, такие как работы А.Г. Асмолова, В.В. Давыдова, И.А. Зимней и Д.Б. Эльконина, развивают эти идеи в контексте



компетентностного подхода. Они подчеркивают, что когнитивное и личностное развитие студентов невозможно без активного взаимодействия с социальной средой, включая образовательную систему, цифровую культуру и социокультурный контекст.

Особое внимание уделяется влиянию цифровой среды и социальных сетей на мышление современной молодежи. Работы таких исследователей, как Н.Д. Никандров, С.В. Кулешова и Е.В. Шорохова, фиксируют как положительные, так и негативные аспекты цифровой социализации. С одной стороны, цифровые технологии расширяют доступ к информации и способствуют развитию критического мышления, с другой — могут формировать поверхностное восприятие и зависимость от внешних оценок.

В рамках педагогической науки компетентностное мышление трактуется как интегральное качество личности, связанное с умением самостоятельно анализировать, принимать решения, оценивать риски и нести ответственность. В этой связи исследуются условия, при которых образовательная среда становится активным фактором развития такого мышления. Например, в работах Т.В. Кудрявцева и М.И. Рожкова показано, что использование проектной и исследовательской деятельности, сотрудничества в группах, а также рефлексивных практик значительно усиливает эффект социальной среды на развитие компетентностей.

Социологические исследования (например, Ю.Л. Ханина, Л.М. Митиной) также подчеркивают, что социальная идентичность, статус в студенческом сообществе, уровень родительской поддержки, а также ценности микросреды — всё это существенно влияет на особенности формирования мышления у молодежи.

Таким образом, на современном этапе накоплен значительный теоретический и эмпирический материал, подтверждающий важность социальной среды в формировании компетентностного мышления. Тем не менее, несмотря на актуальность темы, остаются открытыми вопросы комплексного изучения взаимосвязи различных уровней социальной среды и конкретных компонентов компетентностного мышления. Особенно актуальны



исследования в условиях цифровой трансформации образования и изменений в коммуникации среди молодежи.

Компетентностное мышление — это не просто способность усваивать и воспроизводить информацию, а комплексное качество, включающее критическое, рефлексивное, системное и творческое мышление. У студентов оно формируется не изолированно, а под влиянием множества факторов, среди которых особую роль играет социальная среда.

Анализ структуры социальной среды показывает, что она включает три ключевых уровня влияния:

1. Микросреда — семья, ближайшее окружение, друзья, одноклассники, преподаватели.

Именно в микросоциальном взаимодействии студент сталкивается с первичными ожиданиями, нормами и ценностями, которые формируют установки на обучение, мотивацию к саморазвитию и отношения к интеллектуальному труду. Поддерживающая и стимулирующая среда способствует развитию уверенности в себе, склонности к рефлексии и активности.

2. Мезосреда — образовательная организация, студенческое сообщество, внутренние институты вуза (наставничество, научные кружки, проектная деятельность).

Здесь формируются навыки командной работы, аргументированного выражения мнения, принятия решений в условиях неопределенности — базовые элементы компетентностного мышления. Практика показала, что включённость студентов в коллективную исследовательскую деятельность способствует их когнитивному росту.

3. Макросреда — цифровая среда, социокультурные реалии, средства массовой информации и интернет-пространство. Современная молодежь ежедневно взаимодействует с информацией, которая формирует не только мировоззрение, но и стиль мышления. Например, постоянное пребывание в цифровой среде формирует навыки быстрого анализа, поиска информации, но также может приводить к фрагментарности мышления и снижению глубины рефлексии.



При аналитическом рассмотрении можно выделить как позитивные, так и негативные влияния социальной среды:

- Позитивные: доступ к разнообразным источникам знаний, наличие коммуникативных платформ для обмена мнениями, поддержка со стороны преподавателей и сверстников, участие в дискуссиях и проектах.
- Негативные: информационная перегрузка, давление социальных стереотипов, поверхностность восприятия, отсутствие условий для углубленного анализа.

Современные исследования подтверждают, что наиболее эффективное формирование компетентностного мышления происходит в условиях, когда студенты включены в активную образовательную и социальную деятельность, предполагающую:

- решение проблемных и творческих задач;
- рефлексию собственного опыта;
- работу в группах и междисциплинарных командах;
- участие в волонтерских, социальных и исследовательских проектах;
- общение с профессиональным сообществом.

Таким образом, социальная среда выступает не просто фоном, а активным агентом когнитивного развития, оказывающим прямое и опосредованное воздействие на процесс формирования компетентностного мышления. Задача современного образования — не только учитывать этот фактор, но и управлять им с целью создания условий для гармоничного интеллектуального и личностного становления студентов.

Заключение. Анализ теоретических источников и современных исследований позволяет утверждать, что социальная среда является мощным фактором, влияющим на формирование компетентностного мышления у студенческой молодежи. Под компетентностным мышлением понимается способность студента критически осмысливать информацию, принимать обоснованные решения, проявлять самостоятельность в обучении и адаптироваться к быстро меняющимся условиям жизни и профессиональной деятельности.

Микро-, мезо- и макросредовые компоненты формируют сложную систему внешних влияний, способных как стимулировать развитие когнитивных



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способностей, так и ограничивать его при отсутствии соответствующих условий. Эффективное формирование компетентностного мышления возможно только при наличии благоприятной образовательной и социокультурной среды, в которой студент не просто потребляет информацию, но активно взаимодействует с ней, рефлексировать и развивает личностно значимые качества.

Таким образом, образовательные учреждения, преподаватели и сама студенческая среда должны быть направлены на создание развивающей социальной атмосферы, которая способствует формированию не только знаний, но и мышления, способного к компетентному применению этих знаний в реальной жизни.

