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INAPPROPRIATE USE OF COHESIVE DEVICES IN WRITING AND EFFECTIVE SOLUTIONS TO THIS PROBLEM

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ABSTRACT

This article deals with inadequate, inaccurate or inappropriate use of cohesive devices in IELTS writing, problems arising from this for the test takers and its effect on the writing score. Additionally, a detailed information and explanation about coherence and cohesion of writing will be highlighted. They will be supported with solid reasons as well as examples.

Keywords: writing, coherence and cohesion, linking words, wrong form, informal linking words, types, marking, problems, solutions.

These days, test takers in IELTS exams are struggling to score highly in Writing section, which is considered as by far the most difficult skill to acquire. The core reasons to this predicament are varying, as writing mainly focuses on 4 skills, namely task response, coherence and cohesion, lexical resource, grammatical range and accuracy, and so candidates may have problems associated with one of these skills. One of the most challenging skill to acquire among them is associated with employing cohesive devices or linking words effectively with precision in writing essays. In this article, the importance of coherence and cohesion for writing will be explained fully with its definition, primary problems related to this for language learners will be highlighted as well as reasonable ways to address these issues will be suggested.

To start, the main difference between two concepts, **cohesion** and **coherence**, should be clarified. Firstly, **cohesion** is related to grammar and style of connecting sentences with each other. It is mainly about using different types of linking devices in order to connect sentences. On the other hand, **coherence** is associated with the logical connection or organization of the ideas in an essay, as it mainly focuses on meaning and idea progression.

As for problems associated with the use of cohesive devices, main ones ought to be highlighted:

1. The first primary one is **overusing cohesive devices**. To be more specific, in order to score highly in this assessment criteria, test takers try to employ as many linking words as

possible. It, as a consequence, leads illogical linking between sentence parts and redundancy, which lowers score.

2. Secondly, **picking the wrong cohesive device** as a result of confusing types is quite common problem among language learners. There are several types of transitional words according to their meaning and English learners often make mistakes by mixing up various types of these devices. For example, in the sentence given below, cohesive device is not used appropriately:

a) Unless amateurs of doing hazardous sports have enough training or experience in these fields, it may bring negative consequences. **Because** restricting these activities prevent people from putting their life in unnecessary danger.

The problem here is associated with the use of “*because*” which is not really appropriate. The second sentence is not a reason of the first. There is a connection between two sentences but the second part gives a result to support the idea in the first part. To fix this problem, it should be corrected as:

b) Unless amateurs of doing hazardous sports have enough training or experience in these fields, it may bring negative consequences. **Therefore**, restricting these activities prevent people from putting their life in unnecessary danger.

3. The next problem is **changing the form** of these linking devices. The reason why is that, candidates often want to employ them creatively and alters the form which causes them using these parts of speech in an incorrect way. A prime example will be given below:

a) **In conclusion** – to be conclusion;

b) **For example** – for examples.

The second pairs of these words are totally incorrect.

4. Another major problem is employing **informal or outdated linking words**. Test takers often want to impress examiners with use of uncommon or special words to connect sentences, which lowers their score instead. For instance:

a) **Finally** – last but not least;

b) **Nevertheless** – anyway;

c) **Firstly** – for a start.

The second pairs of these devices are the examples for informal use of linking words.

There are many **viable solutions** to address these issues.

1. Linkers are used in order to develop ideas, in this case, they should not be used if ideas flow well. Instead of relying on using a lot of transitional phrases, test takers ought to employ linking words to convey different relationship between ideas when they are necessary. Also, the reliance on linking phrases can be eliminated and clarity in essay will be prioritized by mixing up different sentence structures.

2. Linking words have various functions according to their meanings and language learners often cannot differentiate them when they are using in essays. Only reasonable way to tackle this problem would be a deeper look into types of linking phrases and learning them:

a) **General explaining:** *in order to, in other words, to put it another way, to be more specific, simply put;*

b) **Adding information:** *moreover, furthermore, additionally, also, not only ..., but also, apart from this, in addition to this;*

c) **Showing order:** *firstly, secondly, thirdly, finally, subsequently, at this time, following;*

d) **Demonstrating contrast:** *however, on the other hand, having said that, by contrast, in comparison, yet, nonetheless, nevertheless, despite this, while;*

e) **Giving examples:** *for example, for instance, a prime example is that, take something as an example, such as, namely;*

f) **Signifying importance:** *importantly, significantly, notably,*

g) **Showing result:** *consequently, as a result, as a consequence, therefore, hence, thus;*

h) **Showing reason:** *because, the reason why is that, since, as, due to, because of;*

i) **Summarizing:** *in conclusion, to sum up, in opinion, to summarize, to conclude.*

Being able to distinguish the difference between each of these linking devices allows test takers to use them consciously.

3. Different types of cohesive devices should be employed without changing their forms. Standard forms of them ought to be used while writing essays, which provides clarity and appropriacy.

4. In essays, informal words should not be employed, as it affects the score negatively. Therefore, candidate must avoid using informal linking devices, such as: “*honestly, I mean, in any case, after all*”, these kinds of informal ones are used only in speaking, not in writing.

All of these mentioned solutions ought to be employed in order to score highly in this marking criteria, as band descriptors demand those requirements, for example:

Band 7: *information and ideas should be logically organized; a wide-range of cohesive devices should be employed appropriately, but there may be some under-/over-use.*

To summarize, one of the most significant skills for getting a high score in IELTS writing is associated with the employment of different cohesive devices or linking phrases with appropriacy and precision. However, candidates often struggle with using them in

a correct way, as language learners are likely to make mistakes and face with numerous problems, namely overusing, choosing the wrong type, altering the form and using informal ones. All of the root causes of these issues are analyzed above with explanations and solid examples. Moreover, practical solutions and recommendations are provided for addressing these problems, such as using linking words neutrally, being informed about all types of cohesive devices with their own meanings, employing standard forms without alterations and avoiding the usage of outdated or informal ones. If language learners go through all mentioned steps one by one in learning process, there is a high likely for them to score highly in this specific marking without any problem.

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BIOKIMYONI INNOVATSION O'QITISHNING O'ZIGA XOSLIKLARI**Raxmatillo Raximovich Shexov**

Chirchiq davlat pedagogika universiteti

ANNOTATSIYA

Maqolada pedagogika universitetlarida biokimyoni o'qitish hozirgi kunda kimyogarlar va biologlarni tayyorlashning dolzarb muammolaridan biriligi asoslab berilgan. Shuning sababli an'anaviy shaklda biokimyoni o'qitishda vaziyatni sezilarli darajada yaxshilash uchun qo'shimcha elementlarni kiritish zarurati paydo bo'layotganligi aytib o'tilgan, o'qitishning barcha bosqichlarida pedagogik vaziyat vazifalaridan foydalanish, biokimyo kursini takomillashtirishi va bunda zamonaviy kompyuter texnologiyalarini joriy etish yanada imkoniyatlarni oshishiga olib kelishi keltirib o'tilgan.

Kalit so'zlar: biokimyo, o'qitish, vaziyatli vazifalar, kompyuter texnologiyalari.

ABSTRACT

The article proves that teaching biochemistry in pedagogical universities is one of the urgent problems of training chemists and biologists today. Therefore, in teaching biochemistry in the traditional form, there is a need to introduce additional elements to significantly improve the situation, use the tasks of the pedagogical situation at all stages of training, improve the biochemistry course and introduce modern computer technologies into it.

Keywords: biochemistry, training, situational tasks, computer technologies.

KIRISH

Organizmlar ma'lum bir tuzilish va funktsiyaga ega bo'lgan tirik mavjudotlardir. Ular bir hujayrali yoki ko'p hujayrali bo'lishi mumkin va ularni suv, tuproq, havo va hatto boshqa organizmlar ichidagi turli muhitlarda topish mumkin [1].

Organizmlar mikroskopik bakteriyalardan tortib ulkan daraxtlar va hayvonlargacha turli o'lcham va shakllarda bo'lishi mumkin. Ular, shuningdek, emaklash va suzishdan tortib uchishgacha bo'lgan turli xil harakat usullariga ega bo'lishi mumkin [2].

Organizmlar avtotrofik yoki heterotrofik bo'lishi mumkin. Avtotrof organizmlar quyosh nuri yoki kimyoviy reaksiyalardan



Ijodiy va moslashuvchan shaxsni shakllantirish uchun o'qitishning turli shakllari va usullari qo'llaniladi[15].

Universitetda talabalarni nazariy fanlarni o'qitish boshlang'ich kurslarida olib boriladi, ulardan biri biologik kimyo fani hisoblanadi. Biokimyoviy reaksiyalarni, metabolik xalqalarni, tartibga solishning nozik tomonlarini o'rganish qiyinligi, shuningdek, fermentlar va metabolitlarning ko'pchiligini nomlanishi uzunligi bilan talabalarni toliqtiradi. Biokimyo, boshqa ko'plab murakkab fanlar singari, "haqiqiy" biologiyani o'rganishni boshlash uchun engib o'tish, imkon qadar tezroq o'tish va unutish kerak bo'lgan keraksiz va qiyin to'siqning soxta imidjiga ega. Shu sababli, o'qituvchi oldida qiyin fikriy to'siq turibdi: bir tomondan, o'quv jarayonini pedagogik tamoyillar va usullarga muvofiq olib borish, boshqa tomondan, talabalarni hayotning asosini tashkil etuvchi jarayonlarni chuqur tushunishga undash. Yaxshi o'qituvchi oldidagi vazifa o'rganilgan materialni passiv ravishda ko'paytirishdan uni samarali o'zlashtirish va mustahkamlashga aylantirish uchun talabalar faoliyatini uyg'otishi kerak bo'ladi[16].

O'qituvchi va talabalarining pedagogik o'zaro uyg'unligi deb nomlanuvchi ushbu jarayon quyidagi bosqichlarni o'z ichiga oladi:

- pedagogik kirishuv;
- pedagogik ta'sirni faol idrok etish;
- ma'lumotni o'zlashtirish, uning individuallasuvi;
- talabaning o'z faoliyati, bu talabaning o'ziga va o'qituvchiga bo'lgan munosabati va ta'sirida namoyon bo'ladi.

Ma'lumotni assimilyatsiya qilishni osonlashtirish o'rganilayotgan materialning tuzilishini aniqlash va elementlar o'rtasidagi munosabatni topishga yordam beradi, bu o'qitishda uzluksizlik, izchillik va sistematikaning didaktik printsiptiga misoldir. Ushbu printsiptga rioya qilgan holda, o'qituvchi bir qator didaktik qoidalardan foydalanishi zarur:

- talabalar tomonidan ilgari o'rganilgan bilimlarga tayanishi;
- mavzulararo bog'liqlikni hisobga olishi, buning natijasida siz xuddi shu masalani boshqa yaqin fan tomonidan ko'rib chiqish tabiati to'g'risida oldindan qaror qabul qilishingiz mumkin.

Biologik kimyoni o'qitishda ushbu printsipt va yondashuv o'qitish kursiga yangi pedagogik elementlarni kiritishda qo'llaniladi. Zamonaviy biokimyoviy ma'lumotlarga ega bo'lish har doim ham talabaning o'quv faoliyatini osonlashtirmaydi, balki o'quv fanining mavjud tuzilishini hisobga olgan holda bilimlarni tushunish va shakllanishida o'qituvchining yordamini talab qiladi.

Ushbu ishning maqsadi o'quv materialini o'zlashtirishni osonlashtirish va kelajakdagi biolog-o'qituvchining malakasini shakllantirish uchun murakkab o'quv ma'lumotlarini faol ravishda taqdim etishning pedagogik usullari va shakllariga misollar ko'rsatishdan iborat.

Biokimyodagi eng qiyin mavzulardan biri bioenergetik mexanizmlar, xususan, mitoxondriyal nafas olish zanjirining (NOZ) ishlashidir. Darsliklarda va ma'ruzalarda taqdim etilgan materiallar talabalar tomonidan ushbu muhim mavzuni chuqur tushunish va sifatli o'zlashtirishni ta'minlamaydi. Biokimyo bo'yicha amaliy mashg'ulotlarda "mitoxondriyaning nafas olish zanjiri"simulyatsiya-rolli o'yini o'tkaziladi. Talabalar NOZ tarkibiy qismlari rolini o'ynaydilar, o'yin hissiy jihatdan o'tadi. Shu bilan birga, bioenergiyaning asosiy printsiplari qat'iy va uzoq vaqt esda qoladi va o'rganiladi.

Murakkab mavzuning yana bir misoli lipoprotein metabolizmidir. Bu erda ham o'yin usulini qo'llash tavsiya etiladi. Bizning kafedramizda "lipoprotein metabolizmi"taqlid-rol va mavzu o'yinlari qo'llaniladi. Ikkinchi holda, talabalar lipoprotein komponentlari paketlarini manipulyatsiya qilib, metabolizm tamoyillarini, lesitin-xolesterin asil-transferaza fermentlarining rolini, B100, B48 apobelk retseptorlarining Lipo - proteidlipazasini aniqroq tushunadilar.

Innovatsion element tabiiy ravishda mavzu tarkibiga faqat allaqachon o'rganilgan va o'rganilgan material bilan bir nechta fanlararo aloqalar mavjud bo'lganda kiritiladi. Masalan, "tig omilining (TP53 Inducer of Glycolysis and Apoptosis Regulator) uglevod metabolizmini tartibga solishdagi roli" o'quv elementi biokimyo kursida konsolidatsiya qiluvchi komponent bo'lib chiqdi: ushbu ma'lumotni o'zlashtirishda talabalar biokimyo kursining ilgari o'rganilgan elementlarini takrorlaydilar va eslaydilar.

XULOSA

Shunday qilib, kognitiv qiziqishni faollashtirish va o'quv faoliyati samaradorligini oshirishga qaratilgan darslarni o'tkazishning yangi usullari va shakllaridan foydalangan holda va materialni stereotipik, passiv etkazib berishdan uzoqlashishda talabalar tomonidan murakkab mavzularni o'zlashtirishni osonlashtirish mumkin. Mavjud tibbiy ta'lim tizimi axborot hajmining o'sishiga, uning tuzilishi va funktsiyalarining o'zgarishiga moslashishga ulgurmaydi va tayyor bilimlarni uzatish va o'zlashtirishga qaratilgan yondashuvlar tez o'zgarib borayotgan dunyoda muvaffaqiyatli va malakali mutaxassisni tayyorlashga imkon bermaydi. Biokimyo kursiga innovatsion shakl va usullarni joriy etish bir vaqtning o'zida bir nechta muammolarni hal

qilishga imkon beradi:

- o'rganilayotgan materialning yangiligi va uni taqdim etishning g'ayrioddiy shakli ta'siri asosida talabalarning bilim jarayonini faollashtirish;
- talabalarda yaxlit kontseptual ilmiy dunyoqarashni shakllantirish;
- talabalarni mustaqil ijodiy izlanishga va yangi materialni o'zlashtirishga undash;
- pedagogika sohasida malakali mutaxassisni(o'qituvchi-biologlarni) tarbiyalash uchun zarur shart-sharoitlarni shakllantirish shular jumlasiga kiradi.

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ҚАРДОШ ҚОЗОҚ-ЎЗБЕК ХАЛҚЛАРНИНГ МЕҲМОНДЎСТЛИК ВА КЕЛИНЛИК ОДОБИГА ДОИР АНЪАНАЛАРИНИНГ ЭТНОГРАФИК ТАВСИФИ

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АННОТАЦИЯ

Мақолада туркий халқлар қаторидаги қозоқ ва ўзбек халқларининг урф-одатларидаги умумийлик ва ўзига хосликлари, уларнинг этнографик, лексикографик тавсифи ҳар томонлама баён этилган. Ҳар икки халқнинг турмуш тарзи, меҳмондўстликка оид этнографизмлар, ўзбек халқи удумларидан фарқли уларок “Ат тергеу” (келиннинг куёв томонига тегишла одамларининг исмларини тўғри атамаслиги) каби табунинг элементлари, келин саломининг қўлланиладиган жойлари ва фарқли жиҳатлари қиёсий таҳлилга тортилади

“Бизнинг халқларимиз қадим замондан тинчликда ва муросада, бир бирини қўллаб-қувватлаган ҳолда яшаб келмоқда. Икки томонлама муносабатларни қўллаб-қувватлашда ва икки халқларнинг янада яқинлашувида мамлакатларимизда яшовчи кўплаб қозоқ ва ўзбек диаспоралари муҳим роль ўйнамоқда, улар учун миллий маданият, тил ва анъаналарини ривожлантириш учун қулай шароитлар яратилган. Миллий-маданий марказлар фаолият олиб бормоқда, ўзбек ва қозоқ тилида таълим берувчи мактаблар ишляпти, қозоқ ва ўзбек тилларида газета ва журналлар чоп этилмоқда. Қозоғистондаги олий ўқув муассасаларида 14 мингдан зиёд Ўзбекистонлик талабалар таҳсил олмоқда”, – дея таъкидлайди Ўзбекистон Республикасининг президенти Ш.М.Мирзиёев [1,1].

АДАБИЁТЛАР ТАҲЛИЛИ ВА МЕТОДОЛОГИЯ

Ҳа, жуғрофия бизни яқин қўшни қилиб қўйди, тарих бизни биродарларга айлантди. Шу сабабли бу иккала миллатнинг турмуш тарзида, тилида, адабиёти ва маданиятида умумий жиҳатлар кўплаб учрайди [8,2958]. Шунингдек, қозоқ ва ўзбек халқининг меҳмондўстлик қадриятларида ҳам умумий жиҳатлари мавжуд. Қозоқ тилида *қонақ -қўн* феъли билан **-ақ** от ясовчи қўшимча орқали ясалган уйга қўниб, ётиб кетадиган меҳмон маъносини англатган. Меҳмон тушунчаси бевосита кут билан боғланган.

ҚУТ – кўп маъноли категория бўлиб, рисқи, насиба, мўл-кўлчилик маъноларини англатади-. Меҳмоннинг оёғи қутли бўлишини яхшиликка йўйиб, хонадонга қувонч ато этиб келган меҳмонни *қутли меҳмон*, *Ақжолтай қонақ* [2,86, 148, 152-б] дея эъзозлаган. *Қырықтың бірі –қыдыр* (Қидир бобо)деб меҳмонга иззат икром кўрсатган. Меҳмондўстликка оид “*Қонақ келсе есіктен, ырыс келер тесіктен*», «*Қонақ аз отырады, көп сынайды*», «*Келгенше қонақ ұялады, келген соң қонақ иесі ұялады*», «*Шақырған жерге бар, шақырмаған жерде не бар*», «*Шақырылмаған қонақ сыпырылмаған жерде отырады*», «*Жаман үйді қонағы билейді*», «*Қонақ қойдан жуас*» каби қатор мақолларни мисолга келтиришимиз мумкин. Ўзбек халқи ҳам меҳмондўст халқлардан биридир. Жамиятнинг ўзаро алоқасини мустаҳкамловчи асосий омиллардан бири бу мўмин дўст биродарлар бир-бирларини зиёрат қилишлари, яъни меҳмоннавозлик. Ўзбек халқи ҳам азалдан меҳмондўст халқ. Таниш-нотаниш меҳмонларга очиқ юзлилик билан уйининг тўрини мухайё қилади, турли-туман таомлар тайёрлаб, меҳмоннинг кўнглини овлайди .»*Меҳмонли уй –баракали уй*» деган мақол қон-қонимизга сингиб кетган [3,1]. Зиёфат, яъни меҳмоннавозлик ва меҳмон кутиш олийжаноб хулқлардан бўлиб, фозил кишилар бу нарсага қадим-қадимдан бери амал қилиб келадилар. Халқимиз меҳмондўстлиги, меҳмоннавозлиги билан шуҳрат қозонган. Бирор ўзбек хонадони, оиласи йўқки, меҳмонни хурсандчилик билан кутиб олмаган, уйдаги бор неъматларни дастурхонга келтириб тўкмаган бўлса. “*Меҳмон – отангдан улуг*”, “*Меҳмон келар эшикдан, ризқи кирар тешикдан*”, “*Меҳмон олдида ҳатто мушугингни пишт дема*” каби мақол ва ҳикматлар бежизга айтилмаган. Меҳмон уйга кириб келиши билан қўлларини ёйиб, “*Тинчлик, хотиржамлик бўлсин*”, “*Ҳамиша тўйхона бўлсин*”(қозоқ халқида йўқ,овқатдан сўнг фотиҳа беради) деб фотиҳа беради.

Меҳмондустлик ажойиб ҳислат бўлиб, одамлар ўртасидаги дўстлик, биродарлик ришталарини мустаҳкамлашга ҳизмат қилади ўзини комил иймонлилардан деб ҳисоблаган ҳар бир киши меҳмонини икром қилмоғи лозим [4, **10-11-б**]. Қозоқ халқидаги “*Кеңге кең дүние, тарға тар дүние*», «*Үйің тар болса да пейілің кең болсын*», «*Бидай наның болмаса да, бидай сөзің жоқ па еді?*» каби мақол ва иборалари ўзбек халқининг «*Меҳмонхонанг тор бўлса ҳам меҳру дилинг кенг бўлсин*» деган мақоллари билан маънодош бўлиб турибди, чунки ғоя бир, қадрият ўхшаш, удумларнинг умумийлигидир [4].

Қозоқ халқида: “*Таңғы астан қалдырма, түскі асқа телмірме, кешкі асты бақпа* “ деган ибора бор, яъни нонуштани меҳмон билан баъхам кўриш, тушликни кутиб

ишдан қолиб кетмаслик, кечки овқатга қолиб, манзилига ета олмай қолмаслик ҳамда пархез сақлаш масалалари кўзда тутилган. Кейин “*Тўски асқа тўстик жерден қонақ келеди*» деб тушликка кутилмаган меҳмон келиб қолиш ихтимолини ҳисоблаб овқатни кўпроқ тайёрлашни маслаҳат беради. Ҳалқимиз ҳечқачон уйга келган меҳмонни таъм тотирмасдан қўйиб юбармайди, иккинчи томонидан бу таомнан улуғ нарса йўқ деган қарашларни ва таомни ҳурмат қилишни билдиради. *Қуёс ўйден қўр шықпа* деганларидек, қозоқларда ҳеч бўлмаганда нондан, ёки еб ўтирган таомдан бир оғиз бўлса ҳам таъм тотиради. Ўзбек халқидан фарқли томони бу удум қозоқ этнографиясида

АУЫЗ ТИЮ (ОҒИЗ ТЕКИШ) деб аталиб келган киши чочилинч бўлса, нондан бир узим олиб еб кетиш керак[5,203]. Қозоқ халқида меҳмонни қўй сўйиб, унинг калласи ва йиликлари билан сийлайди, меҳмонни имкон қадар яхшилаб кутиб хурсанд қилиб жўнатади. Меҳмоннинг ёши ва қариндошлигига кўра молнинг олти (иккитадан ўн икки) йилигининг ҳам эгаси, сибағаси бор. Буни қозоқ этнографияси терминида

СЫБАҒА дейишади Масалан ёши улуғ катталарга қари йилик, ўрта йилик билан ёмбош, кудага ёмбош, келин ва куёвга тўш ва қуйимчоқнинг ёнига очиқ йилик, аёлларга тўқман йилик (кўрак меҳмонга тортилмайди бола-чақага бериш мумкин) тортилади. Юраги ва жигарини қиз болаларга ёки ёшларга меҳрибон раҳимдил бўлсин дея берилади. Лекин бўйдоқ қиз-йигитларга қариганча уйда ўтириб қолмасин деб, қари йиликни ушлатмайди. Ёш болаларга бўйи ўсмай қолади деб калта қовуртқани бермайди. Молнинг калласини ёшлар, шу ҳонадоннинг куёви ва жиани ушламайди ва улар таомга фотиҳа бермайди. Овқат тортилгандан кейин ёши улуғи «*бисмилла ҳир раҳманир раҳим*»билан таомни бошлаб беради. Катталар бошнинг қулоғи кўзини, ёнидагиларга улуштиради. Овқатдан ёшлар томонга сарқит берилади, ёшлар йўқ емайман, қорним тўқ деб сарқитни рад этса, тарбиясизлик бўлади.Тўқ бўлса ҳам «Қуллуқ!» деб таомдан таъм тотади, келинлар эса ўрнидан туруб эгилиб салом қилади ва таомдан ейиш керак. Бу ҳолатни қозоқ этнографиясида АСАТУ дейишади[5,216].

АСАТУ – анъанавий овқатланиш маданиятида ёши улуғ, йўли катта одамларнинг ёши кичикларга товоқтаги гўштнинг бўлақларидан там тоттириб илтифотини билдирадиган этик расм-русм. [5,215]. Қозоқ-ўзбек этнографиясидаги фарқли жиҳатлардан бири – ўзбек халқида “СИБАҒА” «ОШАТИШ» удуми учрамайди. Аммо илгари, айниқса, ярим кўчманчи ўзбекларда' узоқ сақлашга мўлжалланган қовурдоқдан ташқари қазии-қарта, қурт каби таомлар

тайёрланиб меҳмонга тортган. Асосий меҳмон таоми ош, яъни палов, норин сих кабоб, қийма кабоб, чўпон кабоб, ҳасип кабоб, буғлама кабоб, тандир кабоб, чарви кабоб, жигар кабоб, суяқ овқат гуруч, мош, ловия, нўхат, маккажўхори, оқ жўхори каби донлардан, буғдой ва жўхори уни хамаиридан, кабилар ва б.Дашти кипчоқ ўзбекларининг бир қисмида ҳозиргача меҳмонга қўйнинг калласи, оёқ ва ичак-чавоқларини пишириб олдига қўядилар.[7,165-б] . Ҳар иккала халқда ҳам таом еб бўлгандан кейин ёши улуғи қўлини ёйиб, фотиҳа беради.

БАТА – (ФОТИҲА) катталарнинг ёш авлодга эзгу нияту тилаклари қамралган дуолардан биридир. У дастурхонга ва ейилган таомга, каллага, сафарга отланмоқчи бўлган йўловчига, узатиладиган қизга бир ишни бошлаётан талабгорга ва.б. ёши улуғ катталар томонидан берилади, ёшлар эса, “Амин! Амин”! дея фотиҳани қабул қилади. Қозоқ халқида эса албатта каллага аётлар ўқилиб, арвоқларга қуръон бағишланади, ундан кейин албатта ёш болалардан биттаси қумғон ва шлавшин, эгнида сочиғи билан кириб, меҳмоннинг ёши каттасидан бошлаб, қўлларига сув қуйиб чиқади, катталар унга “*Барака топинг*”, “*Бахтли бўлинг*”, “*Умр ёшингиз узоқ бўлсин*” дея миннатдорчилик билан дуо қилади.

Дастурхонда ҳар қандай таом бўлишидан қатъий назар, ҳар икки халқда ҳам албатта, бир жуфт ёки икки жуфт нон қўйилиши шарт. Қозоқ халқида “*Ас атасы –нан*” , ўзбек тилида “*Ноннинг ушогги ҳам нон*” каби мақоллар билан қатор “*Нонни дастурхонга тескари қўйма*”, “*Нонни бир қўл билан ўзма*”, “*Нонни ўнг қўлинг билан синдир*”, “*Нонга пичоқ санчима*”, “*Нонни бир нарса билан санчиб олиб ема*”! каби қатор тарбиявий таъқиқловчи сўзлар фойдаланилади. Илгарилари ҳатто “*Нон урсин!*” дея нонга қасамёд қилиш қозоқ ва ўзбек халқининг иккаласида ҳам удумлардан бирига айланганлар. Нонни эъзозлаш бу иккала халқнингдан ҳам кузатиш мумкин.

“*НОН СИНДИРИШ*” маросими – ўзбекларда қуда томонга (келинникига) 3-5 киши (куёвнинг яқин кишилари)дан иборат таркибда патир нон, холва ва бошқа ширинликлар билан борилади. Ушбу маросимда иккала тараф вакиллари иштирокида устма-уст турган бутун нонлар тенг ўртасидан иккига бўлиб ушатилади ва ҳар иккала тарафга бирдек (холва ва ширинликлар) тақсимланади[7,3]

Меҳмондўст халқ учун меҳмон бўлиш учун ҳам, меҳмон кутиб мезбон бўлиш учун ҳам баҳона кўп. Қозоқ халқида ёқ суяғи қичиса ҳам бир жойда меҳмон бўйириб турмикин дея йирим қилади. Қозоқ, ўзбек халқи табиатан тўйчил халқ. Ҳозирда қозоқ

халқида юқоридаги “*Нон синдириши*” маросими “*Сирға солиши*”(илгарилари “*Румол тортиши*” деб ҳам аталар эди) маросими билан алмашган, лекин маросимда худди юқоридагидек Нон синдирилади, фотиҳа қилинади.Кўпинча бу маросим қозқоларда “АТАСТЫРУ» деб номланади.

“АТАСТЫРУ» - қадимда қозоқ жамоасидан ўрин олган якка ойлавий анъана, ўғил билан қизнинг ота-оналарининг кўдо бўлишга келишуви, ваъдалашуви, яъни ота-оналарнинг ваъдалашуви фотиҳа йўли билан тасдиқланиб, қиз билан ўғил аташтирилган ҳисобланади[5,252]. Ўзбек халқида ҳам бу жараён «УНАШТИРИШ» деб аталади. Бу, жараён қозоқ халқида «Шаш сипатар», «Қыз көрсетер», «Қыз қашырар», ўзбекларда эса “*Оёқ босди*”, “*Чимилдиқда кўзгуга боқши*” “*Келинга аталганларни бериши*” қатор удумла билан давом этади. Демак:

ШАШ СИПАТАР – қиз янгалари куёв йигитдан қайнисинглисининг сочини силатиб, кўрманак олиши.

«*ҚЫЗ КӨРСЕТЕР*» -қалинлигини опкетишга келган куёв тўрага янгалари қизни кўрсатмасдан ноз қилиб, қизни кўрсатиш ҳаққини ўндириб олади.

«*ҚЫЗ ҚАШЫРАР*» - қизни қалинлик ўйнаб келган йигитдан узоққа олиб кетиб, етиб олса қизни қочириб юбариш шарти билан ёшлар орасида ўйналадиган ўйин тури[6, 58].

«*ОЁҚ БОСДИ*” –йигит қизни опкетишга келганда, чимилдиқта ўтказиладиган удумлардан. Бундай пайтда одатда куёвлар келиннинг оёғини астагина босиб қўйишади ва даст кўтарганча чимилдиққа олиб кириб кетишади. [7,4]

“*ЧИМИЛДИҚДА КЎЗГУГА БОҚИШ*” Келин чимилдиққа киргандан кейин янги сотиб олинган, лекин хали ҳеч ким боқмаган, ўраб қўйилган кўзгуни ёши кекса момолардан бири очиб, келин-куёвга тутади. “Ҳаётларинг ойнадек тиниқ бўлсин, кўз очиб кўрганнинг билан қўша қаринглар”, дея, келин-куёвлар атрофидан ёқилган шам айлантрилади. Сўнгра исириқ тутатилиб, уларга новвот чой ичирилади. Чимилдиқ атрофида ўтирган барча аёллар келин-куёв ичган новвот чойдан яхши ниятлар билан ичадилар. (Қозоқ халқида эса *новвот сув* қудага қўшинининг уйдан опкелтирилади) [6,5]

“*КЕЛИНГА АТАЛГАНЛАРНИ БЕРИШ*” –бу маросим давомида кекса момолар куёвнинг онасини чақирадилар ва келин чимилдиққа киргач, ўтирмаётганини, қайнонасининг унга аталганларни “беришини” айтадилар. Шунда куёвнинг онаси уй-жойини, агар ховли, боғ-роғи бўлса, шуларни, қўй-қўзиси ва чорваси бўлса, уларни ҳам беришини айтади. Момолар эса келин барибир

ўтирмаётганини айтишади. Шунда қайнона ўғлини шунча йиллар давомида оқ ювиб, оқ тараб катта қилганини, эндиликда уни келинга ишониб топширишини айтади. Кейин “Келин салом”, “қозоқ халқида “Беташар”, “Никоҳ тўйи” маросими билан давом этади. Ўзбек халқида тўйдан кейин “Чимилдиқ йиғиш” маросими ҳам меҳмондорчилик билан ўтказилади. Бу удум қозоқ халқида йўқ, лекин чимилдиқ келин фарзандли бўлгунча туради, кейин ўзлари йиғиштириб қўяди. Лекин қозоқ халқида келиннинг бўйида бўлишини сезиши билан қайнонаси “Қарын той” маросимини ўтказиб бериши, меҳмондорчиликнинг яна бир наъмунаси. Фарзанд дунёга келса ўзбек халқида бешик тўй, қозоқ халқида “Шилдехана”, хуллас меҳмондўст қозоқ ва ўзбек халқининг дастурхони ҳар хил урф-одатлар баҳона йиғилмаган. Яна бир эътиборга молик урф-одатларимиздан бири – келиннинг салом қилиши[6,6].

СӘЛЕМ САЛУ –барча меҳмонларга, келиннинг куёв томонидаги катта- кичик барча вакилларига Беташардан (тўй кунги келин саломдан) бошлаб бир умр эгилиб салом қилиши. Эътиборли жиҳати шундаки, ўзбек халқида янги келин 2-3 кунгачагина куёв томоннинг катта-кичик барча вакилларига, эрига ҳам салом қилади. Қозоқ урфида эрига салом солинмайди ва ўзининг яқин қариндошларига, уруғдошларига салом солинмайди (“Султон суягини ҳорлама” деб ўз яқинларига салом солишни таъқиқлаган). Аммо ўзбек удумидан фарқли томони –қозоқ келини қайин юртининг катта-кичик барчасига бир умр эгилиб салом қилади. Уйда қайнона, қайнотага, қайнопа, қайнака, қайниука, қайнисингил – барчасига бир умр ҳар куни эрталаб эгилиб бир марта салом қилади (қазақша:сәлем салу). Ўзбек урф-одатида учрамайдиган қозоқ халқидаги яна бир урф –бу келиннинг қайин юртига тегишли вакилларнинг исмларини умуман атамаслиги, бошқа исм қўйиши.

АТ ТЕРГЕУ –қадимий қозоқ турмушида аёлларнинг қайин юртининг вакиллари ва дунёдан ўтиб кетган аждодларининг исмларини тўғри атамасдан, ишора қилиб аташ одати. Шунингдек қиз олишиб- қиз беришмайдиган қавмнинг уруғларининг катта вакилларида бошлаб, ўзи келин бўлиб тушгунга қадар туғилган болаларгача номини тўғри атамаган. Аниқроғи бу табунинг бир тури[5,242]. Ат тергеу –туркий халқларнинг ичида қозоқ, қорақалпоқ миллатларида ҳалигача сақланиб қолинган. Аммо жамият ривожланиб, замон янгилиниши туфайли ат тергеу удуми Қозоғистоннинг кўп жойларида қўлланишдан чиқиб қолган. Қозоғистонда йўқолиб бораётган бу урф-одат Ўзбекистон (Навоий, Бухоро, Тошкент вилояти в.б.) қозоқларининг урф-одатларида қайин юртга ҳурмат-иззат рамзи, ўсиб-ўнишига нажот, қолаверса ўвол бўлади деган



ишонч тариқасида бу кунгача қатъий сақланиб қолган ва кундан кунга замонвий тус олиб келмоқда. Демак, келин қайнотасини ҳамиша ота, қайнонасини –ене, қайнакасини ёшига кўра қайнаға ёки аға, қайнопасини ёшига кўра опа ёки апше, қайниукаларини *Молда жигит, Сылқым жигит, Тетелес, Енишлес, Экежан, Төрөм, Төрө жигит, Мырза жигит, Мырзаға, Айдарлым, Кішкенем, шырақ, Ақжигит, Нўржигит, Ержигит, Серіжигит, Төрөжан, Бижигит, Ортаншым, Байжигит* в.б. қайнисингилларини эса *Бойжеткен, Ерке кыз, Еркем, Еркежан, Ақерке, Аппагай, Аппағым, Бөпежан, Тўлымым, Моншақ, Көркем, Ақмоншақ, Қарагөз, Ботагөз, Аягөз, Қызғалдақ, Балым, Аққыз, Ақгўл, Арайлым, Шырайлым, Сўлу т. б.* Шунингдек, ягалари қайинука ва қайинсиншиллари билан ҳазили борлигидан фойдаланиб, уларнинг исmlарининг синонимларини, антонимларини ёки русчалаштириб ва бошқа усулларда ишора қилиб отларини ўзгартириб қўйиш ҳолатлари ҳам кўп учрайди. Масалан қайниукаси қора бўлса Ақжигит, кичкина бўлса дауийгит, идорада ишласа, *Раис бола*, ўқитувчи бўлса *Муаллим бола*, шофер бўлса *Шофер йигит* деб аташади. Агар исми Ақин бўлса ўзбекчасига Шоирдеб, ёки кўшиқчи бўлса, Водий, баъзида, масалан, Адилхан бўлса, Адольфо, Жанарис бўлса Жонрос деб, Мухтар бўлса Миша, Нурлан бўлса, Нурик, Қиз болларни Қарлиғаш булса, Ласточка ёки Катя, Алтин бўлса, Золушка агар ўз исми Малика бўлса, унинг қозоқча атамаси билан Ханшайим(буларнинг кўпчилиги ўзимизнинг келинлик тажрибамиздан) қисқаси ўз исмини атаб ранжитиб олмасликка ҳаракат қилади. Шунингдек, қайин юрт вакилларининг исми кетадиган оддий сўзларни ҳам қозоқ келини ўзгартириб айтиш керак, чунки қайин юртнинг, айниқса, ёши улуғ катта вакилларининг – қайнотасининг, катта бобосининг, қайнонасининг ва бошқа исmlари кетиб қолса, ҳурматсизлик бўлади. Масалан, катта бобосининг исми Пардабой бўлса, келин деразанинг пардасини бошқача аташ керак(масалан биз «тутима» деймиз, Қайин юртга яқинлиги йўқ Пардагул исмли қизларни ҳам имкон қадар тўғри атамасдан «Тутимагул»деб атаймиз). Уларнинг номига аташ бошқа кишиларнинг номини ҳам аташ таъқиқланади. Масалан қайнонасининг исмидек бошқа кишини, ёки географик атамаларни буриб айтиши керак.(Масалан қайнонаси Оразгул бўлса ораза ойини ромозон ёки рўза, Оразжан овулини олдинги овулдеб, қисқаси айтиб қўймаслик керак) Қудуқ номи эрининг бобосининг номида бўлса, Бобомқудуқ, кўлнинг номи ўхшаш келса, Отам кўл деб буриб атаймиз. Расмиятчилик ҳолатларида



хам қозоқ келини ўз боласининг фамилиясини айтишдан ийманиб, хужжатнинг ўзини кўрсатади, ўқитувчи ёки рахбар бўлса ҳам уларнинг фамилиясини атамасликнинг суфогина йўллари қараштиради. Бу урф қозоқ халқида қайин юртга деган чуқур иззат-икромнинг рамзи сифатида авлоддан-авлодга ўтиб келмоқда.

ХУЛОСА

Шундай қилиб, биз мазкур мақолада қозоқ ва ўзбек халқларининг айрим урф-одатларининг этнографик тавсифига тўхталдик холос. Ушбу икки халқнинг тарихий, маданий, адабий, этник яқинликлари юзасидан ўрганишга, изланиб тадқиқ қилишга тотувгилик масалалар жуда кўп [9,110]. Ҳамда бундай долзарб масалани таҳлил қилиш, уни авлодлар онгига етказиш – аждодларимиздан қолган умумий меросини эъзозлашда, уларнинг тарбиявий жиҳатларидан ибрат олишда муҳим аҳамият касб этади.

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MAKTAB BOLALARIDA PARAZITAR KASALLIKLARINING PROFILAKTIK CHORA-TADBIRLARI

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ANNOTATSIYA

Gelmintlar odam organizmining nafas olish, ovqat hazm qilish, muskullari, jigar, o‘t pufagi, taloq, qon, miya, ko‘z va boshqa a‘zolarida parazitlik qiladi. Bolalar salomatligiga salbiy ta‘sir qiluvchi omillardan biri bo‘lib, ulardan protozoonoz va gelmintlar parazitlar kasalliklarning 99% ni tashkil etadi. Ushbu maqolada parazitlar kasalliklarni maktab bolalarida tarqalish chastotasi va gelmintozlarga qaratilgan profilaktik chora - tadbirlari keltirilgan.

Kalit so‘zlar: gelmintozlar, parazitlar, protozoonozlar, maktab o‘quvchilari, profilaktika, bakteriyalar, statistika.

ABSTRACT

Helminths parasitize the respiratory tract, digestion, muscles, liver, gall bladder, spleen, blood, brain, eyes and other organs of the human body. Protozoonoses and helminths are one of the factors that negatively affect the health of children and account for 99% of parasitic diseases. This article presents the prevalence of parasitic diseases in schoolchildren and preventive measures aimed at helminthiasis.

Keywords: helminthiasis, parasites, protozoonosis, schoolchildren, prevention, bacteria, statistics.

KIRISH

Qadimgi yunon tabibi, shifokori, faylasufi Gippokrat birinchi bo‘lib gelmintozlarning klinik ko‘rinishini batafsil tasvirlab bergan, bundan tashqari u “gelmintozlar” (lotincha Helminth - qurtdan) atamasining asoschidir. So‘nggi o‘n yilliklarda dunyoning turli mamlakatlarida gelmintozlar bilan kasallanishning ko‘payishi kuzatilmoqda. Jahon statistikasining gelmintozlar to‘g‘risidagi ma‘lumotlariga ko‘ra askaridoz bilan 1,221 milliard kishi, trixinelloz bilan 795 million kishi va ankilitoz bilan 740 million kishi kasallangan. Bundan tashqari, invaziya bilan tropik

mamlakatlarda tarqalgan, filariaz - 120 million, shistosomalar - 200 milliondan ortiq. MDH mamlakatlarida 60 ga yaqin turlari ro'yxatga olingan [1].

ADABIYOTLAR TAHLILI VA METODOLOGIYA

O'zbekistonda gelmintozlar bilan kasallanish har 100 ming aholiga har yili 1000 dan ortiq holatni tashkil etadi, eng ko'p uchraydigan turlari: enterobioz, askardoz, trematodoz. Enterobioz bilan kasallanish 100 ming aholiga taxminan 1100 ta holatni tashkil qiladi. Ularning 90 foizi 1 yoshdan 3 yoshgacha bo'lgan bolalardir. Askardoz bilan kasallanish 100 ming aholiga 100 ta holatni tashkil qiladi. [7].

O'zbekiston Respublikasida gelmintoz bilan kasallanish darajasini pasaytirish bo'yicha yangi profilaktika chora-tadbirlarini ishlab chiqish maqsadida maktab yoshidagi bolalar o'rtasida gelmintozlarning keng tarqalgan sabablarini aniqlash.

Tadqiqot materiallariga jahon tadqiqotchilarining adabiy ma'lumotlari, shuningdek, O'zbekiston Respublikasi aholisining statistik ma'lumotlari kiritilgan.

NATIJALAR

Gelmintozlar odamlarning keng tarqalgan parazitlar kasalliklari bo'lib, ular pastki qurtlarning turli vakillari - gelmintlar tomonidan qo'zg'atiladi [17]. Akademik K.I. Skryabin "gelmint infeksiyalari o'z xo'jayinlariga juda patogen ta'sir ko'rsatadigan zararli parazitlar" deb hisoblagan [4,8,9,15]. Gelmintlarning biologik xususiyatlari quyidagilarga ega: bosqichma-bosqich rivojlanish, rivojlanish uchun maxsus sharoitlar, ko'payishning o'ziga xos xususiyatlari, individual gelmintlarning umr ko'rish davomiyligi, shuningdek egasiga moslashish. Gelmintlar o'zlarining hayot faoliyati mahsulotlari bilan inson organlari va tizimlariga tizimli toksik zarar yetkazadilar. Ba'zi gelmintozlar germafroditlardir, ya'ni odamni zararlashi uchun bitta individ kifoya qiladi [1,2]. Inson organizmida gelmintlarning patogenligi har xil. Tashxis qo'yishda quyidagilarga alohida e'tibor qaratish lozim: to'qimalarga mexanik ta'sirlar, allergik ko'rinishlar, mikrofloradagi o'zgarishlar, immunosupressiv ta'sirlar, metabolik kasalliklar, toksik ta'sirlar, shuningdek, fermentlarga qarshi ta'sirlar, neyro-refleks ta'sirlar va o'smalarni rag'batlantirish. [1].

Gelmintozlar bilan kasallanish etiologiyasida turli xil holatlar mavjud bo'lib, ular gelmint tuxumlari bilan atrof-muhitning yuqori ifloslanishidan kelib chiqadi. Bu ifloslanishning aybdorlari uy hayvonlari bo'lib, bunday holatlar asosan ularning boqish va yurishi nazorat qilinmaydigan shaharlarda, ayniqsa, hovlilar, maydonlar va bog'lar tuprog'ini najaslari bilan ifloslantiruvchi qarovsiz hayvonlarning ko'payishi

kuzatilmoqda. Bu shuni ko'rsatadiki, itlar uchun maxsus ajratilgan joylar yo'q, bundan tashqari, uy hayvonlari egalarining sanitariya bilimlaridan xabardorligi pastligini ta'kidlash mumkin. [18].