Список использованных источников:

1. Выготский Л.С. – Мышление и речь. — М.: Педагогика, 1982.
2. Леонтьев А.Н. – Деятельность. Сознание. Личность. — М.: Политиздат, 1975.
3. Асмолов А.Г. – Психология личности. — М.: Смысл, 2002.
4. Зимняя И.А. – Ключевые компетенции как результат новой парадигмы образования. — М.: Исследовательский центр проблем качества подготовки специалистов, 2004.
5. Давыдов В.В. – Проблемы развивающего обучения. — М.: Педагогика, 1986.
6. Кулешова С.В. – Информационная среда и когнитивные трансформации молодежи. // Вестник психологических исследований. 2021. №4.
7. Никандров Н.Д. – Молодежь и цифровая среда. // Образование и общество. 2020. №3.



THE ROLE OF REFLECTIVE COMPETENCE IN DEVELOPING PROFESSIONAL SELF-AWARENESS OF PROSPECTIVE VOCATIONAL EDUCATION TEACHERS

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Abstract

In recent years, the focus on the psychological development of future teachers has significantly increased, especially in the context of vocational education. One of the core components of this development is professional self-awareness, which allows future educators to understand their own teaching identity, values, goals, and capabilities. Reflective competence plays a crucial role in shaping this self-awareness, as it encourages individuals to critically evaluate their experiences, attitudes, and behaviors. This paper examines the psychological foundations of reflective competence and explores how it facilitates the formation of professional self-awareness in prospective vocational education teachers. Drawing upon psychological theories of self-concept, metacognition, and professional identity development, the study highlights the dynamic interplay between reflection and self-perception. The analysis also includes practical strategies for enhancing reflective competence in teacher education programs. Ultimately, fostering reflective competence not only strengthens self-awareness but also promotes personal growth, ethical responsibility, and lifelong learning in future educators.

Keywords: reflective competence, Professional self-awareness, Vocational education teachers, Self-concept, Metacognitive reflection, Teacher identity, Educational psychology, Teacher training

Introduction

In the modern educational landscape, the role of teachers extends beyond the transmission of knowledge — it encompasses personal responsibility, ethical engagement, and the continuous development of a professional identity. Particularly within vocational education, where teaching is closely tied to practical skills and



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labor market needs, the formation of professional self-awareness becomes a vital process for future teachers. Professional self-awareness refers to a teacher's ability to consciously understand their own values, strengths, limitations, motivations, and goals in the context of their career.

One of the most effective psychological tools for cultivating such awareness is reflective competence — the capacity to think critically about one's own experiences, decisions, and actions. Reflective competence is not merely a technical skill; it is a deep cognitive-emotional process that involves self-assessment, interpretation of teaching practices, and the integration of feedback into personal and professional growth. It serves as a bridge between theoretical learning and practical application, enabling future educators to align their behavior with pedagogical values and ethical standards.

From a psychological perspective, the development of reflective competence is closely linked to theories such as Bandura's social cognitive theory (especially self-efficacy), Kolb's experiential learning model, and Mezirow's transformative learning theory. These frameworks emphasize the importance of reflection in constructing meaning and shaping identity.

The goal of this paper is to explore the psychological mechanisms underlying reflective competence and to examine how it supports the development of professional self-awareness in future vocational education teachers. The research seeks to provide evidence-based strategies that teacher training institutions can implement to integrate reflective practices into their curriculum, thereby ensuring that the next generation of teachers is both professionally competent and personally self-aware.

The importance of reflective competence in teacher education has been widely recognized in academic literature over the past several decades. It is no longer viewed as a supplementary skill but rather as a fundamental psychological and pedagogical element in the development of effective educators. Reflective competence allows future teachers to analyze their own experiences, values, and actions, promoting the formation of a stable professional identity. This is particularly significant in vocational education, where teaching is deeply connected to practical skills and real-world application. Scholars such as John Dewey (1933) laid the



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foundation for reflective thinking, arguing that the ability to critically examine one's actions and beliefs is central to effective teaching. Donald Schön (1983) built upon this idea by introducing the concept of the "reflective practitioner," emphasizing the importance of reflection-in-action and reflection-on-action as mechanisms for professional learning and adaptation.

In more recent work, researchers like Korthagen and Vasalos (2005) have emphasized the connection between reflective thinking and core values, suggesting that deep reflection helps teachers align their inner motivations with their professional behavior. Their core reflection model has been influential in designing teacher training programs that aim to foster not only technical skills but also a strong sense of professional self-awareness. This model has proven particularly useful in vocational education, where students are often expected to transition quickly into practical teaching roles and make real-time decisions based on complex classroom dynamics.

Professional self-awareness itself is considered a dynamic psychological construct, shaped through reflection, feedback, and self-analysis. Scholars such as Beauchamp and Thomas (2009) and Day and Gu (2007) have shown that the development of teacher identity—an essential aspect of professional self-awareness—is closely tied to the process of reflective thinking. Teachers who engage in systematic reflection tend to show greater clarity about their pedagogical values, emotional responses, and long-term goals. In the vocational context, studies by Sharma and Srivastava (2021) have demonstrated that direct teaching experiences, peer collaboration, and guided reflection activities are crucial in helping prospective teachers become more self-aware and professionally confident.

From a psychological perspective, the connection between reflection and self-awareness is supported by several influential theories. Bandura's theory of self-efficacy (1997) suggests that individuals' beliefs about their capabilities influence how they approach challenges. Reflective competence contributes to a more accurate and constructive interpretation of one's experiences, thereby enhancing self-efficacy. Kolb's experiential learning theory (1984), with its four stages—concrete experience, reflective observation, abstract conceptualization, and active experimentation—has also been widely used in teacher education. It supports the



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idea that learning and identity development occur when individuals engage in reflective cycles. Furthermore, Mezirow's transformative learning theory (1991) argues that critical reflection enables individuals to question their assumptions and adopt new perspectives, which is essential for developing a deeper sense of professional self.

Although many studies have examined reflective practices in general teacher education, research focusing specifically on vocational education is still emerging. Scholars such as Töytäri et al. (2016) have explored how practice-based learning modules and mentorship promote reflective habits among vocational teacher candidates. Their findings indicate that structured reflection tasks, combined with peer feedback, lead to greater self-awareness and professional insight. Similarly, Mikkonen, Heikkinen, and Lakkala (2020) found that reflective journaling and dialogue helped vocational student-teachers connect theory to practice, reinforcing their understanding of their own roles and values as educators.

Despite the progress made, there are still gaps in the literature. Notably, limited research has been conducted in specific regional contexts, including Central Asia and post-Soviet educational systems, where vocational teacher education may involve distinct cultural and institutional dynamics. Moreover, while the role of technology in enhancing reflective competence is increasingly acknowledged, more empirical studies are needed to explore the use of digital tools such as e-portfolios, video analysis, and online mentoring in supporting reflective growth in vocational education settings.

The body of literature strongly supports the conclusion that reflective competence is a key contributor to the development of professional self-awareness among prospective vocational education teachers. The relationship between these two constructs is both theoretically grounded and empirically supported. However, continued research is needed to address contextual and technological dimensions of this process, which remain underexplored in current academic discourse.

The development of professional self-awareness among prospective vocational education teachers is a complex, multifaceted process shaped by individual experiences, educational practices, and psychological mechanisms. Reflective competence plays a central role in this developmental trajectory by serving as a



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metacognitive tool through which student-teachers critically examine their beliefs, teaching behaviors, and evolving identities.

Reflective competence is not simply the ability to “think about teaching” but involves a deeper capacity to analyze one’s motivations, emotional reactions, and pedagogical choices in light of one’s values and educational goals. In vocational education, where practical application of knowledge is emphasized, reflective competence helps future teachers to navigate real-life teaching situations with a more grounded sense of purpose and adaptability. The iterative nature of reflective practice—where teachers move from experience to reflection, and from reflection to improved action—creates a feedback loop that nurtures self-awareness and professional growth.

One of the most crucial outcomes of reflective competence is the development of a coherent professional identity. This identity emerges through repeated cycles of experience and reflection, during which individuals align their internal self-concept with their external roles and responsibilities as teachers. For vocational educators in particular, this alignment is vital because their teaching often involves mentoring students in hands-on, skill-based environments that demand both technical expertise and emotional intelligence. Through reflection, prospective teachers begin to recognize their teaching strengths, identify areas for improvement, and construct a realistic and confident image of themselves as professionals.

Moreover, reflective competence contributes significantly to metacognitive awareness. Teachers with high reflective ability are more likely to engage in goal-setting, self-monitoring, and strategic thinking. These cognitive behaviors are essential for adapting to changing classroom dynamics, addressing diverse student needs, and integrating theory into practice. In vocational education, where curricula are often shaped by industry standards and practical requirements, reflective thinking enables teachers to critically evaluate how their teaching aligns with broader vocational and societal goals.

Emotional regulation is another psychological domain influenced by reflective competence. As prospective teachers encounter stress, uncertainty, and interpersonal challenges during their practicum experiences, reflection allows them to process these emotions constructively rather than defensively. It fosters resilience by helping



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individuals reframe difficulties as learning opportunities. This emotional processing is directly linked to professional self-awareness, as it enables teachers to understand how their emotional patterns affect their teaching relationships, classroom management, and communication style.

In the context of teacher training programs, reflective competence must be actively cultivated through targeted pedagogical strategies. These may include structured journaling, guided group discussions, peer feedback, portfolio development, and video-based self-evaluation. When supported by mentors and trainers, these practices help student-teachers articulate their experiences, challenge their assumptions, and synthesize new insights. This kind of scaffolded reflection is particularly effective in vocational education, where students benefit from seeing the immediate relevance of reflection to their future careers.

Furthermore, cultural and contextual factors must be taken into account when analyzing the development of reflective competence and self-awareness. In some educational systems, reflective practice is deeply embedded in the curriculum, while in others, it is still emerging as a recognized component of teacher education. In Central Asian contexts, including Uzbekistan, efforts are being made to integrate reflective pedagogy into vocational teacher training programs, though more empirical research is needed to examine its implementation and outcomes.

Reflective competence is not only a psychological mechanism but also a pedagogical necessity for developing professional self-awareness among future vocational education teachers. It enhances self-concept, supports identity formation, improves emotional intelligence, and strengthens adaptive teaching behavior. To ensure its effectiveness, teacher training programs must create intentional, reflective learning environments that encourage metacognitive engagement and personal growth. Only through such integrated efforts can vocational educators become self-aware, effective, and resilient professionals in a constantly evolving educational landscape.

Conclusion. The development of professional self-awareness in prospective vocational education teachers is a vital component of their overall professional growth and effectiveness. This process is closely intertwined with the cultivation of reflective competence, which acts as both a cognitive and emotional mechanism through which future teachers examine their own beliefs, teaching practices, and



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professional identities. Reflective competence enables them to become more self-aware, adaptive, and emotionally resilient in the face of the challenges they will encounter in their teaching careers.

Through systematic reflection, prospective teachers can develop a stronger sense of purpose, enhance their metacognitive skills, and align their teaching philosophy with their actions in the classroom. In vocational education settings, where real-world application and immediate feedback are central, reflective practice plays a critical role in helping educators connect theory to practice. Teacher training programs must, therefore, place intentional emphasis on fostering reflective habits through structured activities, feedback mechanisms, and mentorship.

As shown in the literature, reflective competence also contributes to the formation of a stable and coherent professional identity, an essential aspect of long-term career satisfaction and effectiveness. While research has increasingly supported the value of reflection in teacher education, there remains a need for further empirical studies that explore its role in specific cultural and institutional contexts, including the use of digital technologies and culturally responsive pedagogy.

In conclusion, promoting reflective competence in teacher education programs is not merely an academic exercise but a transformative approach that empowers future vocational education teachers to become mindful, ethical, and self-aware professionals who are capable of navigating the complexities of modern education.

List of references:

1. Beauchamp, C., & Thomas, L. (2009). Understanding teacher identity: An overview of issues in the literature and implications for teacher education. *Cambridge Journal of Education*, 39(2), 175–189.
2. Bandura, A. (1997). *Self-efficacy: The exercise of control*. New York: Freeman.
3. Day, C., & Gu, Q. (2007). Variations in the conditions for teachers' professional learning and development: Sustaining commitment and effectiveness over a career. *Oxford Review of Education*, 33(4), 423–443.
4. Dewey, J. (1933). *How we think: A restatement of the relation of reflective thinking to the educative process*. Boston: D.C. Heath.