Go'sht va baliq mahsulotlarini xarid qilish bilan shug'ullanadigan xususiy korxonalar ko'pincha bozorga sifatsiz mahsulotlarning kirib kelish xavfini oshirish uchun javobgar bo'ladi, bundan tashqari, chorvachilik majmualaridan tozalanmagan oqava suvlar va oqava suvlarning oqizilishi gelmintozlar bilan kasallanishning ko'payishiga olib keladi. Aholining nazoratsiz migratsiyasi, turizm biznesining jadal rivojlanishi, aholining ijtimoiy-iqtisodiy turmush darajasi, immunitetning zaiflashishi, iqtisodiy ahvolning yomonlashishi, xom yoki yarim xom baliq, qisqichbaqasimonlar va kalmardan ko'plab taomlar tayyorlanadigan Osiyo oshxonasining keng tarqalishi. Dengiz hayvonlari asosan anisakid lichinkalari bilan kasallanadi. Oxot dengizining yashil, halibut, chum losos, treska, seld va boshqa baliqlar populyatsiyalarining 25 dan 100 foizigacha zararlangan, Tinch okeani va Atlantika okeanlari baliqlarining infeksiyasi ham kuzatiladi [3].

Ko'pgina mamlakatlarda individual fermer xo'jaliklarining rivojlanishini kuzatish mumkin - bu xususiy cho'chqachilik, o'g'it uchun qayta tiklanmagan kanalizatsiyadan foydalangan holda sabzavot, o'tlar, rezavorlar yetishtirish, bu tuproq, sabzavot, rezavorlar ifloslanishiga, go'sht va go'sht mahsulotlarining zararlanishiga olib keladi. Shu bilan birga, sog'liqni saqlash xizmatlari tomonidan gelmint invazyalarining inson salomatligiga ta'siri yetarli darajada baholanmaganligi, gelmintozlarning oldini olish bo'yicha davlat dasturining mavjud emasligi, gijja tuxumlarini gelmintologik tekshirishning standart usullari ma'lumotlarining pastligi, ayniqsa, bitta vaqtning o'rganish, laboratoriyalarning diagnostika uchun yanada samarali boyitish usullarini qo'llashni istamasligi, amaliyotchilarda gelmintozlar haqida hushyorlikning yo'qligi [5,16]. Bu muammolarning barchasi bugungi kunda butun dunyoda dolzarbroqdir [6]. Afsuski, parazit kasalliklar ko'pincha shifokorning differensial diagnostik fikrlash zanjirida oxirgi hisoblanadi. Jigar, o't yo'llari, oshqozon osti bezi va ichaklar patologiyasida gelmintozning ahamiyati yetarlicha baholanmagan. Gelmintozlarning har bir o'ziga xos turi parazit rivojlanishining turli davrlarida paydo bo'ladigan sindromlar majmuasi bilan tavsiflanadi. Quyidagi sindromlarga alohida e'tibor qaratish lozim: zaiflik, ishtahaning pasayishi, ish qobiliyatining pasayishi va tana haroratining 38 °C gacha ko'tarilishi bilan ifodalangan intoksikatsiya. Ichak sindromi bilan qorin og'rig'i, ko'ngil aynishi, qusish, axlatning o'zgarishi - ich qotishi, diareya kuzatiladi, bundan tashqari, terining va shilliq qavatning rangsizligi bilan ifodalanadigan anemiya belgilari kuzatiladi.

Nafas olish sindromi bilan siz yo'tal, vaqtinchalik o'pka infiltrati va obstruktiv bronxitni sezishingiz mumkin. Xolestatik va gepatotelial sindromlar o'ng qovurg'a ostida og'riq, ko'ngil aynishi va giperbilirubinemiya bilan ifodalanadi. Limfadenopatiya, perianal va vaginal qichishish belgilari, gipertenziya, eozinofiliya, leykopeniya, gipoproteinemiya, disproteinemiya va IgE darajasining sezilarli darajada oshishi bilan ifodalangan gematologiya ham kuzatiladi [1]. Yuqoridagi barcha sindromlar invaziv jarayonning bosqichiga bog'liq bo'lib, ular o'tkir va surunkali davrda turlicha namoyon bo'ladi. Surunkali davrda sindromlar deyarli sezilmaydi va boshqa kasalliklarga o'xshab yashirin holda paydo bo'ladi, bu kasallikning tashxisini og'irlashtiradi. Bundan tashqari, gelmintozlarning qulay kechishi bilan o'chirilgan shakllar kuzatilishi mumkin [12,13].

Parazitlar bilan zararlanganligiga shubha qilingan bolalarni so'roq qilish va keyingi tekshirish rejasi quyidagicha bo'lishi kerak: geografik tarixni hisobga olish kerak, chunki turli mamlakatlarda gelmintoz turlarining paydo bo'lishi har xil [6].

Bemorning ovqatlanish tarixini ko'rib chiqayotganda, yetarli darajada qayta ishlanmagan go'sht va baliq iste'molini hisobga olish kerak. Shuningdek, tuproq va uy hayvonlari bilan aloqa qilish kabi xavf omillaridan xabardor bo'lish kerak. Sindromik, laboratoriya va instrumental diagnostika boshqa kasalliklar bilan differensial tashxis qo'yish uchun zarurdir [14]. Har qanday kasallikni tashxislashda oila tarixiga e'tibor berish muhimdir - bu allergik patologiyaning bor-yo'qligi, ayniqsa onada, boshqa oila a'zolarida gelmint-protozoal infeksiyalarning mavjudligi, yashash joyida, yotoqxonada yoki kommunal kvartiradagi oilada kasal bola bilan birga yashaydigan katta yoshdagi bolalarning mavjudligi. Bola maktabga borganida, bronxial astmaning psevd belgilari siklik, ya'ni har 10 -14 kunda, tungi nafas olish qiyinlashuvi hurujlari, shuningdek qisqa muddatli allergik kasalliklarga qarshi yetarli davolashga qaramasdan, 3 haftadan kam muddatda yana qayta takrorlanadi. Bundan tashqari, allergen testlari salbiy yoki yomon ifodalangan natijalarni aniqlaydi, Polen sezgirligi yo'q. Psevdoallergik alomatlardan tashqari, takroriy oshqozon-ichak belgilari yoki ovqat hazm qilish trakti kasalliklari mavjud. Agar bolada ushbu belgilarning 5 dan ortig'i aniqlansa, to'g'ri parazitologik tekshiruvni tayinlash va antigelmint terapiyani buyurish kerak. 9 yoki undan ortiq belgilar kombinatsiyasi bo'lsa, gelmintlarni tekshirish natijalarini kutmasdan darhol degelmintizatsiya qilish mumkin.

Toshkent shahar 300 - maktabda o'rganish maqsadida 14 yoshgacha bo'lgan bolalarda gelmintoz bo'yicha keng ko'lamlil so'rovlar o'tkazildi. Tadqiqot natijalari shuni ko'rsatdiki, enterobioz eng keng tarqalgan turi bo'lib, gimenolipedoz ikkinchi o'rinda, askaridoz

uchinchi o'rinda va teniarinxoz oxirgi o'rinda. Tadqiqotlar shuni ko'rsatadiki, gelmintozning paydo bo'lishi yosh farqiga ega. Gelmintoz asosan tayyorgarlik guruhidagi bolalarda uchraydi (4-6 yoshda). O'g'il va qizlarning invazivligi taxminan bir xil (mos ravishda 24,0 va 0,4% va 21,3 va 0,3%).

XULOSA

Gelmintoz muammosi boshqa ko'plab mamlakatlarda bo'lgani kabi O'zbekistonda ham doimo dolzarb bo'lib kelgan, ayniqsa sanitariya gigiyena choralari nazorat qilinmaydigan shaharlarda. Gelmintozning keng tarqalishi aholi orasida gigiyenik madaniyat hali yetarlicha rivojlanmaganligini ko'rsatadi. Aholi uy hayvonlarini parvarish qilish, shaxsiy gigiyena, atrof-muhit gigiyenasi, shuningdek go'sht va baliq korxonalarining gigiyenik standartlariga rioya qilmaslik to'g'risida ma'lumotga ega emas, bu muammoga e'tiborni kuchaytirishni talab qilinadi. Sanitariya xizmatlari va mutaxassislarning birgalikdagi sa'y-harakatlari, parazitologlar va umumiy amaliyot shifokorlarining o'z vaqtida antigelmint profilaktika choralari gelmintoz bilan kasallanish holatlarini kamaytiradi.

Kasallikni davolagandan ko'ra, uning oldini olish muhim hisoblanadi. Gelmintlar bilan zararlanmaslik shartlari juda ham oson va samarali, faqatgina ularga rioya qilinsa kifoya. Ular quyidagilar:

- Ovqatlanishdan oldin 2 marta qo'llarni sovun bilan issiq suvda yuvish;
- Tirnoqlarni doimo olib yurish;
- Yosh bolalar ichkiyimlarini almashtirib turish;
- Bolalar xonasini doimo tozalab turish;
- Yosh bolali uylarda uy hayvonlari saqlamaslik;
- Yilda 1 marta gelmentlarga qarshi oilaviy davolanib turish;
- Sayr davomida bolalar qo'llarini og'izlariga solmasliklariga e'tiborli bo'lish.

Ikkilamchi profilaktika aholi infeksiyasining kritik darajasini aniqlash va invaziya manbasini aniqlashdan iborat bo'lib, bu maxsus tibbiy sanitariya epidemiologiya tadbirlarini o'tkazishga olib keladi - parazitlar manbaini zararsizlantirish va infeksiyaning tarqalish yo'llarini buzish lozim. Parazitlar bosqinining manbai tabiiy va sun'iy suv havzalari, o'rmonlar, ekin maydonlari, fermer xo'jaliklari va boshqalar bo'lishi mumkin. Ko'rsatkichlarga ko'ra va epidemiologik vaziyat yomonlashgan taqdirda ham bolalar, ham kattalar o'rtasida tanlanma so'rov

o'tkaziladi. Aholining taxminan 5%i infeksiyaning maqbul darajasi hisoblanadi. Bolalarda u biroz yuqoriroq bo'lishi mumkin (6-7%). Agar infeksiyaning ushbu darajasi oshib ketgan bo'lsa, aholining barcha guruhlarini ommaviy tekshirishning shoshilinch zarurati istisno qilinmaydi.

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BADIIY ASAR LINGVOPOETIKASINING NAZARIY MASALALAR (XORIY, MDH HAMDA RESPUBLIKA MIQYOSIDA)

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ANNOTATSIYA

Badiiy asarning lingvopoetik unsurlarini qiyoslash va filologik metodlar asosida o‘rganish ilmiy izlanishda maqsad qilib olingan. Izlanish davomida olib borilgan kontekstual tahlil filologiyaning matnshunoslik, kognitiv tahlil pragmalingvistika, qiyosiy-chog‘ishtiruv tahlili qiyosiy lingvistika hamda induktiv tahlil asosida erishilgan natija esa lingvistika kabi sohalarining rivojiga o‘z hissasini qo‘shadi. Barcha rivojlanayotgan davlatlar bugungi kunda o‘z tilshunosligining korpusini ishlab chiqayotgan bir davrda lingvopoetika sohasidagi izlanishlar ham bevosita ham lingvistika ham adabiyotshunoslikning ma‘lum sohalarining hali aniqlanmagan qirralarini topishda samarali yordam beradi.

Kalit so‘zlar: lingvopoetika, kontekstual tahlil, kognitiv tahlil, qiyosiy-chog‘ishtiruv tahlili, induktiv tahlil, pragmalingvistika.

KIRISH

Bugungi globallashuv davrida har bir xalq, har qaysi mustaqil davlat o‘z milliy manfaatlarini ta‘minlash, bu borada avvalo o‘z madaniyatini, azaliy qadriyatlarini, ona tilini asrab-avaylash va rivojlantirish masalasiga ustuvor ahamiyat qaratishi tabiiydir. Badiiy asarning lingvopoetik tahlili tilning nazariy tomonlari, ijtimoiy funksiyalari va inson ma‘naviyatining in‘ikosi ekanini bir butun holda tasavvur etishimizga imkon yaratadi. Chunki lingvopoetika o‘z mazmun-mohiyatiga ko‘ra filologiya sohasi tarmoqlarini o‘zida mujassamlashtirishga, uning bir butunligini ta‘minlashga qaratilgandir. “O‘zbek tilining davlat tili sifatida nufuzi va mavqeyini tubdan oshirish chora-tadbirlari to‘g‘risida”gi O‘zbekiston Respublikasi Prezidentining farmoni ham ayni tilshunosligimiz rivojini ko‘zlamoqda. Lingvopoetik tahlil jarayoni faqat yozuvchining tili va uslubi haqida ma‘lumot berish bilan chegaralanmaydi, balki asar yaratilgan davr tilining o‘ziga xosligi, yozuvchining so‘z boyligi, til vositalarining ifodalanish usullari, badiiy tasvir vositalarining til faktlari vositasida aks ettirilishi, umuman, tilni uning barcha sathlari yuzasidan tahlil qilishdan iborat bo‘ladi. Shu o‘rinda davlatimiz rahbari so‘zi bilan aytadigan bo‘lsak, “davlat

tilining sofligini saqlash, uni boyitib borish va aholining nutq madaniyatini oshirish” bizning ustuvor maqsadimizdir. Bugungi globallashuv jarayonida har bir davlat o‘z ona tilining korpusini yaratish muammosi ustida va tilshunosligining har bir sohasini yuksaltirish borasida bosh qotirmoqda. Ayni damda o‘zbek tilshunosligida chog‘ishtirish –dek//day affiksini ko‘makchi, yuklama yoki ravish tarkibiga berish yuzasidan mavjud bo‘lgan muammoga badiiy adabiyotdan aniq misollar keltirilib, faqat bir guruhga taalluqli ekanligi isbotlangan. Bundan tashqari romanda keltirilgan frazemashakllar xalq nutqidagi frazemashakllar bilan o‘zaro qiyosiy-chog‘ishtiruv tahlili asosida qiyoslanib, o‘zbek tili izohli frazeologik lug‘atidan joy olmagan aniqlangan. Bu kabi yangi frazemalarning aniqlanishi, tilshunosligimiz korpusi yaratilayotgan bir davrda frazeologiyani boyitishga xizmat qiladi. Izlanishning dolzarbligi esa aynan yuqoridagi unsurlarning hamda o‘zbek tilshunoslari o‘rtasida munozaralarga sabab bo‘layotgan o‘xshatish-chog‘ishtirish affiksi –dek//day qo‘shimchasi to‘g‘risidagi turli qarashlarga barham berish mazkur ish davomida aniqlanishi Prezidentimiz tomonidan qabul qilingan farmonning quyidagi bandlariga muvofiqdir: “ilmiy asoslangan yangi so‘z va atamalarni iste‘molga kiritish, zamonaviy atamalarning o‘zbekona muqobillarini yaratish va bir xilda qo‘llanishini ta‘minlash, geografik va boshqa toponimik obyektlarga qonun hujjatlariga muvofiq nom berilishi borasidagi faoliyatni monitoring qilish va muvofiqlashtirish ustuvor vazifadir”.

ADABIYOTLAR TAHLILI VA METODOLOGIYA

Mamlakatimizda badiiy adabiyot tiliga qiziqish va uni tahlil qilish o‘zbek tilshunosligining muhim masalalaridan biri sifatida 60-yillarda keng quloq yozdi. Bu yangi soha lingvopoetika deb nom oldi va ushbu sohada faoliyat yurutuvchilar soni ham tobora ortib bordi. Bugungi kunda o‘zbek tilshunoslari ham mazkur sohada yetakchi o‘rinlarda desak, mubolog‘a bo‘lmaydi. Ma‘lumki, globallashuv va integratsiyalashuv jarayonida ilm-fan oldiga misli ko‘rilmagan darajada dolzarb masalalarni qo‘ydi. Endilikda badiiy matnni har tomonlama chuqur tadqiq qilish, undagi lingvistik, stilistik va semantik qirralarini o‘rganish jarayoni tusini oldi. Badiiy matndagi lingvistik elementlari muhokama qilish negizida undagi qo‘llanilgan metafora, maqol, so‘z o‘yini, masal, tashbeh singari shakl va mazmun bilan bog‘liq muammolar jahon tilshunos olimlarining oldiga qator vazifalarni bajarishga keng yo‘l ochdi. Avvalo lingvopoetika nima? –degan savolga javob berish lozim. Mazkur savolga tilshunos Z.Sh.Ashurova shunday javob beradi: “Bu soha badiiy matnni til sathlari negizida tadqiq qilishni masalaning bir qirrasini qamrab olishi tabiiy. Negaki, tilning benihoya keng



imkoniyatlarini ishga solib, undagi leksik birliklar bo‘ladimi, grammatik birliklar bo‘ladimi, grammatik birlilar bo‘ladimi barchasini qamrab olish nazarda tutiladi. Lingvopoetik tahlil usuli shundan iboratki, badiiy matndagi ijodkorning individual uslubiga xos qirralarini kashf etish bilan birgalikda so‘z va gap ma’nolarining o‘zaro yaxlitligi, birikuvini tadqiq qilishni nazarda tutadi”. “Angliya adabiyotida xizmatkor (oqsoch) obrazini yaratishda lingvopoetik vositalar” ilmiy maqolasi mualliflari A.A.Kasimov hamda S.O.Tursunova lingvopoetika borasida shunday fikrni ilgari suradilar: “Lingvopoetika lingvistik poetikaning qisqargan shakli bo‘lib, badiiy asarlarda qo‘llanilgan lisoniy birliklarning (fonetik, morfemik, leksik va boshq.) badiiy-estetik vazifalarini, tilning konnotativ (ko‘chma) ma’nosini o‘rganadi. Boshqacha aytganda, lingvopoetika tilshunoslikning badiiy nutqni o‘rganuvchi bo‘limidir. Badiiy nutq badiiy adabiyotning bayon qilish vositasi sanaladi”. Demak, Z.Sh.Ashurova lingvopoetika badiiy matn tahlili, A.A.Kasimov hamda S.O.Tursunova esa badiiy nutq o‘rganiladigan bo‘lim sifatida qaramoqda. Mazkur soha uchun ikkinchi ta’rif bir qadar to‘g‘ri va aniqligi bilan birinchi farazdan ustunroqdir.

Badiiy asar tilini o‘rganar ekanmiz tilshunoslikdagi barcha sohalar unda aks etganiga guvoh bo‘lamiz. “Muhammad Yusuf ijodidagi folklorizmlar lingvopoetikasining o‘rganilish masalalari” mavzusida izlanish olib borgan G.T.Djamalxodjayeva lingvopoetikaga bir sifatida qarash kerak ekanini ta’kidlaydi. Albatta har bir yo‘nalish bir butun tizim vazifasini o‘taydi, uning uzviy bog‘liq jihatlarini ko‘zdan qochirmaslik kerak. Xorijlik olim I.A.Shmul “Lingvopoetika—bu filologiyaning bir sohasi bo‘lib, unda badiiy matnning stilistik jihatdan belgilangan til birliklari va ularning vazifalari hamda muayyan g‘oyaviy-badiiy mazmunni yetkazish va badiiy—estetik qirralarini aniqlash tushuniladi”, degan faraz tarafdori bo‘lgan. Bu fikrdan shunday xulosa qilishimiz mumkinki, badiiy asarda til birliklarining vazifalari bevosita namoyon bo‘ladi. 1947-yilda A.L.Belich o‘zining tilshunoslik fanlarining tasnifiga bag‘ishlangan maqolasida til faktlarining grammatik tavsifida ma’no umumiyligi asosida bog‘langan va muayyan sintaktik-semantik yaxlitlik tarzida namoyon bo‘ladigan gaplarning bugun zanjiriga alohida o‘rin berilishi lozimligiga va bu “matn” tushunchasining yuzaga kelishi uchun hal qiluvchi ahamiyatga molik ekanligiga e’tiborni qaratgan, ana shunday gaplar zanjiridagi o‘zaro munosabat va aloqalarni tilshunoslikning sintaksis bo‘limida o‘rganishning maqsadga muvofiqligini ta’kidlagan. A.L.Belich butun mohiyat gaplarda ekanligiga urg‘u bermoqda. Rus tilshunosi Ye.B.Borisova qayd etishicha: “Keyingi paytlarda filologiya sohasi vakillari badiiy matnni tahlil qilish bilan bog‘liq masalalarga qiziqishi ortib bermoqda.



Lingvopoetik jihatidan tadqiq qilishga intilish borasida maqola, monografiya va yirik-yirik darsliklar fikrimiz yorqin dalilidir. Shunday bo'lsa-da, mazkur tadqiqotlar tipologik, semiotik, lingvopragmatik stilistik akspektda tadqiq qilinish masala mohiyatini oydinlashtiradi. Bugungi kunda badiiy matnning mohiyatini izohlamasdan turib, chuqur va keng qamrovli o'rganish mumkin emasligi barchaga ma'lum". Demak, badiiy matnning nozik va eng muhim qirralarni qayta idrok etish borasida ijodkor badiiy olamini har tomonlama chuqur dalolatlash imkonini beradi. Olima Ye.Borisova diqqatni qaratayotgan asosiy e'tibor shaxs individul xususiyatlarida aks ettirilgan badiiy matn tabiatida ma'nolar maydoni narsa va buyum nomlarining hamda o'xshatish va badiiy-tasvir vositalarini to'g'ri, asosli qayd etishga mantiqiy urg'u berilmoqda. V.Jermunskiy "Poetikaning vazifalari" nomli ishida A.A.Potebnya asarlardagi, garchi uning yaxlit kontseptsiyasida e'tirozli o'rinlar ko'p bo'lishiga qaramay, poetikani til haqidagi umumiy fan - lingvistika bilan yaqinlashtirishdan iborat metodi o'ta samarador ekanligini va shuning uchun e'tirof etilganligini alohida ta'kidlaydi.

A.S.Golovkina o'z ilmiy izlanishi davomida bog'li nutq masalasiga alohida to'xtalib o'tib, kelib chiqishi haqida shunday deydi: "Bog'li nutq yaxlit nutqiy asar, matnni o'rganish, ya'ni matnga gap -period -yanada yirikroq parcha yaxlit butunlik tarzidagi darajalanishda yondashish antik davrdan-Aristotel va uning izdoshlaridan boshlangan". Pragmatika ya'ni tag ma'nolarga e'tiborini qaratgan xorijlik olim V.Kononenko adabiy nutqni tartibga soluvchi qoidalar tizimi sifatida lingvopoetika sohasidagi zamonaviy tadqiqotlar gumanitar fanlarning umumiy rivojlanishini aks ettiruvchi nazariya va yondashuvlarni tahlil qilishni, yangi bilimlarni to'plashni o'z ichiga olishi borasida o'z qarashlarini bayon etgan. Har bir adibning asarini lingvistik tahlil qilar ekanmiz, avvalo uning nutqiy platformasini aniqlashimiz lozim. Nutqiy platforma haqida aniq ma'lumotlar S.Abdelhameed, N.F.Alefirenko, Z.Kh.Shakhputova kabi olimlar ijodida uchraydi. Mazkur tushuncha ikki tomonlamadir. Ya'ni bu platformalar adibga ham uning asarini tadqiq qiluvchiga ham tegishlidir. Tilshunos M.B.Kadirova ham o'z nutqiy platformasi markazi deya ingliz hamda o'zbek tillaridagi hurmat kategorioyasining lingvopoetik xususiyatlarini tanlagan. Bu kabi aniq dalillardan shunday xulosa qilish mumkinki, lingvopoetika keng qamrovli sohadir. Har bir tilshunos uning ma'lum qisminigina tahlil qilishga qodir. Shu jumladan, M.Halya poetik fonetika sifatida qarab, uning she'riy jihatlarini, A.Haroutyunian esa og'zaki matnni yaratish va idrok etish mexanizmlari: mavzu, submavzu va g'oya jihatidan lingvistika va psixolingvistika bilan bog'lagan holda, O.M.Naboka nutq bo'lagi va stilistik figuralar nuqtai nazaridan, L.O.Kushnir siyosiy nutq va



siyosiy hayotda bajaradigan funksiyalari yuzasidan, V.Gumashyan esa ogʻzaki va yozma matnning barcha turlarini konnotatsiya nuqtayi nazaridan lingvopoetik tahlil qilishni asos qilib olgan. Bu qarashlar xorijlik va mahalliy olimlarning lingvopoetika borasidagi turli fikrlaridir. Ulardagi farqli va mushtarak fikrlar mazkur izlanishda muhokama tarzida koʻrsatib berildi.

Tadqiqotda turli metodlardan foydalanilgan. Shu jumladan, asarning matniiy tuzilishida har bir qahramonning harakterini ochuvchi mikromatnlar tanlanib, kontekstual tahlil metodi orqali analiz qilingan. Bu analiz orqali individning psixologiyasi aniq faktlar yordamida oydinlashtiriladi.

Soʻz maʼnolarining koʻchish usullariga asardan olingan kontekstlar yordamida kognitiv metod qoʻllangan, yaʼni uning modeli sifatida voqelikni tushunish-pragmatik model orqali qaysi maʼnoni batafsil ochishga qaratilgani aniqlangan.

Asardagi frazeologik birliklar xalq nutqi bilan oʻzaro qiyosiy-chogʻishtirish metodi asosida tahlil qilingan. Bunda oʻz ona tilimiz etalon vazifasini oʻtagan boʻlib, yaʼni asarda mavjud frazeologik birlik nutqimizdagi frazeologik birlik bilan solishtirilgan. Natijada tilimizda ommalashgan ammo lugʻatlarimizdan joy olishga ulgurmagan frazema shakllar aniqlangan. Albatta yangi frazeologik birliklar tilimiz korpusining frazema shakllari qatorini bir qadar oshishiga xizmat qiladi.

Oʻxshatish-chogʻishtirish unsurlarining grammatik, leksik turlari induksiya metodi asosida tahlil qilinib, ularga doir tilshunosligimizdagi turli xususiy qarashlar oʻrganildi. Bu turlilikdan esa umumiy bir fikr asosida ularning guruhi aniqlanib, tilshunosligimizdagi bir kichik muammoga barham berildi. Bu jarayonda ham etalon vazifasini oʻzbek tilshunosligining bugungi hamda tarixiy shakli bajardi.

Umuman olganda, badiiy asar tilini oʻrganish keng qamrovli jarayon, u nafaqat adabiyotshunoslikka oid badiiy gʻoya, fikr, umumiy obrazlilik, individuallik, badiiy mahorat, balki tilshunoslikka oid semiotika, konnotatsiya, pragmatika kabi tushunchalarni umumlashtiradi, kognitiv fan sohalari bilan ham bogʻlanib, oʻzining tahlil doirasini bilish, tushunish, idrok etish, tahlil qilish, lisoniy tafakkur, lisoniy ong, lisoniy faoliyat, lisoniy shaxsiyat kabi tushunchalar bilan ham kengaytirib boradi.

XULOSA

Xulosa oʻrnida shuni aytish mumkinki, izlanish davomida kontekstual tahlil, kognitiv tahlil, qiyosiy-chogʻishtiruv tahlil hamda induktiv tahlillardan unumli foydalanildi. Tadqiqotning nazariy ahamiyati shundaki, kontekstual tahlil filologiyaning matnshunoslik, kognitiv tahlil pragmalingvistika, qiyosiy-chogʻishtiruv tahlili qiyosiy lingvistika hamda induktiv tahlil asosida erishilgan natija esa lingvistika kabi sohalarning



rivojiga o‘z hissasini qo‘shadi. Tadqiqotning amaliy ahamiyati oliy o‘quv yurtlaridagi talabalarga matnning pragmatik xususiyatini ochishga doir mavzuda, ma‘lum lingvistik muammoni xususiylkdan umumiylikka qarab aniqlashga doir mavzuda, ya‘ni, asosan lingvistik bugungi muammosi bo‘lgan qo‘shimchalar guruhini aniqlashga doir yangi fikrdan to‘g‘ri fikrni topishda qo‘l keladi. Bundan tashqari bu kabi izlanishlar jamlanmasi lingvopoetika sohasini tilshunosligimizning korpusini yaratishda samarali ahamiyati borligini isbot qilib, oliy o‘quv yurtlarida bu sohaning mustaqil fan sifatida o‘tilishi darkor ekanligini ko‘rsatmoqda.

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PEDAGOGICAL PROBLEMS AND SOLUTIONS IN PEDAGOGICAL INSTITUTIONS OF HIGHER EDUCATION

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ABSTRACT

This article discusses about pedagogical problems and solutions in pedagogical higher education institutions.

Keywords: teaching conditions, tasks, educational technologies, problem situation.

In the current conditions, there are some difficulties in organizing practical training in electrical engineering for students studying in technical, natural-mathematics, including physics and astronomy, as well as technological education areas of higher educational institutions of pedagogy. The conducted observations showed that one of the main reasons for this is that students with different levels of preparation in physics and mathematics and initial experimental skills study in such groups where practical training is conducted. In addition, in groups there are always students who are capable of experimental work and, conversely, those who are not inclined to experimental work. Nevertheless, it is absolutely necessary for students of pedagogical higher education institutions to acquire the skills of conducting experiments. In general secondary schools, academic lyceums and vocational schools, every teacher is not limited to teaching students only the basics of science, but also to strengthen their polytechnic level, to be able to apply the acquired knowledge to life, and for their practical activities. they should create conditions. The science of electrical engineering occupies an important place in the polytechnicization of education. The "Electrical engineering" department occupies an important place in this field, because electrical devices are widely used in life and technology.

In order for the students to have the required level of knowledge about the basic laws and regulations related to each topic of electrical engineering, the teacher should conduct experiments on this topic in addition to oral presentation of the training materials, they should observe the studied phenomenon. it is necessary to bring them to them and



develop their thinking activity in this regard. In the process of practical training in electrical engineering, it is the most promising method of strengthening knowledge of electrical engineering, increasing the quality of professional and experimental training. One of the main goals he has set for himself is to form the experimental skills of future teachers by teaching a certain measurement method and the correct analysis and interpretation of measurement results.

The following should be noted as the general issues of the practice: support for the optimal implementation of general issues in education (development of thinking, formation of cognitive abilities, etc.); to ensure the systematicity of knowledge in electrical engineering, to establish links between topics, departments and subjects; generalization and strengthening (deepening) of knowledge on the most important issues of electrical engineering science; to help in the implementation of polytechnic education (introducing students to technical devices, teaching methods of determining quantities found in technology, etc.).

When conducting practical training in electrical engineering, the following goals are envisaged: a) to help students master the basic laws and phenomena of electrical engineering; b) teaching students to creatively approach scientific and research work, to be able to choose the right experimental method, to measure the values of technical quantities and to compare them with theory, to draw conclusions; v) introducing modern equipment and methods of mathematical development of measurement results. g) formation of skills of analysis, conclusion and generalization of obtained values and achieved results.

This is the general goal of students during experiments depending on the level of knowledge, it is done in different ways in each concrete case is increased.

The issues put before the students performing experimental work can be in the following forms: designing experiments with the help of information and communication technologies (guarantees the efficiency, achievement of the goal in advance): a) the most suitable method of measuring magnitude and measuring devices complex is shown to students; b) the measurement method is shown, the student must choose the necessary tools for measurement; s) the student is required to measure a certain quantity with the indicated accuracy.

Data obtained from an experiment will always have some degree of error. This error is mainly caused by experimental conditions, imperfection of measurement method or instruments. Due to the natural error of the experimenter's senses and the imperfection of measuring instruments, approximate values of quantities are determined in any measurement. Accuracy of measurement is determined primarily by the accuracy of

measurement of measuring instruments. Magnitude cannot be measured with greater accuracy than the measuring accuracy of the instrument.

In each practice, different quantities are measured with different precision. The accuracy of one measurement affects that of others. Only when the errors are calculated, the result of the measurement, that is, the data obtained from the experiment, begins to acquire a certain meaning. The result of the experiment made in this way can be compared with theoretical or tabular data. It is important to be able to choose from a number of methods of calculating errors, especially those that correctly and clearly reveal the essence of a concrete experience. This creative process requires the student to have certain experimental skills, thoroughness, and logical analysis skills.

In order to organize, conduct and demonstrate experiments, it is possible to list the following skills and qualifications that a teacher should acquire: - managing cognitive activities of students in the process of observing and learning; - to observe phenomena, to study the research method qualitatively and quantitatively, to introduce the theory, to confirm the conclusions of the theory, to find solutions to problems such as the application of laws to practice with the help of experiments; - to successfully demonstrate the experience, to work with tools, to assemble the device and to perform the work in compliance with certain requirements for the correct and accurate conduct of the practical training experiment.

Knowing the tools means the following skills and abilities:

To know the name of the instrument, what quantity it is intended to measure, the principle of operation and its main features; 2) to be able to distinguish this tool from other tools in terms of appearance; 3) to know the technical capabilities of the tool, the characteristics of its use; 4) to be able to use the tool and to have the skills to coordinate it with other tools; 5) to know the conditions that allow to get the desired result; 6) to acquire the skills of simple repair work, replacement of small details, correction in case of deviations from the norm.

Demonstrates mastery of apparatus assembly skills, laboratory and demonstration experiment techniques. In this case, it is important to fulfill the requirements for the process of experiment implementation and to use efficiency-enhancing tools effectively.

In practice, certain rules for assembling devices have been developed, which include the following: a) mental construction (design) of the device, drawing of structural schemes, block layout of devices, auxiliary drawings; b) selection of tools necessary for the experiment; c) assembling the device: placing the devices in a logical sequence on the laboratory

table, combining the device elements (in demonstration experiments, as a rule, the device is assembled in an inclined or vertical plane, the most important devices are recommended to be in the front row); g) checking the fulfillment of the requirements for the experiment, taking into account various tools; d) development of a sequence of actions in demonstration of experience.

Observing the activities of students in practical training in electrical engineering shows that there are a number of shortcomings in their experimental preparation.

First, it is necessary to educate the student's conscious attitude and interest in the experiment as a research and teaching method. The student should know the function of the experiment in the educational process and understand its role in providing them with deep and thorough knowledge. This issue can be successfully solved by strengthening the cooperation of teaching methods teachers.

Secondly, if the teacher shows the student different options for the same experience, the student will have the opportunity to choose the most optimal one among them. Depending on the variety of experiments, the possibility of a laboratory base for student practical training (the teacher may also have to make some simple devices by hand), the ability to choose experimental equipment and assemble the device independently. helps the formation of skills. Regular work in this direction makes it possible to educate students' constructive ability, creative approach to educational experiments.

Thirdly, students should write down the purpose of each experiment in a notebook, and form the skills of drawing the scheme of the experimental device, showing the parameters of the tools used. This creates a basis for their independent and creative organization of experiences in their future practical work (including pedagogical practice).

Fourth, students should learn the basics of modern school equipment and tools and acquire the skills to use them according to their assigned task.

Fifth, the skills of identifying and eliminating malfunctions in devices, independently designing some devices and making them by hand, and involving students in this should be formed already in their student years.

CONCLUSION

In practical training, students acquire the following theoretical-experimental information: introduce the basics of technical phenomena and their laws, develop skills and competences in working with modern measuring instruments, methods of measuring and



processing experimental results. introduces. In addition, in close connection with lectures, seminars and other forms of electrical engineering education, it fulfills the tasks of generalization, strengthening, development and in-depth mastering of the main states of the theory. Practical (laboratory) of electrical engineering solves a number of educational, practical and educational issues.

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MAKTAB DARSLIKLARIDA (SI) BIRLIKLAR SISTEMASI O'LCHOV BIRLIKLARINING YOZILISHIDAGI O'ZGARISHLAR

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ANNOTATSIYA

Maqolamizning asosiy maqsadi maktab yoshidagi o'quvchilarga, matematika darsliklaridagi o'lchov birliklarining xalqaro (SI) birliklar sistemasida belgilanishini tushunish va to'g'ri qo'llay olishga o'rgatish.

Kalit so'z: matematika darsligi, o'lchov birlilar, (SI) xalqaro birliklar sistemasi, jadval.

CHANGES IN THE WRITING OF UNITS OF THE SYSTEM OF UNITS (SI) IN SCHOOL TEXTBOOKS

ABSTRACT

The main goal of our article is to teach school-age students to understand and correctly use the units of measurement in mathematics textbooks in the international (SI) system of units.

Keywords: mathematics textbook, measurement units, (SI) international system of units, table.

Mamlakatimiz tobora rivojlanib, har sohada jahondagi eng rivojlangan mamlakatlar qatoriga yaqinlashib bormoqda. Bu yuksalishlar iqtisodiy va ilm-fan yo'nalishida ham jadallik bilan olib borilmoqda.

Ushbu maqolada maktab darsliklarida o'lchov birligini yozishdagi o'zgarishlarga e'tibor qaratganmiz. Bu, xususan, xalqaro o'lchovlar tizimi (SI) kontekstida, matematika darsliklarida bu o'lchov birligini to'g'ri tushunish va qo'llashda o'quvchilarga yordam berishni maqsad qiladi. Maqolada O'zbekiston ta'lim sohasida, jumladan, ta'lim materiallarida SI birligini qabul qilish orqali global standartlarga moslashuvi ta'kidlangan.

Shu o'rinda O'zbekiston Respublikasi Vazirlar Mahkamasining 2018-yil 10-yanvardagi "O'zbekiston Respublikasida o'lcham birliklarini qo'llash to'g'risida"gi 21-son qarori fikrimizni yorqin dadlilidir.

O'zbekiston Respublikasida qo'llashga ruxsat berilgan, Xalqaro o'lchamlar tizimi (SI) ning o'lcham birliklari nomi va belgilanishi 1-ilovaga muvofiq;

O'lcham birliklarini yozish va qo'llash qoidalari 3-ilovaga muvofiq belgilangan.

Qarorga muvofiq o'lcham birliklarining nomi, belgisi, ularni yozish va qo'llash qoidalari:

- texnik jihatdan tartibga solish sohasidagi normativ hujjatlarda, ilmiy-texnik va boshqa nashrlarda, shu jumladan, ommaviy axborot vositalarida e'lon qilishda, o'quv, o'quv-metodik va turli ma'lumotlar beradigan yordamchi adabiyotlarda ushbu qaror bilan tasdiqlangan o'lcham birliklari, ularning nomi va belgilanishi qo'llaniladi.

Avvalo biz yuqorida aytib o'tgan (SI) xalqaro o'lchamlar tizimiga ta'rif berib o'tsak. Xalqaro o'lchamlar tizimi (SI) asoslangan, O'lchov va Tarozilar Bosh konferensiyasi tomonidan qabul qilingan va tavsiya etilgan, nomlar va belgilar, shuningdek, old qo'shimchalar to'plami va ularning nomlari hamda belgilarini, ularni qo'llash qoidalarini o'z ichiga olgan tizimdir.

O'zbekiston Respublikasida qo'llashga rasmiy ravishda ruxsat etilgan o'lcham birliklarini yozish faqat belgilangan tartibda tasdiqlangan nomlari yoki belgilariga muvofiq amalga oshiriladi.

Yuqoridagilardan kelib chiqqan holda umumiy o'rta ta'lim maktablarining III, VIII, IX sinflariga matematika va fizika fanidan 2019-yil nashr etilgan yangi o'lchov birliklari yozilishi va belgilanishidagi o'zgarishlar bilan belgilangan. Xususan, 3-sinf matematika darsligida foydalanilgan o'lchov birliklarining nomi va belgilari jadvali berilgan.

1-jadval. O'lchov birliklarining nomi va belgilari

<i>T/r</i>	<i>Kattalik</i>	<i>O'lchov birligi</i>	<i>Qisqa ifodasi</i>
1	Uzunlik (L)	metr	m
2	Vaqt (T)	sekund	s
3	Massa (M)	kilogramm	kg
4	Massa	sentner	1 q = 100 kg
5	Massa	tonna	1 t = 1000 kg
6	Vaqt	minut	1 min = 60 s
7	Vaqt	soat	1 h = 60 min
8	Vaqt	sutka	1 d = 24 h
9	Vaqt	asr	1 asr = 100 yil
10	Yuza (maydon) (S)	metr kvadrat	m ²
11	Yassi burchak	gradus	...°

1-jadvalda berilgan o'lchov birliklaridan tashqari (tizimdan tashqari o'lchov birliklari)

Gektar –(g) hektore - (ha)

Sutka – day- (d)

Ar –(ar) are - (a)

Santimetr – (sm) centemetre -(cm)

Sentner – (q) quintal

km/soat – (km/h)

Garadus (...°) degree

Vaqt-(h) hour

tarzida qo'llaniladi.

O'lchov birliklarining bunday belgilanishini quyi sinflardan o'rgatilishi farzandlarimizni etuk va barkamol bo'lib ulg'ayishiga katta hissa bo'lsa ajabmas.

Xulosa qilib aytganda SI birligini kichik sinflardan o'qitishning muhim deb hisoblaymiz. Bu yondashuv, xalqaro o'lchov standartlarini yoshligidan tushunishida o'quvchilarning keng qamrovli rivojlanishiga hissa qo'shishi mumkin. Bu asosiy bilimlar kelajakdagi yutuqlariga va ulug' allomalar hamda olimlarning merosini davom ettirish qobiliyatlariga sezilarli hissa qo'sha oladi. Zero farzandlarimiz kichik yosh davrlaridan xalqaro o'lchov standartlarini tushinib, kelajakda ulkan ixtirolar bilan buyuk bobolarimizga munosib vorislar bo'ladi deb ishonamiz.

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IPAK GILAMLARI XOMASHYOSI TAYYORLASH VA XOMASHYOGA QO'YILGAN TALABLAR TADQIQOTI

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ANNOTATSIYA

Gilam mahsulotlari ishlab chiqarishda qo'llash uchun yangi pilla duragaylari ipagining xossalari o'rganilgan. Ikkala namunada ham, issiqlik o'tkazuvchanlik xususiyati 0,04 kkal/m.soat $^{\circ}$ S ni tashkil qilib, ishqalanishga chidamliligi mos holda 4020 va 4010 siklni, ko'p takrorlanuvchi egilishga chidamliligi 20,3 va 20,5 ming siklni, pishiqligi quruq holda 31 va 33 mm-ni, ho'l holda 23 va 24 mm ni, cho'zilishi quruq holda 26 va 27% ni, ho'l holda 30 va 31% ni, quyosh nuridan 50% pishiqligini yo'qotishi mos holda 400 va 405 soatni tashkil qildi. Ishqalanishga chidamliligi, ko'p takrorlanuvchi egilishga chidamliligi, quruq va ho'l holatdagi pishiqliligi va cho'zilishi, hamda insolyatsiyaga chidamliligi olingan namunalardan "Istiqbol" duragayida yuqori ekanligi aniqlanib gilam ishlab chiqarishda qo'llash uchun tavsiya berildi.

Kalit so'zlar: Gilam, xomashyo, pilla, ipak, duragay, mahsulot, guruh, issiqlik o'tkazuvchanlik, ishqalanishga chidamlilik, pishiqlik,deformatsiy.

ABSTRACT

The properties of silk of a new hybrid of cocoons for the use of carpet production were studied. In both versions of the property, the heat conductivity was 0.04 kcal / m.h. $^{\circ}$ C. The abrasion resistance was 4020 and 4010 cycles, respectively, the resistance to repeated bending was 20.3 and 20.5 thousand cycles, the dry strength is 31 and 33 mm, the wet form is 23 and 24 mm, the elongation of the dry form is 26 and 27%, wet 30 and 31%, loss of strength from soling flour by 50% was 400 and 405 hours. The options revealed increased abrasion resistance, resistance to repeated bending, strength and elongation in the dry and wet state, as well as resistance to insulation in the "Istikbol" hybrid, and it was recommended to use it for carpet production.

Keywords: carpet, raw materials, cocoon, silk, hybrid, products, group, heat conductivity, abrasion resistance, strength, deformation.

KIRISH

Dunyoga mashhur o‘zbek ipak gilamlari qadimda shohlar saroylarining maxsus xonalariga to‘shalgan, xorijiy yurtlarga elchi yuborganda boshqa yurt hukmdorlariga sovg‘a tariqasida jo‘natilgan. Ipak gilamlari o‘zbek gilamchiligining barcha ustun an‘analarini o‘zida biriktirganligi bilan birga, har bir gilamga o‘ziga xos yondashuv sabab, bugun jahon gilam bozorining markazi bo‘lgan Londondagi eng qimmatbaho do‘konlarda dunyoning to‘rt tomonidan kelgan xaridorlarning e‘tiboriga tushgan. Qo‘lda ishlangan ipak gilamlari ko‘pincha haqiqiy san‘at asarlari deb nomlanadi. Bunday gilamlar uchun ipni ishlab chiqarish juda mashaqqatli va uzoq davom etadigan jarayondir. Ipak shuningdek nozik yumshoq va yoqimli xomashyo sifatida qabul qilinadi. Ipak gilamlari quyidagi xususiyatlarga ega: yumshoq, issiqlikni yaxshi ushlaydi, shovqinni pasaytiradi, estetik zavq beradi.