International Conference on Economics, Finance, Banking and Management

Hosted online from Paris, France

Website: econfséries.com

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5. Korthagen, F. A. J., & Vasalos, A. (2005). Levels in reflection: Core reflection as a means to enhance professional growth. *Teachers and Teaching: Theory and Practice*, 11(1), 47–71.



IJTIMOY ADOLAT PRINSIPINI TA'MINLASH: KONSTITUTSIYAVIY-HUQUQIY TAHLIL

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Annotatsiya

Ushbu maqola Finlandiya Respublikasida ijtimoiy adolat prinsipining konstitutsiyaviy-huquqiy asoslarini va amaliy ta'minlanishini tahlil qiladi. Tadqiqot IMRAD (Introduction, Methods, Results, Analysis, Discussion) formatida amalga oshirilgan bo'lib, Finlandiya konstitutsiyasi va ijtimoiy siyosatining ijtimoiy adolat prinsipini qanday ta'minlashini ko'rsatadi. Natijalar shuni ko'rsatadiki, Finlandiya ijtimoiy-demokratik model orqali yuqori darajadagi ijtimoiy tenglik va adolatni ta'minlashga muvaffaq bo'lgan.

Kalit so'zlar: ijtimoiy adolat, konstitutsiyaviy huquq, Finlandiya, ijtimoiy davlat, Nordik modeli

Аннотация

Настоящая статья анализирует конституционно-правовые основы и практическое обеспечение принципа социальной справедливости в Республике Финляндия. Исследование выполнено в формате IMRAD (Введение, Методы, Результаты, Анализ, Обсуждение) и демонстрирует, каким образом Конституция Финляндии и её социальная политика реализуют принцип социальной справедливости. Результаты показывают, что Финляндии удалось обеспечить высокий уровень социальной справедливости и равенства благодаря социально-демократической модели.

Ключевые слова: социальная справедливость, конституционное право, Финляндия, социальное государство, Скандинавская модель.



Abstract

This article analyzes the constitutional and legal foundations and the practical implementation of the principle of social justice in the Republic of Finland. The research is conducted in the IMRAD format (Introduction, Methods, Results, Analysis, Discussion) and demonstrates how the Finnish Constitution and social policy ensure the realization of the principle of social justice. The findings show that Finland has successfully achieved a high level of social equality and justice through its social-democratic model.

Keywords: social justice, constitutional law, Finland, welfare state, Nordic model.

Kirish

Ijtimoiy adolat zamonaviy davlatchilik nazariyasining markaziy tushunchalaridan biri hisoblanadi. Bu prinsip jamiyatdagi barcha a'zolarining o'z imkoniyatlari va ehtiyojlariga mos ravishda teng huquq va imkoniyatlarga ega bo'lishini nazarda tutadi. Konstitutsiyaviy huquq nuqtai nazaridan ijtimoiy adolat prinsipining ta'minlanishi davlatning asosiy vazifalaridan biri sifatida e'tirof etiladi. Finlandiya Respublikasi bu borada alohida e'tiborga sazovor. 1917-yil 6-dekabrda mustaqillikka erishgan Finlandiya XX asr davomida o'zining noyob ijtimoiy-siyosiy modelini yaratgan. Finlandiya konstitutsiyasi va qonunchilik tizimi ijtimoiy adolat prinsipini ta'minlashning samarali mexanizmlarini o'z ichiga oladi.

Metodologiya

Ushbu tadqiqot uchun bir qancha tahlil metodlari qo'llanilgan. Normativ-huquqiy hujjatlar tahlili, statistik tahlil, qiyosiy huquqiy tahlil va tizimli tahlil metodlaridan foydalanildi. Tadqiqot manbai sifatida Finlandiya konstitutsiyasi (1999), qonunchilik to'plami, parlament hujjatlari, davlat statistikasi va nufuzli ilmiy adabiyotlardan foydalanildi.

Natijalar

Finlandiya konstitutsiyasi (Finlex) 1-moddasida "Finlandiya suveren respublikadir. Finlandiya konstitutsiyasi ushbu konstitutsiyaviy hujjat asosida belgilanadi.



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Konstitutsiya inson qadr-qimmatining daxlsizligini, shaxs erkinligi va huquqlarini kafolatlaydi hamda jamiyatda adolatni ilgari suradi. Finlandiya tinchlik va inson huquqlarini himoya qilish, shuningdek jamiyatni rivojlantirish maqsadida xalqaro hamkorlikda ishtirok etadi”¹, jamiyatda adolatni targ‘ib qilishni maqsad qilib qo‘ygan bo‘lib, bu mamlakatning Nordik farovonlik davlati modeliga asoslanadi. Ushbu modelda davlat fuqarolar uchun ijtimoiy ta‘minot, ta‘lim va sog‘liqni saqlash xizmatlarini taqdim etish orqali tenglikni ta‘minlaydi.

Finlandiya o‘zining yuqori darajadagi ijtimoiy xizmatlari va tenglikka sodiqligi bilan dunyoda yetakchi hisoblanadi. Bundan tashqari Finlandiya Konstitutsiyasining 2-bobi aynan “Asosiy huquqlar va erkinliklar” deb nomlanadi. Ushbu bobda ijtimoiy adolat prinsipini ta‘minlab beruvchi bir qator moddalar mavjud. Finlandiya Konstitutsiyasining 6-moddasi qonun oldida tenglikni ifodalayd, kamsitishni taqiqlaydi va jinslar o‘rtasida tenglikni rag‘barlantiradi. Bu modda qonun oldida tenglikni kafolatlaydi, kamsitishni qat‘iy taqiqlaydi va ayniqsa jinslar o‘rtasidagi tenglikni faol ravishda rag‘batlantiradi. Ilmiy nuqtai nazardan, bu yondashuv ijtimoiy adolatning muhim ustunlaridan biri hisoblanadi. Tenglik konsepsiyasi nafaqat huquqiy, balki ijtimoiy va madaniy sohalarda ham barqaror jamiyat qurilishining poydevori sifatida ko‘riladi. Shuningdek, jinslar tengligini rag‘batlantirish jamiyatda ayollarning ijtimoiy va iqtisodiy faolligini oshirishga xizmat qilib, uzoq muddatli rivojlanish uchun zarur bo‘lgan inson kapitalini to‘liq jalb qilish imkonini beradi.