ADABIYOTLAR TAHLILI VA METODOLOGIYA

Ipning sifati asosan xomashyo sifatiga hamda uni qayta ishlash usullariga bevosita bog‘liqdir. Shu tufayli, ipning tadqiqoti ikki guruhga: xom ashyo turini va undan ip ishlab chiqarish texnologiyasini tanlashga bo‘lingan. Bu yo‘nalishda D. Zitfut, Kristof De Ruyuk, Moxsen Miratba, B.E. Gusev, va boshqa mualliflarning ishlari muhim o‘rin egallaydi [1-2]. Mualliflar gilam ishlab chiqarishda ishlatiladigan tolalarning pishiqligi, cho‘zilishi, qayishqoqligi, egilishga monandligi, yemirilishga chidamliligi, tuklarning mahkamlanganligini baholash kabi mezonlarini aniqlovchi ilmiy-amaliy tajribalarni o‘tkazganlar [3]. Bu ko‘rsatkichlardan tashqari tolaning jingalakligi muhim ko‘rsatkich bo‘lib, ustivor jingalaklikka ega bo‘lgan tolalar tuklar tashkil qiluvchi yuzani ko‘paytirada, gilam mahsulotlarining g‘ijimlanish va yedirilishga chidamliligini ta‘minlaydi, hamda mahsulotning xizmat qilish vaqtini uzaytiruvchi omil hisoblanadi. Gilam mahsulotlarini asosan uchta guruhda ishlab chiqarish qabul qilingan. Ommaviy ishlab chiqariladigan gilamlarga qo‘yilgan asosiy mezonlar tolaning xossalari hisoblanadi va ular mahsulotning iqtisodiy ko‘rsatkichlariga ta‘sir kiladi. Shuningdek, iqtisodiy ko‘rsatkichlar xomashyo tannarxi va uni qayta ishlash uchun ishlab chiqarish xarajatlari, qayishqoqlik, elastiklik xossalari, qayta ishlov berish qulayligi, shakllantirilgan ko‘ndalang kesim, katta qalinlik evaziga erishuvchi hajmdorlik va bo‘yash usullariga qarab o‘zgaradi. Bu guruh gilamlariga: tolalar xossalarining bir xilligi, egilishga ustivorligi, tuklarning mustahkam saqlanishi, kuya va mikroorganizmlar ta‘siriga chidamlilik, iflosliklarga turg‘unlik, tozalashga qulaylik, yedirilishga va yuvilishga chidamlilik, bezalishi va

estetik tomonlari go'zal bo'lishi kabi talablar qo'yiladi.

Ikkinchi guruh ekstra-sinf gilamlarini ishlab chiqarishda asosiy e'tibor bezalish va estetik ko'rsatkichlarga, iste'molchi talablariga moslik, bo'yalishning bir xilligi, dastlab berilgan ko'rinishlarini saqlash qobiliyatiga: tuklanish va iflosliklarga turg'unlik, bo'yoqlar chidamliligi, antistatik xossalar, olovga chidamlilik, xizmat muddatining uzoq vaqtga cho'zilishiga qaratiladi.

Uchinchi guruh maxsus buyurtmalar asosida, ya'ni tashqi bozorga chiqariladigan (Negin va Mitfordir) gilam mahsulotlarining asosiy mezonini qilib ekspluatatsiyaga yaroqlilik davrini hisobga olgan holda bir kvadrat metr gilamning o'rtacha qiymati hisoblanadi. Bu guruh gilamlar uchun xomashyo sifatiga o'ta yuqori talablar qo'yiladi. Gilam mahsulotlari o'ta chidamli, sifati yuqori va tannarxiga ta'sir qiluvchi ko'rsatkichlarni o'z ichiga oladi. Ipak gilamlari shu uchinchi guruhga kiradi. Xaridorlar tomonidan qo'yiladigan talablar yuqori va tabiiyligi bilan, yillar o'tishi bilan jilokorligi yanada ortib borishi bilan ajralib turadi. Ipak gilamlari xoh qo'lda to'qilsin yoki mashinalarda o'zining bejirim va nafisligini asrlar osha yo'qotgani yo'q [3].

NATIJARLAR VA MUHOKAMA

Gilam mahsulotlariga qo'yilgan talablarga mos ravishda gilam xomashyo bazasini kengaytirish maqsadida turli xil tolalar aralashmasidan foydalanilmokda, paxta, ipak va babak iplari hamda kimyoviy tolalar asosida yangi turkum xom ashyolari yaratishga bag'ishlangan ishlar olib borilmokda. Hozirgi vaqtda gilam va gilam mahsulotlarini tayyorlashda kimyo sanoatida ishlab chiqariladigan deyarli barcha turdagi sintetik hamda sun'iy tolalar xomashyo sifatida ishlatilmoqda.

Gilam mahsulotlarining o'ziga xos xususiyati ularning tashqi fizik-mexanik ta'sirlarga yuqori chidamliligi va berilgan naqsh rangdorligini sifatli darajada ekanligidir [4]. Bu ko'rsatkichlarga erishish imkoniyati, turli xomashyo turlarini va qayta ishlash usullarini qo'llash, bo'yash, yakunlovchi pardozi berish orqali yaratiladi.

Shu bilan birga xomashyoning o'z xususiyatlari ham katta ahamiyatga ega omil hisoblanadi. Tadqiqot ishini hozirgi kunda yetishtirilayotgan Istiqbol va Xitoy-elita duragaylaridan olingan pilla iplari bo'yicha olib borildi. Gilam mahsulotlarini ishlab chiqarishda ishqalanishga chidamliligi muhim omil hisoblanadi.

Tolalardan ip olishda, ipdan mato ishlab chiqarishda tolalar ishqalanishga uchraydi. Bu esa mahsulotni to'zishiga

olib keladi. Shu sababli ham bu xususiyatni aniqlash orqali matoning kamchiliklarini yo'qotish mumkin. Maxsus pribor yordamida yangi pilla duragaylaridan olingan ipak tolalarning bir biriga ishqalanishi tekshirilganda, ishqalanishga chidamliligi yuqori ekanligi, ya'ni o'rtacha 4000 davrni tashkil qildi.

Tola ipga aylantirgunga qadar bir necha bor egilish deformatsiyasiga uchraydi. Pillani chuvish, undan kompleks ip shakillantirish va eshilgan ip olishda tolalar ko'p miqdorda egiladi. Mahsulotni ishlatish davrida ham ko'p egilish jarayoni yuzaga keladi. Tolalarni ko'p miqdorda egilishga aloqasi ularni fizik-mexanik xossalarida eng muhim ko'rsatkich hisoblanadi. Ko'p miqdordagi davriy ravishdagi yuklanishda qayishqoq deformatsiya kamayib ularni qoldiq deformatsiyaga o'tishi keyinchalik tolalarni uzilishi yoki shikastlanishiga olib keladi. Qayishqoq deformatsiyaga tolalarni barqarorligi yeyilishga chidamliligida xal qiluvchi ahamiyatga ega. Tolalarni takror egilishga chidamliligi 98 N/mm^2 kuchlanishda amalga oshirildi.

Iplarni bir-biriga va mashinaning metall qismiga ishqalanishi natijasida tolalar elektirlanadi, ya'ni ularda elektrning statik zariyadlanishi yuzaga keladi. Buning natijasida ular bir-birini itaradi, to'ziydi, ajraladi. Elektrlanish uzilishlarni ko'payishga olib keladi. Elektr zariyadlanish kattaligi tolaning kimyoviy strukturasi, harakatlanish tezligiga, ipni yo'naltiruvchi materiallar yuzasiga va yuzada ishqalanishiga bog'liq. Tolaning qanchalik elektr qarshiligi yuqori bo'lsa u shunchalik qattiq elektrlanadi. Elektrlanishni kamaytirishda iplarni moylash, mashinalarni yerga ulash, namlash, emulsiyalar bilan ishlov berish amallari bajariladi.

Ipak elektr tokini yomon o'tkazib, nisbatan yuqori dielektrik xususiyatga ega. Bu esa uni xususiyatlari bo'yicha imkoniyatini oshiradi. YA'ni ishlab chiqarish jarayonlarining osonligi va gilam bo'lib shakillanganda inson salomatligiga salbiy ta'sir etmasligi.

Gilam mahsulotlarining issiqlik saqlashi katta ahamiyatga ega ko'rsatkich hisoblanadi. To'qimachilik tolalari turli xil issiqlik o'tkazuvchanlikka ega bo'lib, ulardan ko'pchiligi juda yaxshi issiqlik saqlovchi xususiyatga ega. Shu sababli ularni issiqlik saqlovchi sifatida ishlatiladi. 1 m^2 yuzaga ega bo'lgan 1 m qalinlikdagi qatlamdan 1 soat davomida turli temperaturalarda qancha kilokaloriya issiqlik o'tishi bilan issiqlik o'tkazuvchanlik aniqlanadi. Issiqlik o'tkazuvchanlik shartli ravishda λ koeffitsiyenti bilan aniqlanadi [5].

Gilam mahsulotlarining ekspluatatsion xususiyatlarini

oshirishda mustahkamlik muhim rol o'ynaydi. Shu sababli tolalarning mustahkamligi va cho'zilishi katta ahamiyatga ega bo'lgan ko'rsatkich bo'lib, ho'llanganda va quruqlik davrida turli ko'rsatkichga ega bo'ladi. Ip ho'llanganda suv molekullari orasidagi aloqani buzadi. Shu sababli nam va quruq holatdagi pishiqlik turlicha bo'ladi. Bu ko'rsatkichni aniqlashda tolalar distillangan suv bilan namlab qurug'iga nisbatan pishiqligi orqali aniqlanadi.

Gilam mahsulotlarini ekspluatatsia qilish jarayonida quyosh nurlari radiatsiyasiga uchraydi. Bunda kislorod mavjud bo'lgan havoda oksidlanishini quyosh nurlari tezlashtiradi. Albata havosiz joyda bunday jarayon kechmaydi. Quyosh nuridan tolalarni yemirilishiga harorat va namlik ham ta'sir qiladi. Nurga chidamliligi tekshirilayotgan ipak tolalarini quyosh nuriga analogik sun'iy nur manbalarida nurlantirib namunalar 4 soat davomida standart sharoitda saqlanib so'ng tolalarning uzilish kuchi aniqlanadi. Olingan natijalar asosida ipak tolasining barcha xususiyatlari bo'yicha ko'rsatkichlari jadvalda keltirilgan.

Yangi duragay pillalar bo'yicha tabiiy ipakning xossalari:

Nomlanishi, birligi	Ko'rsatkichlari	
	Xitoy-elita duragay	Istiqbol duragay
Statik elektrlanish	dielektrik	dielektrik
Issiqlik o'tkazuvchanlik xususiyati kkal/m.soat. °C	0,04	0,04
Ishqalanishga chidamliligi, sikl	4010	4020
Ko'p takrorlanuvchi egilish deformatsiyasiga chidamliligi soni, ming	20,3	20,5
Ipak tolasining pishiqligi quruq holda, mm	31	33
ho'l holatda, mm	23	24
Ipak tolasining cho'zilishi quruq holda, %	26	27
ho'l holatda, %	30	31
Ipak tolasining quyosh nuriga chidamliligi (50% pishiqlikni yo'qotgan) soat	400	405

XULOSA

Yangi duragaylar bo'yicha olingan ma'lumotlar shuni ko'rsatdiki, ikkala namuna ham dielektrik bo'lib, issiqlik

o'tkazuvchanlik xususiyati 0,04 kkal/m.soat $^{\circ}\text{C}$ ni tashkil qildi. Ishqalanishga chidamliligi mos holda 4020 va 4010 siklni tashkil qildi. Ko'p takrorlanuvchi egilishga chidamliligi 20,3 va 20,5 mingni, pishiqligi quruq holda 31 va 33 mm-ni, ho'l holda 23 mm va 24 mm ni, cho'zilishi quruq holda 26 va 27% ni, ho'l holda 30 va 31% ni, insolyatsiyaga chidamliligi, ya'ni quyosh nuridan 50% pishiqligini yo'qotishi mos holda 400 va 405 soatni tashkil qildi.

Demak gilam mahsulotlarini ishlab chiqarishda "Istiqbol" pilla duragayidan olingan xom ipakdan foydalanish samarali natija berar ekan.

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IXTISOSLASHTIRILGAN TA'LIM MUASSASALARIDA O'QUVCHILARNI IJTIMOIY HAYOTGA TAYYORLASH BO'YICHA KORREKSION- PEDAGOGIK ISHLAR

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ANNOTATSIYA

Maqolada aqli zaif bolaga talim tarbiya berish uni jamiyatga, ijtimoiy hayotga moslashtirish haqida fikrlar yuritilgan, aqli zaif bolalarning ta'lim– tarbiya olishlari uchun yaratilgan keng imkoniyatlar, shart-sharoitlar bo'yicha fikr-mulohazalar yuritilgan. Aqli zaif bolalarni ijtimoiy hayotga moslashtirish, ularni mustaqil faoliyatga tayyorlashning o'ziga xos jihatlari ochib berilgan, bu masalaning mohiyatiga oid qarashlar sanab o'tilgan. Shuningdek maxsus maktab-internatlarining asosiy maqsadi, vazifalari hamda aqli zaif bolaning mustaqil faoliyat ko'nikmalarini shakllantirishda sub'yektlarning doimiy xamkorlik mexanizmlari zarurati asoslab o'tilgan.

Kalit so'zlar: aqli zaif, alohida ehtiyojli bolalar, ijtimoiy, maxsus ta'lim, kliniko-pedagogik, oligofreniya, endogen, ekzogen, irsiy omillar, aqli zaiflik, debillik, imbesillik, idiotiya.

ABSTRACT

The article discusses the education of mentally retarded children and their adaptation to society and social life, as well as the wide range of opportunities and conditions created for the education of mentally retarded children. The peculiarities of the adaptation of mentally retarded children to social life, their preparation for independent activity are described, and the views on the essence of this issue are listed. The main goals and objectives of special boarding schools, as well as the need for constant cooperation between the subjects in the formation of independent thinking skills of the mentally retarded child.

Keywords: mentally retarded, children with special needs, social, special education, clinical pedagogical, oligophrenia, endogenous, exogenous, genetic factors, mental retardation, dementia, imbecility, idiocy

KIRISH

Bugungi kunda mamlakatimizda ta'limning har bir sohasi kabi maxsus ta'limning mazmunini takomillashtirish, amaliyotga innovatsion texnologiyalarni joriy etish masalasi dolzarb sanalmoqda. Maxsus ta'lim rivojlanishida muammolari bo'lgan bolalarni o'qitish, tarbiyalash va hayotga tayyorlash vazifalarini hal etadi. Ma'lumki, u yoki bu turdagi rivojlanish muammolariga ega bolalar orasida miya faoliyatida organik buzilishlar oqibatida intellektida ma'lum chetga chiqishlar, og'ishlarga ega bolalar mavjud bo'lib, ular ixtisoslashtirilgan ta'lim muassasalarida ta'lim oladilar. Jahon miqyosida bu kabi bolalar yer yuzi aholisining 3 % ini tashkil etadi. Aqli zaif bolalar va o'smirlarning ta'lim olishi xalqaro va milliy huquqiy-me'yorlarga asoslanadi.

ADABIYOTLAR TAHLILI VA METODOLOGIYA

Mamlakatimizda bola huquqlarini himoya qilishning huquqiy asoslari yaratilib, bir qator qonunlar qabul qilindi va ularda bola huquqlari kafolatlab qo'yildi. O'zbekiston Respublikasi 1992-yilda "Bola huquqlari to'g'risida"gi Konvensiya (1989-yil 20-noyabr BMT tomonidan qabul qilingan)ni ratifikatsiya qildi. Ushbu Konvensiya BMTning bolalikni muhofazalash borasidagi eng universal hujjatidir. O'zbekiston Respublikasining "Bola huquqlarining kafolatlari to'g'risida»gi Qonunida bolaning huquqlari, erkinliklari va qonuniy manfaatlarini ta'minlash, hayoti va sog'lig'ini muhofaza qilish, kamsitilishiga yo'l qo'ymaslik, sha'ni va qadr-qimmatini himoya qilish va boshqa qator ijtimoiy-siyosiy ahamiyatga ega vazifalarni amalga oshirish kafolatlab qo'yilgan. Bundan tashqari oxirgi 5 yil mobaynida ta'limni isloh qilish, fuqarolarning bandligini ta'minlash orqali farovon hayot kechirish sharoitini ta'minlash masalasi davlat siyosati darajasiga ko'tarildi.

O'zbekiston Respublikasi Prezidentining 2017-yil 1-dekabrda PF-5270-son "Nogironligi bo'lgan shaxslarni davlat tomonidan qo'llab-quvvatlash tizimini tubdan takomillashtirish chora-tadbirlari to'g'risida"gi, 2019-yil 29-aprelda PF-5712-son "O'zbekiston Respublikasi xalq ta'limi tizimini 2030-yilgacha rivojlantirish konsepsiyaning tasdiqlash to'g'risida"gi farmonlari va boshqa me'yoriy-huquqiy hujjatlarda belgilangan vazifalar mazmunida aholining ehtiyojmand qatlamlariga ta'lim xizmatining moslashgan turlarini, differensial yondashuvlarga asoslangan tizimni joriy etish belgilab qo'yilgan. O'sib kelayotgan yoshlar orasida aqli zaif bolalar mavjud bo'lib, ularning sifatli ta'limga jalb etilishi borasida ham qator ijobiy o'zgarishlar yuz bermoqda. Jumladan, aqli zaif bolalar maktablari uchun o'quv rejalarni optimallashtirish, fan dasturlarida o'quvchilarning o'zlashtirish darajalarini inobatga oluvchi variativ



yondashuvlarni singdirish, mazkur toifa bolalarning egallashi lozim bo'lgan kasb turlari bo'yicha ta'lim muassasalarida moddiy-texnika bazani mustahkamlash kabilarni misol qilishimiz mumkin.

NATIJALAR VA MUHOKAMA

Jahon miqyosidagi murakkab jarayonlarni va mamlakatimiz bosib o'tgan taraqqiyot natijalarini chuqur tahlil qilgan holda keyingi yillarda "Inson qadri uchun" tamoyili asosida xalqimizning farovonligini yanada oshirish, ijtimoiy-iqtisodiyot tarmoqlarni transformatsiya qilish va rivojlantirish, inson huquqlari va manfaatlarini so'zsiz ta'minlash hamda faol fuqarolik jamiyatini shakllantirishga qaratilgan islohotlarda imkoniyati cheklangan bolalarni ijtimoiy hayotga tayyorlash masalasi alohida ustuvor yo'nalishlardan biri sifatida belgilangan.

"2022-2026-yillarga mo'ljallangan Yangi O'zbekistonning taraqqiyot strategiyasi" ning 66-maqsadi aynan rivojlanishida turli muammolari bo'lgan bolalar va kattalarni to'laqonli turmush tarzi bilan ta'minlashda sifatli ta'lim xizmatlarini kuchaytirish va bu jarayonga innovatsion texnologiyalarni tatbiq etish ko'zda tutilgan. Jumladan, Taraqqiyot strategiyasida ta'lim sifatini oshirish bo'yicha 2022-yilda quyidagi vazifalarni bajarish belgilab berildi. Ular: o'rta ta'lim tizimini zamon talablariga moslashtirish; umumiy o'rta ta'lim muassasalarida darsliklarni yangilash dasturini amalga oshirish; taraqqiyot strategiyasida inson qadrini ulug'lashga yo'naltirilgan ijtimoiy himoya siyosati; nogironligi bo'lgan shaxslarni qo'llab-quvvatlashning samarali tizimini shakllantirish, ularning hayot sifati va darajasini oshirish; nogironlik belgisi bo'yicha kamsitishga yo'l qo'ymaslik, nogironligi bo'lgan shaxslarning huquqlari, erkinliklari va qonuniy manfaatlarini ro'yobga chiqarishda teng sharoitlarni va ularni buzganlik uchun javobgarlikning muqarrarligini ta'minlash; nogironligi bo'lgan shaxslarning jamiyat ijtimoiy-iqtisodiy hayotiga jalb qilinishi va faol ishtirokini ta'minlovchi inklyuziv ta'lim va ishga joylashtirish tizimini takomillashtirish; nogironlikni belgilashning ijtimoiy modeliga bosqichma-bosqich o'tish kabi muhim vazifalar belgilandi.

Ma'lumki, sog'lom bolalar kabi aqli zaif bolalar uchun ham ta'limning ilk davrlari kompleks rivojlanishning muhim davri bo'lib, bola shaxsini shakllanishini ilk yoshi hisoblanadi. Bu davrda ular tengdoshlari bilan muloqoti tashkiliy jihatdan murakkab ko'ringan o'zaro munosabatlarni paydo qiladi va bola shaxsi rivojlanishiga ta'sir ko'rsatadi. Boshlang'ich sinf aqli zaif bolalarning ichki olami o'zgacha bo'lib, boshqa bolalar va kattalar olami bilan bog'liq bo'ladi. Aqli zaif bolaning yoshi katta bo'lgan sari, u tengdoshlari bilan ko'proq muloqotga intiladi yoki bu jarayondan qochadi. Aqli zaif bola



uchun boshlang'ich ta'lim davri ham jamoaviy sifatlarining shakllanishidagi senzitiv davr hisoblanadi, shuningdek, boshqa odamlarga insoniy munosabatlarni uyg'otadi. Agarda bu sifatning asosi oilada va maktabda shakllanmasa, bola shaxsi rivojlanishiga salbiy ta'sir ko'rsatishi mumkin. Buning oqibatida bola rivojlanishida to'siqlar ro'y beradi. Bu yoshda bilish faolligi ortib boradi: idrok, ko'rgazmali tafakkur rivojlanadi, matniy tafakkur kurtaklari paydo bo'ladi. Bilish imkoniyatlarining o'sishi xotira, ixtiyoriy diqqat hosil bo'lishiga olib keladi. Boshlang'ich ta'lim davrida aqli zaif bolada atrof-olam haqidagi tasavvurlar paydo bo'ladi, atrofdagi voqelik va hodisalarning oddiy o'zaro aloqadorligi qonuniyatlarini anglash ko'nikmasi shakllanadi shuningdek, olgan bilimlarini mustaqil ravishda amaliy faoliyatida qo'llay oladilar.

Aqli zaif bolalarni ijtimoiy hayotga tayyorlashda nutqiy ifodalardan foydalanish muhim rol o'ynaydi. Chunki nutq orqali aqli zaif bola turli faoliyat turlariga kirishadi. Boshlang'ich sinf aqli zaif o'quvchilar so'zlar orqali berilgan harakatlar-topshiriqlarni bajaradilar, pedagogning tushuntirishi asosida narsalarning nomlari va belgilarini o'zlashtiradilar. Natijada, aqli zaif bola ushbu narsalardan kundalik hayotda qo'llashga zarur ko'nikmalarni egallaydi. Eng muhimi, bu jarayon ko'rgazmali bo'lishi talab etiladi. Aqli zaif bolaning anglashi-hissiy bilishi ko'rgazmali tafakkur orqali paydo bo'ladi. Boshlang'ich sinf aqli zaif bolada idrok, ko'rgazmali harakatli va ko'rgazmali obrazli tafakkur shakllanadi, uning bilish imkoniyatlariga qarab, faoliyatning kelgusidagi rivojlanishi, nutqi ko'proq yuqori bosqichga chiqsa-da, mantiqiy tafakkur shakllarining hosil bo'lishi sekin kechadi. Sanab o'tilgan psixik jarayonlar aqli zaif bolaning ijtimoiylashuvini o'rganishda va albatta, ijtimoiy hayotga tayyorlashda muhim sanaladi.

Boshlang'ich sinf aqli zaif bolalar maxsus ta'lim tashkil etilgan o'quv tarbiyaviy faoliyat orqali yangi faoliyat turlarini, ya'ni o'yin, tasviriy (sensor mashqlar), ta'limiy faoliyat elementlarini egallaydilar. Aqli zaif bolalarga boshlang'ich sinflarda o'qitiladigan fan asoslarini o'rgatishning hamda pirovardida ijtimoiy hayotga tayyorlashning muhim va yetakchi usuli bu o'yindir.

Boshlang'ich sinf aqli zaif bolalarni maxsus tashkil etilgan korreksion-pedagogik jarayonda ijtimoiy hayotga tayyorlashda kuzatish usuli ham pedagog uchun va albatta, o'quvchi uchun keng qo'llaniladi. Biz kuzatishning integratsion shaklini tavsiya etmoqdamiz. Chunki aqli zaif bola integratsion muhitda o'zini tutishi, atrofdagilar bilan muloqotini o'rganish vaziyatida turli faoliyat egasiga aylanadi. Natijada, kuzatish obyekti bolaning turli faoliyatlariga yo'naltiriladi. Dars va mashg'ulotlararo bog'liqlik ham mazmunan, ham tashkiliy jihatdan olib boriladi. Pedagoglar va



tarbiyachilar qo'yilgan vazifalar va sharoitlarning o'quv faoliyatiga mos kelishini ta'minlashlari hamda natijaga erishishning samarali yo'llarini aniqlashlari talab etiladi. Mashg'ulotlarda belgi va simvollaridan foydalanish, o'rganilayotgan jarayon va obyektlarning modelini yaratishda samara beradi, shuningdek, o'quv va amaliy vazifalarni yechishning turli yo'llari aniqlanadi.

Pedagog, tarbiyachilar va ota-onalar aqli zaif bolalarni o'qitish va tarbiyalayotgan vaqtlarida, avvalo, ularning psixologik tomonlariga ta'sir qiladilar. Boshqacha qilib aytganda, o'quv-tarbiyaviy hamda korreksion ta'sir orqali aqli zaif o'quvchilarning xotirasini, diqqatini, fikr va tuyg'ularini o'stirishga harakat qiladilar. Bu o'rinda aqli zaif bolalar psixologiyasiga oid nazariy ma'lumotlarga e'tibor qaratish lozim. Ushbu ma'lumotlarning ahamiyati shundaki, agar pedagoglar va ota-onalar aqli zaif bolaning psixik taraqqiyotiga xos qonuniyatlarni va bola shaxsiga xos xususiyatlarni bilmasalar, bolalar ongini o'stirish ishiga to'g'ri rahbarlik qila olmaydilar. Ma'lumki, maxsus maktab-internatlarida yengil va o'rta darajadagi aqli zaif bolalar ta'lim oladilar. Ular orasida dadil, quvnoq bolalar bilan bir qatorda o'jar, injiq, tortinchoq, kamgap bolalar ham uchrab turadi. Bu narsa pedagog uchun turli xarakterdagi bolalar bilan bir xil munosabatda bo'lish imkonini bermaydi. Lekin pedagog, tarbiyachining asosiy vazifalaridan biri o'ziga ishonib topshirilgan imkoniyati cheklangan bolalarning hammasida zamon talabiga munosib bo'lgan shaxs sifatlarini o'stirib, tarbiyalab berishdir. Bunday vazifani muvaffaqiyatli amalga oshirish uchun bolalarni bir-biridan ajratib turuvchi individual farqlarni hamda bunday farqlarni keltirib chiqaruvchi sabablarni bilish zarur bo'ladi. Bu esa, o'z navbatida, bolalar psixologiyasi, xususan maxsus psixologiyadan yaxshi xabardor bo'lishni taqozo qiladi. Ma'lumki, korreksion psixologiya nogiron bola psixikasining taraqqiyoti hamda unda shaxsiy sifatlarning yuzaga kelishiga ta'sir qiluvchi omillarni ham o'rganadi.

Bugungi kunda maxsus psixologiya va pedagogika fanlarining oldida bir qancha muhim nazariy va amaliy vazifalari turibdiki, ular aqli zaif bolalarni ijtimoiy hayotga tayyorlash amaliyoti uchun juda zarur hisoblanadi:

- Boshlang'ich sinf aqli zaif o'quvchilarga xos bo'lgan psixologik xususiyatlarni, ya'ni ularning idrokiga, sezgi-tuyg'ulariga, diqqatiga va xotirasiga, nutqi va tafakkuriga, xayoliga, irodasiga xos xususiyatlarni o'rganish.
- Aqli zaif bolaning psixik taraqqiyotiga faol ta'sir qiluvchi omillarni aniqlab berish.
- Turli yoshdagi aqli zaif bolalarning rivojlanishiga xos bo'lgan fiziologik, psixologik qonuniyatlarni uyg'unlikda o'rganish.



- Aqli zaif bola shaxsiga xos bo'lgan psixologik xususiyatlarni bola yashab turgan muhit ta'sirida o'rganish.
- Maktabda muvaffaqiyatli o'qish uchun bolada o'qishga motivasiyani kuchaytirish yo'llarini aniqlash va bu jarayonga oilalarni kengroq jalb qilish.
- Ta'lim jarayonida bolaning mustaqil, ijodiy, faol fikrlashini shakllantirishga yo'naltirilgan sensomotorik yondashuvlarni aniqlash va joriy etish.
- Turli yoshdagi bolalarning psixik taraqqiyoti xususiyatlariga doir bilimlarni o'qituvchilar, ota-onalar, ya'ni jamoatchilar o'rtasida keng yoyish, jamoatchilik fikrlarini o'rganish, o'rganish natijalari asosida kompleks ta'sir yo'llari va vositalarini takomillashtirish.

Aqli zaif bolalarni ijtimoiy hayotga tayyorlash jarayonida pedagogika, psixologiya va valeologiya tamoyillari uyg'unlashadi, ularning vositalaridan integrativ foydalanish talab etiladi. Shuning uchun biz tadqiqot davomida aqli zaif bolalarning ijtimoiy hayotga tayyorligini o'rganishda aynan psixologik, pedagogik va ijtimoiy pedagogika usullari hamda tamoyillaridan integrativ holda foydalanishga e'tibor qaratdik. Ma'lumki, maxsus psixologiyaning amaliy vazifasi keng jamoatchilikning nogironligi bo'lgan bola ruhiy taraqqiyoti, yosh davrlari xususiyatlari orasidagi farqlar va ularga individual munosabatda bo'lish yo'llari, ruhiy taraqqiyot qonunlariga doir psixologik bilimlardan bahramand bo'lishlarini ta'minlashdan iborat.

Maxsus psixologiyaning rivojlantiruvchi vazifasi, avvalo, bolalarning psixik rivojlanishini ta'minlovchi ijtimoiy muhitni maqsadli yo'naltirishga qaratiladi. Mazkur muhitda sog'lom va ta'limda alohida ehtiyoji bo'lgan bolalar, xususan, aqli zaif o'quvchilarda ham psixik jarayonlar idrok, diqqat, mantiqiy-obrazli xotira, tafakkur, nutqiy va kommunikativ ko'nikmalar, xayol, kuzatuvchanlik, qiziquvchanlik namoyon bo'ladi. Demak, aqli zaif bolalarning ijtimoiy hayotga tayyorligini o'rganish metodikasini amaliyotga joriy etishda ijtimoiy muhit va unda bola harakati modellarini tahlil qilish muhim sanaladi.

Sanab o'tilgan vazifalar orasida muhim ijtimoiy ahamiyat kasb etuvchi vazifa bu o'quv, korreksion va tarbiyaviy vazifalardir. Ular asosida aqli zaif bolalarda aqliy, axloqiy, estetetik, jinsiy, ekologik, mehnat, jismoniy, gender, huquqiy, gigiyenik va boshqa tarbiya yo'nalishlariga oid sifatlarning shakllanganligi kuzatiladi, aniqlangan muammolar bartaraf etiladi. Jumladan, aqliy tarbiya usul va vositalarini qo'llash jarayonida bolalarda atrof-olam haqidagi tizimli bilimlar shakllanganligi o'rganiladi. Bunda aqli zaif bolalarda dunyoqarashning elementar shakllari paydo bo'lish holatlari sifat va miqdor jihatdan o'rganiladi. Aqli zaif bolalarning

ijtimoiylashuvidagi muhim bo‘lgan narsa buyumlarning nomlari, qismlari va belgilarini farqlash imkoniyatlarini tahlil qilish sharoiti yaratiladi. Bolalarda mavjud bo‘lgan bu imkoniyat lug‘at orqali matematik hisob-kitobni amalga oshira olish ko‘nikmalarini kuzatish uchun tayanch muhit sanaladi.

Boshlang‘ich ta‘lim davrida aqli zaif bolalarda atrof-olam haqida mantiqiy fikrlashning elementar shakllari rivojlanadi:

- analiz va sintez qilish;

- o‘simlik va hayvonlarning umumiy belgilari va individualligini ajrata olish ko‘nikmasi va umumlashtira olish (masalan: hayvonlarning belgilari, ko‘payishi, harakatlanishi, oziqlanishi, yashash joyiga ko‘ra turlarini ajrata olish va umumiy xulosa chiqarish);

- bolalar tabiat hodisalari tabiiy sabablar asosida bo‘lishi haqida ilk xulosalarni chiqara oladilar. Masalan, qor oppoq, u osmondan yog‘adi, qishda issiq kiyimlar kiyish kerakligi, qorong‘i tushishi, sovuq yoki issiq bo‘lishi va hokozolar.

Boshlang‘ich ta‘lim davrida aqli zaif bolalarning ijtimoiy hayotga tayyorlash bo‘yicha ishlarning yo‘lga qo‘yilishida umumiy psixologiya va maxsus psixologiyada qo‘llaniluvchi metodlar qo‘llaniladi. Ular: kuzatish, eksperiment, suhbat, faoliyat mahsulini o‘rganish, kundalik va biografik materiallarni o‘rganish, sotsiometrik metod, test va shu kabi metodlardir.

Boshlang‘ich sinf aqli zaif o‘quvchilarning rivojlanishi, psixik taraqqiyotlari ularning turli-tuman faoliyatlarida sodir bo‘ladi. Ana shuning uchun aqli zaif bolalar psixologiyasi yuqoridagi metodlarni bolalarning asosiy faoliyatlariga moslashtirib qo‘llaydi.

XULOSA

Xulosa qilib shuni aytish mumkinki, aqli zaif bola bilan ta‘limiy-tarbiyaviy ishlarni rejalashtirishda aynan ushbu muammoning kelib chiqish sabablari hamda darajalarini bilish muhimdir. Chunki aqli zaiflikni tuzatib bo‘lmasa-da, uni yumshatish, bilinmaydigan holatga olib kelish uchun pedagogning ilk qadamlari aynan tibbiy-pedagogik-psixologik yondashuvlarga tayangan holda amalga oshirilishi lozim.

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KEYSLAR ASOSIDA MANTIQUIY VA KREATIV FIKR YURITISH IMKONYATLARNI RIVOJLANTIRISHNING USLUBIY ASOSLARI

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ANNOTATSIYA

Mazkur maqolada kreativ yondashuv va yutuqlar dunyo bo'ylab fan va texnologiyadan tortib falsafa, san'at va ijtimoiy fanlar kabi turli sohalarda insoniyat tamadduni ilgari surilgan. Kreativ fikrlash shunchaki tasodifiy g'oyalar berishdan kattaroq narsadir. U insonga ba'zan murakkab sharoitlarda, yanada yaxshiroq natijaga erishishga imkon beruvchi bilim va tajribaga asoslangan real ko'nikmadir. Butun dunyoda jamiyatlar va tashkilotlar muammolarni hal etishda innovatsion bilim va yaratuvchanlikka tobora ehtiyoj sezmoqda, bu esa, o'z navbatida, innovatsiya va kreativ fikrlash ahamiyatini yanada kuchayishini ko'ramiz.

Kalit so'zlar: Kreativ yondashuv, kreativlik, ijodkorlik, kontekst, didaktik o'yinlar, mantiqiy fikrlash, rivojlanish;

KIRISH

Shiddat bilan rivojlanib borayotgan dunyoning u Yoki bu burchagida sodir bo'layotgan yangiliklar, insonlar uchun muhim bo'lgan iqtisodiy, ijtimoiy va ma'naviy muammolarni yechishga kreativ fikrlarni joriy etish uchun katta ahamiyat kasb etadi. Har bir inson o'z keyslari asosida mantiqiy va kreativ fikr yuritishini talab etmoqda.

Mantiqiy va kreativ fikr yuritishni rivojlantirishning uslubiy asoslari:

Birinchidan, inson o'zi odamlar bilan suhbatlashib, ularning tajribalaridan foydalanishi lozim. Boshqalar qanday muammolar bilan yuzlashgan va ularni qanday hal qilishganlarini eshitishi o'z fikrlarini rivojlantirish uchun katta imkoniyat yaratadi.

Ikkinchidan, ko'p o'qib, o'rganib, dunyoqarashi va innovatsion texnologiyalardagi so'nggi yangiliklar bilan tanishib chiqish. Bu insonni o'z ko'ngli va idealarini yangilash uchun ilhomlantiradi.

Uchinchidan, ko'plab mashg'ulotlar va hobbilari orqali o'z o'zi bilan aloqani rivojlantirish kerak. Bu, insonning kreativlik kuchini oshiradi va yangi fikrlarni yaratishga erishishiga yordam beradi.

To'rtinchidan, jamiyatning rivojlanishi va yangi muammolarga yechim topishi uchun tadbirlar va loyihalar tashkil etish kerak. Insonlar o'zlarining fikrlarini ijtimoiy tartibda

o'zgartirish, ularni boshqarish va yangiliklarni qo'llab-quvvatlash uchun tashkil etilgan tadbirlar samarali tasir ko'rsata oladi.

Bularni amalga oshirish va yangi fikrlarni yuritish orqali insonlar o'z keyslari asosida mantiqiy va kreativ yangiliklar qilishlari mumkin. Shuningdek, bu, insonlarni dunyoni yanada yaxshi rivojlantirish uchun ijobiy usul bo'ladi.

ADABIYOTLAR TAHLILI VA METODOLOGIYA

Ma'lumki bugungi kunda kreativ fikrlashni baholash xalqaro dasturini rivojlantirish ta'lim siyosati va pedagogikasida ijobiy o'zgarishlarga sabab bo'lishi mumkin. Xalqaro PISA baholash dasturi bo'yicha olib boriladigan tadqiqotlardagi kreativ fikrlash yo'nalishining baholashi mutasaddilarga dalillarga asoslangan to'xtamga kelishda ko'maklashuvchi aniq, ishonchli va amalga oshirish mumkin bo'lgan baholash vositasini taqdim etadi. Natijalar, shuningdek, jamiyatda ushbu muhim ko'nikmani ta'lim orqali rivojlantirishning ahamiyati va usullari borasidagi bahslarga sabab bo'ladi. PISA xalqaro baholash dasturidagi ushbu faoliyat Iqtisodiy hamkorlik va taraqqiyot tashkilotining ijodiy fikrlashni rivojlantirish borasidagi yangi pedagogikani qo'llab-quvvatlashga qaratilgan boshqa bir loyihasi bilan bog'liqdir. Kreativ fikrlashda ta'limning asosiy vazifasi o'quvchida jamiyatda muvaffaqiyatli hayot kechirishi uchun bugun va kelajakda kerak bo'ladigan ko'nikmalarni shakllantirishdir. Kreativ fikrlash bugungi yoshlar ega bo'lishi kerak bo'lgan muhim ko'nikma bo'lib, bu ko'nikma ularga doimiy tarzda va shiddat bilan o'zgarayotgan, oddiy savodxonlikdan tashqari yangilanayotgan davrga xos ko'nikmalarga ega kadrlarni talab etayotgan makonga moslashishga ko'maklashadi.

Umuman olganda, bugungi o'quvchi kelajakda hozir hatto mavjud bo'lmagan sohalarda ishlashi, yangi muammolarni yangi ko'nikmasini shakllantirish ularga tobora murakkablashayotgan mahalliy va global muammolarni noodatiy yondashuv orqali hal etish imkonini beradi. Maktabda kreativ fikrlashni rivojlantirishning ahamiyati faqatgina mehnat bozori bilan cheklanmaydi. Maktab yoshlar uchun o'z qobiliyat va ko'nikmalarini, shu jumladan ijodiy iste'dodlarini kashf etishda muhim ahamiyatga ega. Shuningdek, kreativ fikrlash o'quvchilarning ta'lim olishini hodisalar, tajribalar va xatti-harakatlarni yangicha va shaxsan mazmunli usulda talqin etish orqali qo'llab quvvatlaydi. O'quvchining qiziquvchanligi ta'lim jarayonida qo'l keladi, ijodiy fikrlash shu tariqa o'zaro kelishuvchanlik vositasiga aylanadi, hattoki avvaldan belgilangan ta'lim maqsadlari kontekstida ham bu samara beradi.

Maktabda o'quvchining motivatsiyasi va qiziqishini oshirish uchun, barcha o'quvchilarning ijodiy salohiyati va shijoatini hisobga oluvchi ta'limning yangi shakllari yo'lga

qo'yilishi zarur. Bu ayniqsa ta'lim jarayoniga unchalik qiziqish bildirmayotgan o'quvchilarga yordam berishi mumkin va ular o'z fikrini ayta olishiga, salohiyatini ochishiga xizmat qiladi. Boshqa ko'nikmalar kabi, kreativ fikrlash ham amaliy va yo'naltirilgan yondashuv orqali rivojlantirilishi mumkin. Ba'zi o'qituvchilarga o'quvchining kreativ fikrlashini rivojlantirish o'quv dasturidagi boshqa fanlar evaziga bo'layotgandek ko'rinadi. Aslida, o'quvchilar barcha fanlarda kreativ fikrlashi mumkin. Kreativ fikrlash bilim berishga qaratilgan dars mobaynida ko'r-ko'rona yodlash o'rniga tadqiqot va ixtironi qo'llab-quvvatlaydigan yondashuvlar orqali rivojlantirilishi bilan alohida ahamiyatga ega.

Mantiqiy va kreativ fikr yuritish imkoniyatlarini rivojlantirishning uslubiy asoslari quyidagilardir:

1. Tajriba olish: Har doim yangi tajribalarni qidirish va o'rganish uchun ochiq bo'ling. Yangi joylarga sayohat qiling, yangi insonlar bilan tanishing va yangi sohalarda qatnashing.

2. O'qish va o'rganish: O'qish va o'rganish bilan dasturli bir mantiqiy qilib, o'zingizni yangi idealarga, ko'nikmalarga va ko'nikma ko'rish usullariga o'rgating. Bu sizning fikr yuritish imkoniyatlaringizni oshirib, kreativlikni rivojlantirishga yordam bera oladi.

3. Qo'llab-quvvatlash tadbirlari: Mahsulot tarkibida, ma'lum bir yo'nalishda yoki amaliyotda ishlash, boshqa insonlar bilan uchrashish va ular bilan birgalikda ishlash, sizning fikr yuritish uslubiyatizni oshirishga yordam bera oladi.

4. Muammolar va qiyinchiliklar: Muammo yoki muammoni identifikatsiya qilish va uning yechimlarini izlash, fikr yuritish imkoniyatlarini rivojlantirish uchun katta imkoniyatlar yaratadi.

5. Ko'rgazma va Tanqid: O'zingizning fikrlaringizni boshqalarga taqdim qilish, ular bilan ulashish va ularning fikrlariga quloq solish juda muhimdir. Ko'rgazma va tanqid sizni o'zingizni rivojlantirishga, xato qilishdan tashqari, yangi yondashishlarni topishga yordam bera oladi.

6. Tadbirlarga qatnashish: Boshqa mamlakatlarda, shaharlarda yoki onlayn tadbirlarda qatnashish. Bu, yangi shaxslar bilan uchrashish va ulardan o'rganish imkoniyatlarini oshiradi.

7. Meditatsiya va Yorqinlik: Fikr yuritish uchun yorqin va meditatsiya yaxshi natijalarni beradi. Bu, o'zingizga qo'yilgan fikrlarni o'rganish, yangi idealar olib chiqish va yaratishga imkon beradi.

8. Tekshiruv va Qayta ishlash: O'zingizning fikr yuritish jarayoningizni tekshirish va qayta ishlash juda muhimdir. Bu, xato

qilishlarni aniqlash, yangi yondashuvlar topish va o'zingizni o'zlashtirishingizga imkon beradi.

9. Boshqa sohalarda fikr yuritish: Boshqa sohalarda, masalan, san'at, musiqa, sport yoki matematika, fikr yuritish imkoniyatlarini oshirish uchun navbatdagi yondashuvlar va ilhomlarni topishga yordam bera oladi.

Bu uslubiy asoslar fikr yuritish imkoniyatlarini rivojlantirish uchun umumiy printsiplardir. Har bir kishning shaxsiy xususiyatlari va o'zining yondashuvi bo'yicha boshqa muhitlarda ishlashmoqchi bo'lishi mumkin.

XULOSA

Xulosa qilib aytish mumkinki, ijodiy sermahsullik bazaviy resurs yoxud sohaga bog'liq qobiliyatlar, jumladan, bilim va texnik ko'nikmalar bo'lib, ularni yangicha usulda birlashtirish uchun kerak bo'ladigan qobiliyatlar tayyor qo'llanmalardan voz kecha olish kabi zarur motivatsiyani taqozo etadi. Bu to'rt komponent ham turg'un, ham takomillashtirish va muhitga moyil bo'lgan komponentlardan iborat.

O'quvchilarning kreativ fikrlash ko'rsatkichlari ularning tadqiqotchilik qobiliyatlariga qanday bog'liq ekanligini tahlil etish ham o'rinlidir. Xuddi o'quvchi ishtiyoqini o'lchaydigan uslub kabi, uning tadqiqotchilik qobiliyatini ham kompyuterlashgan testdagi xatti-harakatini kuzatishdan olingan (telemetriya) ma'lumotlar asosida tahlil qilish mumkin.

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EMPOWER YOUR ENGLISH: SELF-LEARNING TIPS

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ABSTRACT

This comprehensive article, titled "Empower Your English: Self-Learning Tips," explores the journey towards English fluency through self-directed language acquisition. English proficiency is a valuable skill in our globalized world, and self-learning has emerged as an effective approach to attain it independently. Drawing from a wealth of literature and research, this article delves into the key self-learning strategies, including goal-setting, structured study plans, technology utilization, and immersion in authentic materials, that empower individuals on their path to English fluency.

The literature review highlights the importance of these strategies in language acquisition and underscores the flexibility and personalization inherent in self-learning. Results and discussions emphasize the role of dedication, consistent practice, and the development of life skills beyond language acquisition. In conclusion, self-learners are encouraged to adopt a proactive approach, maintain motivation, and persevere through challenges to unlock the rewards of English proficiency and a global perspective.

Keywords: self-learning, English proficiency, language acquisition, language learning strategies, goal-setting, structured study plans, technology utilization, immersion, authentic materials, personal growth.

Introduction

English proficiency is an invaluable skill in today's globalized world, opening doors to career opportunities, cross-cultural connections, and personal growth. Self-learning has emerged as an effective method for mastering the English language independently. In this article, we delve into a comprehensive compilation of self-learning tips designed to empower individuals on their journey towards English fluency. By examining relevant literature, discussing results, and offering practical insights, we aim to equip aspiring self-learners with the tools needed to take charge of their English language education.

Literature Review

Self-learning English involves a dynamic set of strategies that leverage various resources. These strategies often encompass the use of online language courses, language apps, reading materials, and language exchange programs. The literature suggests that self-learners benefit from setting clear language learning goals, creating structured study plans, and maintaining consistent practice.

Moreover, the flexibility of self-learning allows individuals to tailor their language education to their specific needs and preferences. This personalized approach fosters engagement and accelerates language acquisition. Additionally, research indicates that exposure to authentic English materials, such as movies, podcasts, and conversations with native speakers, plays a pivotal role in enhancing language skills.

Table 1 summarizes the key self-learning strategies:

Self-Learning Strategies	Description
Clear Language Learning Goals	Setting specific objectives for language proficiency.
Structured Study Plans	Creating a well-organized schedule for consistent practice.
Technology Utilization	Leveraging language learning apps and online resources.
Authentic Materials Exposure	Engaging with movies, podcasts, and conversations in English.

Table 1. Self-learning strategies.

Results and Discussion

The effectiveness of self-learning tips for English proficiency is contingent on an individual's dedication and the strategies they employ. Studies suggest that self-learners who adhere to structured study plans and practice regularly tend to experience significant progress. The use of technology, including language learning apps and online resources, provides self-learners with a wide range of tools and interactive opportunities for language acquisition.

Moreover, immersion in authentic English materials fosters natural language acquisition and improves listening and speaking skills. Self-learners often develop strong self-discipline and time management skills, which extend beyond language learning and contribute to overall personal growth.

Table 2 summarizes key results and benefits.

Conclusion

In conclusion, "Empower Your English: Self-Learning Tips" provides a comprehensive guide for individuals seeking to enhance their English proficiency independently. The strategies



discussed in this article, including goal-setting, consistent practice, technology utilization, and immersion in authentic materials, offer a roadmap for success. Self-learners are encouraged to embrace a proactive approach, maintain motivation, and persevere through challenges.

Results and Benefits	Description
Progress with Structured Study Plans	Consistent practice leads to significant language proficiency gains.
Technology for Interactive Learning	Online resources and apps enhance engagement and comprehension.
Immersion in Authentic Materials	Exposure to real-world content improves listening and speaking.
Development of Key Life Skills	Self-discipline and time management skills extend to other areas.

Table 2. Key results and benefits.

For those embarking on the path of self-learning English, the rewards are substantial. English fluency opens doors to diverse opportunities and enriches both personal and professional experiences. By empowering themselves with these self-learning tips, individuals can unlock the potential of mastering the English language and embracing a global perspective.

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INGLIZ VA O‘ZBEK NASRIDA AYOL OBRAZINING BADIY TASVIRI**Ozoda Zokirjon qizi Yozdonqulova**

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Hozirgi globallashuv jarayonida xalqimizning ma'naviy, siyosiy va diniy savodxonligini yuksaltirish zamonamizning eng muhim talabi bo'lib, bu borada ayollar masalasi alohida ahamiyat kasb etadi. Maqolada ingliz va o'zbek nasrida ayollar obrazining xususiyatlari ko'rib chiqiladi. Har bir xalq milliy qarashlaridan kelib chiqqan holda o'z adabiyotida ayol obrazini turlicha tasvirlaydi. O'zbek nasrida ayol timsoli ona, rafiqqa, uy bekasi sifatida tasvirlansa, ingliz adabiyotida esa bularga qo'shimcha sifatida ayol ishbilarmon tadbirkor, ishchi xodim kabi vazifalarni ham bajaradi. Ingliz adabiyotida ham ayol obrazi davrlar davomida tadriji o'zgarib borgan. XIX asr ingliz nasrida ayol obrazi erkak yozuvchilar tomonidan to'laqonli ideallashtirilgan holda yaratilgan. Shuningdek, maqolamizda ayol va jamiyat munosabatlari ham turli jihatdan o'rganiladi. Adabiyotlarni tahlil qilar ekanmiz biz ayol obrazini yaratishda asosan ayol va jamiyat o'rtasidagi munosabatdan, ayolning jamiyat qatlamlarida qanday tan olinishi va uning jamiyatda, oilada o'rnini tahlil qilgan holda ayolning nasrda tasvirlanishiga baho berish mumkin. Har bir milliy adabiyotda ayol obraziga keladigan bo'lsak, u o'sha xalqning tabiatiga, zamon ruhiga mos tarzda aks etadi, idrok qilinadi. Binobarin, bir xil sharoitda harakat qiladigan personajlar har bir adabiyotda turlicha gavdalanadi.

Kalit so'zlar: ayol psixologiyasi, timsollar, obraz, stereotip, personaj.

KIRISH

Istiqlol davri — o'zbek adabiyotshunosligining xalqaro maydondagi o'zni va nufuzini oshirishni, hozirgi adabiy jarayon hodisalarini tanqidiy o'rganish va o'zlashtirishni, milliy-madaniy merosimizni tadqiq etishni, bugungi globallashuv jarayonida qadriyatlarni anglash zaruratining badiiy adabiyot mohiyatiga yanada chuqur kirib borishini, badiiy asarlarning jahon adabiyoti rivojida munosib o'rnini asoslashni va keyingi davr adabiyotiga kuchli ta'sir o'tkazgan ijodkorlar merosini o'rganishni taqozo etmoqda. Shundan kelib chiqib, bugungi madaniy-ma'rifiy sohalardagi islohotlar jarayoni o'zbek adabiyotshunosligi oldiga ham qator yangi vazifalar qo'yimoqda.

Xususan, adabiyot nazariyasi, poetika, nazm, xalqaro adabiy aloqalar va adabiy ta'sir masalalari, mumtoz adabiyot tarixi, tarjimashunoslik, adabiy-estetik, badiiy-falsafiy tafakkur takomili singari

sohalarda ayol obrazini talqin etish va ifodalash muammolari jahon va



o'zbek ilm-fani uchun tadqiq manbaiga aylangan. Ma'lumki, har qanday adabiyot o'z g'oya va personajlari bilan ajralib turadi. Shunga ko'ra, barcha zamonlarda ayol siymosiga, ayol xarakterini ochib berishga bag'ishlangan asarlar yaratilgan. Bu esa ayolning jamiyat va insoniyat hayotidagi o'zni, ayol timsolining dolzarbligidan dalolat beradi. Ayol obrazi hozirda turli fanlar va san'atning barcha turlarida (kino, teatr, haykaltaroshlik, rassomchilik, raqs, badiiy adabiyot, san'atshunoslik, psixologiya) muhim muammo sifatida o'rganilmoqda. Ammo bu boradagi ishlar bugungi kun ayolining ichki dunyosini, ijtimoiy-siyosiy faoliyatini, onalik, bekalik kabi zalvorli majburiyatini, ularning go'zallik, aql va donishmandlik timsoli sifatidagi qirralarini yetarli darajada ochib berishda ko'zlangan maqsadga erishilmayapti.

ADABIYOTLAR TAHLILI VA METODOLOGIYA

O'zbek nasrida ayol obrazi talqini mumtoz va zamonaviy adabiyotda ko'p uchraydi. XX asrning dastlabki yillarida ayollar obrazlari mahorat bilan yoritilgan asarlar soni yanada oshdi va ular orasida aynan nasriy janrda yozilgan asarlarni alohida ko'rsatish mumkin. Misol uchun, Kumushbibi, Zaynab ("O'tkan kunlar"), Zebi ("Kecha va kunduz"), Unsin ("Dahshat"), Gulnor ("Qutlug' qon"), Saida ("Sinchalak") obrazlari o'zbek nasrida yaratilgan ayol siymosi mohirlik bilan ochib berilgan asarlar sirasiga kiradi. Zamonaviy adabiyotshunoslikda esa ayol obrazini yoritishga qaratilgan asarlar juda ko'p bo'lmasa-da, lekin deyarli har bir asarlarda ayol xarakterini, ayolning ichki kechinmalarini to'laqonli ochib beruvchi qahramonlar mavjud. Adabiyot millat ko'zgidir. Har bir millat yoki mamlakat adabiyotini o'qib kuzatar ekanmiz, asardagi qahramonlar orqali o'sha millat madaniyatini ham ko'z oldimizga keltiramiz. Qolaversa, belgilangan mavzular va umuminsoniy qadriyatlar barcha millatlarga ta'sir qiladi. Turli mualliflarning bu boradagi asarlari xalq og'zaki ijodi bilan birgalikda har bir xalqning keyingi avlodlari uchun adabiy meros sifatida xizmat qiladi. Dunyoning turli xalqlari madaniyatlari doimo bir-biri bilan chambarchas bog'lanib, adabiyot orqali ham madaniy, ham ma'naviy jihatdan boyib boradi va o'ziga xosligi bilan ajralib turadigan, ayni paytda bir-birini to'ldiradigan milliy adabiyotlar jahon adabiyotini tashkil etadi. Shunga ko'ra, xalqlar adabiyoti bir-biri bilan chambarchas bog'lanib, tobora ko'proq o'zaro aloqada bo'lish va o'zaro ta'sirni adabiy-tarixiy makonda o'rganish jahon adabiyotshunosligining har tomonlama rivojlanishi uchun alohida ahamiyat kasb etadi. Bu boradagi taniqli rus yozuvchisi N. I. Kondradning "Bashariyatning madaniy qadriyatlari doimo bir-biri bilan uzviy aloqada bo'lgan va busiz taraqqiyot mavjud emas" degan so'zlarini ko'pchilik yaxshi biladi. Yuqoridagilardan kelib chiqib, qayd



etish mumkinki, dunyodagi har bir millat va elatlarning madaniy, etnik tarixini bilish, madaniy-ma'naviy hayoti haqidagi tasavvurlar shakllanishida jahon adabiyotining o'rnini beqiyosdir. Kuzatishlarimizdan ma'lum bo'lishicha, hozirgi kungacha ingliz adabiyotining har bir adabiy davrida ayol obrazi tasvirlangan ko'plab asarlar yaratilgan. Xususan, Jeyn Ostinning "G'urur va andisha" asaridagi Elizabet Bennet xarakteri, Sharlotta Brontening "Jeyn Eyer" romanidagi Jeyn Eyer obrazi, Margaret Mitchellning "Shamollarda qolgan hislarim" asaridagi Skarlett O'Hara obrazi shular jumlasidandir. Bundan tashqari taniqli ingliz yozuvchilaridan bo'lgan Charliz Dikens, V. Skott, Emili Bronte kabi jahon adabiyotining buyuk darg'alari o'z asarlarida ayol obrazini tasvirlashga harakat qilganlar. Ayol dunyo va insoniyatning boshlanishi hisoblanib, uning go'zalligi, jozibasi, boy ma'naviy dunyosi shoir va yozuvchilarni hamisha ilhomlantirgan. Go'zal ayol tasvirlari hali hamon kitobxonlar qalbini hayajonga solib kelmoqda. A. S. Pushkin adabiy aholisiga mansub ayollarning ilohiy go'zalliklari va Lev Tolstoyning maftunkor ayol obrazlari, I.S.Turgenev asarlaridagi qahramon ayol obrazlari, N. A. Nekrasovning oddiy dehqon ayollari obrazlari tasvirlangan asarlari bugungi kunda ham adabiy-estetik qiymatini yo'qotmagan. XX asr shoir va yozuvchilari ham o'z an'analarga amal qilib, hayratga sazovor ayol obrazlari tasvirlangan asarlar yaratganlar. Jahon adabiy tanqidida XX asr oxirida ayollar nasri o'zbek badiiy adabiyotida adabiy-madaniy yo'nalish sifatida e'tirof etildi. Shu davrda o'zbek adabiyotida ayol estetikasi, ayol qo'lyozmasi, ayol fenomeni, ayol o'zbek adabiyotida ayol estetikasi, ayol qo'lyozmasi, ayol fenomeni, ayol ijodkorligi, ayol donishmandiligi, ayol sabri va toqati kabilarga alohida e'tibor qaratildi. XIX asr adabiy-badiiy tasvirlari esa ayolning zamonaviy qiyofasiga yo'naltirildi.

Jahon adabiyotshunosligini kuzatar ekanmiz, adabiyot jamiyat qadriyatlarini aks ettirishi va ushbu qadriyatlarni amalga oshirishga oid g'oyalar ilgari surilganligini ko'ramiz. Ammo 1970-yillardagi feministic harakat Amerika madaniyatiga chuqur ta'sir ko'rsatgan bo'lsa-da, jamiyatda hali ham erkaklar hukmronlik qiladi va ayollar madaniy tenglikka erishishlari uchun ko'p harakat qilishlari kerak deb qaraladi. Shuning uchun adabiyotda ayollarning rolini qayta yaratish va qayta belgilash muhim vazifalardan biri sifatida qolmoqda. Shu bilan birga, yoshlar adabiyotida ayollar obrazining to'g'ri tasvirlanishi va unga tarix qanday ta'sir qilgani haqidagi yangicha qarashlar o'rtaga tashlanadi. Adabiyotshunos olim M. Baxtin ta'kidlaganidek, har bir milliy adabiyotning ahamiyati va o'ziga xosligini anglash uchun "ularni chet el adabiyotlari bilan birgalikda solishtirilgan holda ko'rish" muhimdir. "Hamma narsa taqqoslashda ma'lum" nazariy tamoyili voqelikning deyarli ko'plab hodisalariga nisbatan qo'llaniladi. Bu mashhur naql adabiy tanqid, adabiy hodisalar, badiiy asarlar, adabiy va badiiy obrazlar, muallif tarjimai holi va boshqa adabiy oqimlarni



qiyosiy usulda tahlil qilishning asosiy nazariyalaridan biri sifatida namoyon bo'ladi. Taqqoslash-bilishning usuli sifatida "bir xil hodisalar"ning ma'lum sifat va miqdoriy tavsifini berish zaruriyati tug'ilganda, ular rivojlanishining umumiy va o'ziga xos qonuniyatlarini inobatga olgan holda qo'llaniladi.

Yuqorida aytilganlarga asoslanib, qiyosiy tahlil yordamida solishtirilgan materiallar orasidagi o'xshashlik va farqlarni aniqlash mumkin bo'ladi. Qiyosiy adabiyotda ma'lum vaqt oralig'ida bevosita aloqada va umumiy tarixiy xususiyatga ega bo'lmagan adabiyotlardagi o'xshash va o'xshash bo'lmagan hodisalarni o'rganish alohida o'rin tutadi.

Ayollarning tafakkuri, o'ziga xos xususiyati, chidam va bardoshi kabi xislatlari badiiy asarlarda o'z aksini topgan. Ularning yorqinligini, o'ziga xos shaxs ekanligini ifodalash bo'yicha nafaqat adabiyot namoyandalari, balki har bir san'at ahli turli nuqtai nazardan o'z tadqiqotlarini olib borishgan.

Adabiyotlarni tahlil qilar ekanmiz, ayollar obrazini o'rganish va tasvirlash, avvalo, gender muammolarini o'rganishdan boshlanganligi ko'zga tashlanadi. Ayol obrazini yaratishda asosan ayol va jamiyat o'rtasidagi munosabatning ifodalanishi, ayolning jamiyat qatlamlarida qanday tan olinishi va uning jamiyatda, oiladagi o'rnini tahlil qilgan holda ayol obrazining nasrda tasvirlanishi kuzatiladi. Har bir milliy adabiyotda ayol obrazini tasvirlashga keladigan bo'lsak, u o'sha xalqning tabiatiga, zamon ruhiga mos tarzda aks ettirilganligini ko'ramiz. Binobarin, bir xil sharoitda bir xil harakat qiladigan personajlar har bir adabiyotda turlicha gavdalanadi. Buning soddaroq izohi shundaki, har bir xalq og'zaki ijodining o'ziga xosligi masalan, "Zumrad va Qimmat"i bo'lishi, hech biri ikkinchisini takrorlamasligidir. Ammo voqealarning cho'qqisida bo'lgan va asar markazida turgan ayol obrazi har qanday xalq adabiyotida turlicha tasvirlanganligini ham unutmaslik lozim.

Ma'lumki, ingliz va o'zbek adabiyotida ayol obrazini yaratishga juda ko'plab adabiyot vakillari qo'l urishgan. Bunda har bir yozuvchi o'z dunyoqarashidan kelib chiqqan holda, ma'lum bir ayol obrazini o'z asarlarida gavdalantirishga harakat qilishgan. Jumladan, rus olimi Ye.Shore ayollar obrazini malikalar, jodugarlar, farishtalar, yoqimli, jozibali ayollar va mehribon ona xislatiga ega ayollar tarzida tasniflaydi. Bunda, albatta, tasvirlash jarayonida nafaqat yozuvchining pozitsiyasi, balki millat, davlat, til va madaniyat ham o'z ta'sirini ko'rsatadi. Misol uchun Sharqda aynan o'zbek adabiyotida ayol — ona, ayol — rafiqa timsollari orqali tasvirlangan asarlar ko'p uchraydi. Bu bizning jamiyatimizda ayolning asosiy vazifalari oila va oilada farzandlar parvarishi bilan bog'liqligi holatiga ishora qiladi. Lekin zamonaviy adabiyotlarni ko'zdan kechiradigan bo'lsak, ayolning vazifasi nafaqat oila, uy yumushlari bilan chegaralanib qolish, balki ayol jamiyatning bir bo'lagi sifatida ham tasvirlanish holatlari ham kuzatiladi. Bu shundan dalolat beradiki, bugungi kunda ayolning jamiyat bilan aloqasi kuchayib bormoqda va bu badiiy asarlarda o'z aksini topmoqda.

Hozirgi kungacha yaratilgan salmoqli asar mualliflaridan O'tkir Hoshimov, Xurshid Do'stmuhammad, Erkin A'zam, Nazar Eshqobil, Isajon Sulton, Ulug'bek Hamdam, Zulfiya Qurolboy qizi, Luqmon



Bo'rixon kabi adiblar ayol obrazini chuqurroq ochib berishga harakat qilishayotganliklarini ko'ramiz. Ular orasida ayniqsa, O'tkir Hoshimov o'zining ko'plab asarlarida o'zbek ayoli qiyofasini, ayolning jamiyatdagi o'rnini, ayolning to'laqonli obrazini yoritib berishga intilganligini alohida qayd etishimiz mumkin. Adibning 1993-yilda yozilgan "Tushda kechgan umrlar" romanida ayolning sadoqati, ayolning sabri, ayolning asl ona, yor qiyofasi ochib berishga harakat qilingan hamda bu borada o'ziga xos yangicha yondoshuvlar ko'zga tashlanadi. Romandagi asosiy qahramonning erkak bo'lishi asardagi ayol obrazini ochib berishda muammo yuzaga keltirmagan, aksincha, romandagi erkak obrazidagi xislatlar va ayolning jamiyat, ijtimoiy turmush bilan munosabatlarini taqqoslash orqali ayol obrazini tasvirlashga yordam berganligi kuzatiladi. Asardagi syujetlardan ma'lumki, romandagi ayol qahramonlar Rustanning umr yo'ldoshi Shahnoza, Qurbonboy xola va uning qizi qiyofasida ayolning jamiyat bilan munosabatlari teran yoritib berilgan. Asarlarida ona, ayol timsoliga tez-tez murojaat qilgan adiblarimizdan yana biri Isajon Sultondir. Uning "Jahon so'z san'atida onalar vasfi, onalik sha'ni, ayol haq-huquqi va muammolariga bag'ishlanib bitilgan, qadr topgan, asarlar oz emas. Isajon Sulton qissasi asl onaizorlikning shakllanishi va shakllantirilishidek og'ir, zahmatli voqeyi-ilohiy tadbir qonuniyatini islomiy tarzda, sobit milliy turmush tarzi va iymoniy ko'rsatmalar asosida poetik tafakkur bilan ijod etilgan o'ziga xos badiiy asar namunasidir. Isajon Sultonning "Onaizorim" asari mangu mavzuning yangi, eng ulug'vor tomoni haqidaligi, adabiy-estetik yondashuvning mavjudligi bilangina emas, balki boshqa qator fazilatlariga ko'ra ham bugungi o'zbek nasrining ko'rkam yangiligidir", deb yozadi adabiyotshunos olim Tohir Shermurodov. Darhaqiqat Isajon Sulton ijodidagi yetakchi obrazlardan biri ona obrazidir. U boshqa adiblardan farqli o'laroq ona obraziga prototip o'laroq o'z onasini tanlaydi. Bu obraz zamirida butun o'zbek onalari portretini yaratishga intiladi. "Onaizorim"dan so'ng adib o'zining bir qator hikoyalarida ayollar obraziga murojaat qiladi. Jumladan, "Shamolli kecha", "Tosh kelinchak" kabi bir qator hikoyalarida ayol obrazining turli ko'rinishlarini yaratishga harakat qiladi. Adibning "Men, onam va O'rta yer dengizi" hikoyasidagi ona u yaratgan obrazlar ichida o'ziga xosligi bilan ajralib turadi. Hikoya chuqur psixologizm va drammatizmga boy bo'lib, unda hikoya qahramoni keksalik gashtini surib, hayot falsafasini farzandlariga, nevaralariga o'qitayotgan, mushohadakor, ammo hali ham qarashlari o'tkir ma'noli o'zbek onasi haqida so'z boradi. Yozuvchi o'z hikoyasida: "Onam... o'zgarib qolibdi-ku?" deb o'ylayman bildirmasdan razm solib. Qaddini tik tutib, mag'rur yurishlari o'sha-o'sha, biroq avvalgi shiddati sezilmaydi. Sekinroq, avaylabroq qadam bosadi. Men oldin ko'rmagan, payqamagan ko'p xavotirlar bor bu qiyofada", deya ta'kidlash orqali onasidagi o'zgarishlarni psixologiktavsiflash orqali ayol obrazini tasvirlashga harakat qiladi. Asarda muallif o'zbek onasi qiyofasining fazilatlarini, hech kimga o'xshamaydigan qirralari, dunyodagi voqea-hodisalarga, oilaga, el-ulusga, zurriyodiga, ota-onaga munosabatini badiiy ifoda etadi.

Adabiy manbalar tahlilidan ayon bo'ladiki, ingliz adabiyotida ham ayol obrazi davrlar davomida o'zgarib borgan. XIX asr ingliz



nasrida ayol obrazi erkak yozuvchilar tomonidan to'laqonli ideallashtirilgan holda yaratilganligi ko'zga tashlanadi. U. Skotning "Ayvengo" romanida ingliz ayoli obrazi Rovenah yahudiy go'zali Revekadan farqli o'laroq, passivligi, yumshoqligi, qarshilik ko'rsatishga qodir emasligining ideallashtirilgan timsolini ko'rishimiz mumkin. Bu borada, faqatgina sanoqli yozuvchilar garchi syujet jihatdan vaziyatlar juda stereotipik tarzda hal qilingan bo'lsa-da, ayol obrazini stereotiplashdan chetga chiqishga muvaffaq bo'lishadi. Tekkereyning "Vanity Fair" romanidagi Rebekka Sharp va Emiliya Sedli, U. Kollinzning "The Women in White" asaridagi Merion Golkomb ayol qahramonlar stereotiplashdan chetga chiqilgan asarlar sirasiga kiradi.

NATIJALAR VA MUHOKAMA

Manbalardan ma'lum bo'lishicha, har bir mamlakatda ayol obrazini tasvirlash usuli turlicha qiyofalar, turlichadunyoqarashlar bilan boyitilgan. Misol tariqasida oladigan bo'lsak, o'zbek xalqining jahon xalqlari madaniy merosining munosib durdonalardan biri bo'lgan "Alpomish" dostonidagi Barchin obrazi vafo, fidoyilik, mardlik kabi yuksak fazilatlarni o'zida mujassam etgan. Abdulhamid Cho'lponning "Kecha va kunduz" romanidagi Zebi obrazini oladigan bo'lsak, ayol xilqatining naqadar soddaligi, go'zalligi, odobi, betakrorligini adib mohirlik bilan namoyon qilib bera olgan.

Hozirgi globallashuv jarayonida xalqimizning ma'naviy, siyosiy va diniy savodxonligini yuksaltirish zamonamizning eng katta talabi bo'lib qolmoqda. Bu borada ayollar masalasi alohida ahamiyat kasb etadi. "Bugungi kunda ayollar huquqlari inson huquqlarining ajralmas qismi sifatida, erkak va ayol o'rtasidagi ijtimoiy va huquqiy tenglik masalasi dolzarbligini ko'rsatmoqda. Bugungi kunda dunyoning ko'plab mamlakatlarida ayollarning maqomi bilan bog'liq jiddiy muammolar vujudga kelmoqda. Davlatimiz rahbari tomonidan ilgari surilgan 2017–2021yillarga mo'ljallangan Harakatlar strategiyasi va 5 ta muhim tashabbusda ham xotin-qizlarning ijtimoiy-siyosiy faolligini oshirish, davlat va jamiyatdagi rolini kuchaytirish, xotin-qizlarning bandleligini ta'minlash, kasb-hunar kollejlari bitiruvchilarini tadbirkorlik faoliyatiga keng jalb etish borasidagi ishlar amalga oshirilmoqda. Barcha harakatlar xotin-qizlarni jamiyat bilan aloqasini kuchaytirishga qaratilmoqda. Bundan tashqari ayolning jamiyat va oiladagi o'rnini har bir millat adabiyotida yoritilgan ayol qahramon obrazidan ham bilib olsak bo'ladi, o'xshash va farqli jihatlar bo'yicha xulosa chiqarishga imkon beradi. Bu orqali jamiyatda ayolning o'rnini va uning o'zaro munosabati ochiq-oydin belgilanib boradi. Ikki millat adabiyotini kuzatish chog'ida amin bo'ldikki, ayollar obrazlari davr evolyutsiyasiga duch kelgan bo'lib, har bir zamon va makonda turlicha tasvirlangan ayol qahramonlar mavjud.

XULOSA

Ingliz va o'zbek adabiyoti hamisha o'zining g'oyaviy mazmunining teranligi, hayot mazmun-mohiyati masalalarini hal



etishga tinimsiz intilishi, insonparvarlik munosabatlari, tasvirlashning haqqoniyligi bilan ajralib turadi. Ingliz va o'zbek yozuvchilari ayol obrazlarida eng yaxshi xususiyatlarni ifodalashga intilishgan. O'zining sodiq va mehribon qalbi, betakror ma'naviy go'zalligi bilan ajralib turadigan ayol obrazlari jahon badiiy adabiyotida turlicha tasvirlangan. Ayol ko'p qirrali xilqat bo'lib vaqt o'tishi bilan uning vazifalari kengayib, dunyoga qarashi o'zgargan bo'lishidan qat'iy nazar uning nozikligi, oilaparvarligi, mehribon ona kabi xislatlari o'zgarmasdan qolaveradi. Mustaqillik davri o'zbek qissanavislari badiiy, adabiy ijodiy tajribalarini to'plashda milliy qissachilikdan tashqari, dunyo qissachiligi tajribalarini o'zlashtirdi va milliy islomiy badiiy talqinlarga yuz burganini ko'rsatdi. Adabiyotning bosh qahramoni, bosh mavzusi ayoldir. To'g'ri, adabiyotlarda ota-onaga muhabbat, tabiat go'zalligi, insof, farzand muhabbati, dushmanga nafrat kabi abadiy mavzular mavjud bo'lib, ularning har biri minglab xalqlarning adabiyotida tarannum etiladi. Ayollar mavzusini o'rganish ham adabiyotshunoslikda tadqiq etilishi lozim bo'lgan dolzarb vazifalar sirasiga kiradi.

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MA'NAVIYAT SOHASIDAGI ISLOHOTLARNING YANGI O'ZBEKISTONDA JAMIYAT TARAQQIYOTIDAGI O'RNI

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“Toshkent irrigatsiya va qishloq xo‘jaligini mexanizatsiyalash muhandislari instituti”
Milliy tadqiqot universiteti “Gumanitar fanlari” kafedrasida katta o‘qituvchisi

ANNOTATSIYA

Yangi O‘zbekistonda ma‘naviy-ma‘rifiy islohotlarning boshlanishi va rivojlanishi bilan bog‘liq bosh tamoyil bu jarayonning izchil va uzluksizligidir. Ushbu maqolada mamlakatimizning yangilanishi jarayonida ma‘naviy qadriyatlarning namoyon bo‘lish shakllari hamda xususiyatlari va uning jamiyatimiz ijtimoiy hayotiga ta‘siri masalalari tahlil etilgan. Shuningdek maqolada, O‘zbekiston Respublikasi Prezidenti Shavkat Mirziyoyevning mamlakat parlamentiga Murojaatnomasida ilgari surilgan ma‘naviy islohotlar konsepsiyasi ilmiy-nazariy jihatdan izchil va amaliy tomondan uzluksiz faoliyatni aks ettirayotganligi tahlil qilingan. Maqolada globallashuv sharoitida ma‘naviyatning namoyon bo‘lish shakllari va xususiyatlari hamda ularning jamiyatimiz ijtimoiy hayotiga ta‘siri ko‘rib chiqiladi.

Kalit so‘zlar: Yangi O‘zbekiston, globallashuv, murojaatnoma, demokratiya, qadriyatlar, jamiyat, ma‘naviyat, ma‘naviy tarbiya, ma‘rifiy islohotlar, umuminsoniy qadriyatlar, milliy o‘zlikni anglash.

ABSTRACT

The main principle of the beginning and development of spiritual and educational reforms in the new Uzbekistan is the consistency and continuity of this process. This article analyzes the forms and features of the manifestation of spiritual values during the renewal of our country and their impact on the social life of our society. The article also analyzes the fact that the concept of spiritual reforms put forward in the Address of the President of the Republic of Uzbekistan Shavkat Mirziyoyev to the country's parliament is consistent from a scientific and theoretical point of view and reflects continuous activity from a practical point of view. This article discusses the forms and features of the manifestation of threats in the process of globalization and their negative impact on the social life of our society.

Keywords: New Uzbekistan, globalization, attractiveness, democracy, values, society, spirituality, spiritual education, educational reforms, universal values, understanding of national identity.



KIRISH

Davlatning yaqin va oʻrta muddatlarga moʻljallangan rejalari, mamlakatning rivojlanish kursini belgilab berishda Oʻzbekiston Respublikasi Prezidenti Shavkat Mirziyoevning mamlakat parlamentiga Murojaatnomasi instituti alohida oʻrin tutadi. Dunyo mamlakatlari prezidentlari tajribasida keng va samarali ishlatilib kelinayotgan ushbu institut Oʻzbekistonda amaliyotga tatbiq etilganiga koʻp boʻlgani yoʻq. Shunga qaramasdan oʻtgan vaqt ichida mamlakat siyosiy hayotida munosib oʻrinni egalladi. Muammoning umumnazariy xususiyatlari, jumladan, gʻoya va mafkuralar transformatsiyasi, globallashtirilgan jamiyat sharoitida mamlakatimizda maʼnaviy tahdidlarning kelib chiqishi va unga qarshi kurashish muammolari Markaziy Osiyo respublikalaridagi siyosatchi, faylasuf va tarixchilar, shu sohalarga oid tadqiqotchilar tomonidan tadqiq etilib, milliy-maʼnaviy xavfsizlik, ichki va tashqi tahdidlar, milliy oʻzlikni anglash muammolariga bagʻishlangan asarlar, ilmiy va davriy nashrlardagi maqolalar ham oʻrganilayotgan mavzuning dolzarbligini koʻrsatadi.

ADABIYOTLAR TAHLILI VA METODOLOGIYALAR

Oʻzbekiston Respublikasi Birinchi Prezidenti Islom Karimovning davlat va jamiyatni boshqarishning birinchi nazariy asosi boʻlgan “Oʻzbek modeli”, ilmiy-metodologik manba sifatidagi asarlari, Oʻzbekiston Respublikasi Prezidenti Sh.Mirziyoev asarlari, xususan, davlat rahbari tashabbusi bilan ishlab chiqilgan Oʻzbekiston Respublikasini yanada rivojlantirish boʻyicha Harakatlar strategiyasi, Yangi Oʻzbekiston Taraqqiyot strategiyasi va keng koʻlamli islohotlar olib borish borasidagi gʻoyalari ushbu tadqiqotga ilmiy-metodologik asos boʻlib xizmat qilsa, sohaga oid qonun hujjatlari, Prezident farmonlari, qarorlari va boshqa normativ-huquqiy hujjatlar tadqiqotning uslubiy bazasi boʻlib xizmat qiladi.

Mamlakatimizda mustaqillik yillarida amalga oshirilayotgan yoshlarga oid davlat siyosati, maʼnaviy tahdidlarga qarshi kurashish tajribasi bilan bogʻliq masalalar tahliliga bagʻishlangan doktorlik dissertatsiyasi doirasidagi tadqiqotlar qatoriga Q.Quranboev, S.Joʻraev, D.Boʻronova, F.Ravshanov, M.Yuldashev, Z.Qodirova, E.Bobomurodov, G.Tulenova, V.Quchqarov kabi olimlarning izlanishlari va ilmiy ishlarini kiritish mumkin.

Oʻzbekiston Respublikasi Prezidenti Shavkat Mirziyoev Murojaatnomasidagi har bir yoʻnalish oʻz mantiqiy asoslariga ega boʻlib, jamiyat hayotiga daxldor muhim masalalar yuzasidan mavjud vaziyatga obʻektiv baho berish bilan birga, ularni takomillashtirish borasida davlat rahbarining nuqtainazarini ifoda etadi, tegishli yoʻnalishda belgilab berilayotgan davlat yoʻnalishining gʻoyaviy asoslarini ochib beradi.

Mana shularning o'ziyiq Murojaatnomani o'zbek davlatchiligi rivojlanishining yaqin va o'rta davrlarga mo'ljallangan ustuvorliklarini ko'rsatuvchi siyosiy-huquqiy hujjat sifatida baholashga asos bo'ladi. Unda jamiyatimiz taraqqiyotining ma'naviy asoslarini yanada mustahkamlash, ushbu sohani yanada demokratlashtirish, so'z va axborot erkinligini ta'minlash kabi masalalarga alohida e'tibor berilgan. Ushbu Murojaatnoma bugungi hayot haqiqatini va hozirgi davr talablarini yaqqol ifodalaydi.

Ayni paytda, murojaatnomada ilgari surilgan g'oya va xulosalar, taklif va tashabbuslar keyingi uch-to'rt yillik hayot davomida ro'y bergan ishlar, qabul qilingan amaliy-tashkiliy hujjatlarga to'la muvofiq ekanligini yaqqol ko'rsatadi. Ya'ni, umuminsoniy qadriyatlarga sodiqlik ifodasi sifatida ma'naviy merosimizni tiklash va rivojlantirish borasidagi madaniy-ma'rifiy tadbirlar, ijodkor ziyolilar, ayniqsa yosh ijodkorlarga amaliy g'amxo'rlik ko'rsatish, ularning ijtimoiy muhofazasini ta'minlash orqali o'z imkoniyat va salohiyatlarini namoyon etishga rag'batlantirish va ana shu orqali mamlakatimizning har bir fuqarosi qalbida Vatanga muhabbat, g'urur va fidoiylilik xislatlarini uyg'otishga alohida ahamiyat qaratildi.

Ayni paytda bu jarayonlarning tizimli shaklga kirib, mohiyat va sifat jihatidan mutlaqo yangi ijtimoiy institutning ta'sis etilishi ma'naviy-ma'rifiy islohotlarning davomiyligini ham ta'minlayotgani shubhasiz. Shu bilan birga, tafakkur ozodligi uchun ma'naviy etuklik lozimligi, shunga ko'ra erkin iqtisodiyot sharoitida ma'naviy qadriyatlar qimmatini tushib ketmasligi, madaniyat ikkinchi darajali narsaga aylanib qolmasligi kerakligi bugungi kunning zaruratiga aylanmoqda. Bu jihatdan, iqtisodiy o'nglanish ma'naviy o'nglanish va yuksalish bilan uyg'unlikda bo'lishi bu sohadagi siyosatning asosiy poydevori ekanligi shubhasiz.

Bular barchasi mamlakatimizda ma'naviy-ma'rifiy islohotlarning yangi bosqichdagi davomiyligining ko'rinishlari deyish mumkin. Ushbu jarayonda madaniy ko'tarilishning eng ta'sirchan va ommaviy ko'rinishlari bo'lgan adabiyot va san'at, ta'lim va tarbiya tizimining avvalgi bosqichga nisbatan rivojlanganini va iqtisodiy quvvatlanganini yaqqol namoyon bo'lmoqda.

TAHLIL VA NATIJALAR

O'zbekiston Respublikasi Prezidenti Shavkat Mirziyoyevning Murojaatnomasi Respublikamiz ijtimoiy-iqtisodiy hayotining barcha yo'nalishlari kabi ma'naviyat sohalariga ham bevosita taalluqlidir. Chunki, mazkur ma'ruzada avvalo, bosib o'tgan yo'limiz tahlil etilsa, ikkinchidan, umum taraqqiyotimizning istiqbollari belgilab beriladi. Shunday ekan, ma'naviyat borasidagi islohotlarni ham yanada chuqurlashtirish, uni fuqarolik jamiyati qurishda asosiy mezon bo'lishi tasavvur etilmog'i lozim.



Zero mustaqil O‘zbekistonda ma’naviy-ma’rifiy islohotlar evolyusiyasi va rivojlanish bosqichlari kuzatilarkan, ularni bir-biriga bog‘laydigan va bir maxraj ostiga birlashtiradigan bosh tamoyil nima degan savol tug‘ilishi tabiiy. Bunga javoban qat’iy aytish mumkinki, O‘zbekistonda so‘nggi yillar davr mobiynda avvalo ma’naviy-ma’rifiy islohotlar konsepsiyasi ishlab chiqildi; ikkinchidan, bu konsepsiya jamiyat ijtimoiy hayotiga uzluksiz va izchil tadbiq etildi.

Agar mustaqillikning dastlabki o‘n yilliklarida boshlangan ma’naviy-ma’rifiy jarayonlar o‘zgarish va yangilanish zaruratini ijtimoiy ehtiyoj darajasiga etilganini namoyon etgan bo‘lsa, bugungi kun voqeligi, ma’naviy-ma’rifiy o‘zgarish va islohotlar ilmiy-nazariy konsepsiyasini va uni hayotga joriy etish amaliy mexanizmini ishlab chiqishni taqozo etdi. Murojaatnomada ilgari surilgan ma’naviy islohotlar konsepsiyasi ilmiy-nazariy jihatdan izchil va amaliy tomondan uzluksiz faoliyatni aks ettiradi. Demak, xulosa qilish mumkinki, O‘zbekistonda ma’naviy-ma’rifiy islohotlarning boshlanishi va rivojlanishi bilan bog‘liq bosh tamoyil bu jarayonning izchil va uzluksizligidir.

2016 yil oxiridan to hozirgacha kechayotgan demokratik yangilanish va ma’naviy-ma’rifiy sohalarda boshlangan islohotlarning davom etishi hamda rivojlanishi bilan belgilanadigan davr bo‘lib, bunda endi mazkur yo‘nalish institutlari faoliyatining takomillashuvi namoyon bo‘layotganini ko‘rish mumkin. Ayni paytda, fuqarolar tafakkuri va turmushida milliy va umuminsoniy ma’naviy qadriyatlarining kamol topishi va milliy ma’naviyat negizlarida tarbiya topib shakllanayotgan yosh avlodni kamolotini ham kuzatish imkoni yuzaga kelmoqda.

Keyingi yillardagi islohotlar tufayli odamlarning o‘z taqdirini o‘zi belgilash imkoniyatlariga ham keng yo‘lochildi. Shu yo‘nalishda odamlarning individual ravishda kamolotga, farovonlik va to‘kinlikka intilish xususiyatlari ham ravshan namoyon bo‘la boshladi. Ayni chog‘da shuni ham tan olish joizki, jamiyatimizdagi ba’zi odamlar ijtimoiy-ma’naviy, intellektual yangilanishlar jarayonlarida yetarli darajada faol ishtirok etmayapti. Nazarimizda, buning asosiy sabablari quyidagilar: birinchidan, odamlarda o‘tgan davr asoratlari, eskicha fikrlash tarzining saqlanib qolayotgani; ikkinchidan, odamlarda tashabbuskorlik, yangi-yangi faoliyatlarni boshlab yuborishdan cho‘chish, hadiksirash tuyg‘usining mavjudligi; uchinchidan, yangi faoliyatni boshlash uchun bilim va malakaning yetishmasligi, xorijiy tillarni bilmaslik va zamonaviy aloqalarga kirishish vositalari, turli kommunikatsiyalar tizimlariga bog‘lanib harakat qilish ko‘nikmasining yetishmasligi; to‘rtinchidan va eng taassuflisi ana shu kamchiliklarni tez bartaraf etib, amaliy ishga kirishish borasida shijoatning sustligidir.

Ma’naviy yuksalish masalasi jamiyatda odamlardagi ijtimoiy fazilatlar, ularning qadriyatlar tizimi ham demakdir. Boshqacha aytganda, ma’naviy islohotlar - jamiyatdagi axloqiy tamoyillar, xulq-



atvor me'yorlari, odamlarning mehnat jarayonidagi, hordiq chog'idagi, iste'mol, qilish, hayotiy rejalarini tuzish, bilim va axborotga ega bo'lish, malaka va tajribasi, g'oya va maqsadlari, ijtimoiy adolatga bo'lgan intilish, huquq va erkinliklari, fuqarolik burchlari, milliy taraqqiyot haqidagi tushunchalarining majmuidir. Odamdagi ana shu ma'naviy-ma'rifiy bilim va ko'nikma, malaka va sifatlar majmui ijtimoiy taraqqiyotning inson omilini kuchaytiradi. Bedard, beg'am, loqayd, tepsa-tebranmas odamning xarakteri taraqqiyotning inson omilini susaytiradi. Inson omili tushunchasi faqat bir kishiga emas, balki guruh va jamoalar, ulardagi ijtimoiy-ma'naviy muhit, odamlarning xulq-atvoriga ham bog'liq bo'ladi.

Binobarin, siyosiy tuzumlar, xalqlarning turmush tarzi, ijtimoiy hayot keskin o'zgarayotgani, dunyodagi sog'lom kuchlarning birlashib, turli hamjamiyatlar, birlashmalar shaklida tinchlik, totuvlik, taraqqiyot uchun kurash, intilish avjlanayotgani yuzlab misollarda o'z tasdig'ini topmoqda. Deylik, jaholatning diktatura shaklimi yokikabi uyushgan guruhlarimi, terror, korrupsiya, zo'raonlik va boshqa jinoiy usullarimi, kuchlanib, vayronkor g'oyalar g'alaba qilishiga qarshi dunyo hamjamiyati hamkorlikda choralar izlab, turli tadbirlar belgilayotgani barchaga yaxshi ma'lum.

Ilm-fan, texnika taraqqiyoti, axborot almashish imkoniyatlari esa favqulodda shitoblanib ketgani har bir ongli insonning kundalik turmushida ayon. Muvofiq holda bashariyatning madaniylashuvi, yangicha tamaddunlar birligi, dunyoqarashlarning dunyo qadar kengayayotgani ham inkor etib bo'lmas haqiqat. Ayni doirada O'zbekiston ham o'z taraqqiyot yo'li bilan jahon hamjamiyatida o'rini mustahkamlab bormoqda.

Ma'naviyatni, ma'rifatni bayroq qilib, ma'naviy islohotlar yo'lida izchil siyosat olib borgan O'zbekiston davlati endilikda fuqarolarining qalbi va ongida yangicha qarashlar va yondashuvlar tushunchasi hamda muayyan malakasini paydo qildi. Agar mamlakatimiz aholisining oltmish foizdan ortiqrog'i yoshlar ekanini inobatga oladigan bo'lsak, bu tabaqaning ijtimoiy shakllanishi va kamoloti istiqloq yillariga to'g'ri keladi. Demak, ma'naviyat borasida umummilliy tajriba haqida O'zbekiston misolida fikr bildirishga yetarli asoslar bor, deyish mumkin.

Mamlakatimizda olib borilayotgan keng ko'lamli islohotlarning dastlabki natijalari aholining hayoti va kundalik turmushida o'zining yaqqol ifodasini topmoqda, odamlarning ijtimoiy faolligi, ertangi kunga ishonchi o'sib bormoqda, hayotning barcha jabhalari kabi, iqtisodiyot sohasida zamon talablariga javob beradigan, yangicha ma'nomazmundagi va samarali islohotlarni amalga oshirish yo'lida birinchi qadamlar qo'yildi. Prezidentimiz Murojaatnomasida ta'kidlanganidek, qisqa muddatda 161 ta yirik sanoat ob'ekti ishga tushirildi. Ijtimoiy sohani isloh qilish bo'yicha qabul qilingan dasturlar ijrosi ham bosqichma-bosqich ta'minlanmoqda.