Biroq, ayrim tadqiqotchilar bu tenglikka erishish jarayonida yuzaga kelishi mumkin bo‘lgan murakkabliklarga e‘tibor qaratadilar. Masalan, formaldagi tenglikni ta‘minlash, amalda teng imkoniyatlarning yuzaga kelishini kafolatlamasligi mumkin. Shu sababli, konstitutsiyaviy kafolatlar bilan birga ijtimoiy siyosat va madaniy o‘zgarishlar ham muhimdir, chunki ularning uyg‘unligi yanada samarali tenglik tizimini yaratadi.

¹ Ministry of Justice, Finland. (2011). *The Constitution of Finland (731/1999, amendments up to 1112/2011)*. Retrieved from <https://www.finlex.fi/en/laki/kaannokset/1999/en19990731.pdf>



Bundan tashqari, Finlandiya Konstitutsiyasining boshqa moddalari ham ijtimoiy adolatni ta'minlashda xizmat qiladi. Jumladan, Finlandiya Konstitutsiyasining 16-moddasi ta'lim olishdagi teng imkoniyatlarni kafolatlaydi, 18-modda har bir fuqaroning erkin kasb tanlashi va mehnat qilish huquqini ta'minlaydi, 19-moddada nogironlik, ishsizlik va qarilik kabi holatlarda ijtimoiy ta'minotni kafolatlaydi.

Finlandiya ijtimoiy adolat borasidagi yutuqlari quyidagi statistik ma'lumotlarda namoyon bo'ladi:

- Gini koeffitsienti: 0.269 (2022-yil)
- Qashshoqlik darajasi: 6.5% (OECD o'rtacha 11.1%)
- Ijtimoiy xarajatlar YaIMga nisbati: 28.7%
- Inson rivojlanish indeksi: 0.940 (dunyo bo'yicha 11-o'rin)²

Ilmiy tadqiqotlar shuni ko'rsatadiki, ushbu ko'rsatkichlar o'zaro chambarchas bog'liq bo'lib, birgalikda jamiyatda ijtimoiy adolatni ta'minlashda muhim omil sifatida xizmat qiladi.

Finlandiyaning bu sohadagi tajribasi dunyo uchun namuna bo'lib, ijtimoiy siyosatni kompleks va integratsiyalashgan yondashuv orqali amalga oshirish zarurligini ko'rsatadi.

Muhokama. Nodrik modeli iqtisodiy tizimlarda o'zaro bog'liqlik va o'zgarishlarni tahlil qilish uchun ishlatiladigan muhim nazariy asoslardan biridir. Ushbu model, ayniqsa, resurslar taqsimoti, ishlab chiqarish va iste'mol jarayonlarining dinamikasi bilan bog'liq muammolarni hal qilishda qo'llaniladi.³ Biroq, uning samaradorligi va amaliy qo'llanilishi haqida turli qarashlar mavjud.

Nodrik modeli orqali jamiyatdagi turli guruhlar orasidagi o'zaro ta'sirlar, resurslar oqimi va ijtimoiy o'zgarishlarning vaqtga bog'liq dinamikasi tahlil qilinadi. Bu esa siyosatchilar va ijtimoiy faoliyat yurituvchilar uchun samarali strategiyalar ishlab chiqishda yordam beradi.

² OECD (2023). *Social Expenditure Database*. Paris: OECD Publishing. 11-p.

³ Evans, R. (2021). *Applications of dynamic system models in social and ecological systems*. Journal of Complex Systems, 12(3), 145-160.



Huquqiy nuqtai nazardan bu model jamiyatdagi tenglikni ta'minlashda qonunlar, normativ-huquqiy hujjatlar va siyosiy qarorlarning samaradorligini baholashda foydali vositadir. Nodrik modeli yordamida ijtimoiy guruhlar orasidagi huquqiy imkoniyatlarning taqsimoti, diskriminatsiya va tengsizlik holatlari tahlil qilinadi.⁴ Qonunlar va huquqiy islohotlarning jamiyatdagi ijtimoiy adolatga qanday ta'sir qilishi modellash orqali oldindan baholanadi. Model asosida ishlab chiqilgan prognozlar ijtimoiy adolatni ta'minlashga qaratilgan siyosatlarning samaradorligini oshirishga yordam beradi. Nodrik modeli ijtimoiy adolatni tizimli va ilmiy yondashuv bilan tahlil qilishda qulay bo'lsa, Rawls modeli axloqiy asosda adolatning mohiyatini belgilaydi.

Rawls ijtimoiy adolatni "adolatli taqsimot" va "eng kam imtiyozga ega bo'lganlarning manfaatlarini himoya qilish" orqali tushuntiradi. U adolatni tenglik va erkinlikni ta'minlash deb hisoblaydi, bunda asosiy e'tibor huquqiy va siyosiy institutlarning adolatli tuzilishiga qaratiladi.⁵ Bu model ko'proq normativ yondashuv bo'lib, amaliy siyosatga tatbiq etishda qiyinchiliklar tug'dirishi mumkin. Har ikki model o'zining kuchli va zaif tomonlariga ega. Amaliy siyosatlarda samaradorlikka erishish uchun ularni birgalikda qo'llash va integratsiyalash zarur. Shunday yondashuv ijtimoiy adolatga erishishda yanada puxta va samarali tizim yaratishi mumkin.

Xulosa. Finlandiya ijtimoiy adolat prinsipi ta'minlangan davlat hisoblanadi va Finlandiya Respublikasining Konstitutsiyasi ijtimoiy adolatni amalga oshiruvchi eng muhim richag hisoblanadi. Xulosa qilib aytganda, ijtimoiy adolatni chuqurroq va samaraliroq ta'minlash uchun Nodrik modelining tizimli, ilmiy yondashuvi bilan Rawlsning axloqiy va normativ printsiplarini integratsiyalash muhimdir. Ushbu birlashma amaliy siyosatlarni ishlab chiqishda yanada barqaror va adolatli natijalarga erishishga yordam beradi. Shuning uchun, zamonaviy ijtimoiy

⁴ Garcia, M. (2022). *Dynamic modeling of social equity and resource distribution*. Social Science Modelling Review, 20(1), 55-70p.