Xalqimiz bosib o'tgan mustaqil taraqqiyot yo'lining hozirgi bosqichi, faol demokratik o'zgarishlar va yangi O'zbekistonni barpo etish, mamlakatni modernizatsiya qilish davridir. Garchi, bu istilohlar ko'proq ijtimoiy-iqtisodiy jarayonlarni eslatsa-da, uni madaniy-ma'rifiy va ijodiy sohalarga ham bevosita taalluqli deyish mumkin. Gap shundaki, demokratik yangilanishlarning barqaror bo'lib faollashuvi badiiy ijod sohalariga davlat e'tibori bilan uyg'un holda san'atning ommalashuvi, professional ishtirok bilan bir qatorda havaskorlik intilishlarining kuchayishiga ko'ra ham izohlanadi. Nashriyot va bosmaxonalar, madaniy-ma'rifiy muassasalar, kino tarmoqlarining mulkchilik shakli o'zgarishi, ommaviy axborot vositalari turi va kam-miqdoring keskin ko'payishi, ommaviy-madaniy tadbirlarning respublika va hududlar miqyosida nihoyatda keng tus olishi va boshqa shu kabi holatlar badiiy ijodkorlikning ommalashib ketishiga asosiy sabab bo'ldi. Galdagi vazifa ana shu jarayonlarni takomillashtirish, professional adabiyot va san'atning tashkiliy, iqtisodiy va ijodiy mezonlarini belgilash, ijodiy sohalardagi xususiy tadbirkorliklarning me'yorlari va o'rnini yanada kengaytirishdan iborat bo'layotgani bejiz emas.

Ta'kidlash joizki, har qanday faoliyat muayyan muddatga kelib, sarhisob bilan, bosib o'tilgan yo'ning saboqlari, to'plangan tajriba yakunlari, xulosalari bilan nihoyalansa, keyingi taraqqiyot uchun aniq manzara chizish, reja va mo'ljallar olishda eng to'g'ri va maqbul usul bo'ladi. Shu ma'noda mamlakatimizda amalga oshirilgan ishlarni yil osha sarhisob qilish yurt rahbarining yaxshi an'anasiga aylangan. Nafaqat yil yakunlari, ayni chog'da istiqbolimiz tantanalarida, bayramlarda yurtboshimizning chiqishlari mamlakat hayotining barcha jabhalariga tegishli yirik umumlashmalar, qamrovli fikr-mulohazalari bilan xalqimiz e'tiborida bo'ladi. Albatta, bu chiqishlarda yakun bilan birga sohalar yo'nalishida ma'lum bir ko'rsatmalar, vazifalar ham belgilanadi. Bular barchasi ko'proq joriy jarayonlar bilan bog'liq bo'lib, tezda amaliy ijrosini topgach, tarixga aylanib boraveradi. Va bu jarayon miqyosi hamdako'lami, teranligi va umumiyqamrovlari bilan yillar, davrlar osha yashab qoladi.

Shu o'rinda bir holatni ta'kidlamoq zarurki, dastlabki o'n yilliklarda mamlakatimiz fuqarolari ongidagi Sho'ro davrlaridan o'tib kelgan eskicha dunyoqarash va tamoyillar umummilliy ma'naviy taraqqiyotimizda g'ov bo'lib, muayyan muammolarning kelib chiqishiga sabab bo'lsa, keyingi o'n yillik bir qadar bartaraf etilgan bu muammolar bunyodkorlik va taraqqiyot shukuhi bilan kechayotgan sog'lom turmush tarzimizga, ayniqsa tamomila yangicha ma'naviy tarbiyada kamol topayotgan yoshlar hayotiga begona chet ta'sirlarning ayniqsa adabiyot va san'at orqali hozirda "ommaviy madaniyat" deb, aslida "olomon madaniyati" bo'lgan tuban asarlarning kirib kelishidek global tashvishlar bilan almashinyapti.



Shuning uchun ham mamlakat rahbari ma'naviy tarbiya masalasini ijtimoiy taraqqiyotimizning hozirgi bosqichida yana eng zarur va eng dolzarb masala sifatida ilgari surmoqda. O'zbekiston Prezidentining Murojaatnomasi tag zamirida aynan shu maqsad ham yotadi. Maqsadiga ko'ra mantiqan davomiylik kasb etgan bu Murojaatnoma ma'naviy tarbiya sohasida doimiy ish olib borish, bu boradagi faoliyatni har tomonlama puxta o'ylangan tizimli ravishda tashkil etishgina ushbu yo'nalishda ko'zlangan maqsadga erishish lozimligini yana bir bor isbotlaydi.

XULOSA VA TAKLIFLAR

Xulosa o'rnida aytish mumkinki, mamlakat rahbarining parlamentga Murojaatnomalari nafaqat hokimiyatning asosiy tarmoqlari, balki mamlakat siyosiy tizimining muhim qismi bo'lgan siyosiy partiyalar rivojining ham asosiy vektorlarini belgilab beruvchi dasturiy hujjat sifatida qaror topdi. Murojaatnomalarda qo'yilgan aniq vazifalarning ijrosi partiyalarning mamlakatni modernizatsiya qilish jarayonida muhim siyosiy faktorlar sifatida munosib o'rin tutishi, funksional jihatdan xalq bilan, o'z elektorati bilan yaqindan ishlovchi sub'ektlar sifatida shakllanishi, qolaversa, demokratik o'zgarishlarni yangi darajada olib chiqilishning o'ziga xos yo'liga aylanishiga asos yaratadi.

Bu nuqtai nazardan, O'zbekiston Respublikasi Prezidenti Shavkat Mirziyoevning Murojaatnomasining mazmun-mohiyatini o'rganish nihoyatda muhim ahamiyatga egadir. Zero, ushbu Murojaatnoma, bir tomondan, mamlakatimizda amalga oshirilayotgan islohotlar, ularning maqsad-muddaolari va yo'nalishlarini yaqqol ifodalagan bo'lsa, ikkinchi tomondan esa, davlatimizning ma'naviyat sohasidagi siyosatining ustivor tamoyillari aniq-tiniq belgilab berilgan, ulkan nazariy va amaliy ahamiyatga molik tarixiy hujjatdir. Bu jihatdan, mazkur Murojaatnomaning mazmun-mohiyati va ahamiyatini har bir zamondoshimiz qalbi va ongiga singdirish bugungi ma'naviy-ma'rifiy ishlarimizning asosiy yo'nalishiga aylandi. Bu esa, aholining turli qatlamlari, ayniqsa, yosh avlod tafakkurida mustaqil taraqqiyotimiz davomida erishilgan natijalarni his qilib yashash, jamiyatimizda amalga oshirilayotgan islohotlarga daxldorlik tuyg'usini shakllantirish borasidagi ishlarni amalga oshirishda barchamizning zimmamizga ulkan mas'uliyat yuklaydi.

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ҲОЗИРГИ АДАБИЙ ҲИНДИЙ ТИЛИДАГИ ТАРТИБ СОНЛАРНИНГ ШАКЛЛАНИШИДА МОРФОНОЛОГИЯ ҲОДИСАСИ

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АННОТАЦИЯ

Мазкур мақолада ҳозирги адабий ҳиндий тилидаги истисно хусусиятига эга бўлган тартиб сонларга оид лексемаларнинг шаклланиш жараёнлари атрофлича ўрганилган. Уларнинг ўзига хос фонетик хусусиятлари тадқиқ этилган. Қадимги ҳинд-орий тиллари даврида содир бўлган шакллар ўрта ҳинд-орий тиллари даврига ўтиш жараёнида қандай фонетик ўзгаришларга учраганлиги ҳамда янги ҳинд-орий тиллари даврига келиб улар таркибида қандай морфонологик ҳодисаси содир бўлганлиги таҳлил этилган.

Калит сўзлар: сон сўз туркуми, тартиб сонлар, лексема, лексик бирлик, морфонология, қадимги ҳинд-орий тиллари, ўрта ҳинд-орий тиллари, янги ҳинд-орий тиллари, санскрит, палий, пракрит, апабҳаранша.

КИРИШ

Илмий манбаларда қайд этилишича, кўпчилик тилларда санок сонлар билан бир қаторда тартиб сонларга оид лексик бирликлар ҳам кенг қўлланилади. Мақолада Жанубий Осиё минтақасида кенг тарқалган ҳинд-орий тилларига хос бўлган ҳиндий тилидаги тартиб сонларга хос лексик бирликларнинг ўзи хос шаклланиш жиҳатлари тадқиқ этилади. Хусусан, қадимги ҳинд-орий тиллари даврига хос бўлган ведик санскрит ва санскрит, ўрта ҳинд-орий тиллари даврида ривожланган палий, пракрит ва апабаҳаранша ҳамда янги ҳинд-орий тилларига хос бўлган ҳозирги адабий ҳиндий тилидаги истисно хусусиятига эга бўлган тартиб сонларга хос лексемаларнинг ривожланишида содир бўлган фонетик жараёнлар таҳлил қилинади.

АДАБИЁТЛАР ТАҲЛИЛИ ВА МЕТОДЛАР

Мазкур мақолани ёзишда ҳинд тилшунос олимларидан Д.Варма, У.Тиварий, Б.Тиварий, К.Гуру, С.К.Чатгержий каби ҳинд тилшунос олимлари томонидан ёзилган кўплаб илмий асарлардан кенг фойдаланилди. Улар томонидан тартиб сонларнинг шаклланишига доир берилган маълумотлар атрофлича



ўрганилди. Тўпланган мисолларнинг ўзига хос хусусиятларидан келиб чиқиб, улар тарихий ҳамда тавсифий методлар асосида таҳлил қилинди.

Ҳинд-орий тилларига хос бўлган ҳиндий тилидаги тартиб сонлар ўзига хос шаклланиш ва ривожланиш жиҳатлари билан фарқланиб туради. Мазкур мақолада янги ҳинд-орий тилларига хос ҳиндий тилидаги тартиб сонларнинг шаклланишида содир бўлган морфонология ҳодисаси атрофлича ўрганилади. Ҳинд тилшунослигида ҳозирги адабий ҳиндий тилидаги баъзи тартиб сонлар ўзига хос истисно хусусиятлари билан бошқа тартиб сонлардан ажралиб туради. Яъни, “биринчи”, “иккинчи”, “учинчи”, “тўртинчи” ва “олтинчи” каби тартиб сонларга хос лексемалар бошқа тартиб сонлардан фарқли равишда ўзига хос усулда шаклланганлиги билан фарқ қилади. Тартиб сонларга хос бўлган ушбу лексемаларнинг шаклланишида морфонология ҳодисаси ҳам юз берган. Ушбу мақолада истисно хусусиятига эга бўлган тартиб сонларнинг келиб чиқишига алоҳида урғу берилди.

Таъкидлаш жоизки, тартиб сонларнинг шаклланиши борасида кўплаб ҳинд тилшунос олимлари ўз тадқиқот ишларини олиб борганлар. Хусусан, Сунитий Кумар Чаттержий, Бҳоланатх Тиварий, Удайнараян Тиварий, Дхирендра Варма каби йирик тилшунос олимлар барча сон турлари орасида тартиб сонларнинг ҳам келиб чиқишини тадқиқ этганлар. Илмий асарлардан маълум бўлишича, ҳозирги адабий ҳиндий тилидаги истисно хусусиятига эга бўлган барча тартиб сонлар ўзига хос шаклланиш хусусиятларига эга. Қуйида уларнинг ўзига хосликлари хусусида алоҳида тўхталамиз.

Ҳозирги адабий ҳиндий тилидаги *पहला pehla*: “биринчи” тартиб сонининг шаклланиши хусусида турли хил қарашлар мавжуд. Баъзи манбаларда ушбу тартиб сони *प्रथिल prathil* шаклидан келиб чиққан дейилади. Тилшунос олим Д.Варманинг фикрича ушбу тартиб сон санскритча қолип *प्र pra थ tha इल il* товуш ва морфемларнинг бирикуви натижасида ҳосил бўлган. Даставвал ушбу сон *पथिल्ल pathill पढिल्ल padhill* шаклларида қўлланилган бўлиб, ҳозирги адабий ҳиндий тилига келиб *पहला pehla*: шаклида қўлланила бошлаган.

Яна бир тилшунос олим У.Тивари эса ушбу лексема санскритча *प्रथम pratham* ҳамда *पढम padham* + *इल्ल ill* қўшилиши натижасида ҳосил бўлган *पढिल्ल padhill* шаклида ривожланиб *पहिल pahil* лексемасига эга бўлганлигини таъкидлаб ўтади. Б.Тиварий фикрига кўра ушбу лексема пракритдаги *पढम padham*, *पढमिल्ल padhmill*, *पढमिल्लग padhmill* ҳамда апабҳараншадаги *पहिल pahil पहिलअ pahila*, муаннас жинсига

хос бўлган *पहिली pahili:* , *पइली pili:* шаклларида ривожланган. Демак, “биринчи” тартиб сонига хос лексема дастлаб санскрит тилида *प्रथम pratham*, ўрта ҳинд-орий тилларига хос бўлган пракрит тилларида *पढमिल्लक padhmillak*, яъни *पढम padham* (бу ерда *र r* нинг таъсири натижасида церебрал товуш ҳосил бўлган) + *इल्ल ill* (санскритча *इल il* кўшимчаси кўшилган) + *क k* ва қайд этилганидек *पढमिल्लक padhmillak* лексемаси ҳосил бўлган. Ўрта ҳинд-орий тилларига хос ардҳамагадийда ушбу лексеманинг *पढमिल्लग padhmillag* шакли қўлланилган. Кейинчалик *पहइल्लअ pahaila* шаклида ҳам қўлланилган. Апабҳаранша тилига келиб бу *पहिलअ pahila* шаклига эга бўлган. Ҳозирги адабий ҳиндий тилига келиб бу лексема *पहिला pahila:* ва *पहला pehla:* шаклларида қўлланила бошлаган. Ушбу лексеманинг муаннас шакли пракритда *पढमिल्लिका padhmillika:*, *पहिल्लिआ pahillia:*, апабҳараншада *पहिली pahili:* , *पहली pehli:* шаклларида ривожланган ва ҳозирги адабий ҳиндий тилига келиб у *पहिली paheli:* ва *पहली pahli:* шаклларида қўлланила бошлаган.

НАТИЖАЛАР ВА МУҲОКАМА:

Ҳиндий тилида кенг қўлланиладаган *दूसरा du:sra:* “иккинчи”, *तीसरा ti:sra:* “учинчи” каби тартиб сонларга хос бўлган лексемаларнинг ривожланишига *द्वितीय dviti:* у “иккинчи”, *तृतीय triti:* у “учинчи” каби санскритча шаклларнинг алоқаси йўқ. Баъзи олимларнинг фикрича ушбу лексемаларнинг ривожланиши *द्वि dvi* + *सृतः sritah* ҳамда *त्रि tri* + *सृतः sritah* каби шакллар билан боғлиқ. *सृत srit* “иккинчи” ва “учинчи” тартиб сонига қўлланиладиган *सर sar* га тенгдир. Д.Варма, У. Тиварий каби олимлар бунга тўлиқ қўшилмайдилар. С.К.Чаттержий эса ушбу лексемаларда *सर्-आ sar-a:* суффикслари қўшилганлигини таъкидлайди.

Таъкидлаш жоизки, санскрит тили грамматикасида *त्रि tri* “уч” ва *चतुर् chatur* “тўрт” каби шакллар *तीन ti:n* “уч” ва *चार cha:r* “тўрт” каби санок сонларга хос лексемаларнинг дастлабки шакли сифатида тан олинган. Эътиборли жиҳати шундаки, санскрит тилига хос бўлган ушбу шакллар музаккар ва ўрта жинсга оид шаклларда қўлланилган. Муаннас жинсига хос отлардан олдин эса ушбу лексемалар *तिसृ tisri* *चतसृ chatsri* шаклларида қўлланилган. Бундай фикрларни Паниний ҳам таъкидлайди, унинг фикрига кўра муаннас жинсига оид отлардан олдин *त्रि*

tri “уч” ва *चतुर् chatur* “тўрт” каби санок сонлар тартиб сонлар вазифасини бажарганда улар *तिसृ tisri चतसृ chatsri* шакллари олиган. Ушбу шакллар санскрит тилида эмас, балки авесто тилида ҳам учрайди. Демак, қадимги тилларда “уч” сонининг иккита, яъни *त्रि tri तिसृ tisri* каби шакллари мавжуд бўлган. Қайд этилишича, *तिसृ* шакли асосида санскрит тилида “учинчи” тартиб сони *तृतीय triti:у, तिसृतीय tisriti:у, तिसृतीयकः tisriti:yakah* шаклларида қўлланилган ва айнан шу шакллар орқали *तीसरा ti:sra:* шакли ривожланган.

Ҳиндий тилидаги “иккинчи” тартиб сонига хос бўлган *दूसरा du:sra:* лексемаси ҳам юқоридаги ҳолатда шакллангандир. Таъкидлаш жоизки, тартиб сонлар таркибида учрайдиган *-स-* (*-s-*) товуши иштирок этган шакллар санскрит, палий, пракрит, апабҳаранша тилларида яратилган адабиётларда деярли учрамайди. Шунингдек, қадимги ҳинд адабиёти ва ҳиндий тили шеваларида учрайдиган *दूजा du:ja:* “иккинчи”, *तीजा ti:ja:* “учинчи” каби шакллар санскритча *द्वितीयकः dviti:yakah* “иккинчи”, пракритча *दुइज्जओ duijjao* “иккинчи”, апабҳараншадаги *दुइज्जअ duijja* “иккинчи”; пракритча *तइज्जओ taijjao* “учинчи”, апабҳараншадаги *तइज्जअ taijja, तिज्जअ tijja* каби шакллар орқали ривожланган.

“Тўртинчи” маъносини англатувчи *चौथा chautha:* тартиб сони қадимги ҳинд-орий тилларига хос бўлган санскрит тилида *चतुर्थकः chaturthakah*, ўрта ҳинд-орий тилларига хос бўлган пракрит тилларида *चउत्थओ chautthao, चउत्थअ chautthaa*, ардҳамагадҳийда *चउत्था chauttha:*, апабҳараншада *चउत्था chauttha:*, *चोत्थअ chotthaa* ва янги ҳинд-орий тилларига хос бўлган ҳиндий тилида *चौथा chautha:* шаклларида ривожланган. У.Тиварийнинг талқинича ушбу сон санскритдаги *चतुर्थ chaturth*, пракритдаги *चउत्थ chautth* шаклларида ривожланган ва ҳозирги адабий ҳиндий тилида *चौथा chautha:* шаклига эга.

Ҳиндий тилидаги истисно хусусиятига эга бўлган *छठा chatha:* “олтинчи” тартиб сонини Д.Варма ҳамда У.Тиварий каби олимлар санскрит тилидаги *षष्ठ shashth* шакли орқали ривожланганлигини таъкидлайди. Д.Варманинг қайд этишича пракрит тилида ҳам ушбу тартиб сонининг *छठा chatha:* шакли мавжуд. Кузатувларимиз натижасида пракрит тилларида бундай шакл учрамади. Бирок, ўрта ҳинд-орий тилларига хос бўлган ардҳамагадҳийда *छट्टा chattha:* шакли мавжуд. Фикримизча, “олтинчи” маъносини англатувчи *छठा chatha:* лексемаси санскритда *षष्ठकः*



shashthakah, пракритда *छट्ठओ chhatthao*, апабхараншада *छट्ठअ chhatthaa*, *छट्टय chathaya* каби шаклларда ривожланган. Оғзаки тилда ушбу сон *छठवाँ chhathva:n* деб ҳам айтилади. Ўрта ҳинд-орий тилларига хос бўлган палий тилида *छट्टो chhattho* билан биргаликда *छट्टमो chhatthamo* шакли ҳам учрайди. Ўрта ҳинд-орий тиллари даврида *छ chha* товуши билан биргаликда *म ma* товуши ҳам қўлланилган. *छठवाँ chhathva:n* шаклида учрайдиган *वाँ va:n* айнан шу *म ma* товуши билан боғлиқ.

Юқорида ўрганилган лексемалар ҳиндий тилидаги истисно хусусиятига эга бўлган тартиб сонлар ҳисобланиб, уларнинг шаклланиш босқичлари ўзига хослиги билан ажралиб туради. Ҳиндий тилидаги қолган барча тартиб сонлар санок сонларга -*वाँ va:n* қўшимчасини қўшиш орқали ясалади. Масалан, *पाँचवाँ pa:nchva:n* “бешинчи”, *सातवाँ sa:tva:n* “еттинчи”, *दसवाँ dasva:n* “ўнинчи” ва ҳоказо. Тилшунос олим Бимзнинг фикрларига асосланган ҳолда Д.Варма -*वाँ va:n* қўшимчасини санскрит тилидаги -*तम tam* билан боғлайди. Масалан, *पंचतम panchatam* – *पाँचवाँ pa:nchva:n* “бешинчи”. У.Тиварий эса тартиб сон қўшимчасини англлатувчи -*वाँ va:n* аффиксини санскритча -*मः mah* аффиксидан ривожланганлигини таъкидлайди (*पंचमः panchamah पाँचवाँ pa:nchva:n*). Б.Тиварий эса -*मक mak* аффиксидан -*वाँ va:n* ва -*मिका mika*: аффиксидан -*वीं vi:n* аффикси шаклланганлигига алоҳида урғу беради. Жумладан, *पंचमक panchamak* (санскрит тилида) – *पाँचवाँ pa:chva:n* (ҳиндий тилида). Тартиб сонга хос бўлган ушбу шакллар фақат музаккар жинсдаги отлардан олдин қўлланилади. *पंचमिका panchamika*: (санскрит тилида) – *पाँचवीं pa:chvi:n* (ҳиндий тилида). “Бешинчи” маъносини англатиб келаётган ушбу лексемалар фақат муаннас отлардан олдин қўлланилади. Демак, кузатувлар натижасида шуни қайд этиш лозимки, ҳиндий тили шаклланишининг дастлабки босқичлариданок -*वाँ va:n* аффикси қўлланила бошлаган.

ХУЛОСА

Ҳозирги адабий ҳиндий тилидаги тартиб сонларга хос лексемалар лингвистик жиҳатдан таҳлил қилиниши натижасида куйидаги хулосаларга келинди:

1. Янги ҳинд-орий тилларига хос бўлган ҳиндий тилидаги тартиб сонларнинг ривожланишида бошқа сон турларининг шаклланиш босқичлари каби уларга қадимги ва



ўрта ҳинд-орий тилларининг таъсири кучли бўлган. Айниқса, ҳиндий тилидаги истисно хусусиятига эга бўлган *पहला pehla*: “биринчи”, *दूसरा du:sra*: “иккинчи”, *तीसरा ti:sra*: “учинчи”, *चौथा chautha*: “тўртинчи” ва *छठा chatha*: “олтинчи” каби тартиб сонларга хос лексемаларнинг шаклланишида улар таркибида турли хил морфонологик ҳодисалари юз берганлиги кузатилди.

2. Ҳиндий тилидаги *पहला pehla*: “биринчи” тартиб сони *प्रथिल prathil* шаклидан келиб чиққан бўлиб, у турли хил босқичлардан ўтиб *पहला pehla*: шаклига эга бўлган. Морфонологик ҳодисаси юз бериши натижасида ҳозирги адабий ҳиндий тилига келиб ушбу лексема таркибида *प्रा pra* лигатура шаклида қўлланилган *प p* ҳамда ушбу лексема таркибидаги *ल l* товушлари сақланган. Таъкидлаш жоизки, ҳозирда ҳам адабий ҳиндий тилида санскритча шакл ҳисобланмиш *प्रथम pratham* лексемаси асосан татсама сўзлари билан кенг қўлланилади.

3. *दूसरा du:sra*: “иккинчи” ва *तीसरा ti:sra*: “учинчи” каби тартиб сонлар маъносини англатувчи лексемаларда ҳам морфонологик ҳодисаси юз берган. *दूसरा du:sra*: “иккинчи” тартиб сони даставвал *द्वितीय dviti:у* шаклида қўлланилган бўлса-да, *तीसरा ti:sra*: “учинчи” тартиб сонининг шаклланишига ўхшаб унинг ривожланишига ҳам *-सृ- -sri-* аффиксининг таъсири бўлган. “Учинчи” тартиб сони *तृतीय triti:у*, *तिसृतीय tisriti:у*, *तिसृतीयकः tisriti:yakah* шаклларида ривожланган. Ушбу лексемалар таркибида ҳам *-सृ- -sri-* аффикси иштирок этган бўлиб, морфонология ҳодисаси юз бериши натижасида ушбу лексема *-सरा -sra*: аффиксига айланган. Тартиб сонни англатувчи ушбу аффикс ёрдамида истисно хусусиятига эга бўлган “иккинчи” ҳамда “учинчи” тартиб сонлари шаклланган.

4. Ҳиндий тилидаги истисно хусусиятига эга бўлган *चौथा chautha*: “тўртинчи” ва *छठा chatha*: “олтинчи” маъносини англатувчи тартиб сонлар қадимги ва ўрта ҳинд-орий тиллари даврида ўзига хос равишда ривожланганлиги билан қолган тартиб сонлардан фарқ қилади. Ушбу сонларга хос лексемалар қадимги ҳинд-орий тилларидан то янги ҳинд-орий тилларигача ривожланиши жараёнида улар таркибида *थ tha* ва *ठ* каби церебрал товушлар сақланган. Таъкидлаш жоизки, ушбу тартиб сонларга хос бўлган лексемалар таркибидаги унли ва ундош товушлар мофонология ҳодисаси туфайли қисқарган бўлса-да, лекин улардаги церебрал товушлар сақланиб қолган. Ҳозирги адабий ҳиндий тилида



ушбу тартиб сонлар билан биргаликда қадимги санскритча шакллар ҳам кенг қўланилиши кузатилади.

5. Ҳиндий тилидаги юқорида таҳлилга тортилган истисно хусусиятига эга тартиб сонлардан ташқари қолган барча тартиб сонлар санок сонларга *-वाँ va:n* қўшимчасини қўшиш орқали ясалади. Эътиборли жиҳати шундаки, тартиб сонни англлатувчи *-वाँ va:n* аффикси қадимги ва ўрта хинд-орий тиллари босқичида *-तम tam*, *-मः mah* каби шаклларда ривожланган бўлиб, бу аффикслардаги биронта товуш сақланмаган. Таъкидлаш жоизки, хиндий тили шаклланишининг дастлабки босқичлариданок *-वाँ va:n* аффикси қўлланила бошлаган. Гарчи, ҳозирги адабий хиндий тилида санскритча тартиб сонлар ҳам қўлланилса-да, лекин қолган санок сонларга синтетик усулда *-वाँ va:n* аффиксининг қўшилиши натижасида ҳосил бўлган шаклларнинг кенг қўланилиши нисбатан кўпроқ кузатилади.

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INTERTEXTUALITY AS A MAIN CHARACTERISTIC OF ADVERTISING DISCOURSE

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ABSTRACT

Advertising discourse plays a crucial role in shaping consumer perceptions and promoting products or services. Within this realm, intertextuality serves as a powerful linguistic tool employed by advertisers to establish connections with existing texts, cultural references, and shared knowledge. This article aims to explore the various characteristics of intertextuality in advertising discourse, highlighting its significance in conveying meaning, creating associations, and enhancing the effectiveness of advertisements. Intertextuality, a concept derived from linguistics and semiotics, refers to the interconnection and referencing of texts within a particular discourse. It involves the incorporation of elements from previous texts or cultural references to convey meaning and evoke a response from the audience. In advertising, intertextuality allows advertisers to tap into shared knowledge and cultural symbols to enhance the impact of their messages.

Keywords: discourse, advertising message, intertextuality, semiotics, precedent text.

АННОТАЦИЯ

Рекламный дискурс играет центральную роль в формировании потребительского восприятия и продвижении продуктов или услуг. В этой сфере интертекстуальность служит мощным лингвистическим инструментом, используемым рекламодателями для установления связей с существующими текстами, культурными отсылками и общими знаниями. Целью данной статьи является исследование различных характеристик интертекстуальности в рекламном дискурсе, подчеркивание ее значения в передаче смысла, создании ассоциаций и

повышении эффективности рекламы. Интертекстуальность, концепция, заимствованная из лингвистики и семиотики, относится к взаимосвязи и отсылкам текстов в рамках конкретного дискурса. Он предполагает включение элементов из предыдущих текстов или культурных отсылок для передачи смысла и вызова реакции аудитории. В рекламе интертекстуальность позволяет рекламодателям использовать общие знания и культурные символы для усиления воздействия своих сообщений.

Ключевые слова: дискурс, рекламное сообщение, интертекстуальность, семиотика, прецедентные тексты.

ANNOTATSIYA

Reklama diskursi iste'molchilarning tasavvurlarini shakllantirish va mahsulot yoki xizmatlarni ilgari surishda hal qiluvchi rolni o'ynaydi. Ushbu maqola reklama nutqidagi intertekstuallikning turli xususiyatlarini o'rganish, assotsiatsiyalar yaratish va reklama samaradorligini oshirishdagi ahamiyatini ko'rsatishga qaratilgan. Intertekstuallik, tilshunoslik va semiotikadan olingan tushuncha bo'lib, ma'lum bir nutq doirasidagi matnlarning o'zaro bog'lanishini anglatadi. Reklama diskursini targ'ib qilishning quyidagi usullari mavjud: intertekst vaqt oralig'ida: reklama matni transformatsion frazeologizatsiyaga uchrashi (leksik yoki leksik-sintaktik). O'zining haqiqiy reklama maqomida mavjud bo'lgan davrda reklama matni oluvchilar ongiga shunchalik kuchli ta'sir ko'rsatadiki, uning ta'sir kuchi juda ko'p odamlarga (yoshi, kasbi, ijtimoiy mavqei, jinsi va xususiyatlaridan qat'i nazar) ta'sir qiladi. Reklama diskursining ta'sir doirasi yanada kengroq bo'lib, bu shubhasiz ushbu tadqiqotning to'liq ahamiyatidan dalolat beradi.

Kalit so'zlar: diskurs, reklama matni, intertekstuallik, semiotika, pretsedent matnlar.

Introduction. Since the end of the twentieth century, advertising has become not only an integral part of human life but also has become a means of powerful influence on public and individual consciousness. According to S.G. Ter-Minasova, "Advertising is a special register of the sphere of business activity, it is allowed to be bright, extraordinary; in advertising, you can use any methods: linguistic, visual - as long as it fulfills its functions, as long as it works" (Ter-Minasova, 2000:624).

Studies of this form of mass communication are conducted in different directions. It seems possible to distinguish two main concepts of advertising: cultural (historical and cultural) and marketing. Within the framework of the marketing approach, advertising is

interpreted as “non-personal information distributed in a certain form about goods, services or ideas and undertakings intended for a group of persons (target audience) and paid for by a certain sponsor”.

In studies from the perspective of cultural studies, advertising is defined as “a branch of mass communication, in line with which informative-figurative, expressive-suggestive works are created and distributed, addressed to groups of people in order to induce them to make the choice and action desired by the advertiser”.

In modern linguistic studies of advertising text, attention is focused on the cognitive approach associated with the “interpretive properties” of media texts. An organic means of realizing these properties is intertextuality as a phenomenon of intertextual relations, which presupposes the openness of the text. In this work, intertextuality is considered in the communicative-functional-cognitive aspect, involving the analysis issues of the pragmatic impact of the text on the recipient, storage, and decoding of information.

Literature review. The problem of intertextuality in modern science is based on the idea of the constant interaction of texts, as a result of which texts "absorb" previous literary and cultural experiences. The task of intertextual analysis is to find a "foreign word" and identify its functional meaning. All cognitive activity of a person is directly related to the interpretation of certain signs, words, works of literature, painting, or cinema. The problems of interpretative activity are dealt with by the science of hermeneutics, which studies the category of intertextuality, the origins of which go back to the works of F. de Saussure, the doctrine of parody by Yu. N. Tynyanov, the study of the origin of narrative plots by A. N. Veselovsky, and the theory of dialogized consciousness by M. M. Bakhtin, which had the greatest influence on the formation of the theory of intertextuality, based on an extensive empirical basis of intertextual interaction since the formation of the literary process.

In 1981, P.Ya. Torop noted that “in matters of studying contacts between texts, there is still no scientific rigor, a scientific model for understanding and analyzing these problems” (P.Ya. Torop, 1981:33). This position has remained relevant to this day: “The linguistic mechanisms of intertextual relations are still unclear” (Резвина О.Г., 2001:45). The fact that the theory of intertextuality is a theory of relations between texts is undeniable; the question of what types of relations should be recognized as intertextual is controversial. Hence the variety of approaches to defining the concepts of “intertextuality” and intertext”.

Thus, I.V. Arnold understands intertextuality as “the inclusion in a text of either entire other texts with a different

subject of speech, or their fragments in the form of marked or unmarked, transformed or unchanged quotes, allusions, and reminiscences” (I.V. Arnold, 1999:85).

I.P. Smirnov defines intertextuality as the ability of a text to fully or partially form its meaning through reference to other texts. (I.P. Smirnov, 1995:78)

The specificity of advertising communication is that the advertising text for the most part carries information that is irrelevant and random for the recipient, so the advertising message is most often offered “as a complement” to information that seems interesting/important to the recipients. Naturally, this creates psychological barriers to the perception of advertising and a negative attitude towards it.

Therefore, a copywriter needs to create conditions for constructive dialogue, neutralize interference, and overcome the indifference of recipients. To achieve this goal, the advertiser includes the created text in the cultural-semiotic space: this is the basis on which advertising information will subsequently be superimposed.

Thus, the study of advertising as an intertextual phenomenon expands the scope of application of the method of intertextual analysis. On the other hand, the relevance of the study is determined by the fact that over the last decade, advertising has become an integral part of the life of our country, which has necessitated a multi-aspect study of this phenomenon.

The term “intertextuality” was introduced in 1967 by the poststructuralist theorist Yu. Kristeva, who, based on the concept of dialogism from the theory of M. M. Bakhtin, defines intertextuality as the property of any text to enter into dialogue with other texts (M. M. Bakhtin: 1993:24). At the same time, the fundamental difference from the ideas of M. M. Bakhtin is the shift of focus from the author to the text itself, which becomes the central object of study in the theory of intertextuality by Yu. Kristeva. Further development in the study of intertextual interaction is brought by the ideas of R. Barth. The author clearly distinguishes between the concepts of work and text and defines any text as an inter-text concerning some other text, but this intertextuality, in his opinion, should not be understood to mean that the text has some kind of origin or “source”. The text is a collection of anonymous, elusive, and at the same time already read quotations, “quotations without quotation marks” (R. Barth, 1989:103).

M. Pfister proposes to consider two projections of intertextuality: - a vertical projection, which orients the text to other texts preceding and contemporary to it (that is, the openness of the text to other semiotic systems); a horizontal projection, which orients the text towards a dialogue with the reader, since it is the reader who communicates their intertextual significance to the quotes introduced into the text. “Therefore, the author must

“reveal” his intention to the recipient of the message through a system of means of intertextual targeting”. Other people's statements should be introduced into the text using special distance signals that separate someone else's speech from one's own, such as quotation marks, links to the source, syntactic constructions of direct and indirect speech, etc. A foreign word “must certainly be felt as foreign, maintaining its “constructive elasticity”, and at the same time organically enter the new text, absorbing new individual meanings” (M.M. Bakhtin, 1999:72). That is, the boundaries of “one’s own” and “another’s,” on the one hand, must be made explicit so that the reader can grasp the heterogeneity of these statements; on the other hand, someone else’s text must be organically incorporated into a new context.

Methodology. Explicit marking occurs when a text fragment is accompanied by xeno-indicators – markers of someone else's speech. This kind of marking is characteristic of all functional varieties of language (journalistic, official business, scientific styles), when quotations are introduced into the text using quotation marks, an indication of the author, and pages of text from which this fragment is taken. However, for artistic speech, since the author tries to obscure the heterogeneity of someone else’s word, its sharp contours, quasi-explicit markers are preferable (the term of S. Holthius), that is links without specifying the pages for the text fragment used (indicating only the source or author), and implicit markers.

Implicit marking occurs when a reference to someone else's word is carried out as a hint, calculated on the intertextual competence of the recipient. Often the author of a work of fiction gravitates to the vileness and implication of intertextuality signals, thereby including the reader in an intellectual game. In this case, the author’s intertextual strategy is manifested through the use of such implicit intertextual markers as a title, epigraph, repetition of rhythm, etc.

From the point of view of G. Denisova, we can talk about three ways of signification and markedness of intertextuality:

- 1) referential method, when explicit or hidden allusions and reminiscences serve as markers of metatextual components;
- 2) expressive-nominative method, when the markers are metaphorical proper names and headings;
- 3) quotation method, when direct, hidden, or transformed quotes, paraphrases, catchphrases, and expressions act as markers. (G. Denisova, 2001:63)

As N.A. Kuzmina notes, “Any element of the prototext, which is conceived by the subject as a marker of the whole, can acquire the status of a quotation; the types of quotes cannot be counted and specified in a list” (N.A. Kuzmina, 2000: 96).

In this regard, we can talk about the existence of phenomena in language, which are mostly perceived by native speakers as something that has already been said by someone. Quotations of this kind act as precedent phenomena, “having a superpersonal nature and depending not only on the individual cognitive system of the subject but also on time” (N.A. Kuzmina, 2000:35). In the case of introducing precedent text into the text, E.A. Bazhenova suggests and notes that “precedent subtext does not need quotation marks or bibliographic references due to the presumption of well-knownness” (E.A. Bazhenova, 2001:96).

The precedent subtext is thus understood by the researcher as a “text in a word”, since it expresses the maximum degree of compression of the original prototext, often compressed to a non-predicative unit, which does not, however, prevent the process from being carried out in the case of using this text ecphoria - revitalization of accumulated experience one detail at a time.

Since, due to the specifics of the material, precedent texts are cited in advertising, it seems necessary to us to dwell on the features of these texts.

The phenomenon of precedent has received diverse coverage in the literature. As is known, the term “precedent text” was proposed by Yu.N. Karaulov, who called precedent texts “1) significant for a particular person in cognitive and emotional terms, 2) having superpersonal character, i.e., well known to the wide circle of a given personality, including her predecessors and contemporaries, and, finally, such 3) appeals, which are renewed repeatedly in the discourse of a given linguistic personality” (Yu.N. Karaulov, 1999:71).

Of course, a person’s knowledge as a whole is of an individual nature, but there is a set of texts, the knowledge of which is supra-individual in nature. Knowledge of precedent texts, as noted by Yu.N. Karaulov and other researchers of precedent, is an indicator of a person’s belonging to a certain era and culture, and ignorance, on the contrary, separates the linguistic personality from the corresponding culture.

Analysis and results. It is worth considering advertising precedent texts in our work. Precedent text can be entered into the advertising text and in transformed form, that is, changed by the advertiser concerning the advertising situation. At the same time, the author of the advertising text must be sure that the transformed precedent text is recognizable and that the recipient will be able to restore its canonical form. Now we try to consider what kind of transformations the source text in advertising undergoes.

When introducing precedent text into the advertising text, there may be semantic transformations while maintaining the

form of the precedent statement. The meaning of the precedent text remains unchanged, only the referential correlation changes. In this group of advertising texts, often used as prototexts the paremiological fund of the language is used: proverbs and sayings, which are statements with an extremely broad referential reference. Since the referent is variable, uncertainty in its choice is eliminated by including left and right propagators of the utterance. These elements, forming a contextual environment, correlate the statement with a very specific referent - the object of advertising. Texts of this kind can be associated with the technique of violation of stylistic distribution. This technique occurs when a precedent text or phraseological unit characterizes an object that does not have such a characteristic. A well-known text begins to correlate with an object that has nothing to do with this text. The novelty factor fixes the recipient's attention on an unexpected piece of text. The technique of disrupting stylistic distribution is effective when it is necessary to draw attention to a text that is not relevant to the recipient (such as advertising texts). Examples of such advertising texts can be the following: «*The Sunny Side of Life*» - «*The Coke Side of Life*», «*Man does not live by bread alone*» - «*Man does not live by toast alone*», «*A picture is worth thousands of words*» - «*One drive is worth a thousand words*».

And finally, advertising text is increasingly quoting itself. This is a completely natural process, since today the corpus of advertising texts is already very impressive and occupies a large volume intertext sector. In addition, among the advertising texts, strong, energy-intensive advertising works have been identified, as capable of imparting an additional energy charge to the metatext quoting them. Moreover, we can say that productive structural models are based on which modern advertising texts are created. The undisputed leader that has generated the largest number of advertising metatexts is the slogan of the drink Sprite advert: “*Image is nothing, thirst is everything. Don't let yourself dry out!*”.

Advertisers used the phraseology on which the advertising slogan for Milky Way chocolate was built: “*There is so much milk in the Milky Way, you can almost hear it, moo!*”. It is important to note that by establishing intertextual connections with one or another advertising text, the copywriter runs the risk of transferring negative attitudes of consumers towards the object of advertising prototext for their product. In particular, the press has repeatedly written that there is not as much milk in a Milky Way bar as the authors of the commercial claim. Relating the slogan “Dipsona” with its prototext, the consumer can build the following logical chain: apparently, “Dipson” juice contains as many fresh apples as there is milk in a “Milky Way” chocolate bar. Perhaps that is why this “Dipsona” advertisement did not last long on the screen.

Conclusion. Advertising texts carry out endless movement in the intertext, echoing other texts of the cultural-semiotic space, entering into various connections with them, and accumulating their meanings. Due to the fact that the advertising communicative act appears as a real one, advertising most often resonates with current precedent texts known to the majority of the consumer audience. Precedent text can be entered into the advertising text in both canonical and transformed forms. At the same time, the copywriter must be sure that the recipient can recognize the intertextual reference and adequately assess the intention behind it.

Advertising intertextual markers have become a common technique for constructing headlines in periodicals. Typed in large font, advertising quotes inevitably attract attention, while they are often in no way related to the semantics of the metatext, but can also introduce the implicit meaning of the prototext into a new statement. Texts of advertising discourse already occupy a significant sector of intertext. It is completely natural that among all this mass of advertising texts, strong, energy-intensive works have emerged that can generate advertising metatexts; phrase patterns and productive models for creating advertising messages have emerged. Sometimes advertising texts enter into dialogue, and in this case, the prototext must be a precedent for the recipient.

Intertextuality serves as a powerful tool in advertising discourse, enabling advertisers to establish meaningful connections with their audience through allusion, parody, quotation, and cultural references. By leveraging existing texts and shared knowledge, advertisers can enhance the effectiveness of their messages, create associations with desired qualities, and tap into cultural identity. Understanding the characteristics and semantics of intertextuality in advertising discourse is essential for both advertisers and consumers in decoding and appreciating the persuasive power of advertisements.

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'SOLVE THE CROSSWORD': A VOCABULARY-BASED EXAMINATION OF TASK DESIGN IN EFL MATERIALS

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ABSTRACT

Learning vocabulary is an important and time-consuming endeavor for a language learner, and it has been proposed that the foreign language classroom should provide specific support for students' vocabulary development. Vocabulary exercises in instructional materials are a primary source of explicit word focus, and students' learning can be helped if they are designed in a learning-friendly manner. So far, few research have attempted to determine what learning possibilities tasks in materials provide. The current study reports on an examination of the vocabulary exercises in three series of Swedish intermediate EFL materials, with an emphasis on target vocabulary and learning circumstances. The target vocabulary was examined in terms of frequency distribution in general English, and the learning conditions were investigated. The findings imply that substantial retrieval possibilities in the content improve learning. However, it was discovered that the activities rarely required students to utilize the target vocabulary, and that it mostly consisted of high-frequency terms, i.e. words that the learners were likely to already know. As a result, materials creators must adopt a more methodical approach to vocabulary in order to ensure that word-focused assignments contribute considerably to students' learning.

Keywords: ELF, vocabulary , teaching materials, tasks , ILH

INTRODUCTION

The development of an adequate vocabulary for communicating is a major difficulty for language learners. This endeavor necessitates a significant amount of time and effort, especially given the high vocabulary requirements for successful language use and comprehension. The discovery that knowledge of approximately 98% of the words in a text is required to grasp it properly demonstrates the importance of vocabulary in reading comprehension. Furthermore, Nation estimates that an English student needs to know 8-9000 word families in order to comprehend written English. Developing a vocabulary of this size is a difficult task, and scholars have claimed that kids require assistance in order to succeed. In the EFL classroom, it has been discovered that explicit attention to vocabulary is required to facilitate learning for example, through form-focused instruction or different vocabulary exercises (the terms exercise and task are used interchangeably in the paper). Because a language learning course includes the development of numerous skills and linguistic elements, time spent explicitly on vocabulary will be limited. As a result, it is not just critical to pay attention to vocabulary in the EFL classroom; the activities must also make effective use of time by being designed in a way that promotes learning. Published instructional materials are a frequent use in the classroom.. They are often a source of explicit vocabulary concentration.

METHODS AND MATERIALS

This study examines three series of widely used EFL materials for Chirchik secondary school students (ages 13 to 15). The series was chosen after an informal poll of instructors on the textbooks they use. Awesome were the materials evaluated. It should be mentioned that Digilär is available in two editions: Standard and Advanced. The exercises are often the same, but where they differ, the Standard form of the exercise was examined. The data came from the workbooks and activities that accompanied the textbooks. Any extra resources that could be available were not examined. Because they were not as crucial to the contents, potential extra resources were not addressed. A vocabulary exercise was defined as a task labeled as a word activity by the material (typically by being an activity under the heading 'Vocabulary' in the work book) or where the instructions explicitly drew attention to vocabulary, such as 'use the words in the circle to describe the people in the pictures. Despite the fact that this task requires students to use words and has a clear word focus, it is not labeled as a vocabulary practice in the workbook. By considering these activities as well, it was determined that all activities designed to aid in vocabulary acquisition were taken into account. Thus, the words in the vocabulary list were translated to their lemma form, ignoring any inflectional variation. Proper nouns were excluded since they are not target vocabulary in the same way that common nouns are. Sketch Engine Footnote1 (Kilgarriff et al. Citation2004) was used to create and prepare the target vocabulary lists for analysis.

ANALYSIS

The modified ILH framework was utilized to analyze the task design, which focused on the frequency distribution of the target language (RQ1) and the learning conditions supplied in the task (RQ2). To assess the frequency of the target words in general English, the target word lists were ran through VP-Compleat on the Lextutor website (Cobb Citationn.d.), where the frequency of the words was calculated in proportion to the frequency of the words in general English. In this method, the terms targeted in activities might be evaluated in relation to the intended population of learners, based on the notion that the frequency of a word in common English reflects its value. Because the material was vocabulary exercises for secondary school students in Chirchik, where they are expected to be at least at A2 level when starting secondary school, the argument was that students were likely to know high-frequency words in English and that mid-frequency words were also suitable target words for their continued progression (cf. Qian and Lin Citation2020; Schmitt and Schmitt Citation2014). The target word analysis findings are not provided band by band, but rather according to Schmitt and Schmitt's (Citation2014) classification of high- (first 3000 words), medium- (second 3000 words), and low- (last 3000 words).

RESULTS

In contrast to studies of flowing text, where a major proportion will be high-frequency words due to the nature of language, the target vocabulary here is individual words in, for example, fill-in-the-blanks activities. This means that the frequency distribution cannot be attributed to the nature of English because each word has been carefully chosen. Given that students are expected to already know many high-frequency terms, it is interesting that the proportion of high-frequency words in all materials surpasses 50%. Over 70% of the lemmas practiced in each Good Stuff Gold book originate from the high-

frequency bands. The Digilär series has the lowest proportion of high-frequency vocabulary, ranging from 57.1% to 67.4%.

Aside from the amount of relevant vocabulary in the materials, the raw frequency of target words may be used to show how much vocabulary children can acquire from working with word-focused tasks. As demonstrated in Table 4, the amount of mid-frequency lemmas varies between books (and years) in the various series. It should also be noted that, while Good Stuff Gold has the lowest proportion of mid-frequency words, when the raw figures are considered, the series has the highest number of mid-frequency words (397 words in the series), implying that, of the materials studied, it provides the most opportunities for learning mid-frequency words. Digilär, on the other hand, has the lowest raw number, with a total of 259 words spread across three novels. If the targeted learners do not know any of the target vocabulary's mid-frequency terms, they are given the opportunity to practice between 259 and 397 unique and appropriate words in secondary school vocabulary activities. Given the strong demands for vocabulary development for English usage and understanding, this fraction of unique terms looks low after three years of focused study.

DISCUSSION

The present study set out to investigate whether vocabulary exercises in three series EFL materials support learning for intermediate learners by analysing the target vocabulary and learning conditions provided. The results reveal that the tasks encompass both aspects that are likely to facilitate learning for the intended group of students and aspects that are unlikely to contribute to learning. The primary supportive feature of the exercises is the prominence of retrieval opportunities. Considering that empirical studies indicate a positive impact of retrieval on vocabulary development (e.g. Barcroft ; Strong and Boers , the finding that a majority of exercises require students to retrieve words suggests that the task design, in this sense, is conducive to learning. In contrast, the study also identifies areas where the tasks are not constructed in a facilitative way. This is particularly notable in the focus on high-frequency words and the low proportion of exercises requiring students to use vocabulary in original ways . Although this study is based on a limited sample, consisting of three series of EFL materials, the results are important. As teaching materials have a central role in the classroom, the structure of tasks is indicative of the vocabulary learning opportunities in school. EFL learners face a considerable learning task and working with well-structured vocabulary exercises is a way of making this burden lighter. The study shows that exercises in teaching materials are not unequivocally constructed to support learning and an implication of these results is that EFL teachers need to provide more opportunities outside the materials, especially by working with mid-frequency words and use in context. EFL teachers can also utilise the original or modified ILH framework as a tool to assess the vocabulary activities they include in the classroom, to ensure that time is spent on supportive tasks. This study sheds light on an area of vocabulary research mainly unstudied, namely the learning opportunities in explicit vocabulary learning activities in the classroom. Additional studies are encouraged to illuminate the issue further. Studies could apply a similar methodology on teaching materials in other contexts or aimed at other age groups. Another area of study could be combining the two methods and investigating what kinds of words are practised under different learning conditions.

CONCLUSION

The study has shown that vocabulary exercises in Swedish EFL teaching materials offer limited support to students' vocabulary development. It is true that they provide good conditions for retrieving vocabulary, which is likely to facilitate learning and can also be a way to include motivating tasks in materials. However, the main findings of the study, namely that most target words are from high-frequency bands and the scarcity of exercises promoting use, show that they, to a large extent, are not designed in a way that supports other aspects of word learning. It can be concluded that the vocabulary tasks do not appear to be constructed with a systematic and research-based approach to vocabulary, in terms of word choice or task design. The study thus shows that vocabulary needs to become a priority in materials development, for both publishers and developers, if word-focused exercises are to support students' learning and make a significant contribution to the EFL classroom.

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DEVELOPMENT OF WRITING COMPETENCE IN FOREIGN LANGUAGE STUDENTS THROUGH PEDAGOGICAL TECHNOLOGIES

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ABSTRACT

The purpose of the article is to show whether it is within the specialization of the students or in other disciplines, the improvement of their writing competence is carried out by the process of acquiring the necessary knowledge by the students, acquiring the speech skills and communicative knowledge necessary to create a written text that serves as a means of communication.

Keywords: pedagogical technology, written competence, literacy, collaborative teaching, integration.

Texts written by students can often be evaluated as a written expression of an oral statement, and this, in turn, can be a successful result of their ability to transfer knowledge and skills from oral to written competence. Because the formation and development of writing competence is of urgent importance, as a result of the rapid development of modern techniques and technologies, the students' writing competence is gradually decreasing. At the heart of the educational debate is the issue of teaching writing, a key aspect of literacy. Good writing performance comes to the fore because it is a sign of students' ability to communicate, understand critically, and demonstrate the knowledge they have been given in a variety of subjects. Even outside of academia, writing is central to almost every profession. Due to the increasing role of writing, the need for an adequate method of assessing writing skills in language learning contexts to draw valid conclusions about writing ability and to make further pedagogical and instructional decisions appears to be urgent. Against this background, assessment of English as a foreign language (EFL) writing has emerged as one of the hot topics in language teaching and has attracted serious research on its various theoretical and practical aspects. While the nodal area of assessment is analyzable, writing assessment is fully grounded in multifaceted theory and requires consistency to produce the desired results. However, observing the current practices of English writing teachers in different educational contexts shows that their assessment practices are disconnected from concrete foundations. Although there is an extensive and technically developed literature on writing assessment issues, writing teachers

would be better informed about this area if more practical resources were offered.

Currently, many modern pedagogical technologies are used in the teaching process, including collaborative teaching, project methodology, teaching methods using Internet resources. Here it is necessary to take into account the great potential of the Internet resource. Pedagogical technologies are one of the great opportunities in teaching subjects, on the one hand, development of writing competence of students studying in higher educational institutions is a very complicated process.

Developing topics is a comprehensive way to improve the process, because with real material, the student can practice writing skills, and it is very effective in the teaching process and prepares future professionals for the profession. Therefore, the use of pedagogical technologies requires great attention from the teacher. By the way, in the development of student skills, it is necessary not only to create free written communication, but also to master the main elements of the subject that are used in life. Of course, not all students have the ability to understand every detail of the topics. At the same time, the professor-teacher must find a suitable way for the entire audience, which is a very common topic of discussion today, innovative forms of teaching, methods and tools can improve the situation in the educational process, improve communication, creativity and abilities. helps to develop.

Most of the traditional pedagogical technologies are distinguished by their originality, for example, handwriting exercises, writing methods on the blackboard, but recently they have become useless and outdated, they serve only to waste time, but also further complicates the problems encountered in the formation of writing skills. Can teachers integrate technology into teaching? In this case, teaching with technology has three main components, which are content, pedagogy and technology, as well as the relationship between and among them. A reason to consider leadership with technology is the access it provides for students.

When they cannot do this, they usually collaborate with their peers within digital structures. The use of advanced pedagogical technologies with modern information technologies creates great opportunities for society.

Today, the reform and improvement of the continuous education system, which is on the path of independent development of our country, has led to the rise of state policy to a higher level.

Introduction of advanced pedagogical and information technologies, improvement of educational efficiency. Pedagogical technologies are used in all areas of education in the entire educational system of our country. Pedagogical technologies - intelligent design of ways to achieve optimal pedagogical functions in a given or existing environment.



The term "technology" refers to advances in methods and tools for solving problems or achieving goals. Technology in the classroom can include all kinds of tools, from low-tech pencils, paper and whiteboards to presentations or the use of high-tech, cutting-edge technology that allows you to try things physically and mentally in the classroom. On the other hand, "pedagogical technology" is a pedagogical phenomenon and process used in the field of educational technology.

Pedagogical knowledge is a deep knowledge of the teacher about the teaching and learning process and practice, methods.

A teacher with high pedagogical knowledge understands how students construct knowledge and acquire skills and how to develop in them mental habits and positive dispositions for learning.

The use of pedagogical technologies in the teaching of all subjects is to achieve a guaranteed result by designing specific goals.

Educational technology is a pedagogical direction that studies and teaches the best ways to achieve educational goals based on a technological approach to the learning process. It can be seen that the teacher becomes a mature specialist of modern pedagogical technologies in each lesson.

The effectiveness of the educational process depends on the teacher's ability to properly organize the lesson and choose the right form of the lesson. Pedagogical technology means the development and improvement of the objective goal of education and training based on diagnostic goals, the content, methods and tools of teaching.

The rapid development of technology affects learning in many ways. It will revolutionize the learning of written speech in a foreign language and change the way people communicate. It expands the communication system and has effectively revolutionized our society. Computers have made it possible to access large amounts of data and can certainly facilitate the trend as a learning tool. It can also provide students with instant feedback to improve their writing skills. Foreign language teachers can use a variety of strategies to maintain educational opportunities for students. As Richards and Ranandya believe, there is no doubt that writing is the most difficult skill for students to master. Technology and English education are closely related. In the sixties and seventies of the last century, English language laboratories were one of the methods of English language acquisition in institutions. Teachers could see student interactions through the dashboard. The immediate acquisition of the second language through oral behavior was the advantage of this method. More practice was an important aspect of improving students' ability in different language skills.



Overall, 56% of students consider grammar problems to be the most serious element affecting their writing. However, only 10% disagreed and considered errors to be the most necessary area for correction. Regarding the benefits of feedback, all respondents found it necessary to correct errors. Chang and Swales studied non-native students' writing skills at the specific speech and sentence levels. They showed that linguistic features at the discourse and sentence levels are discernible even by advanced learners, and it is necessary to direct learners' attention to those areas using a variety of methods, one of which is error correction.

As technology plays an important role in our society, many people can undoubtedly find it useful in their daily activities. Communication is one of the most important aspects of technology in which people are more and more willing to adopt it and they can achieve many goals through the development of technology. In addition to communication, which is very much used in today's world, there is no doubt that learning can improve various skills.

There are a variety of technological tools and methods for teaching writing that make the process easier and more fun for both teachers and students.

In summary, when writing, students convey or explain information, they should be able to approve or condemn, convince, prove. In writing the ability of students to quickly correct their own and others' thoughts is necessary; from reading writing, material processing; writing an outline or abstract of a speech. Writing is not a skill that comes easily to even the most experienced writers. Instead, it takes time, persistence, and a willingness to learn. It can take years to improve your writing skills, but the process can often be sped up with technology. With the whole breadth of techniques being digitized, we can now adapt and improve our writing skills.

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ОБРАЗОВАНИЕ И ВОСПИТАНИЕ КАК ВЗАИМОДОПОЛНЯЮЩИЕ ФАКТОРЫ

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АННОТАЦИЯ

В статье говорится об образовании, воспитании, манерах, нравственности. В ней утверждается, что воспитательные подходы в творческой деятельности мыслителей, знание образовательных методов и средств, внедрение идей и взглядов в сознание подрастающего поколения, их правильное использование в жизни являются одними из важных особенностей педагогических навыков учителя.

Ключевые слова: образование, воспитание, манеры, нравственность, восточные мыслители, духовные качества, общечеловеческие ценности, педагоги.

ВВЕДЕНИЕ

Образование играет важнейшую роль в жизни любого общества и любой страны. Страну, которая недостаточно занимается воспитанием молодого поколения и членов общества в целом, ждет застой и кризис. имеет богатое наследие. Узбекский народ обладает богатым наследием, связанным с образованием и воспитанием, что было создано на протяжении многих лет. Кроме того, узбекский народ накопил богатый опыт формирования в поколениях таких общечеловеческих качеств, как человечность, дружба, вера, любовь. Принцип гармонии содержания образования и воспитания состоит из процесса обучения и воспитания этих людей, в нем приобретенные знания и навыки учат применять в жизни, развивают интеллектуальные и духовные качества.

Образование – это две взаимозависимые пары в процессе воспитания, то есть обучение и формирование воспитательных навыков, а также обучение работе над сформированными учебно-воспитательными знаниями и навыками, изучению законов существования. Таким образом, при передаче знаний учащимся помимо обучения использованию полученных знаний на практике, образование должно быть

еще и воспитательным. Принцип гармонии обучения и воспитания во всем педагогическом процессе опирается на законы единства образования и воспитания. Этот принцип предполагает формирование развитой личности в образовательном процессе. Эффективное воспитание в процессе образования связано с интеллектуальным развитием личности, в первую очередь с учетом интересов и индивидуальных способностей учащихся. Воспитание также включает в себя закрепление учебных материалов по описанию принципов системности и последовательности обучения и по дополнению ранее пройденного материала, непрерывную и систематическую самостоятельную работу, учет полученных знаний и приобретенных навыков и квалификации обучающихся. Воспитание – практический педагогический процесс, направленный на формирование у человека определенных физических, умственных, нравственных и духовных качеств; комплекс мер, принимаемых для обеспечения того, чтобы человек обладал качествами, необходимыми для жизни в обществе. Воспитание – древнейшая и вечная ценность, обеспечивающая человечность человека. Ни личность, ни человеческое общество не могут существовать без образования. Потому что ценности, обеспечивающие существование человека и общества, передаются из поколения в поколение только благодаря воспитанию. Под воспитанием понимается педагогическая деятельность, направленная на развитие физического развития, мировоззрения, духовно-нравственного облика, эстетического вкуса человека. Этим занимается семья, образовательные учреждения и общественные организации. Обучение и получение информации не являются частью воспитания в узком смысле. Но любое воспитание существует только в тесной связи с образованием. Потому что в процессе образования и усвоения информации не только увеличиваются знания человека, но и ускоряется развитие нравственных и духовных качеств.

Целью предмета воспитание, во-первых, является обеспечение духовного развития в соответствии с психологией и возрастом учащихся, во-вторых, учет междисциплинарности преподавания этого предмета и ценностей разных национальностей, в-третьих, формирование жизненных компетенций по приобретению патриотизма, мужества, человечности, воли, самоотверженности. Самое главное, этот предмет приведет к формированию иммунитета против негативных явлений в эпоху глобализации, к обеспечению гармонии науки, образования и воспитания.

АНАЛИЗ ЛИТЕРАТУРЫ И МЕТОДОЛОГИЯ

Мы можем стать свидетелями того, что в прошлом наши великие ученые с высокой духовностью давали уроки культуры, нравственности, высказывали свои взгляды на Родину, благополучие народа, жизни, честный труд, развитие труда, человеческий труд, разумное отношение к окружающей среде. Среди таких учёных можно привести пример Абдуллы Авлони, Ахмада Яссави, Махмуда Кашгари, Абдурауфа Фитрат, Абу Наср Фараби. С древних времен наш народ с большой изобретательностью подходил к совместному умственному и нравственному воспитанию. Абу Наср Фараби по-своему объясняет этот вопрос в своей работе «О достижении счастья»: «Слово образование – это сочетание теоретической добродетели между народами и городскими жителями, а воспитание – это то слово, которое объединяет врожденные добродетели и практические профессиональные качества у этих народов». Мыслитель предусматривает как приобретение профессии, так и воспитание посредством практической деятельности, причем образование ограничивается обучением лишь со словесной и теоретической стороны. Обратимся к Абдулле Авлони: наш просвещенный дед в своем произведении «Турецкий Гулистан или Мораль» жалуется на родителей, которые «дают образование, которого у них нет», и на учителей, которые «не видят должного воспитания». Таким образом, сотрудничество семьи, махалли, общества, школы и проблемы в этих отношениях в нравственном воспитании появились не сегодня. Создание десятков образовательных концепций и технологий на основе этого сотрудничества останется актуальной задачей на повестке дня. И проблемы нашего времени, и возможности образования более сложны и огромны, чем во все времена. Справедливо отметил Абдулла Авлони, что «Образование для нас либо жизнь, либо жизнь смерть, или спасение - или разрушение, или это вопрос лояльности или катастрофы». «От хорошего образования молодежи зависит лояльность каждого народа, мир и счастье государства». Хотя в современной мировой педагогике образование определяется по-разному, наследие, оставленное восточными мыслителями, ценно для нас своей жизненностью и всеобъемлющим содержанием. В ряде случаев выдвигались идеи о том, чтобы поставить образование выше воспитания, пренебречь воспитанием или реализовать воспитание через образование в образовательных учреждениях. Но жизнь показывает, что эти эксперименты в мировой педагогике не оправданы. Как признавал русский ученый Г.К.Селевко, «воспитательное образование» нанесло большой ущерб российской системе



образования - оно поставило образование выше воспитания, не смогло адекватно оценить общественное воспитание, отделило школу от практической жизни.

ОБСУЖДЕНИЕ И РЕЗУЛЬТАТЫ

Как сказал первый президент Республики Узбекистан И.Каримов, «необходимо уделять внимание истокам нашей национальной культуры, духовному богатству народа. Это сокровище копилось веками. Прошло испытания историей. Оно помогало людям в трудную минуту. Наша миссия - сохранить и обогатить это сокровище, как зеницу ока». Эта идея, имеющая фундаментальное значение для нашего национального развития, важна и для научных исследований в области педагогического искусства.

Президент Шавкат Мирзиёев особое внимание уделил образованию молодежи: «Мы не должны оставлять наших детей в руках других, а воспитывать их сами. Для этого мы должны больше разговаривать с нашими молодыми людьми, слушать их сердца, знать их боль и оказывать им практическую помощь в решении их проблем. В реализации этих задач мы опираемся на наши национальные традиции, формировавшиеся веками, богатое наследие наших предков». Своей первоочередной задачей мы считаем совершенствование деятельности всех звеньев системы образования и обучения исходя из требований сегодняшнего времени. Воспитание – это процесс, продолжающийся всю жизнь. Каждый человек в жизни имеет воспитательное влияние. Поскольку он воспитывается в школе жизни, как педагог, как средство воспитания, он служит и созданию социальной среды.

ЗАКЛЮЧЕНИЕ

Таким образом, основное внимание должно уделяться образованию и воспитанию молодежи. Как говорил первый президент Ислам Каримов: «Образование не может быть отделено от воспитания, а воспитание не может быть отделено от образования – это восточный взгляд, восточная философия жизни». Поэтому необходимо осуществлять работу по образованию и воспитанию в гармонии. Мы не должны забывать, что будущее страны, развитие страны и будущее нашего народа зависят сегодня от образования и воспитания наших детей и молодежи. По этой причине каждый родитель, педагог и наставник должны прежде всего видеть в лице каждого ребенка личность. Исходя из этого простого требования, мы должны принять, что главной целью и

задачей сферы образования должно стать воспитание молодых людей совершенными людьми, живущими осознанно, способных мыслить самостоятельно и широко.

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JAMIYATNI MODERNIZATSIYALASHDA YOSHLAR SIYOSIY VA HUQUQIY ONGINI TAKOMILLASHTIRISH OMILLARI

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ANNOTATSIYA

Mazkur maqola yoshlarning siyosiy-huquqiy ongini yuksaltirishga ta'sir etuvchi omillarni tizimli tahlil qilishga bag'ishlangan. U zamonaviy siyosiy va huquqiy tendensiyalarni, shuningdek, ijtimoiy o'zgarishlarni, tadqiqot usullarini, shuningdek, qo'yilgan muammo bo'yicha tahlil natijalarini hisobga olgan holda ushbu masalani o'rganishning dolzarbligi va talabini ochib beradi.

Kalit so'zlar: siyosiy va huquqiy ong, modernizatsiya, jamiyat, filtr pufagi, yoshlar, omillar.

ABSTRACT

This article is devoted to a systematic analysis of factors influencing the increase in the political and legal consciousness of young people. It reveals the relevance and demand for studying this issue, taking into account modern political and legal trends, as well as social transformations, research methods, as well as the results of analysis on the problem posed.

Keywords: political and legal consciousness, modernization, society, filter bubble, youth, factors.

KIRISH

Dinamik modernizatsiya jarayonlari doimo muammo va imkoniyatlar bilan uzviy bog'liq bo'lgan zamonaviy dunyoda yoshlarning siyosiy-huquqiy ongi jamiyat kelajagini shakllantirishning asosiy omili bo'lib xizmat qilmoqda. Yoshlar aholining faol va harakatchan qatlami sifatida zamonaviy ijtimoiy tuzilmalar taqdiri va o'zgarishi haqida so'z borar ekan, e'tibor markazida. Shu nuqtai nazardan, yoshlarning siyosiy-huquqiy ongini yuksaltirishga ta'sir etuvchi omillarni o'rganish alohida ahamiyat kasb etmoqda.

Jamiyatni modernizatsiya qilish ko'p qirrali jarayon sifatida hayotning siyosiy, iqtisodiy, madaniy va ijtimoiy jihatlaridagi o'zgarishlarni qamrab oladi. Shu nuqtai nazardan, yoshlarning yangi voqelikni qanday idrok etishi va ularga moslashishini tushunish jamiyat kelajagini bashorat qilishning muhim elementiga aylanadi. Yoshlarning siyosiy-



huquqiy ongi ijtimoiy-siyosiy faolligining asosi sifatida demokratik institutlarni rivojlantirishda muhim rol o'ynashi bilan birga, ularning davlatga, qonunga, huquq va burchlariga munosabatini shakllantiradi. Ushbu ilmiy tadqiqot jamiyatning faol o'zgarishlari sharoitida yoshlarning siyosiy va huquqiy ongini shakllantirish jarayoniga ta'sir etuvchi omillarni aniqlash va tahlil qilishga qaratilgan. Yoshlarning siyosiy faollikni egallashi, huquqiy normalarni chuqur anglashi va jamiyat hayotida ishtirok etishi nafaqat ularning shaxsiy rivojlanishi, balki butun zamonaviy jamiyat barqarorligi va barqarorligini ta'minlash uchun zarur hisoblanadi.

Shuningdek, ushbu masalani dolzarb va talabchan qiladigan bir qator sabablarni ta'kidlash lozim. "Zamonaviy O'zbekistonda ro'y berayotgan o'zgarishlar, yangi ijtimoiy-iqtisodiy yo'nalishni izlash uning sivilizatsiyasi va uni yanada rivojlantirish yo'llari masalasini kun tartibiga qo'ydi". Xususan, yoshlarning siyosiy-huquqiy ongini yuksaltirish bilan bog'liq bo'lgan fuqarolik faolligining jamiyatdagi in'ikosi. Shunday qilib, bu ularning ijtimoiy-siyosiy hayotdagi faol ishtirokiga xizmat qiladi, bu esa fuqarolik jamiyatini rivojlantirish va demokratik institutlarni saqlab qolish uchun juda muhimdir. Ishonchimiz komilki, siyosiy va huquqiy ongiga ega bo'lmagan yoshlar ekstremistik g'oyalar ta'siriga ko'proq moyil bo'lishi mumkin. Ushbu sohadagi tadqiqotlar radikallashuvga qarshi samarali dasturlarni ishlab chiqishga yordam beradi. Shunday qilib, yoshlarning siyosiy-huquqiy ongini yuksaltirish omillarini o'rganish barqaror va rivojlangan jamiyat uchun shart-sharoit yaratishga qaratilganligi sababli keng jamoatchilik va ilmiy qiziqish uyg'otadi.

ADABIYOTLAR TAHLILI VA METODOLOGIYA

Turli mamlakatlardagi ko'plab olim va tadqiqotchilar jamiyatni modernizatsiyalash sharoitida yoshlarning siyosiy-huquqiy ongini oshirish omillarini o'rganib chiqdilar. Bu boradagi tadqiqotlarda siyosatshunoslik, sotsiologiya, falsafa va boshqa sohalar vakillari faol ishtirok etmoqda. O'z asarlarida ta'lim va fuqarolik o'ziga xosligini shakllantirish masalalarini tadqiq etgan mutafakkirlar orasida Jan-Jak Russoni ajratib ko'rsatish mumkin. Shunday qilib, masalan, biz uning "Ijtimoiy shartnoma yoki siyosiy huquq tamoyillari to'g'risida" "Du Contrat Social, ou Principes du Droit Politique" asarlarining ahamiyatini ta'kidlashimiz mumkin. unda u siyosiy falsafa masalalarini, jumladan, fuqarolik jamiyati va ijtimoiy shartnomani shakllantirish tamoyillarini o'rganadi. U fuqarolik o'ziga xosligi jamiyat qoidalariga shaxsning roziligi orqali qanday shakllantirilishi haqidagi g'oyalarni o'rganadi. Russoning yana bir muhim asari. "Emil yoki Ta'lim to'g'risida" bo'lib, unda faylasuf ta'lim va tarbiya masalalarini, an'anaviy ta'lim usullari ta'siridan qochib, ta'lim orqali shaxs va fuqarolik



o'ziga xosligini qanday shakllantirish kerakligini ko'rib chiqadi. Shuningdek, nemis faylasufi va sotsiologi Yurgen Xabermas siyosiy muloqotning ba'zi omillari. Xabermas «Jamiyatning tuzilishi» va «Kommunikativ harakat nazariyasi» asarlarida sotsializatsiya va tarbiya masalalarini yoritadi. Uning asarlari jamiyatdagi modernizatsiya sharoitida yoshlarning qadriyat yo'nalishlarini o'zgartirish jarayonlarini tushunish uchun foydali bo'lgan nazariy asosni taqdim etadi.

Gollandiyalik sotsiolog, post-materialistik qiymat o'zgarishi nazariyasi muallifi Ronald Ingelxartni alohida ta'kidlash kerak. Uning faoliyati modernizatsiya sharoitida yoshlarning qadriyat yo'nalishlaridagi o'zgarishlarni o'rganish bilan bog'liq. Uning bu boradagi muhim asarlari orasida «The Silent Revolution: Changing Values and Political Styles among Western Publics» («Sokin inqilob: o'zgaruvchan qadriyatlar va G'arb jamoatchiligining siyosiy uslublari»), 1977, unda u 1960 va 1970 yillarda G'arb jamiyatlarida o'zgaruvchan qadriyatlar yo'nalishlari va siyosiy uslublarni tahlil qiladi. U "materialistik" va "postmaterialistik" qadriyatlarning yoshlar va boshqa ijtimoiy guruhlariga ta'sirini ta'kidlaydi. Olimning yana bir asari "Culture Shift in Advanced Industrial Society" ("Rivojlangan sanoat jamiyatidagi madaniy o'zgarishlar") 1990 yil. Ushbu ishda Ingelhart yangilangan ma'lumotlarni taqdim etadi va rivojlangan sanoat jamiyatlaridagi madaniy siljishlarni tahlil qiladi. U e'tiborni qadriyatlar yo'nalishidagi o'zgarishlarga qaratadi, asosiy e'tiborni postmaterialistik qadriyatlarga o'tishga qaratadi. "Modernization, Cultural Change, and Democracy: The Human Development Sequence" ("Modernizatsiya, madaniy o'zgarishlar va demokratiya: insoniyat taraqqiyotining ketma-ketligi") 2005 yil. Bu kitob Ingelxart ishlarining sintezi bo'lib, inson rivojlanishining ketma-ketlik nazariyasini tasvirlaydi. Unda u modernizatsiya, madaniy o'zgarishlar va demokratiya o'rtasidagi munosabatlarni, jumladan, qadriyatlar yo'nalishidagi o'zgarishlarni ko'rib chiqadi.

Siyosiy va huquqiy ongni shakllantirish muammosini rivojlantirishga nemis-amerikalik faylasuf va siyosatshunos Xanna Arendt katta hissa qo'shdi. O'zining "Siyosiy jamiyatdagi odam" asarida ("The Human Condition", 1958): Siyosatshunos inson erkinligini saqlash uchun ijtimoiy harakat va siyosiy ishtirokning muhimligini ta'kidlab, siyosiy kontekstda inson faoliyati haqidagi tushunchasini rivojlantiradi. Arendtning yana bir muhim asarlari "O'tmish va kelajak o'rtasida: siyosiy tafakkurda sakkizta mashq" ("Between Past and Future: Eight Exercises in Political Thought", 1961 yil), unda hokimiyat, mas'uliyat va demokratiya kabi mavzularga to'xtalib, o'quvchilarni siyosiy ong masalalari bo'yicha mulohaza yuritish imkonini beradi. Yoshlarning davlat qurilishidagi siyosiy ishtiroki, huquqiy erkinlikning asl mohiyatini anglashi, Arendt



o'zining "Atrofimizdagi va ichimizdagi siyosat" ("The Promise of Politics", 2005) asarida ochib berdi.. Shunday qilib, uning asarlarida insonning siyosiy muhit bilan munosabati, jamoatchilik fikri qanday shakllantirilishi, siyosiy faoliyatga qanday omillar ta'sir ko'rsatishi kabi savollar tug'iladi. Xanna Arendt siyosiy harakat, erkinlik va jamoat sohasining ahamiyatini tushunish muhimligini ta'kidlaydi.

Maqolada qiyosiy tadqiqot, tahlil, sintez va sinergetik usullardan foydalaniladi.

NATIJALAR

"Yoshlar huquqiy ongining o'ziga xos xususiyatlari ham yoshlarning ijtimoiy mavqei xususiyatlari bilan bog'liq. Uning subektivligini shakllantirishning o'tish davri uning maqomining hayotning barcha sohalarida, shu jumladan huquqiy sohada ham o'tish davri bilan tavsiflanadi . Shu munosabat bilan bir lahzalik ehtiyojlar, manfaatlar va qadriyatlar paydo bo'ladi, ularning aks etishi huquqiy ongning o'zgaruvchanligini kuchaytiradi. Yoshlarning ijtimoiy mavqeining beqarorligi va arginalligi huquqiy makonda ham namoyon bo'ladi, bu ularning huquqiy sohada o'zini o'zi anglash imkoniyatlarini baholashda namoyon bo'ladi. Shu sababli yoshlarning yuridik institutlar va huquqni muhofaza qiluvchi organlar bilan o'zaro munosabatlari ko'pincha qarama-qarshi xarakterga ega bo'lib, bu ularning huquqiy ongida ham salbiy namoyon bo'ladi. Demak, yoshlarning huquqiy ongi deganda huquqning mohiyati, tamoyillari, qonuniylik, huquqiy tartibot haqidagi nazariy g'oyalar, bilimlar, normalar, g'oyalar, shuningdek, huquqiy sohadagi real jarayonlarni aks ettirish, ularni o'zlashtirish va mustahkamlash qobiliyati tushuniladi.

Huquqiy munosabatlarning takror ishlab chiqarish subekti sifatida ma'lum bir ijtimoiy guruh hayotini huquqiy tartibga solishning qiymat-me'yoriy tizimida. Ammo shuni ta'kidlash kerakki, jamiyatni modernizatsiyalash sharoitida yoshlarning siyosiy-huquqiy ongini oshirish turli omillarga bog'liq bo'lishi mumkin. Xususan, yoshlarning siyosiy-huquqiy ongini yuksaltirishning eng muhim omili, shubhasiz, ta'lim tizimi: ta'lim sifati, ixtisoslashtirilgan fanlardir. Sifatli ta'lim, jumladan, siyosat va huquq bo'yicha o'quv dasturlari yoshlar o'rtasida fuqarolikni rivojlantirishga xizmat qiladi. Siyosat, huquq, fuqarolik ta'limi va ijtimoiy fanlar bo'yicha ixtisoslashtirilgan kurslarning joriy etilishi yoshlarning ongliligini oshirish va tanqidiy fikrlashini kuchaytirishi mumkin, bu esa yoshlar ongining kognitiv apparatida huquqiy va siyosiy qarashlarni shakllantirishga asos bo'ladi. Shuningdek, yuridik tashkilotlar, talabalarni himoya qilish tashkilotlari va tadbirlari kabi jamoat hayotida ishtirok etish yoshlarning faol fuqarolik pozitsiyasini shakllantirishga, huquq va majburiyatlarni anglashiga yordam beradi.



Ikkinchi asosiy omil - bu ommaviy axborot vositalari va axborot texnologiyalari bugungi kunda yoshlar hayotida muhim va ba'zan asosiy rol o'ynaydi. Sir emaski, bugungi kunda internet va media resurslar yoshlarga huquqiy normalar, sud qarorlari, huquqni muhofaza qiluvchi tashkilotlar va qonun ustuvorligini ta'minlashning boshqa jihatlari haqidagi ma'lumotlardan keng foydalanish imkonini bermoqda. Shunday qilib, Internet va ijtimoiy tarmoqlar orqali siyosat va huquq haqidagi ma'lumotlarga kengroq kirish tanqidiy fikrlashni va fuqarolik ishtirokining ahamiyatini tushunishni rivojlantirishi mumkin. Axborotni tanqidiy tahlil qilish ko'nikmalarini rivojlantirishga qaratilgan media ta'lim dasturlari yoshlarga siyosiy jarayonlarni yaxshiroq tushunishga yordam beradi. Interfaol usullarga ega ta'lim maydonchalari bugungi kunda ham yoshlarning siyosiy-huquqiy ongi, huquqiy savodxonlik darajasini sezilarli darajada oshirishi mumkin. Qolaversa, yoshlarning jamoat tashkilotlari, talabalar kengashlari va boshqa ijtimoiy faoliyat shakllaridagi faol ishtiroki siyosiy faollikni shakllantirishga xizmat qilishi mumkin. Turli madaniy tadbirlar va forumlar siyosat va huquq haqidagi munozaralarga yordam beradi. Ba'zi raqamli o'yinlar va ta'lim dasturlari huquq asoslarini o'rgatish va huquqiy masalalarga qiziqishni rag'batlantirish uchun ishlatilishi mumkin. Bu erda biz yana bir muhim muqarrar jihatni - axborot oqimining individuallashtirishini aks ettiruvchi "filtr pufakchasi" (фильтрового пузыря») effektini ham ta'kidlashimiz kerak. Shunday qilib, odamlar o'zlarining mavjud e'tiqodlarini tasdiqlovchi ma'lumotlarni olganlarida "filtr pufakchalari" paydo bo'lish xavfi mavjud bo'lib, bu huquqiy masalalar bo'yicha bir tomonlama buzilgan tasavvurlarning shakllanishiga ta'sir qilishi mumkin. Shu sababdan bu omilni amalga oshirish ta'lim jarayonidan so'ng izchillik bilan amalga oshirilishi kerak.

Demokratlashtirish sharoitida yoshlarda siyosiy-huquqiy ongni shakllantirishning uchinchi omili – yoshlarning davlat siyosiy hayotida ishtirok etish imkoniyatidir. Yoshlarning siyosiy hayotda ishtirok etishi uchun sharoit yaratish, jumladan, saylovda ovoz berish va jamoatchilik muhokamalarida ishtirok etish imkoniyatini yaratish. Shu bilan birga, iqtisodiy jihatlarni, shuningdek, xalqaro munosabatlarni va davlat tajribasini hisobga olish muhimdir. Xususan, iqtisodiy barqarorlik siyosiy va huquqiy ongni shakllantirishga xizmat qiluvchi ta'lim va davlat dasturlarini rivojlantirish uchun sharoit yaratishi mumkin. Xalqaro almashinuvlarda ishtirok etish imkoniyatlari yoshlarga siyosat va huquqning turli tizimlarini tushunishga, shuningdek, jahon tajribasini o'rganishga yordam beradi. Shunday qilib, yoshlarning siyosiy-huquqiy ongini yuksaltirish odatda kompleks yondashuvni, jumladan, ta'lim, axborot olish, jamiyat hayotida



ishtirok etish, davlat va jamiyat tomonidan qo‘llab-quvvatlashni talab qiladi.

Shuni ham ta’kidlash kerakki, “yoshlarning huquqiy xulq-atvori ijtimoiy o‘zaro munosabatlar shakllaridan biri sifatida qaraladi va shaxslarning huquqiy sohadagi haqiqiy harakatlarini bildiradi. Bu xulq-atvor motivlarida ifodalangan shaxsning ichki motivlarining tashqi ko‘rinishi va huquqiy madaniyatni amalga oshirish usulidir. Huquqiy xulq-atvorning ijtimoiy ahamiyatidan kelib chiqib, u sog‘lom jamoatchilik fikri tomonidan ma’qullangan va davlat tomonidan rag‘batlantiriladigan huquqiy shakllarni, shuningdek yuridik javobgarlikni nazarda tutuvchi noqonuniy shakllarni olishi mumkin .

XULOSA

Demak, demokratlashtirish, modernizatsiyalash va yoshlar ongini shakllantirish jamiyat ijtimoiy-madaniy taraqqiyotining muhim jihatlari hisoblanadi. To‘g‘ri ta’kidlash kerakki, “modernizatsiya milliy madaniyatlarni mustahkamlaydi, ular zamonaviyroq va kamroq g‘arbiylashadi. Xalqlar va avlodlar almashadi, tarixiy hayot sahnalari siljiydi, ijtimoiy tuzumlar o‘zgaradi, sivilizatsiyalar almashinadi, lekin tarixiy taraqqiyot ipi uzilmaydi. Bo‘ronli tarixiy okeanda omon qolishga muvaffaq bo‘lgan madaniy fond avlodan-avlodga saqlanib kelmoqda. Modernizatsiya shifobaxsh davoga aylanmoqda, undan mo‘jizalar kutilmoqda, o‘zbek ijtimoiy-madaniy tizimi sohalarida yorqin kelajakka bo‘lgan barcha umidlar shu bilan bog‘liq”. O‘z navbatida, demokratlashtirish faol fuqarolik jamiyatini rivojlantirishga hissa qo‘shishi va yoshlarga qarorlar qabul qilishda ishtirok etish, o‘z fikrini bildirish va ijtimoiy jarayonlarga ta’sir o‘tkazish imkoniyatini berishi mumkin. Ko‘pincha yangi g‘oyalar, texnologiyalar va madaniy yo‘nalishlarni idrok etayotgan yoshlar modernizatsiyaning asosiy yuragi ekanligi yaqqol ko‘rinib turibdi. Yoshlar jamiyatdagi innovatsiya va rivojlanishni qo‘llab-quvvatlashi mumkin. Shu sababli, zamonaviy modernizatsiya , madaniy, huquqiy jamiyatlarda ta’lim, madaniy muhit, ommaviy axborot vositalari va boshqa omillarning yosh avlod dunyoqarashi va qadriyatlariga ta’sirini o‘z ichiga olgan yoshlar ongini shakllantirish muhim jihatdir. Agar ta’lim va madaniy ta’sirlar bag‘rikenglik, tanqidiy fikrlash, ijtimoiy mas’uliyat va xilma-xillikka hurmatni rivojlantirishga qaratilgan bo‘lsa, bu yoshlarda ijobiy va xabardor siyosiy-huquqiy ongni shakllantirishga yordam beradi . Yoshlarning ongi ularning demokratiya va modernizatsiya haqidagi idrokiga ta’sir qiladi, ularning jamiyatga hissa qo‘shish istagi va qodirligini belgilaydi.



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INVESTIGATING THE HIGH SCHOOL STUDENTS' UNDERSTANDING AND INSIGHT ON BIOTECHNOLOGY

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ABSTRACT

The purpose of this study is to examine the level of awareness of 10th to 12th class students in regard to the science of biotechnology. Biotechnology generally includes a set of technologies that use living or biological organisms such as plants, animals and microorganisms to produce new products. The statistical population of this research includes male and female high school students of Herat Province, among whom 220 students were randomly selected. Data collection tools and research questioners with indicators on understanding of biotechnology and its usage was set. After determining the validity and reliability of the questionnaires using experts' opinion and coefficient Cronbach's alpha, the questionnaires were completed by the target group. The results of this research showed that students have relatively less understanding of the science of biotechnology, but showed a higher understanding in relation to the usage of this science. According to the results, teaching the basic concepts of this science is necessary to help students to understand and obtain information about this science.

Keywords: high school students, biotechnology knowledge, biotechnology applications

INTRODUCTION

In the 19th century, with the invention of the optical microscope by the Dutch scientist Anthony Phillips van Livon Hook biological sciences entered a new era called cellular and molecular biology. These sciences due to their wide range of expansion are divided into the following sub-sets of biochemistry, microbiology, cell sciences Molecular, genetic and biotechnology. The science of biotechnology is a set of activities that includes

biological and biochemical processes to achieve the industrial use of microorganisms, cultured cells of various tissues and related matters. The above definition about this science differs in different countries around the world. In addition to the above definition, the term biotechnology was used for the first time in 1919 by Crowley Arki, meaning "the application of biological sciences and their interaction in man-made technologies." The main body and structure of this science is a set of sciences such as biology, chemistry and engineering processes.

Biotechnology is one of the sciences that has developed rapidly in the 21st century and is considered a vital development in the scientific and economic fields. We have witnessed various measures in various fields such as agriculture, genetic modification of plant species, the creation of new species, as well as identifying people vulnerable to certain diseases in the field of medicine.

Among the traditional usage of biotechnology, we can mention the production of various pickles, the gradual formation of lactic acid in sourdough in the preparation of bread, and breeding of plants and animals. With the progress of this science, today it is possible to create recombinant vaccines, monoclonal antibodies, diagnosis and treatment of diseases such as cancer and AIDS, gene therapy, etc. in the field of medicine. Today, due to the rapid development of biotechnology, the importance, necessity and various usage of this science such as the medical industry, pharmaceuticals, nutrition, agriculture and the environment, as well as genetic engineering methods such as cell culture techniques, the education of this Science and ethical issues related to it and its inclusion in the curriculum framework are necessary for students in society and around the world.

The purpose of this research is to examine the level of knowledge and understanding of 10th to 12th class students in relation to the familiarity and usage of biotechnology.

RESEARCH METHOD:

The method of this research is descriptive which deals with content analysis. Descriptive research deals with describing and analyzing the obtained information.

Society and statistical sample of the research:

In this study, 220 questionnaires were filled by high school students including of girls and boys from high schools, located in the Herat Province. The size of the statistical population was selected according to the previous research conducted in this field, among which thirty-two percent of the respondents were male and sixty-eight percent of them were female. Due to the tendency of girls to study experimental sciences, a significant

portion of the questionnaires was allocated to girls in this research.

In the collected questionnaires of this research, sentences related to the understanding of biotechnology and its usage in the fields of health and medicine as well as agriculture and food production were collected of high school students between the classes of 10th to 12th. The questionnaires were filled by the students of the statistical population and the relevant data were analyzed by Excel software.

Questions related to the perception of biotechnology:

The level of complexity of the questions was well chosen, and few questions were not answered. The validity and reliability of the questions of this research were evaluated by experts and Cronbach's alpha coefficient, and according to this coefficient, they were at its ideal level.

- Biotechnology interferes with nature.
- Biotechnology is the genetic manipulation of living organisms, which benefits humans.
- Genetically modified crops only benefit people living in the third world.
- The cloning of humans causes the creation of a completely identical generation (physically and in terms of personality).
- If a person consumes genetically modified products, it can be concluded that her genes have changed.
- More than half of human genes are similar to chimpanzees.
- Criminal tendencies are mainly inherited genetically.
- It is impossible to transfer animal genes to plants.

Questions related to the usage of biotechnology in different fields:

The level of complexity of the questions was chosen at a good level and few questions had no answers. The validity and reliability of the questions of this research were evaluated using the opinion of experts and Cronbach's alpha coefficient, and according to this coefficient, they were at the ideal level.

- Biotechnology helps human health, such as the treatment of many genetic diseases.
- Biotechnology enables humans to replicate themselves.
- Biotechnology is only related to modified crops such as canola or rice.
- New medicines that are useful for human health are produced every year using biotechnology.
- Biotechnology has an important impact on the prevention, diagnosis and treatment of human cancers

- The genetically modified animals and plants used in human food has an important effect on their health.
- Genetically modified products (tomatoes, wheat, etc.) have genes, while normal products do not have genes.
- Bacteria are effective in the production of food such as pickles and mushrooms.

RESULTS:

In this study, two questionnaires were completed by 220 high school students between the 10th and 12th classes, among which thirty-two percent of the respondents were boys and sixty-eight percent of them were girls. In order to attract more high school girls to the field of experimental sciences, a significant portion of the questionnaires was dedicated to girls in this research. The answers related to the questions on understanding and having knowledge of biotechnology are shown in Table No. 1 in terms of percentage.