⁵ Rawls, J. (1971). *A Theory of Justice*. Harvard University Press.



tadqiqotlar va siyosatlarda ikki yondashuvning uyg'unligi yangi imkoniyatlar ochadi.

Foydalanilgan adabiyotlar ro'yhati.

1. Ministry of Justice, Finland. (2011). *The Constitution of Finland (731/1999, amendments up to 1112/2011)*. Retrieved from <https://www.finlex.fi/en/laki/kaannokset/1999/en19990731.pdf>
2. OECD (2023). *Social Expenditure Database*. Paris: OECD Publishing. 11-p.
3. Evans, R. (2021). *Applications of dynamic system models in social and ecological systems*. Journal of Complex Systems, 12(3), 145-160.
4. Garcia, M. (2022). *Dynamic modeling of social equity and resource distribution*. Social Science Modelling Review, 20(1), 55-70p
5. Rawls, J. (1971). *A Theory of Justice*. Harvard University Press. 16-17p.



**GIDROTEXNIKA INSHOOTLAR XAVFSIZLIGINI OSHIRISHDA REAL
VAQT REJIMIDA SUV TOSHQINIDAN OGOHLANTIRISH
TIZIMLARINING AHAMIYATI**

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Annatetsiya:

Ushbu maqolada Markaziy Osiyo gidrotexnik inshootlarida real vaqt rejimida suv toshqinlaridan ogohlantirish tizimlarining ahamiyati, ularning tarkibiy qismlari, amaliyotda qo'llanilishi va xavfsizlikni oshirishdagi roli tahlil qilinadi.

Kalit so'zlar: Gidrotexnik inshootlar, suv toshqini, ogohlantirish tizimi, real vaqt monitoring, xavfsizlik, SCADA, Markaziy Osiyo.

MODERN NOTIFICATION SYSTEMS.

Abstract:

This article examines the importance of real-time flood early warning systems in hydraulic structures of Central Asia, analyzing their components, practical applications, and role in improving safety

Key words: Hydraulic structures, flood, warning system, real-time monitoring, security, SCADA, Central Asia.



СОВРЕМЕННЫЕ СИСТЕМЫ УВЕДОМЛЕНИЯ.

Аннотация:

В статье рассматривается значение систем раннего предупреждения о наводнениях в реальном времени на гидротехнических сооружениях Центральной Азии, их компоненты, практическое применение и роль в повышении безопасности.

Ключевые слова: Гидротехнические сооружения, наводнение, система оповещения, мониторинг в реальном времени, безопасность, SCADA, Центральная Азия.

Kirish

O'zbekistonda va umuman Markaziy Osiyoda suv resurslari gidrotexnik inshootlar orqali boshqariladi. So'nggi yillarda iqlim o'zgarishi, muzliklarning erishi va ekstremal ob-havo hodisalari oqibatida toshqin xavfi keskin oshdi. Aholi zich joylashgan hududlarda joylashgan suv omborlari va GESlar xavfsizligini ta'minlash – dolzarb muammolardan biridir. Ushbu maqolada real vaqt rejimida ogohlantirish tizimlari, ularning ishlash mexanizmlari va amaliy ahamiyati tahlil qilinadi. Hozirda O'zbekiston Respublikasi xududidagi Gidrotehnika inshootlarining aksariyatida halokatli suv toshqini xaqida yoki uning yuz berishi mumkinligi to'g'risida oldindan xabar berish (ma'lumot) axborot yetkazish (ФСОИ и СКУВ) xabar berish tizimi bo'yicha jixozlangan.

Asosiy qism:

Real vaqt rejimida ogohlantirish tizimlari (RTWS – Real-Time Warning Systems) quyidagilarni o'z ichiga oladi:

- Datchiklar va o'lchov qurilmalari (suv sathi, oqim tezligi, yog'ingarchilik miqdori);
- Ma'lumotlarni uzatish tarmog'i (GSM, GPRS, radio);
- Markaziy boshqaruv tizimi (masalan, SCADA);
- Mahalliy ogohlantirish vositalari (sirena, SMS, mobil ilovalar).

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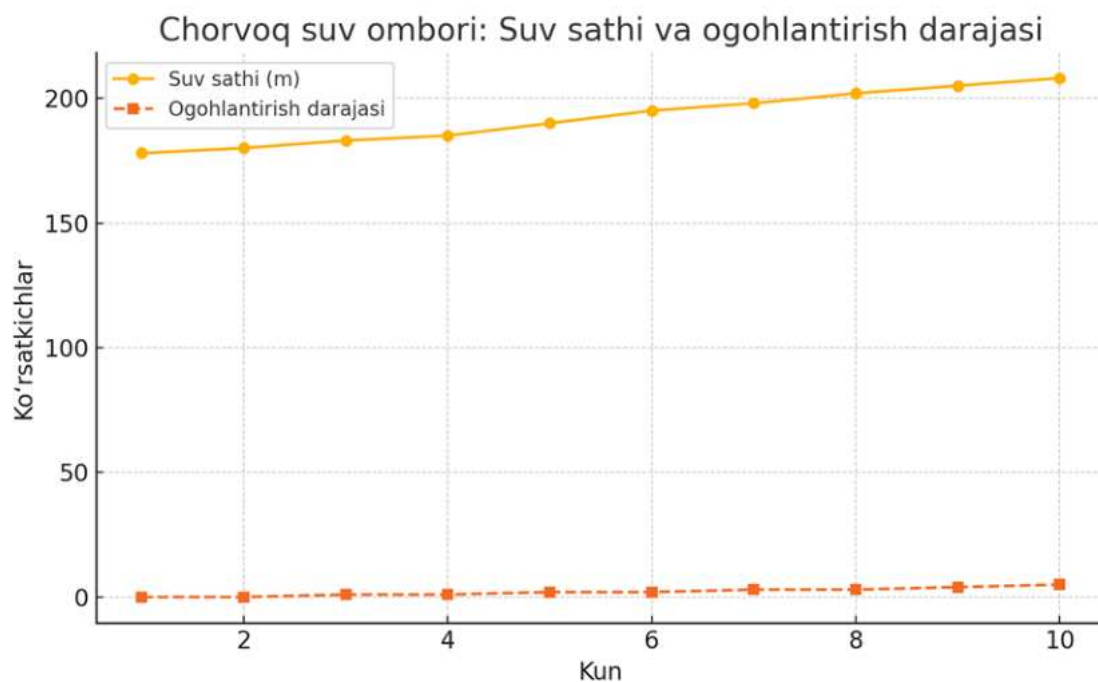
Markaziy Osiyoda yirik suv omborlari quyidagilar:

- Tojikiston: Norak suv ombori
- Qozog‘iston: Kapchagay suv ombori
- Qirg‘iziston: Toktogul suv ombori
- O‘zbekiston: Chorvoq, Tuyamuyin, Andijon

Misol: Chorvoq suv omborida 2021-yilda real vaqtli monitoring tizimi o‘rnatilgach, suv sathidagi erta ogohlantirishlar soni 2 baravar oshgan.

Bu esa 5 mingga yaqin aholining evakuatsiyasini oldindan rejalashtirishga imkon berdi.

Chizma: Suv sathi va ogohlantirish darajasi:



Ushbu grafikda ko‘rishimiz mumkun:

1–3 kun: Suv sathi 178–183 m oralig‘ida, xavf darajasi yo‘q yoki minimal (0–1 ball)

4–6 kun: Suv sathi 185–195 m oralig‘ida, ogohlantirish darajasi 1–2 ballgacha oshgan

7–10 kun: Suv sathi 198 m dan 208 m gacha ko‘tarilgan — bu yuqori xavf darajasi bo‘lib, 4–5 ball ogohlantirishni talab qiladigan.



Xulosa:

Yuqoridagi tahlillar shuni ko'rsatadiki, real vaqt rejimida ogohlantirish tizimlari nafaqat texnologik, balki ijtimoiy xavfsizlikni ta'minlashda muhim rol o'ynaydi. Ular gidroinshootlarning monitoringini optimallashtirish, favqulodda vaziyatlarni oldindan aniqlash, evakuatsiya va zaxira rejalarini yaratish imkonini beradi. Kelgusida bunday tizimlarni barcha yirik suv omborlariga joriy etish maqsadga muvofiq.

FOYDALANILGAN ADABIYOTLAR

1. UNDRR. (2020). Early Warning Systems for Flood Risk Васина Мария Александровна «УСОВЕРШЕНСТВОВАНИЕ ОБЩЕРОССИЙСКОЙ КОМПЛЕКСНОЙ СИСТЕМЫ ИНФОРМИРОВАНИЯ И ОПОВЕЩЕНИЯ НАСЕЛЕНИЯ В МЕСТАХ МАССОВОГО ПРЕБЫВАНИЯ ЛЮДЕЙ (ОКСИОН)» Санкт-Петербург 2020
2. Tillayev Sh.A “GIDROTEHNIKA INSHOOTLARIDA XALOKATLI SUV TOSHQINLARIDAN AXOLIGA VA YUQORI TASHKILODLARGA XABAR BERISH TIZIMI” Bugungi yoshlar uchinchi renesans poydevori qurmoqda AGRO ILM maxsus son [82] 2022 y
3. O'zbekiston Respublikasi Favqulodda vaziyatlar vazirligi. (2023). Suv omborlaridagi xavfsizlik choralari.
4. World Bank. (2022). Real-Time Hydrological Monitoring in Central Asia
5. . . Asia Development Bank. (2021). Water Infrastructure Risk Assessment in Central Asia.
6. Hidrometeorologiya xizmati agentligi (Uzgidromet) statistik hisobotlari, 2018–2023



ИНТЕГРАЦИЯ ПРАКТИЧЕСКИХ ЗАНЯТИЙ И ПРОЕКТНОЙ ДЕЯТЕЛЬНОСТИ ПРИ ОБУЧЕНИИ ИСПАНСКОМУ ЯЗЫКУ

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АННОТАЦИЯ

В данной статье рассматриваются возможности интеграции практических занятий и проектной деятельности в процессе обучения испанскому языку. Автор подчеркивает значимость проектных методов в развитии коммуникативных, творческих и аналитических навыков студентов. Анализируются эффективные формы организации учебного процесса, способствующие активному участию учащихся и применению изученного материала в реальных коммуникативных ситуациях. Особое внимание уделяется роли преподавателя в координации проектной работы и поддержании мотивации студентов.

Ключевые слова: испанский язык, практические занятия, проектная деятельность, коммуникативные навыки, студенческая активность, инновационные методы

ВВЕДЕНИЕ

В современном образовательном пространстве особое внимание уделяется активным и интерактивным методам обучения, направленным на развитие практических и коммуникативных навыков учащихся. Одним из наиболее эффективных подходов в обучении иностранным языкам, в частности испанскому, является интеграция практических занятий с проектной деятельностью. Такой подход позволяет не только усвоить языковой материал, но и применять его в реальных и смоделированных ситуациях общения, что способствует формированию устойчивых речевых умений и межкультурной компетенции.



Проектная деятельность активизирует мыслительную деятельность студентов, развивает их креативность, самостоятельность и ответственность за результат. Практические занятия, в свою очередь, обеспечивают систематическое закрепление лексико-грамматических навыков и развитие языковой интуиции. Интеграция этих двух компонентов в учебный процесс позволяет создать благоприятные условия для комплексного освоения испанского языка и повышения мотивации к его изучению.

Цель настоящей статьи — проанализировать возможности и преимущества интеграции практических занятий и проектной деятельности в преподавании испанского языка, а также предложить рекомендации по их эффективному использованию в образовательной практике.