NO	Questions	Agree	Disagree	Neutral	Total
Q1	-Biotechnology interferes with nature.	37%	19%	44%	100%
Q2	-Biotechnology is the genetic manipulation of living organisms, which benefits humans.	26%	31%	43%	100%
Q3	-Genetically modified crops only benefit people living in the third world.	29%	43%	28%	100%
Q4	-The cloning of humans causes the creation of a completely identical generation (physically and in terms of genes).	26%	44%	30%	100%
Q5	-If a person consumes genetically modified products, it can be concluded that her genes have changed.	37%	39%	24%	100%
Q6	- More than half of human genes are similar to chimpanzees.	46%	20%	34%	100%
Q7	- Criminal tendencies are mainly inherited genetically.	37%	39%	24%	100%
Q8	- It is impossible to transfer animal genes to plants.	30%	25%	45%	100%

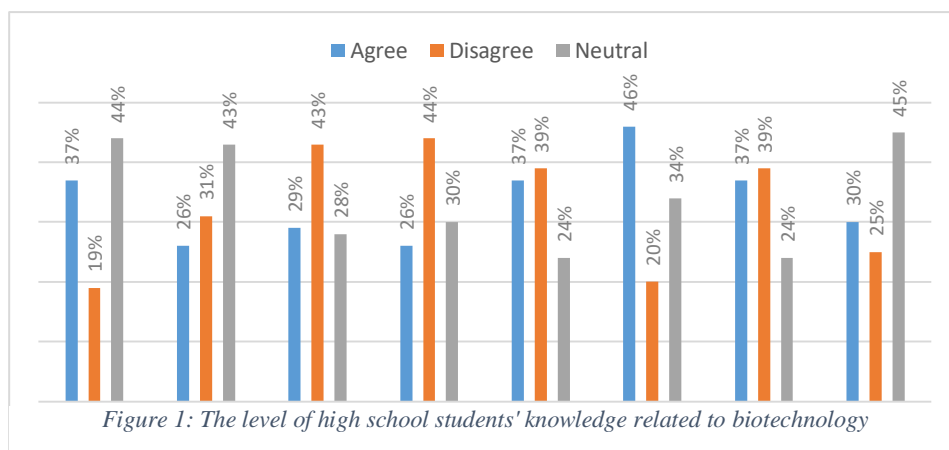


Table 1: The level of high school students' knowledge related to biotechnology

As it is clear in Table 1 and Chart 1, the highest number of students agreed upon is related to the second and sixth sentences respectively, which accounts for approximately 50% (above 40) of the frequency. As it is clear in the diagram, in response to the most of the questions, the students mostly had opposite opinion or had no opinion. The highest percentage of students disagreed with the third and fourth sentences of the



questionnaire with a rate of over 40% which shows that students' awareness and understanding of biotechnology is relatively low. Also, the high percentage of students' answering the second questionnaire and answers related to questions on different usage of biotechnology are shown in table no. 2 and bar graph no. 2.

NO	Questions	Agree	Disagree	Neutral	Total
Q1	- Biotechnology helps human health, such as the treatment of many genetic diseases.	56%	23%	21%	100%
Q2	- Biotechnology enables humans to replicate themselves.	42%	30%	28%	100%
Q3	- Biotechnology is only related to modified crops such as canola or rice.	44%	38%	18%	100%
Q4	- New medicines that are useful for human health are produced every year using biotechnology.	52%	23%	25%	100%
Q5	- Biotechnology has an important impact on the prevention, diagnosis and treatment of human cancers	37%	34%	29%	100%
Q6	- The genetically modified animals and plants used in human food has an important effect on their health	37%	34%	29%	100%
Q7	- Genetically modified products (tomatoes, wheat, etc.) have genes, while normal products do not have	42%	31%	27%	100%
Q8	- Bacteria are effective in the production of food such as pickles and mushrooms.	54%	28%	18%	100%

Table 2: -High school Students' responses on questions related different usage

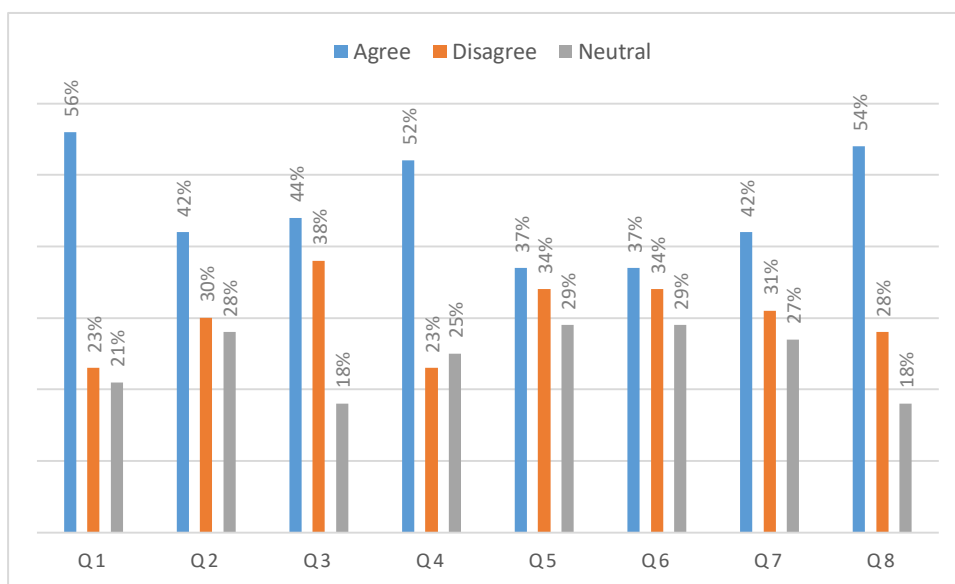


Figure 2: High school students' responses on questions related different usage of biotechnology

of biotechnology

According to the above table and diagram, the students agreed upon and answered most of the questions. In seven of the questions, the percentage of students with positive response was higher than 40%, and only in response to one question the percentage was lower than 40%. These results have shown more development compared to the results of Table 1 and Chart 1 and indicate that students have more knowledge about the usage of biotechnology than having awareness of the science of biotechnology.

For a more detailed study, we separated the questions in Table 2 and Figure 2 on the usage of biotechnology in two areas: 1. health and medicine and 2. Agriculture and food production, which are shown separately in figure 3 and 4. Questions 1, 2, 4, and 5 are



related to health and medicine, and questions 3, 6, 7, and 8 are related to agriculture and food.

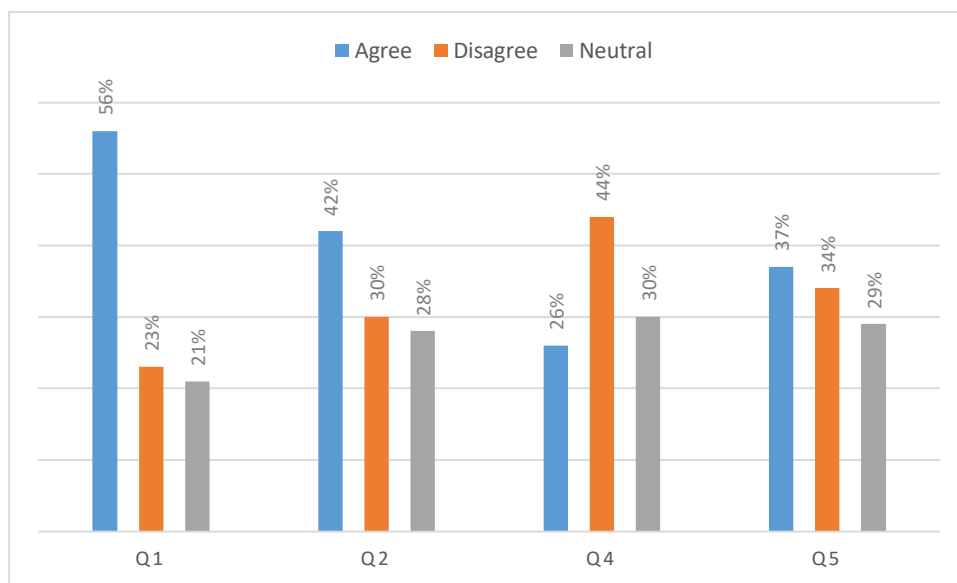


Figure 3: High school students' perception regarding to questions related Health and medicines

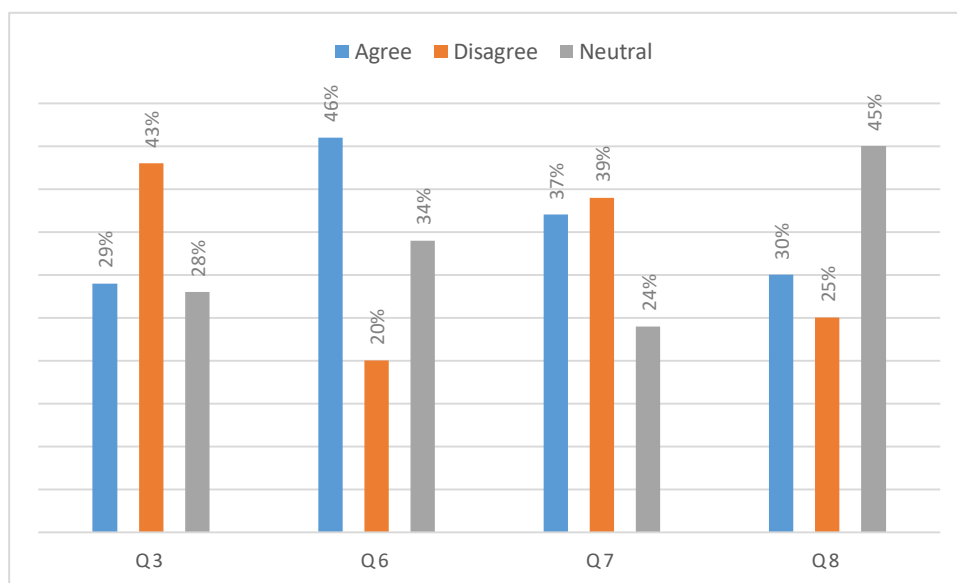


Figure 4: High school students' perception regarding to questions related agriculture and food

Comparison of graphs 3 and 4 shows that students are more aware of the usage of biotechnology in the field of health and medicine than of agriculture and food production. More than 50% of the students agreed with 3 questions related to health and medicine, and more than 50% of the students agreed on only one of the questions related to agriculture and food production.



CONCLUSION

The results of this study show that a significant percentage of students have sufficient information and have chosen the option I agree in relation to the usage of biotechnology. But in relation to understanding the basic concepts of this science, they had relatively less understanding and need more knowledge.

In a study conducted by colleagues in 2005, 84 students between the ages 15 to 18 expressed their opinions regarding the knowledge of biotechnology and its usage. In the meantime, a significant percentage of students were aware of the effect of yeasts and microorganisms in food. Also, regarding the usage of biotechnology, seventy-four percent of the students agreed with the above sentence (biotechnology is the genetic manipulation of living organisms, which is beneficial to humans). Also, in connection with the information sources of biotechnology, the students of the universities have been listed as an important source of information.

Also, in a research conducted in the United States in 2010 by Chabalengola colleagues, the knowledge of eighty-eight teachers in relation to the understanding of biotechnology and its related processes was examined. In this research, teachers were asked to provide definitions and examples related to cloning, biotechnology and genetic engineering. In general, many teachers had information about cloning, but could not provide an acceptable definition in relation to the correct definition of biotechnology.

According to the results of this research, it seems necessary to teach the basic concepts of this science to students, especially high school students.

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RELATIONS BETWEEN AFGHANISTAN AND PAKISTAN DURING THE PRESIDENCY OF Dr. MOHAMMAD YUSUF

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ABSTRACT

Afghanistan and Pakistan are a few neighboring countries whose diplomatic relations have been based on political tensions from the beginning and their ruling regimes have always fueled these tensions by adopting aggressive strategies. These two neighboring countries have the highest level of social and cultural commonality, and tribal and racial ties. An important issue that has affected the relations between both countries and has caused the continuation of political tensions is one of the territorial claims and Pashtunistan of the Afghan rulers and the other is the defensive strategy of the Pakistani government based on covert and open interference in Afghanistan's internal affairs. The tensest period in the foreign policy of both countries was during the presidency of Mohammad Dawood, whose stance in supporting the Pashtuns on the other side of the Durand Line caused the severance of political relations between Pakistan and Afghanistan. After the resignation of Mohammad Dawood and the coming to power of Dr. Mohammad Yusuf, the relations between Afghanistan and Pakistan have resumed, and the purpose of this research is to describe and analyze Afghanistan's foreign relations with Pakistan during the presidency of Dr. Mohammad Yusuf Khan. After a round of hostile relations, how did Afghanistan and Pakistan resume diplomatic relations, and based on which political mechanisms? It is the most important question that this research has answered by using documents, books, and scientific articles in an analytical-descriptive way. The result of the research shows that during the presidency of Dr. Mohammad Yusuf Khan, the Afghan government avoided taking tense positions in foreign relations with Pakistan and considering the expediency and understanding of the importance of the sense of neighborliness in diplomatic relations, it wanted to end the claim of Pashtunistan to consolidate national interests and It has

been to prevent the political sovereignty in the country from being endangered.

Keywords: Afghanistan, Pakistan, foreign relations, and the chancellery of Dr. Mohammad Yusuf.

INTRODUCTION

Geographical factors, especially the neighborhood and common border issues, are important elements that play an important role in the relations of countries, and without considering them, tension in the politics and foreign relations of countries, and internal issues such as securing their national security and interests is impossible. Recognizing the ability and vulnerability of countries depends on their geographical and geopolitical conditions; But as a general principle throughout the world, neighbors have a unique and special role in each other's strategic policies (Ataaat, 2014: 2). The purpose of bilateral relations is to establish political, economic or cultural relations between two independent countries. When governments are recognized as independent countries, they actually announce their foreign policy towards each other by establishing diplomatic relations and opening embassies. But since the establishment of Pakistan, Afghanistan's relationship with that country has not been a relationship based on a sense of neighborliness and reconciliation. From the beginning of the formation of the government of Pakistan, Afghanistan has always been one of the governments that has even questioned the territorial integrity of Pakistan by adopting contradictory policies towards Pakistan. Pakistan, which itself was created as a result of colonial efforts, has border problems with Afghanistan, which has made friendly relations between the two countries difficult. However, Pakistan's elites have always praised Afghanistan as a center of civil gravity, a model of religion and culture (Mohammadi, 2014: 1).

In order to take advantage of the gap between the strong British presence in the region and the weakness of the newly established country of Pakistan, the Afghan government called the border dispute left over from the colonial era as invalid and raised the imposition of the Durand Line and demanded negotiations with Pakistan in order to determine new border boundaries for the sake of aligning the tribes. Pashtuns are divided on both sides of the Durand border. However, the desire of Pakistan's Pashtun tribal chiefs to remain in the territory of that country and their lack of interest in joining Afghanistan has put Afghanistan in a losing position in this fight and Pakistan in a superior or winning position in the territorial and border dispute

with Afghanistan. The explicit rejection of Afghanistan's request and Pakistan's emphasis on the international recognition of the Durand border line is the main reason for the tension between the two countries (Ibrahimkhani, 2019: 2).

Foreign relations of Afghanistan and Pakistan during the presidency of Dr. Mohammad Yusuf

Dr. Mohammad Yusuf was born in Kabul city in 1917. He obtained his doctorate in physics from Germany and taught for a while as a professor at Kabul University. In 1949, he served as the deputy minister of education and on March 10 of the same year as the minister of mines. After the resignation of Mohammad Dawood Khan from the post of Prime Minister, he was appointed as the Deputy Minister of Afghanistan and announced his cabinet on March 13, 1963. He was the first chancellor of Afghanistan during the reign of Mohammad Zahir Shah who was not from the royal family. The most important event of his presidency is the acceleration of the democracy process and the ratification of the new constitution in Afghanistan, which came into effect on October 1, 1963. The constitution that greatly contributed to the development of democracy and the freedom of political activity of parties. The constitution of his period was one of the most comprehensive and modern constitutions in the region, which enshrined individual rights and freedoms, freedom to practice religious rituals, freedom to form parties and assemblies, and torture, exile, censorship and persecution of political opponents were prohibited. Dr. Yusuf resigned from the post of president on October 29, 1965 and passed away in Germany on January 23, 1998.

In the foreign policy of Dr. Mohammad Yusuf, the first Prime Minister of the Decade of the Constitution (the Decade of Democracy), strengthening friendly relations with neighboring countries and Islamic countries, respecting the United Nations Charter and seeking the assistance of international organizations were the basic program of the reform programs of the government in Afghanistan (Panjshiri, 2019: 122). Pakistan is a country in the subcontinent region that has only been established for more than half a century. But in its short history, it has also caused major crises in the region (Hosseinkhani, 1391: 117).

The darkness of relations between Afghanistan and Pakistan started when after the declaration of independence of that country in 1947, Afghanistan did not recognize its independence in the United Nations and voted against it (Watkins, 2021: 2). Pakistan has deep religious, cultural, historical, linguistic and geographical ties with Afghanistan. As a landlocked country, with about 2200 kilometers of common



border with Pakistan, Afghanistan is also considered the gateway of Pakistan to Central Asia. The main goals of Pakistan's foreign policy in relation to Afghanistan are the pursuit of geostrategic interests, security issues, economic interactions, and most importantly, maintaining the balance of influence of other regional powers in Afghanistan. Afghanistan's tendency towards India and other countries in the region is one of Pakistan's major concerns (Mohammed Alipour, 2019: 270-271). With the resignation of Mohammad Davoud Khan in March 1963, the deterioration of relations between the governments of Afghanistan and Pakistan slowly improved, and with the establishment of the constitutional government led by Dr. Mohammad Yusuf, the most tense period in the political relations between the two countries ended (Zamani, 2014). : 129). The government of Afghanistan during the presidency of Dr. Yusuf. A milder policy towards Pakistan was adopted and an effort was made to return the relations between Afghanistan and Pakistan to a normal state. The turmoil in Pashtunistan subsided after the resignation of Mohammad Dawood khan from the prime ministership, for whatever reason. Pakistan and Afghanistan once again achieved normal relations (Javadi, 2019: 110). Dr. Mohammad Yusuf announced his government's policy on March 28, 1963 after becoming the chancellor, and regarding Afghanistan's foreign policy, it was stated that the Afghan government adopted a foreign policy based on non-alignment with Pakistan and sought the government's position on economic relations and the issue of Pashtunistan. He will resolve the past with bilateral diplomacy. From the content of this speech, it is clear that the Afghan government has tried to resolve the tension with Pakistan and followed the middle way in foreign policy (Rahmand, 2012: 72).

The role of the Shah of Iran in reducing the tension between Afghanistan and Pakistan

During the presidency of Dr. Mohammad Yusuf, the Iranian government made extensive efforts to improve the relations between Afghanistan and Pakistan, so that it could play the role of a mediator and help normalize the relations between Pakistan and Afghanistan. On 25th of the year 1341 Khurshidi corresponding to 1962 AD, Iranian Foreign Minister Abbas Aram wrote a letter to Afghanistan's Prime Minister Dr. Mohammad Yousef asking him to inform the Iranian Foreign Minister about his views on reconciliation with Pakistan. Mr. Zulfiqari, Iran's ambassador in Kabul, gave this letter to Dr. Mohammad Yousuf and asked him to deal with

Pakistan more carefully than his predecessor. Iran's efforts forced both sides to start dialogue and accept Iran's mediation to resolve the differences. At the end of May 1962, the mediation of the Shah of Iran was accepted by Afghanistan (Javadi, 2019: 110). With the acceptance of the Shah of Iran's mediation proposal by Pakistan and Afghanistan and his visit to Kabul and Rawalpindi in 1962, contacts between the officials of the two countries began in order to reduce tension (Ibrahimkhani, 2019: 4). In March 1963, to resolve the tension between Afghanistan and Pakistan, delegations from Pakistan and Afghanistan held a meeting in Tehran to resolve the issue. These negotiations were held under the supervision of the Shah of Iran, and finally the parties agreed to re-establish political relations between their countries and to restore the Afghanistan transit route. Despite that, the dispute remained over the issue of Pashtunistan, but both sides pledged that the said issue would not spoil their relations in other cases (Rahmand, 2012: 73). After meeting and negotiating in Tehran, the Afghan and Pakistani delegations reached a final agreement regarding the resumption of political relations and the reopening of common borders (Ibrahimkhani, 2019: 5). Both governments also agreed to solve all their issues according to international laws and make a lasting effort to strengthen the atmosphere of understanding and mutual respect. This position was a reference to the wish that Afghanistan take the path of moderation in the issue of Pashtunistan (Frayad Afghan, 2008: 290). The mediation of Mohammad Reza, the king of Iran, had started at the height of tension and breaking of relations between Afghanistan and Pakistan. Although at the beginning, Pakistan agreed to accept Iran's mediation, but it hesitated to reopen the Afghan embassies in Pakistan, and General Mohammad Ayub Khan, the military ruler of Pakistan, called Afghan political embassies dens of espionage and provocative activities against Pakistan. The Afghan delegation in the negotiation consisted of Seyyed Qasim Rashtiya, Minister of Press (Information and Culture), Noor Mohammad Etimadi, Deputy Minister of Foreign Affairs, and Mohammad Osman Amir, Afghanistan's ambassador to Iran. The Pakistani delegation included Foreign Minister Zulfiqar Ali Bhutto, General Political Director Shafqat of the Ministry of Foreign Affairs, and Pakistani Ambassador to Iran Akhtar Hussain. After several days of discussion and understanding, the negotiating team signed the agreement on the restoration of diplomatic relations in the Ministry of Foreign Affairs of Iran on May 27, 1963 (Andishmand, 2011: 252-253).

Dr. Mohammad Yusuf's policy towards Pakistan after the normalization of relations between the two countries



With the change in the situation in Pakistan, the relations between the two countries entered a new era. When General Mohammad Ayub Khan took power in Pakistan with the first military coup against Iskandar Mirza in 1958, the men of Afghanistan were shocked because all the leaders of the new Pakistani government were Pashtuns. In this way, Afghanistan no longer had an excuse to violate the rights of the Pashtuns and had to adopt a new method regarding the Pashtunistan issue. On the other hand, Ayub Khan had adopted a policy against Iskandar Mirza and refrained from any flexibility in the Pashtunistan issue. (Javadi, 2019: 110).

The main concern of Pakistan-Afghanistan bilateral relations is Afghanistan's friendly relationship with India and Afghanistan's territorial claims to Pashtun areas on the Pakistani side of the Durand Line, which have become less practical in recent years, but many governments based in Kabul use the Pashtun issue as a policy lever. Internally, they use domestically to gain more acceptance. The general goals of Pakistan's policy towards Afghanistan are, to put it simply, to moderate and counter India's influence in Afghanistan and to force Afghanistan to give up its territorial and border claims to Pakistan (Mohammad Alipour, 2019: 271). The negotiations between the two countries, which were held in Tehran in May 1963, greatly helped to improve the relations between the two countries. The delegations of the two countries agreed to ban hostile propaganda about the Pashtunistan issue from their mass media, to reopen embassies, consulates and commercial agencies as before. Both countries agreed that the Durand-Pashtunistan border issue should be kept separate from other issues related to the political, economic and commercial relations of the two countries (Javadi, 1399: 111). After the restoration of political and commercial relations between the two countries, the government of Pakistan showed flexibility with Pashtun opposition leaders. At the time of the second war between Pakistan and India in September 1965 over Kashmir, the Afghan government refused to take any action against Pakistan despite the views of using this opportunity about Pashtunistan that existed inside the government and outside it (Andishmand, 2011: 253). In October 1964, Dr. Mohammad Yusuf, the Prime Minister of Afghanistan, participated in the conference of non-aligned countries in Cairo and spoke about the improvement of relations with Pakistan in that conference (Rahmand, 2012: 74). At the same time, the king of Afghanistan decided that there will be no more pressure on the Pashtunistan issue in the country's press. He wanted to continue the demand for the right of self-

determination for the people of the border tribes, but on top of that the secrets and insistence to the extent that it harms the national interests of Afghanistan, it is not necessary to cause tension with Pakistan. After the improvement of relations between Afghanistan and Pakistan in 1964, General Mohammad Ayub Khan, the President of Pakistan, stopped in Kabul for a while, and the Minister of Foreign Affairs of Pakistan also visited Kabul during his trip to Moscow (Zamani, 2014: 129-130). At the time of the second war between Pakistan and India, there were heated discussions among government ministers about the use of this war in the issue of Pashtunistan, but the Shah refused to accept the opinion of supporters of action against Pakistan during the war. Seyyed Qasim Rashtiya, Minister of Finance, speaks in detail about the discussions on this issue. He talks about his dialogue with Dr. Abdul Qayyum, the Minister of Interior, who was one of the supporters of urgent action regarding the issue of Pashtunistan during the Indo-Pakistan war. While the Minister of Finance considers the political and military conditions of Afghanistan unfavorable with such an action. He writes: The extraordinary meeting started with a brief report of the events as far as it was obtained through diplomatic and newspapers by the chancellor (Dr. Mohammad Yusuf) who was also responsible for the foreign ministry and some members of the parliament expressed their views. A group headed by Dr. Abdul Qayyum, Minister of Interior, Gol Pacha Elfat, Chief of Tribes, and Mohammad Azim, Minister of Public Works, all three of whom were from the Eastern and Pashtun side, separately suggested that Afghanistan use this golden opportunity to unilateralize the issue of Pashtunistan and claimed that with a The strong demonstration of Pakistan will be ready to give the rights of Pashtun and Baloch people. Dr. Abdul Qayyum, the spokesperson of this group, also pointed out that if no action is taken at this time, the generals will take advantage of the government's inaction and attract public opinion to their side, and he insisted that not only Pakistan, which serious response to the crisis in They will not be able to show themselves by war with India, but the international environment is also favorable for such a move and the Soviets will definitely support Afghanistan's action both directly and at the international level. They did not know Pakistan in such conditions for the benefit of Afghanistan and the region and prevented any movement against Pakistan (Andishmand, 2011: 254-252).

CONCLUSION

Pakistan has deep religious, cultural, historical, linguistic and geographical ties with Afghanistan. As a land-locked



country, with about 2,200 kilometers of common border with Pakistan, Afghanistan is also considered the gateway of Pakistan to Central Asia. The relations between the two neighboring and Muslim countries were in the darkest period and even completely severed during the presidency of Mohammad Dawood Khan. With the resignation of Mohammad Dawood Khan and the appointment of Dr. Mohammad Yusuf in this position, relations between Afghanistan and Pakistan slowly improved. And Dr. Mohammad Yusuf welcomed the offer of mediation by Mohammad Reza, the King of Iran, for good relations with Pakistan. For this purpose, he sent a delegation headed by the Minister of Information and Culture, Seyyed Qasim Rashtia, to Tehran. On behalf of Pakistan, Zulfiqar Ali Bhutto, the Foreign Minister of Pakistan, represented the delegation of that country. After several days of negotiation and understanding, the delegations of the two sides decided to resume the embassies, consulates, commercial and trade missions between the two countries, to keep the issue of Durand and Pashtunistan away from other issues and not cause a slowdown in the relations between the two countries. Dr. Mohammad Yusuf and Mohammad Zahir Shah, the king of Afghanistan, adopted a softer policy towards Pakistan during the decade of democracy, and even during the second Indo-Pakistan war, when a golden opportunity was provided for Afghanistan to gain access to Pashtunistan and Baluchistan regions, and this discussion He had supporters in the cabinet, but the king and the chancellor disagreed and did not want to involve themselves in territorial and border issues with Pakistan. In general, during the term of Dr. Mohammad Yusuf's chancellorship, relations between the two countries improved significantly, and both sides tried to ensure that issues such as Pashtunistan and the Durand border line did not cast a shadow on the politics and relations of the two countries, and that trade and commerce between the two countries continued normally. Active diplomacy between the two countries should be institutionalized based on the national interests of both sides.

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THE PREVALENCE OF CERVICAL INCOMPETENCY IN PRETERM BIRTH AND RECURRENT ABORTION

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ABSTRACT

During normal pregnancy the neck of the uterus (cervix) stays tightly closed, allowing the pregnancy to reach full term. The inability of the uterine cervix to retain a pregnancy in the second trimester is referred to as cervical insufficiency. Cervical insufficiency is an important cause of preterm birth and recurrent pregnancy loss and is estimated to complicate up to 1% of pregnancies. The objective of this study is to find the prevalence of cervical incompetency in preterm birth and recurrent abortion.

A hospital based retrospective cross sectional study was conducted during six months (01/01/1401 to 30/6/1401), on 6802 women who were admitted due to obstetric conditions, 220 (3.23%) women were suffered from cervical incompetency. The women aged 18 -45 years. Women were diagnosed cervical incompetency and admitted in Nangarhar university teaching hospital (gestational age 14-36 weeks) were included in the study. Women were excluded if membranes were prolapsed below the external os, abruption or unexplained vaginal bleeding, uterine activity and cervical change associated with preterm labour. A pre-tested structured questionnaire was adapted for collecting of data.

In 6802 women who admitted due to obstetric conditions, 220 (3.23%) from cervical incompetency. The most affected (53.1%) age group interval was (30 to 40-year age group). about two third (77.27%), fourth-five (80.80%). It one -half (55.45%) of participants were, illiterate and house wives, lived in rural areas and expressed as the economic

condition as poor, respectively. The percentage of cervical incompetency in primiparous women were 63(28.63%) and in multiparous women were 157(71.36%), 122(55.45%) women suffered from preterm birth and 98(44.54%) suffered from recurrent pregnancy loss. The most common causes of pregnancy loss were previous history of RPL (46.36%) the other causes were cervical

Trauma (14.09%), congenital and acquired anomaly of uterus (10.90%), uterine fibroma (5.45%), but in some cases the causes are still remain unknown.

Keywords: Cervical Incompetence, Cervical, Recurrent Pregnancy Loss (RPL), Preterm birth.

INTRODUCTION

The abortion rate has declined in recent years to the lowest rate ever in the US (14.6 abortions per 1000 women ages 15–44); the decline is related to the decrease in unintended pregnancies due to increased use of highly effective contraception [2]. In 2014, 19% of all pregnancies, were managed with abortion, resulting in approximately 926 200 US abortions that year.

Back in 1976, the World Health Organization (WHO) defined the RPL as three and more consecutive abortions before the 22nd week of gestation or the loss of a fetus weighing <500gr. Nearly 10–15% of clinical pregnancies and 30% of all pregnancies terminate with spontaneous abortion, making it the most frequent pregnancy complication [6]. Most of the sporadic pregnancy losses before 10 weeks of gestation result from chromosome aberrations (monosomy, trisomy, and polyploidy) [1,6]. The variance and discrepancy in definitions of RPL lead to difficulty in the real prevalence estimation [4,8]. Moreover, cultural and traditional relationships may prevent women from having open discussions about their abortions due to the possible blame from the society they lives in [12].

Furthermore, RPL incidence may be underreported since not many countries must document pregnancy losses as a separate indicator in national healthcare databases [13]. All these factors contribute to the underestimation of RPL prevalence in some world regions [12].

Women's age at conception is reported to serve as an independent risk factor for miscarriage [11]. The risk of miscarriage is slightly elevated among young mothers and then increases abruptly in advanced-age mothers [7]. According to the RCOG guideline data, the age-related risk of pregnancy loss is 13% in ≤ 19 years; 11–12% in 20–29 years; 15% in 30–34 years; 25% in 35–39 years; 51% in 40–44 years; and 93% in ≥ 45 year's age groups [12]. The increased risk of miscarriage for women >35 years old appears even more dramatic, considering that the chances to conceive in this age



group decline with years ^[2]. Spontaneous pregnancy loss is a common medical condition in reproductive-age women. According to a worldwide estimation, 23 million cases occur annually ^[7].

Recurrent pregnancy loss is a complex health challenge with no universally accepted definition. Inconsistency in definitions involves not only the number of spontaneous abortions (two or three) that are accepted for recurrent pregnancy loss but also the types of pregnancy and gestational age at miscarriage^[8]. The exact etiology of recurrent pregnancy loss remains questionable; thus, it is considered a poly etiological and multifactorial condition with many modifiable and non-modifiable factors involved. Even after thoroughly evaluating recurrent pregnancy loss etiology and risk factors, up to 75% of cases remain unexplained. Due to the heterogeneity of definitions and criteria applied by international guidelines for recurrent pregnancy loss, the true incidence of recurrent miscarriage, which is reported to range from 1% to 5%, is difficult to estimate ^[9].

The prevalence of anatomical uterine anomalies in women experiencing RPL varies from 15% to 42% according to different studies ^[8]. Congenital uterine anomalies are associated with 7%–28% of RPL ^[10]. These mainly include septate uteri and more rarely arcuate or bicorporeal uteri. Acquired uterine anomalies are associated with 6%–15% of RPL [4]. These include submucosal myomas, intrauterine adhesions (IUAs), and endometrial polyps ^[2].

Congenital uterine anomalies are the other causes of recurrent abortion and preterm birth. The septate uterus is the congenital malformation most commonly associated with RPL, being found in 6%–16% of cases ^[4]. Septate uteri (class U2) result from partial or complete failure of resorption of the medial septum between the two Mullerian ducts during fetal life ^[2].

The prevalence of fibroids in RPL varies from 0.5% to 1.3%, depending on the study. Fibroids are also associated with infertility due to implantation failure ^[7].

Cerclage is indicated in patients with a history of cervical deficiency as guided by history, physical examination, or ultrasound findings. A history of cervical insufficiency is suggested by one or more second-trimester losses related to painless cervical dilation in the absence of labor or placental abruption. The findings considered to be concerning for cervical insufficiency include examination-evidence of painless cervical dilation in the second trimester or ultrasound evidence of a cervical length of <25 mm in a patient with a history of preterm birth before 34 weeks of gestation ^[3].

A cerclage, or purse-string suture around the cervix, can be used to treat cervical insufficiency and prevent second-trimester

loss and preterm birth. Traditionally, a cerclage is placed vaginally; however, a cerclage may instead be placed abdominally in more severe cases where a vaginal cerclage has failed or the cervix is extremely short^[4].

Vaginal cerclage was first described a half a century ago as a preventive measure for patients with an extremely short cervix due to müllerian anomalies or cervical surgery. Two notable techniques were described by Shirodkar and McDonald in the 1950s^[8].

Most studies measure the success of a cerclage by the neonatal survival rate, defined as the percentage of pregnancies with neonates surviving until hospital discharge. According to the literature, neonatal survival rates after a laparoscopic or open abdominal cerclage range from 71% to 100%^[7].

There are a number of proposed surgical methods designed to keep the cervix closed until the expected time of birth. All interventions require at least regional anaesthesia in the form of a spinal or epidural block. Cunningham reported the insertion of a cervical stitch (suture) at around 14 weeks of pregnancy. The anterior vaginal wall is cut and the bladder reflected (pushed) back and upwards allowing an access close to the level of the internal cervical os by the vaginal route. A stitch, usually silk, tape, or other non-absorbable material, is inserted around the cervix, enclosing it. It described a simpler purse string stitch technique, whereby the stitch is inserted around the body of the cervix visible in the vagina in three or four bites. Although the internal os is often not reached, the procedure is easier to perform with less bleeding. These techniques were described as elective (planned) procedures^[5].

This study aimed to evaluate the prevalence of cervical incompetency in our population. In addition, our study showed that the most common causes of cervical incompetency were cervical trauma, previous history of recurrent pregnancy loss, uterine anomalies and uterine fibroma. Studies on etiology and risk factors for recurrent pregnancy loss, especially idiopathic, should be continued.

MATERIALS AND METHODS

A hospital based retrospective cross sectional study was conducted during six months (01/01/1401 to 30/6/1401), on 6802 women who were admitted due to obstetric conditions, 220 (3.23%) were suffering from cervical incompetency. The women aged 18 -45 years. Women with cervical incompetency and admitted in Nangarhar university teaching hospital (gestational age 14-36 weeks) were included in the study. Women whose membranes were prolapsed below the external os, who had abruption or unexplained vaginal bleeding,

uterine contraction and cervical change associated with preterm labour were excluded.

Data collection:

The data were collected from (01/01/1401 to 30/6/1401). The trainees of specialization program and senior doctor staff were hired for gathering the data. For a reliable collection of the data the training of the staff and editing of the questionnaire were preformed.

Study variables:

Variables of the study included socio-demographic characteristics, the morbidities of obstetrics and gynecology. The collected data for demographic variables included, age, educational status, weight, height, economical status, residency& job. The body mass index was calculating by measuring the height and weight. Detailed information was also collected about of the age of the fetus, history of previous recurrent pregnancy loss and preterm birth, uterine anomalies and uterine fibromas.

Data analysis:

The data were inserted to the IBM SPSS version 26 for analysis. For all continued variables we used the univariate analysis and descriptive statistics including frequency and percentage. Instead of names of the participants by using codes and numbers the confidentiality of the study was ensured.

Terms and definitions:

Preterm birth: defined as delivery before 37 completed weeks^[8].

Perinatal loss: all losses including abortions, stillbirth and neonatal deaths^[5].

Anemia: Anemia in pregnancy is present when the hemoglobin concentration in the peripheral blood is 11g/100ml or less^[4].

Recurrent abortions: classically defined as three or more consecutive pregnancy losses at ≤ 20 weeks or with a fetal weight < 500 grams^[4].

Cervical cerclage: A cerclage is a purse-string suture around the cervix for prevention of RPL^[7].

RESULTS

This study involved 220 recurrent abortion and preterm birth cases delivered or aborted from (01/01/1401 to 30/6/1401)at Nangarhar University Teaching hospital in Jalalabad, Nangarhar Afghanistan.

Several factors have been suggested to contribute to RPL pathogenesis, including maternal age, uterine morphological pathologies (10–15%), parity (71%) and many other factors that

will be discussed later.

Table 1: prevalence of cervical incompetency

Admitted Patients	Number	Percentage
Total	6802	100
Cervical incompetent	220	3.23

The total pt admitted in the hospital were 6802 and the prevalence of cervical incompetency was 220; it shows that only 3.23% suffered from cervical incompetency.

Table 2: Socio-Demographic characteristics

Demographic variables	Number N =220	Percentage 100%
Age years	Less than 20 year	8 3.63
	20 to 29 year	95 43.18
	30 and more than 30	117 53.1
Body weight 24.9)	BMI normal (18.5- 24.9)	123 55.90
	Over weight and obese	97 44.09
Educational status	Illiterate	170 77.27
	Literate	50 22.72
Residence	Rural	122 55.45
	Urban	98 44.54
Economic status	Poor	110 50
	Average	97 44.09
	Good	13 5.90
Occupation	No (house wife)	177 80.80
	Yes	43 19.54
Parity	Primi parous	63 28.63
	Multi parous	157 71.36

The age of mothers was 18–45 years. About 8 (3.63%) women were under 20 years, 95 (43.18%) were 20 to 29 year and 117 (53.1%) were 30 and more than 30 years.

Mean BMI 24.58 ± 2.66 , about (44.09%) of them were obese.

Fourth-five 170 (77.27%) of the participants were illiterate (not educated) and (80.80%) were house wives, while 20 (22.72%) were literate. Two third (55.45%) lived in rural areas and one-third (44.54%) of them



lived in urban areas.

Only 5.90% of the participants expressed their economic status good, however half of them expressed poor.

Majority of the study participants, didn't have job, only 19.54% had skilled and unskilled occupations.

About one-fourth of the study participants were primiparous mothers 63(28.63%) and three- fourth (71.36%) were multi parous.

Table 3: Abortion and preterm birth due to cervical incompetency

Patient with cervical incompetency	Number	Percentage
Recurrent abortion	98	44.54%
Preterm birth	122	55.45%

Table 3 shows that the total prevalence of recurrent abortion was 98(44.54%) and the prevalence of preterm birth was 122(55.45%) in all admitted patients due to cervical incompetency.

Table 4: distribution of Miscellanies Causes of Cervical incompetency.

Causes	Frequency	Percentage
Anatomical uterine anomaly	24	10.90
Uterine fibroma	12	5.45
Previous history of RPL	102	46.36
Cervical trauma	31	14.09
unknown	51	23.18

Table 4 shows that cervical trauma was 31 (14.09%) and the anatomical uterine anomaly was seen in 10.90%. 5.45% of participating women had uterine fibroma, 46.36% women had previous history of RPL and in 51 women the causes of RPL remained unknown.

DISCUSSION

Preterm birth is the most common reason of a newborn baby death. It is the leading cause of death in children under five years of age. In 2019, five million children under five years of age died. almost half of these deaths occur in the first month of life. Preterm birth is the most important contributing factor for high newborn death rates. Preterm birth (previously called premature birth) is defined as birth before 37 completed weeks of pregnancy. In addition the recurrent abortion is also one of the most common causes of perinatal death. One of the important causes of both preterm birth

and recurrent abortion is cervical incompetency and it is about 1-5%. In our study, the prevalence is 3.23% and it is about the same as other guidelines present, but it is more than China (1.4%). the reason maybe lack of the education of self-care and the role of delivering at hospitals and maternity centers and not attending prenatal clinics for checkups. The contribution of uterine structural anomalies to the etiology of RPL was reported in several studies and found to be present in about 10.90% of women with RPL compared with 4–7% of women in the general population ^[2].

Women's age at conception is reported to serve as an independent risk factor for miscarriage. The risk of miscarriage is slightly elevated in young mothers and then increases abruptly in advanced-age mothers ^[3]. According to the RCOG guideline data, the age-related risk of pregnancy loss is 13% in ≤ 19 years; 11–12% in 20–29 years; 15% in 30–34 years; 25% in 35–39 years; 51% in 40–44 years; and 93% in ≥ 45 years age groups ^[3,11]. The increased risk of miscarriage for women >35 years old appears even more dramatic, considering that the chances to conceive in this age group decline with years. Comparing to our study, the risk of age-related recurrent pregnancy loss in women age 30 or more than 30 was about 53.1% and the recurrence chances was 46.36%. It is more than other guidelines. The reason might be lack of health facilities in Afghanistan and the poor economical state is the other reason ^[5].

Pertaining to socio demographic factors, in our study education level was found to be an important factor as there were (80%) illiterate women, which is beyond in compare to America (39% some high school or less) and it shows that the education level of Afghanistan is lower than other countries ^[7]. The other reason maybe lack of the education of self-care and the role of delivering at hospitals and maternity centers and not attending prenatal clinics for checkups. If we compare the age, in our study, most frequent age group was between 30 and more than 30 years comparing to Ethiopia where the maternal age was 35 or above. In our study, about more than half (55.45%) participants was lived in rural areas compare to Tanzania, the rural percentage was (73.3%) which shows that the health facilities in under developed countries are not accessible and available in rural areas of Tanzania ^[5].

The second common cause is the cervical trauma, in our study, the cervical trauma was also the second cause of cervical incompetency and it was about (14.09%) and in compare to Liverpool, UK it is higher (6.83%) ^[10]. Maybe the cause in our study is the participants as they are not using the health facilities most of the deliveries are at home, the trauma occurs and doesn't repair on time.

Our study showed that uterine anomalies were associated with cervical incompetency and this was reported by other studies as well. Anomaly of the uterus initiates by mullerian duct dysgenesis and it ends with cervical incompetency. Uterine fibroma in compare to Israel (5.45%) it was lower in our study, maybe the health facilities are not accessible to all pregnant women and also the education level is lower and is due to financial problems and low education and not attending antenatal care centers for checking and maybe misdiagnosed of uterine anomalies and fibromas^[1].

In addition our study showed that history of RPL was found to be an associated factor for cervical incompetency, comparing to a study in Israel, it is the same^[12].

As the study indicates, primiparity (28.63%) was found to have significant association with cervical incompetency. The same studies were found in Ethiopia,^[13] in their studies multiparity were high risk for cervical incompetency.

Beneficiaries of our study are the health providers and the mothers. It provides the opportunity for the health policy makers to expand better policy for maternal health.

The limitations are as follows: it is an institutional (hospital based) retrospective cross-sectional study. In this study, only critical patients who visited/referred to the tertiary level hospital are included, therefore we couldn't generalize it's result to the community. The overall prevalence of cervical incompetency is also not determined. Due to inaccuracy or inappropriate recording in delivery register book, it is impossible to estimate accurate associated factors from secondary data.

CONCLUSION

Recurrent pregnancy loss is a complex health challenge with no universally accepted definition. Inconsistency in definitions involves not only the number of spontaneous abortions (two or three) that are accepted for recurrent pregnancy loss but also the types of pregnancy and gestational age at miscarriage. Preterm birth is the most common reason of a newborn baby death, and is the leading causes of death in children under five years of age, five million children under five years of age died. In addition the recurrent abortion is also one of the most common causes of perinatal death. One of the important causes of both preterm birth and recurrent abortion is of cervical incompetency which is about 1-5% cause of RPL. The most common cause is cervical incompetency, which is due to many other causes. This study aimed to evaluate the prevalence of cervical incompetency in our population. In addition, our study showed

that the most common causes of cervical incompetency were cervical trauma, previous history of recurrent pregnancy loss, uterine anomalies and uterine fibroma. Studies on etiology and risk factors for recurrent pregnancy loss, especially idiopathic, should be continued. The history of preterm labor, recurrent pregnancy loss, cervical incompetency, can be picked up at initial stage and recognize at risk mothers and can be prevented. In antenatal visits should be increased and the health facilitator advise them to deliver under the supervision of trained health workers.