ОСНОВНАЯ ЧАСТЬ

Интеграция практических занятий с проектной деятельностью при обучении испанскому языку позволяет превратить традиционное изучение лексики и грамматики в живой, увлекательный процесс, ориентированный на реальные коммуникативные цели. Ниже представлены эффективные подходы и примеры их применения на практике.

Один из эффективных методов — организация тематических проектных уроков, где студенты работают в группах и создают мини-проекты, связанные с испаноязычной культурой. Например, после изучения темы “Праздники в Испании и Латинской Америке”, обучающиеся разрабатывают интерактивные презентации, оформляют культурные уголки, подготавливают короткие сценки или даже кулинарные мастер-классы, проводимые на испанском языке.

На практических занятиях особую роль играют симуляции жизненных ситуаций. Например, после освоения лексики по теме “Путешествие”, студенты разыгрывают диалоги в аэропорту, в гостинице или в туристическом агентстве. При этом используется реальная атрибутика: распечатанные билеты, карты метро, меню кафе, буклеты с достопримечательностями.

Проектная деятельность эффективно дополняется созданием собственных медийных продуктов. Например, студенты записывают видеоблоги или подкасты на испанском языке, в которых рассказывают о



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повседневной жизни, интересах или делятся рецептами национальных блюд. Такие задания способствуют развитию не только языковых, но и цифровых навыков.

Современные технологии позволяют интегрировать в занятия онлайн-платформы и мобильные приложения. Один из примеров — использование Padlet или Canva для совместного создания постеров на испанском языке. Темы могут варьироваться: от «Советы туристу в Мадриде» до «10 причин выучить испанский». Это развивает визуальное мышление и активное применение изученного материала.

Особое внимание следует уделять ролевым играм с элементами импровизации. Например, проект "Испанское кафе", где каждый студент получает роль (официант, клиент, шеф-повар) и взаимодействует с другими в полностью испаноязычной среде. Такие занятия повышают спонтанность речи и уверенность в использовании языка в реальном времени.

Интеграция креативного письма также даёт положительный результат. После просмотра короткометражного фильма или прочтения рассказа на испанском языке студенты пишут собственное альтернативное продолжение или сочиняют письма от имени персонажей. Это развивает критическое мышление и письменную речь.

Регулярные мини-проекты могут быть связаны с созданием интерактивных лексических карт, комиксов, коллажей, видеоинтервью или даже мини-экскурсий по родному городу — но всё это на испанском языке. Например, студенты снимают видеоэкскурсию по Ташкенту, рассказывая о достопримечательностях, как если бы они были гидами для туристов из Испании.

Креативные и практические примеры интеграции занятий и проектов по испанскому языку



Форма работы	Краткое описание	Практическое воплощение
Проект "Испанский праздник"	Изучение испаноязычных традиций через проектную работу	Студенты создают мини-сценки, оформляют стенгазету, готовят блюда и рассказывают о празднике на испанском языке
Ролевая игра "Туристическое агентство"	Практика лексики путешествий	Один студент — агент, другой — клиент; используют флаеры, карты, билеты и бронируют «тур» на испанском языке
Видеоблог "Мой день на испанском"	Развитие разговорной и цифровой грамотности	Студенты записывают короткие видео о своём дне, используя повседневную лексику
Проект "Испанское кафе"	Интерактивная импровизация	Урок превращается в кафе: одни студенты — клиенты, другие — официанты, общение только на испанском
Создание подкаста	Развитие устной речи и креативности	Студенты записывают аудио-интервью или беседу на заданную тему, например: «Любимые фильмы», «Хобби»
Онлайн-доска Padlet/Canva	Совместное создание визуальных материалов	Создание постеров: «Говори по-испански легко!», «10 слов о путешествиях» — с картинками и подписями
Флеш-карта "Живой словарь"	Интерактивное повторение лексики	Студенты делают карточки с новыми словами и иллюстрациями, разыгрывают ситуации с их использованием
Мини-экскурсия "Мой город"	Применение языка в реальном контексте	Съёмка видео-экскурсии по городу, где студент рассказывает о достопримечательностях на испанском
Кулинарный мастер-класс	Практика императива и рецептурной лексики	Студенты готовят блюда латиноамериканской кухни, комментируют процесс приготовления на испанском
Комиксы на испанском языке	Развитие письменной и визуальной грамотности	Создание комиксов по сюжетам известных сказок или повседневным ситуациям, с испанскими репликами

ЗАКЛЮЧЕНИЕ

Интеграция практических занятий и проектной деятельности в процесс обучения испанскому языку открывает широкие возможности для формирования у студентов прочных языковых навыков, повышения



мотивации и развития межкультурной компетенции. Такие подходы позволяют не только овладевать лексикой и грамматикой в теоретическом плане, но и активно применять изученное в реальных и смоделированных ситуациях общения.

Практическая направленность обучения, дополненная элементами творчества и самостоятельной работы, способствует формированию у студентов уверенности в использовании испанского языка, а также развивает критическое мышление, умение работать в команде и ответственность за результат. Креативные формы организации занятий, включая ролевые игры, видеопроекты, подкасты и интерактивные задания, делают учебный процесс живым и насыщенным, способствуя более глубокому и устойчивому усвоению материала.

ИСПОЛЬЗОВАННАЯ ЛИТЕРАТУРА

1. Тошева, Д. А. *Chet tillarni o'qitishda innovatsion texnologiyalar*. – Тошкент: O'qituvchi, 2021.
2. Юнусова, М. М. *Chet tilini o'qitishda kommunikativ yondashuvning nazariy va amaliy asoslari*. – Тошкент: Fan, 2020.
3. Абдуллаева, З. Х. *Zamonaviy dars va interaktiv metodlar*. – Самарканд: SamDU nashriyoti, 2022.
4. Эргашева, Н. И. *Oliy ta'limda xorijiy til o'qitishning uslubiy asoslari*. – Тошкент: Innovatsiya, 2019.
5. Нурмухамедова, Д. У. *Chet tilini o'rgatishda axborot-kommunikatsion texnologiyalar*. – Тошкент: Ilm Ziyο, 2023.