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OLXO‘RI PAKANALIGI VIRUSINING (PDV) KASALLIK ALOMATLARI VA AHAMIYATI

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ANNOTATSIYA

Gilos mamlakatimizda muhim mevali daraxtlardan biri hisoblanadi. Virusli kasalliklar tufayli hosildorlik 10-65% gacha pasayishi kuzatilgan. Dunyodagi gilos va boshqa danak mevali o'simliklarning eng keng tarqalgan viruslaridan biri olxo'ri pakanaligi virusi (PDV) sanaladi. Ushbu maqolada olxo'ri pakanaligi virusini tarqalishi, kasallik belgilari va yuqish yo'llari haqida batafsil ma'lumot keltirilgan.

Kalit so'zlar: *Prunus avium*, illavirus, *Bromoviridae*, xlorotik dog', xalqali nekroz.

ABSTRACT

Cherry is one of the important fruit trees in our country. Prune dwarf virus (PDV) is one of the most common viruses in cherries and other fruit trees in the world. This article provides detailed information on the spread of Prune Dwarf Virus, symptoms and transmission routes.

Keywords: *Prunus avium*, Illavirus, *Bromoviridae*, chlorotic spot, ring necrosis

KIRISH

Dunyoda gilos yetishtirish 2,3 million tonnadan oshadi va asosan Osiyo (43%), Yevropa (37%) va Amerikada (18%) yetishtiriladi [5]. Gilos yetishtirish bo'yicha O'zbekiston AQSH, Gretsiya va Turkiyadan keyin to'rtinchi (180 000 tonna) o'rinda turadi [10].

Gilos mineralarga boy, mikroblarga qarshi ta'sirga ega, va tanadan erkin radikallarni olib tashlashda yordam beradigan antioksidant xususiyatlari va yallig'lanishga qarshi faoliyat borligi uchun ham juda qimmatli ekin xisoblanib kelinadi [3]. Respublikamizdagi gilos bog'lari 30 ming gektardan ortiq bo'lib, xozirgi kunda 10 dan ortiq (qora gilos, sariq gilos, Bahor, Jayntred, Skina, Ziroat, Sarvi-surxoni, Napaleon, Valeriy Chikalov v.b) navi yetishtiriladi.

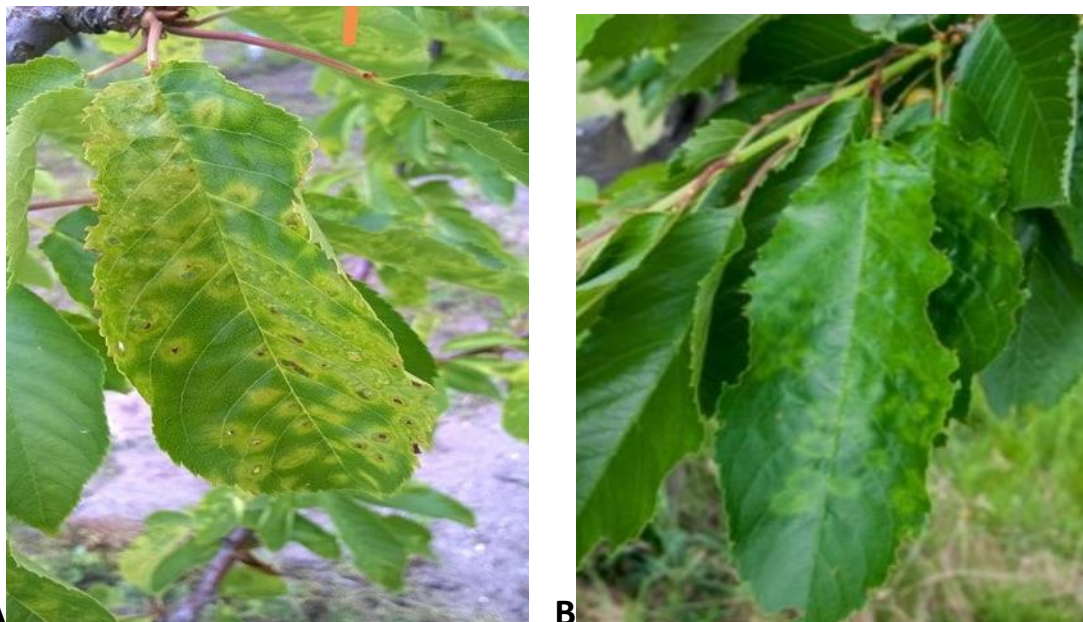
Prunus turkumiga mansub o'simliklarni 40 dan ziyod viruslar kasallantirishi haqida ma'lumotlar uchraydi [10]. *P. avium* o'simligini esa ushbu viruslardan 30 ga yaqini kasallantirishi aniqlangan [11]. Jumladan, gilosda olxo'ri nekrotik xalqasimon dog'li virusi—*Prunus nekrotik ringspot virusi* (PNRSV), Gilos bargining qayiqsimon buralishi virusi — *Cherry leaf roll virus* (CLRV), Gilos bargining buralishi virusi — *Cherry Twisted Leaf Virus* (ChTLV), Tamaki xalqasimon dog'li virusi — *Tabacco ringspot virus* (TRSV), *Cherry rasp leaf virus* — Gilos bargining jigarrang bo'lishi virusi (CRLV) va *Strawberry latent ringspot virus* — Qulupnay latent halqali dog'lanish virusi (SLRSV) kabilar kasallantiradi. Illaviruslardan esa Prunus halqali dog'lanish virusi — *Prunus nekrotik ringspot virus* (PNRSV), Olxo'ri pakanaligi virusi — *Prune dwarf virus* (PDV) va Gilos mevasining kichrayishi virusi — *Little cherry virus* (LCHV) kabi viruslar turli darajadagi kasalliklarni keltirib chqaradi. Ushbu fitoviruslar tufayli kelib chiqadigan infeksiyon kasalliklar tufayli xosildorlik 10-65% gacha pasayishi mumkin.

ADABIYOTLAR TAHLILI VA METODOLOGIYA

Tadqiqot obekti sifatida *illavirus* jinsiga, *Bromoviridae* oilasiga mansub bo'lgan *Prune dwarf virus* — olxo'ri mitti virusi (PDV) tanlab olindi. Olxo'ri mitti virusi 22 nm bo'lib shakli tayoqchasimon tuzilgan. Ushbu virus danak mevali daraxtlarda aniqlangan dastlabki viruslardan xisoblanadi. Birinchi marta 1928 yilda Gloyer va Glazgo tomonidan kasallik alomatlari topishgan, ammo ular bu alomatlar qishki jarohatlar natijasida kelib chiqqan belgilar deb taxmin qilishgan. 1936 yilda Tomas va Xildebrand Nyu-Yorkdagi va Ontariodagi italya olxo'risida o'rik mitti virusini aniqlashgan [8].

Olxo'ri *pakanaligi* virusi (PDV) manbalarga qaraganda ushbu virus *prunus* turkumi vakillarini deyarli barchasida uchrydi lekin gilosda birmuncha keng tarqalgan. Shu bilan birga tabiiy kasallanish shaftoli va olxo'ri kabi daraxtlarda ham uchraydi. PDV gilos barglarida nekrotik va xlorotik dog'lar paydo bo'lishi va shaftoli va olxo'ri

daraxtlarida esa bo'ying pasayishi kabi alomatlarni yuzaga keltiradi [8]. *Prunus avium* o'simligida asosan markaziy va ikkilamchi tomirlar negizida xlorozning yuzaga kelishi, xlorotik va halqalar dog'lar, barglarning xiralashishi va burishishi, kichik nekrotik dog'lar, xlorotik va nekrotik to'q jigarrang dog'lar va chiziqlar va barg plastinkasidagi qizg'ish nekroz kabi alomatlar kuzatiladi (1-rasm) [2].



1-rasm. Olxo'ri mitti virusining (PDV) alomatlari. (A) Gilos bargidagi xalqasimon nekrotik dog'lar, (B) xlorotik dog'lar [1,4].

Kasallikning belgilari gullashdan keyingi davrda, o'rtacha 16 ° S haroratda yaxshi namoyon bo'ladi (aprel, may iyun) va yuqori haroratlarda alomatlar yoqolishi mumkin. Barglar yoyilgach taxminan 3-4 hafta o'tgach, ko'zga tashlanadigan sariq va yashil dog'lar barglarda paydo bo'ladi. dog'lar tartibsiz bo'ladi. Ko'pincha o'rta va katta tomirlar bo'ylab yashil rang saqlanib qoladi, tomirlararo joylar esa sarg'ayadi. PDV ning gilosdagi yana bir belgisi barglarning erta to'kilishidir. Belgilarning rivojlanishi uchun qulay sharoit bo'lgabda barglarning 30 % dan 50 % foizigacha tushishi mumkin [5].

NATIJALAR VA MUHOKAMA

Olxo'ri *pakanaligi* virusi ko'pincha olxo'ri nekrotik xalqasimon dog'li virusi (PNRSV) bilan birgalikda kasallik keltirib chiqarishi aniqlangan [7]. O'xshash yuqish yo'llari tufayli bu illaviruslar odatda bir vaqtning o'zida yuqadi. Bunday hollarda hosildorlik keskin (90 %) pasayishi mumkin. Bir nechta virus turlari bilan birgalikda infeksiya odatda xo'jayin o'simliklarda simptomlarning kuchayishiga olib



keladi. PDV va PRSV birgalikda kelganda barglarda sariq xlorozlarning ko‘payishi bilan ifodalanadi. PDV va PRSV morfologik jihatdan o‘lchami va shakli o‘xshash bo‘lsa-da va ko‘pgina *Prunus* turlarida qo‘zg‘atadigan alomatlar bir-biridan bilan farqlanadi.

Olxo‘ri pakanaligi virusi (PDV) mexanik, payvandlash, gulchang va urug‘lar va ildizpoya orqali yuqadi [9]. 1961 yilda Gilmer va Uey PDV gilosga gulchang orqali yuqishini aniqlagan. Das va Milbrath esa gulchanglar orqali qovoqda PDV ning o‘simlikdan o‘simlikka yuqishini tajriba bilan isbotlab bergan [6]. Odatda, gilos bog‘larida virusli kasallik ekishdan keyingi dastlabki 2-4 yil ichida sekin yuzaga keladi, asosan ekilganiga 5 yildan 15 yilgacha bo‘lgan daraxtlarda tez tarqaladi. PDV ning dastlab kasallangan daraxtlar atrofida tarqaladi, lekin vaqti-vaqti bilan infeksiya o‘chog‘idan biroz uzoq masofada joylashgan daraxtlar ham kasallanishi mumkin. Bundan ko‘rinib turibdiki, asalarilar va boshqa changlatuvchi hasharotlar ushbu virusning bilvosita vektorlar ekanligini ko‘rsatadi. PDV uchun bir nechta qovoq navlari – *Cucurbita maxima L*, *Cucurbita moschata* kabilar differentsial o‘simlar hisoblanadi.

Olxo‘ri pakanaligi virusi gilosdan tashqari olxo‘i, shaftoli, o‘rik, bodom va boshqa *prunus* turkumi vakillariga zarar keltiradi. Jumladan Shaftolida barglarda xlorotik halqalar, nekrotik naqshlar paydo bo‘ladi. PDV bilan kasallangan olxo‘ri daraxtlarining barglari tor va tasmaimon shaklda va biroz qalinlashgan ko‘rinishda bo‘ladi (2-rasm). Kasallikka chalingan daraxtlar asosan past bo‘yli bo‘ladi.



2-rasm. Olxo‘ri mitti virusi ta‘sirida olxo‘ti bargarining barglari tor va qalinlashgan xolatda bo‘lishi [5].

Fitopatogen viruslarga qarshi kurashishda virusli infeksiyani erta aniqlanishi juda ham muhimdir. Virusli kasalliklarni erta aniqlash uchun esa ilmiy-tadqiqot olib borilayotgan xududda doimiy kuzatuv-monitoring olib borish zarur. monitoring natijasida kuzatilgan belgilarning tabiatini aniqlash uchun o'simlikdan namunalar yig'ib olinadi hamda undan yuqumli shira tayyorlanib, tanlangan indikator o'simliklarga mexanik innokulyatsiya qilinadi hamda ushbu o'simliklarda fenologik kuzatish ishlari olib boriladi. Gilosda yuqorida tavsiflangan belgilarning aksariyati *Cucumis sativus*, *Datura stramonium*, *Datura metil* va *Poulownia tomentosa* kabi indikator o'simliklarga tozalangan PDV ni mexanik yuqtirish orqali xosil qilish mumkin [12]. Ushbu virusga yanada aniq tashxis qo'yish uchun virusni molekulyar identifikatsiya qilish lozim bo'ladi. O'simlik viruslariga qarshi kurashning eng ijobiy choralaridan biri tez va ishonchli tashxis hisoblanadi.

Danak mevali daraxtlarda virusli kasalliklar natijasida yuzaga keladigan belgilarga o'xshash ko'plab yuqimsiz kasalliklar belgilarini ham uchratish mumkin. Bu kasalliklarga genetik anomaliyalar, oziqlanishning etishmasligi yoki ortiqcha bo'lishi, kimyoviy preparatlarni noto'g'ri ishlatish va havoni ifloslantiruvchi moddalar ta'siri natijasida kelib chiqqan kasalliklarning belgilari bo'lishi mumkin. Bu belgilar ko'p xollarda turli chalkashliklarni keltirib chiqaradi. Virusli kasalliklar belgilarini o'rganishda ushbu xususiyatlarga ham alohida e'tibor qaratish lozim.

Virusli infeksiyalarga qarshi kurashish uchun bir nechta muhim chora-tadbirlar qo'llaniladi. Indikator o'simliklarini nazorat qilish, vektorlar nazorati, chidamli navlarni ko'paytirish va ulardan samarali foydalanish, o'simliklarning kasalliklarga chidamliligini oshirish shular jumlasidandir. Vektorlarni nazorat qilish ham samarali usullardan biri hisoblanadi. O'simlik shiralarni kimyoviy moddalar bilan yo'q qilish yaxshi natijalar beradi. Shiralarga qarshi samarali kurash olib borilgan gilos bog'larida virusli infeksiyalar bilan kasallanish darajasi birmuncha pasayganligi kuzatilgan [4]. PDV ga qarshi kurashishda yana bir muhim qadami bu gilos ko'chatlarni va tuproqni virusdan xoli qilishdir. Bizga ma'lumki ushbu virus ildizpoyalar orqali ham tezda yuqadi. Shuning uchun kasallangan o'simliklar olib tashlangan bog'larda tuproqni infeksiyalangan ildizpoyalardan tozalash ham muhim hisoblanadi.

XULOSA

Umuman olganda olxo'ri pakanaligi virusi nafaqat *P.avium* o'simligi balki butun *prunus* turkumi uchun zararli virusdir. Danak mevali o'simliklardan yuqori hosil oilish uchun bunday fitopatogen viruslarning keng tarqalishiga yo'l qo'ymaslik zarur. Bugungi kunga kelib, danak mevali o'simliklarda virus tarqalishining oldini olishning eng samarali usuli sog'lom ko'chatlardan foydalanish hisoblanadi. Shu sababli, so'nggi yillarda virusli infeksiyalarga to'g'ri va aniq tashxis qo'yish uchun molekulyar diagnostika usullarining sezgirligi va tezligini oshirish borasida katta ishlar qilinmoqda. Ushbu virusga qarshi kurash va nazorat choralarning samarali olib borish bilan virusli infeksiyani tarqalish tezligini pasaytirish va kasallikni batamom yoq qilish imkonini beradi.

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AN ANALYTICAL DESCRIPTION OF THE MANDELBROT SET FOR THE SOME TWO DIMENSIONAL MAPPINGS

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ABSTRACT

In this paper proposes one of generalizations of the following the mappings $x \rightarrow x^3 + c$ to the multi-dimensional case. An analytical description of the Mandelbrot set for the twodimensional case is obtained. The properties of Julia sets are studied.

INTRODUCTION

The study of dynamics of the mapping $z \rightarrow z^3 + c$ on complex plane to itself and its various generalizations are devoted hundreds papers beginning the classical researches of Mandelbrot, Devaney, Andrien Douady [3,4,9].

In the present time the theory of one dimensional mapping is the most learned part of the general theory of dynamical systems.

This paper is devoted to one of the possible generalizations case of the problem of learning properties of the mappings $x \rightarrow x^3 + c$.

Let $x = (x_1, x_2, \dots, x_n) \in R^n$, $c = (c_1, c_2, \dots, c_n) \in R^n$, $I = \{1, 2, \dots, n\}$ and $\pi: I \rightarrow I$ some permutations. We call this mapping

$$x_k = x_{\pi(k)}^3 + c_{\pi(k)}, \quad k = \overline{1, n} \quad (1)$$

on R^n to itself is **multi – dimensional case** of problem of the mappings $x \rightarrow x^3 + c$. If the permutation π expansions in product of the several cycles, R^n also expansions Cartesian product of **sub spaces every from** invariant at (1) mapping. Therefore dynamical properties are also defined by Cartesian product of dynamical properties of invariant **sub spaces**. Hence it is enough to learn when π - cyclical permutation has maximal length.

First we learn when $n = 2$. In this case mapping (1) is

$$\begin{cases} x' = y^3 + c_1 \\ y' = x^3 + c_2 \end{cases} \tag{2}$$

where $(x, y) \in R^2$ and $(c_1, c_2) \in R^2$.

1. Fixed points of the mapping (2).

For finding fixed points of the mapping (2) necessary to solve the following equation

$$x = (x^3 + c_2)^3 + c_1 = x^9 + 3x^6c_2 + 3x^3c_2^2 + c_2^3 + c_1. \tag{3}$$

Let $f(x) = x^9 + 3x^6c_2 + 3x^3c_2^2 - x + c_2^3 + c_1$ the polynomial of ninth degree and has two parameters c_1 and c_2 . We know for some c_1 and c_2 equation (3) has at least one real root. Let denote it by $x_1 = 8t \in R$.

Lemma 1. Polynomial $f(x)$ has no four multiple complex roots.

Proof. Let z_0 is the four multiple complex root of $f(x)$. Then Let \bar{z}_0 is also the multiple complex root of $f(x)$. By theorem Viet $x_1 + \sum_{i=1}^8 z_i = x_1 + 4z_0 + 4\bar{z}_0 = 0$,

hence $\text{Re } z_0 = -\frac{x_1}{8} = -t$. Let $z_0 = -t + ai$ then

$$(x - 8t) \prod_{i=1}^8 (x - z_i) = (x - 8t) ((x + t)^2 + a^2)^4 = x^9 + 3x^6c_2 + 3x^3c_2^2 - x + c_2^3 + c_1.$$

The last equality is not true for any c_1 and c_2 . The lemma is proved.

Definition 1. It is known in [2], the determinant

$$R(f, g) = \begin{vmatrix} a_0 & a_1 & a_2 & \dots & a_n & 0 & \dots & 0 \\ 0 & a_0 & a_1 & a_2 & \dots & a_n & \dots & 0 \\ \cdot & \cdot & \cdot & \cdot & \cdot & \cdot & \cdot & \cdot \\ 0 & 0 & \dots & a_0 & a_1 & a_2 & \dots & a_n \\ b_0 & b_1 & b_2 & \dots & b_m & 0 & \dots & 0 \\ 0 & b_0 & b_1 & b_2 & \dots & b_m & \dots & 0 \\ \cdot & \cdot & \cdot & \cdot & \cdot & \cdot & \cdot & \cdot \\ 0 & 0 & \dots & b_0 & b_1 & b_2 & \dots & b_m \end{vmatrix}$$

is called *resultant* of the $f(x)$ and $g(x)$.

From [2] discriminant of polynomial $f(x)$



$$D(f) = \prod_{i>j}^9 (z_i - z_j)^2$$

is exactly equal to the resultant of the polynomials of $f(x)$ and $f'(x)$, i.e.

$$D(f) = \pm R(f, f').$$

We calculate the resultant

$$R(f, f') =$$

$$= \begin{vmatrix} 1 & 0 & 0 & 3c_2 & 0 & 0 & 3c_2^2 & 0 & -1 & c_2^3 + c_1 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 1 & 0 & 0 & 3c_2 & 0 & 0 & 3c_2^2 & 0 & -1 & c_2^3 + c_1 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 1 & 0 & 0 & 3c_2 & 0 & 0 & 3c_2^2 & 0 & -1 & c_2^3 + c_1 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 1 & 0 & 0 & 3c_2 & 0 & 0 & 3c_2^2 & 0 & -1 & c_2^3 + c_1 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 1 & 0 & 0 & 3c_2 & 0 & 0 & 3c_2^2 & 0 & -1 & c_2^3 + c_1 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 1 & 0 & 0 & 3c_2 & 0 & 0 & 3c_2^2 & 0 & -1 & c_2^3 + c_1 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 1 & 0 & 0 & 3c_2 & 0 & 0 & 3c_2^2 & 0 & -1 & c_2^3 + c_1 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 1 & 0 & 0 & 3c_2 & 0 & 0 & 3c_2^2 & 0 & -1 & c_2^3 + c_1 & 0 \\ 9 & 0 & 0 & 18c_2 & 0 & 0 & 9c_2^2 & 0 & -1 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 9 & 0 & 0 & 18c_2 & 0 & 0 & 9c_2^2 & 0 & -1 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 9 & 0 & 0 & 18c_2 & 0 & 0 & 9c_2^2 & 0 & -1 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 9 & 0 & 0 & 18c_2 & 0 & 0 & 9c_2^2 & 0 & -1 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 9 & 0 & 0 & 18c_2 & 0 & 0 & 9c_2^2 & 0 & -1 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 9 & 0 & 0 & 18c_2 & 0 & 0 & 9c_2^2 & 0 & -1 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 9 & 0 & 0 & 18c_2 & 0 & 0 & 9c_2^2 & 0 & -1 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 9 & 0 & 0 & 18c_2 & 0 & 0 & 9c_2^2 & 0 & -1 & 0 & 0 \end{vmatrix} =$$

$$= (19683c_1^4 + 19683c_2^4 + 19683c_1^3c_2^3 - 4374c_1^2c_2^2 + 20736c_1c_2 + 4096) \cdot (19683c_1^4 + 19683c_2^4 + 19683c_1^3c_2^3 + 4374c_1^2c_2^2 + 20736c_1c_2 - 4096)$$

$$D(f) = R(f, f') = (19683c_1^4 + 19683c_2^4 + 19683c_1^3c_2^3 - 4374c_1^2c_2^2 + 20736c_1c_2 + 4096) \cdot (19683c_1^4 + 19683c_2^4 + 19683c_1^3c_2^3 + 4374c_1^2c_2^2 + 20736c_1c_2 - 4096)$$

According to the lemma 1, the polynomial $f(x)$ does not have four multiple complex roots. Therefore, the equation $D(f)=0$ defines the multiple real roots of the polynomial $f(x)$. Hence, if $D(f)=0$, then cubic parabolas

$$x = y^3 + c_1$$

$$y = x^3 + c_2$$

have a common tangent point, i.e. multiple roots of $f(x)$. The equation $D(f)=0$ is equivalent to



$$9c_1^4 + 9c_2^4 + 9c_1^3c_2^3 - 2c_1^2c_2^2 + \frac{256}{27}c_1c_2 + \frac{4096}{2187} = 0 \tag{4}$$

and

$$9c_1^4 + 9c_2^4 + 9c_1^3c_2^3 + 2c_1^2c_2^2 + \frac{256}{27}c_1c_2 - \frac{4096}{2187} = 0 \tag{5}$$

which will be considered as a function $c_2(c_1)$ given implicitly. How many ordinary functions are defined by implicit functions (4) and (5)?

a) First we investigate the equation (4). We calculate the discriminant of polynomial (4) with respect to the variable c_2 . By the known [2] formulas we find

$$D = -\left(c_1^2 - \frac{16}{27}\right)^3 \left(c_1^2 + \frac{16}{27}\right)^3 \left(c_1^4 + \frac{1024}{729}\right)^2.$$

Since the equation (4) for $D = 0$ has one real, for $D < 0$ two real roots and for $D > 0$ has no real root then we get the following statement.

Lemma 2. If $c_1 < -\frac{4}{3\sqrt{3}}$ or $c_1 > \frac{4}{3\sqrt{3}}$ then (4) defines two functions, they connected by the points $c_1 = -\frac{4}{3\sqrt{3}}$ and $c_1 = \frac{4}{3\sqrt{3}}$. And for $c_1 > -\frac{4}{3\sqrt{3}}$ and $c_1 < \frac{4}{3\sqrt{3}}$ the equation (4) does not define any real functions.

Lemma 3. The algebraic curve (4) splits the parameter (c_1, c_2) plane into three areas.

Proof. We express the symmetric function

$$\frac{D(f)}{19683} = c_1^4 + c_2^4 + c_1^3c_2^3 - \frac{2}{9}c_1^2c_2^2 + \frac{256}{243}c_1c_2 + \frac{4096}{19683}$$

by the elementary symmetric functions $s = c_1 + c_2, t = c_1c_2$ and get

$$\begin{aligned} \frac{D(f)}{19683} &= ((c_1 + c_2)^2 - 2c_1c_2)^2 - 2c_1^2c_2^2 + c_1^3c_2^3 - \frac{2}{9}c_1^2c_2^2 + \frac{256}{243}c_1c_2 + \frac{4096}{19683} = \\ &= (s^2 - 2t)^2 + t^3 - \frac{20}{9}t^2 + \frac{256}{243}t + \frac{4096}{19683} = s^4 - 4ts^2 + t^3 + \frac{16}{9}t^2 + \frac{256}{243}t + \frac{4096}{19683} \end{aligned}$$

If $t < -\frac{4}{27}$, then the polynomial $D(f)$ is factorized

$$\frac{D(f)}{19683} = \left(s^2 - \frac{4t + 2\left|t - \frac{32}{27}\sqrt{-t - \frac{4}{27}}\right|}{2} \right) \left(s^2 - \frac{4t - 2\left|t - \frac{32}{27}\sqrt{-t - \frac{4}{27}}\right|}{2} \right).$$



Thus, the equation $D(f)=0$ splits into two equations

$$s^2 - 2t - \left|t - \frac{32}{27}\right| \sqrt{-t - \frac{4}{27}} = 0 \tag{6}$$

$$s^2 - 2t + \left|t - \frac{32}{27}\right| \sqrt{-t - \frac{4}{27}} = 0 \tag{7}$$

It remains to note that for $t > -\frac{4}{27}$ the discriminant is $D(f) \neq 0$.

Finally, the case

$$\begin{cases} D(f) = 0 \\ t = -\frac{4}{27} \end{cases}$$

is also impossible, since $s^2 = -\frac{8}{27}$, $t = -\frac{4}{27}$ then and the system of equations

$$\begin{cases} (c_1 + c_2)^2 = -\frac{8}{27} \\ c_1 c_2 = -\frac{4}{27} \end{cases}$$

has no real solutions.

Returning to the variables c_1 and c_2 we obtain two implicitly defined functions

$$c_1^2 + c_2^2 - \left|c_1 c_2 - \frac{32}{27}\right| \sqrt{-c_1 c_2 - \frac{4}{27}} = 0 \tag{8}$$

$$c_1^2 + c_2^2 + \left|c_1 c_2 - \frac{32}{27}\right| \sqrt{-c_1 c_2 - \frac{4}{27}} = 0 \tag{9}$$

Since, $-t - \frac{4}{27} = -c_1 c_2 - \frac{4}{27} > 0$ the equation (8) defined two curves connected by the points $\left(-\frac{4}{3\sqrt{3}}, \frac{4}{3\sqrt{3}}\right)$ and $\left(\frac{4}{3\sqrt{3}}, -\frac{4}{3\sqrt{3}}\right)$. Considering the symmetry of (8) by c_1 and c_2 , from lemma 2, we obtain that the two functions defined by (8) the graphs of them are on the set

$$\left\{ (c_1, c_2) : c_1 \leq -\frac{4}{3\sqrt{3}}, c_2 \leq -\frac{4}{3\sqrt{3}} \right\} \cup \left\{ (c_1, c_2) : c_1 \geq -\frac{4}{3\sqrt{3}}, c_2 \geq -\frac{4}{3\sqrt{3}} \right\}$$

And equation (9) with condition $-t - \frac{4}{27} = -c_1 c_2 - \frac{4}{27} > 0$ does not define any curves.

It is clear that with

$$\left\{ (c_1, c_2) : c_1 \leq -\frac{4}{3\sqrt{3}}, c_2 \leq -\frac{4}{3\sqrt{3}} \right\} \cup \left\{ (c_1, c_2) : c_1 \geq -\frac{4}{3\sqrt{3}}, c_2 \geq -\frac{4}{3\sqrt{3}} \right\}$$
 we

have

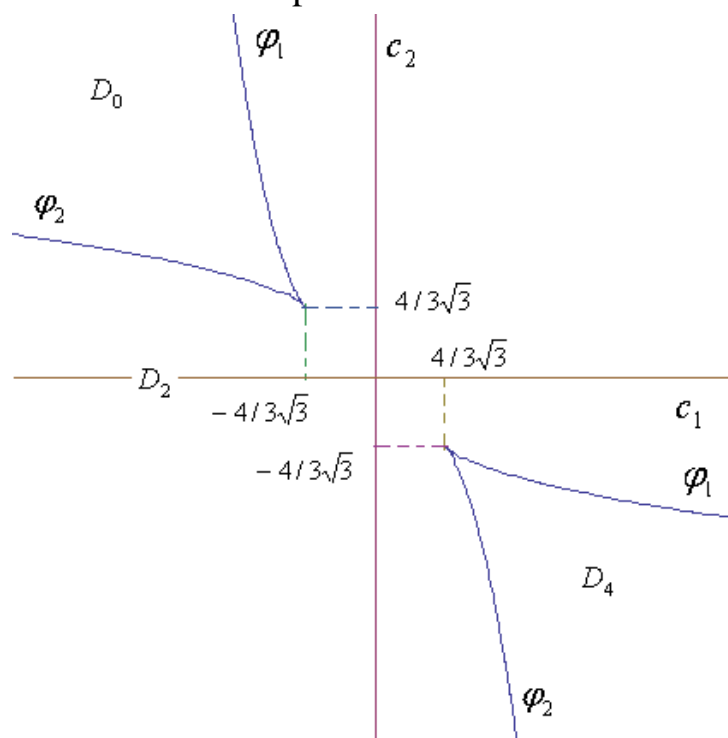


$$c_1^2 + c_2^2 - \left| c_1 c_2 - \frac{32}{27} \right| \sqrt{-c_1 c_2 - \frac{4}{27}} = 0$$

Consequently, implicit function (8) defines two functions $c_2 = \varphi_1(c_1)$ and $c_2 = \varphi_2(c_1)$ they are defined on $\left(-\infty, -\frac{4}{3\sqrt{3}}\right] \cup \left[\frac{4}{3\sqrt{3}}, +\infty\right)$, differentiable and monotonically decreasing. From symmetry (8) it follows that $\varphi_1^{-1} = \varphi_1$ and $\varphi_2^{-1} = \varphi_2$. Using the methods of implicit functions, we can prove that φ_1 and φ_2 are differentiable monotonically decreasing functions and they can be defined at the points $-\frac{4}{3\sqrt{3}}$ and $\frac{4}{3\sqrt{3}}$ by continuity

$$\varphi_1\left(-\frac{4}{3\sqrt{3}}\right) = \varphi_2\left(-\frac{4}{3\sqrt{3}}\right) = \frac{4}{3\sqrt{3}} \quad \text{and} \quad \varphi_1\left(\frac{4}{3\sqrt{3}}\right) = \varphi_2\left(\frac{4}{3\sqrt{3}}\right) = -\frac{4}{3\sqrt{3}}.$$

The graphs of these functions are depicted as follows.

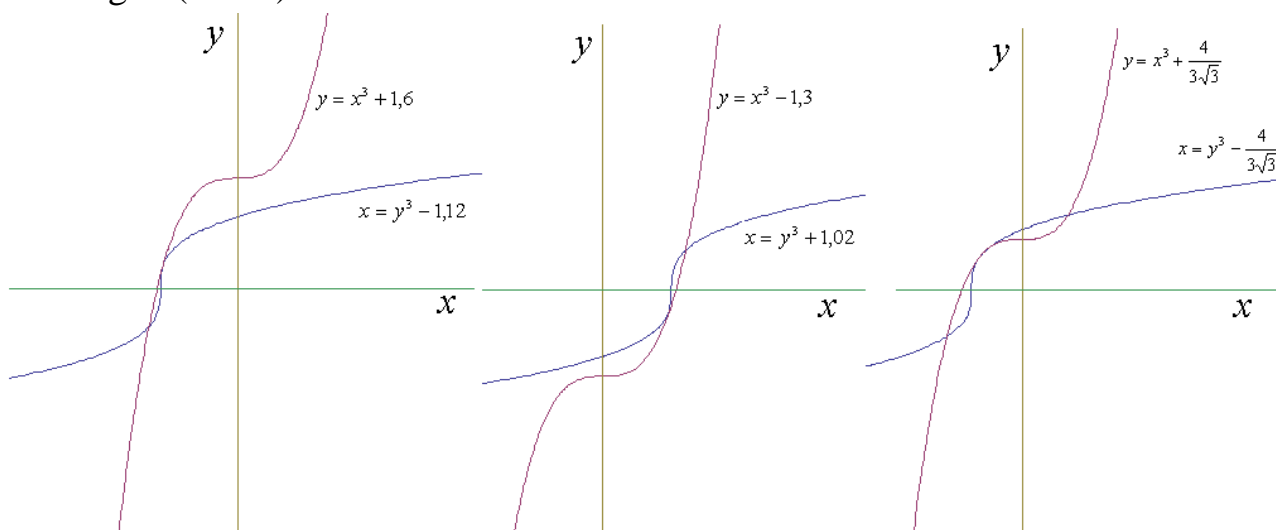


Picture 1.

So, the graphs of these functions split the (c_1, c_2) parameter plane into three open areas D_0, D_2 and D_4 . If $(c_1, c_2) \in D_0$ or $(c_1, c_2) \in D_4$ then $f(x)$ have one real root, If $(c_1, c_2) \in D_2$ then $f(x)$ may have more real roots. If $(c_1, c_2) \in \varphi_1$ or $(c_1, c_2) \in \varphi_2$ then cubic parabolas

$$\begin{aligned} x &= y^3 + c_1 \\ y &= x^3 + c_2 \end{aligned} \tag{10}$$

are tangent(Pic 2.)



Picture 2.

b) Then we investigate the equation (5). We calculate the discriminant of polynomial (5) with respect to the variable c_2 . By the known [2] formulas we find

$$D = -\left(c_1^2 - \frac{32}{27}\right)^2 \left(c_1^2 + \frac{32}{27}\right)^2 \left(c_1^4 + \frac{256}{729}\right)^3.$$

Since for any $c_1 \neq \pm \frac{4\sqrt{2}}{3\sqrt{3}}$ the discriminant of the equation (5) $D < 0$, it means that

equation (5) has two real roots for any $c_1 \neq \pm \frac{4\sqrt{2}}{3\sqrt{3}}$.

Lemma 4. Equation (5) defines two functions for any c_1 , and they intersect at the points $c_1 = -\frac{4\sqrt{2}}{3\sqrt{3}}$ and $c_1 = \frac{4\sqrt{2}}{3\sqrt{3}}$.

Lemma 5. The algebraic curve (5) splits the parameters (c_1, c_2) plane into five areas.

Proof. We express the symmetric function

$$\frac{D(f)}{19683} = c_1^4 + c_2^4 + c_1^3 c_2^3 + \frac{2}{9} c_1^2 c_2^2 + \frac{256}{243} c_1 c_2 - \frac{4096}{19683}.$$

By the elementary symmetric functions $s = c_1 + c_2$, $t = c_1 c_2$ and get



$$\begin{aligned} \frac{D(f)}{19683} &= ((c_1 + c_2)^2 - 2c_1c_2)^2 - 2c_1^2c_2^2 + c_1^3c_2^3 + \frac{2}{9}c_1^2c_2^2 + \frac{256}{243}c_1c_2 - \frac{4096}{19683} = \\ &= (s^2 - 2t)^2 + t^3 - \frac{16}{9}t^2 + \frac{256}{243}t - \frac{4096}{19683} = s^4 - 4ts^2 + t^3 + \frac{20}{9}t^2 + \frac{256}{243}t - \frac{4096}{19683} \end{aligned}$$

If $t < \frac{16}{27}$, then the polynomial $D(f)$ is factorized

$$\frac{D(f)}{19683} = \left(s^2 - \frac{4t + 2\sqrt{-\left(t - \frac{16}{27}\right)^3}}{2} \right) \left(s^2 - \frac{4t - 2\sqrt{-\left(t - \frac{16}{27}\right)^3}}{2} \right).$$

Thus, the equation $D(f)=0$ splits into two equations

$$s^2 - 2t - \sqrt{-\left(t - \frac{16}{27}\right)^3} = 0 \tag{11}$$

$$s^2 - 2t + \sqrt{-\left(t - \frac{16}{27}\right)^3} = 0 \tag{12}$$

It remains to note that for $t > \frac{16}{27}$ the discriminant is $D(f) \neq 0$.

Finally, the case

$$\begin{cases} D(f) = 0 \\ t = \frac{16}{27} \end{cases}$$

also impossible, since $s^2 = \frac{32}{27}, t = \frac{16}{27}$ then and the system of equations

$$\begin{cases} (c_1 + c_2)^2 = \frac{32}{27} \\ c_1c_2 = \frac{16}{27} \end{cases}$$

has no real solutions.

Returning to the variables c_1 and c_2 we obtain two implicitly defined functions

$$c_1^2 + c_2^2 - \sqrt{-\left(c_1c_2 - \frac{16}{27}\right)^3} = 0 \tag{13}$$

$$c_1^2 + c_2^2 + \sqrt{-\left(c_1c_2 - \frac{16}{27}\right)^3} = 0 \tag{14}$$



Since, $-\left(t - \frac{16}{27}\right) = -c_1c_2 + \frac{16}{27} > 0$ the equation (13) defined two curves, they intersect at the point $\left(-\frac{4\sqrt{2}}{3\sqrt{3}}, \frac{4\sqrt{2}}{3\sqrt{3}}\right)$ and $\left(\frac{4\sqrt{2}}{3\sqrt{3}}, -\frac{4\sqrt{2}}{3\sqrt{3}}\right)$. Considering the symmetry of (13) by c_1 and c_2 , from lemma 4, we obtain that the two functions defined by (13) the graphs of them are on the set $(c_1, c_2) \in R^2$.

And equation (14) with condition $-\left(t - \frac{16}{27}\right) = -c_1c_2 + \frac{16}{27} > 0$ does not define any curves.

It is clear that with $(c_1, c_2) \in R^2$ we have

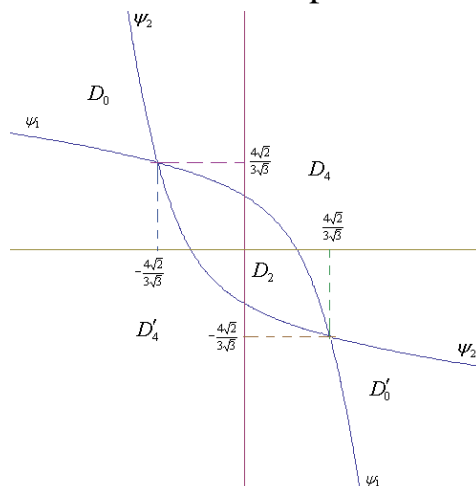
$$c_1^2 + c_2^2 - \sqrt{-\left(c_1c_2 - \frac{16}{27}\right)^3} = 0$$

Consequently, implicit function (13) defines two functions $c_2 = \psi_1(c_1)$ and $c_2 = \psi_2(c_1)$ they are defined on $(-\infty, +\infty)$, differentiable and monotonically decreasing. From symmetry (13) it follows that $\psi_1^{-1} = \psi_1$ and $\psi_2^{-1} = \psi_2$. Using the methods of implicit functions, we can prove that ψ_1 and ψ_2 are differentiable and monotonically decreasing functions and they intersect at the points $\left(-\frac{4\sqrt{2}}{3\sqrt{3}}, \frac{4\sqrt{2}}{3\sqrt{3}}\right)$

and $\left(\frac{4\sqrt{2}}{3\sqrt{3}}, -\frac{4\sqrt{2}}{3\sqrt{3}}\right)$.

$$\varphi_1\left(-\frac{4\sqrt{2}}{3\sqrt{3}}\right) = \varphi_2\left(-\frac{4\sqrt{2}}{3\sqrt{3}}\right) = \frac{4\sqrt{2}}{3\sqrt{3}} \quad \text{and} \quad \varphi_1\left(\frac{4\sqrt{2}}{3\sqrt{3}}\right) = \varphi_2\left(\frac{4\sqrt{2}}{3\sqrt{3}}\right) = -\frac{4\sqrt{2}}{3\sqrt{3}}$$

The graphs of these functions are depicted as follows.

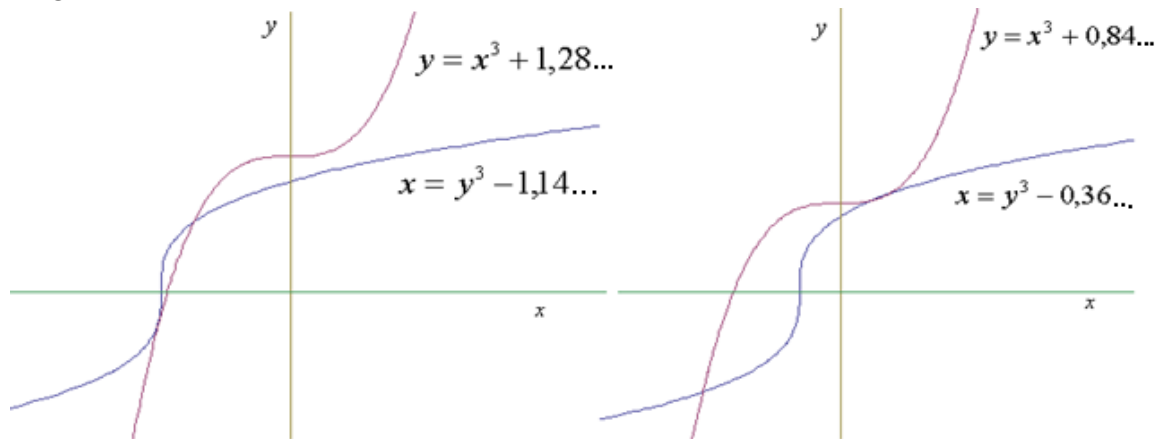


Picture 3.

So, the graphs of these functions split the (c_1, c_2) parameter plane into five open areas D_0, D'_0, D_2, D_4 and D'_4 . If (c_1, c_2) belongs to one of D_0, D'_0, D_4, D'_4 then $f(x)$ have one real root, If $(c_1, c_2) \in D_2$ then $f(x)$ can have more real roots. If $(c_1, c_2) \in \psi_1$ or $(c_1, c_2) \in \psi_2$ then cubic parabolas

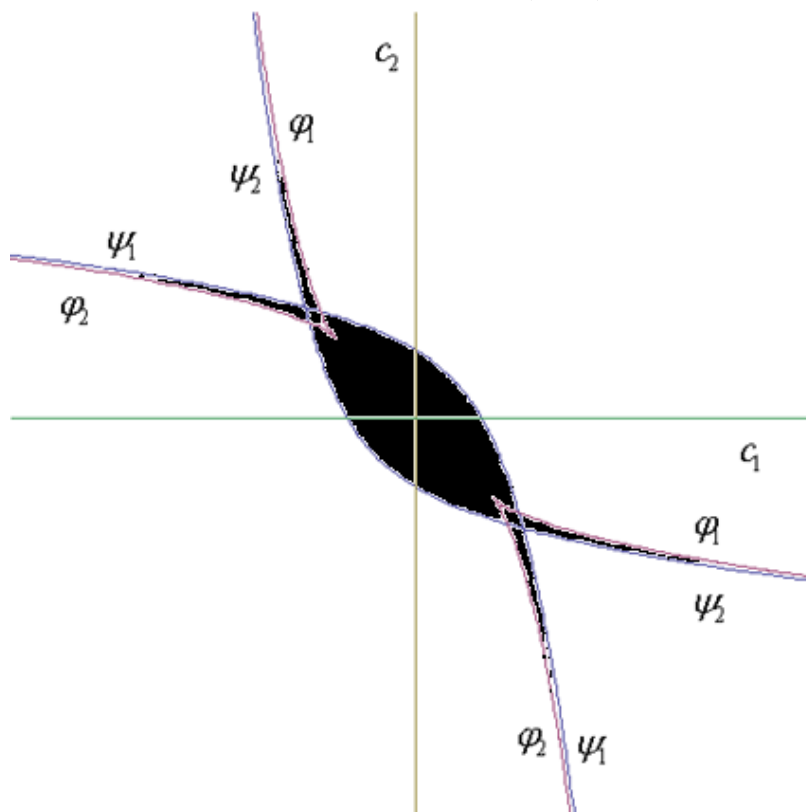
$$\begin{aligned} x &= y^3 + c_1 \\ y &= x^3 + c_2 \end{aligned} \tag{10a}$$

are tangent (Pic 4.)



Picture 4.

If we depict $\varphi_1, \varphi_2, \psi_1$ and ψ_2 on the (c_1, c_2) plane, we get the following picture.



Picture 5.

The black area is the Mandelbrot set which we will define on next part of this paper.

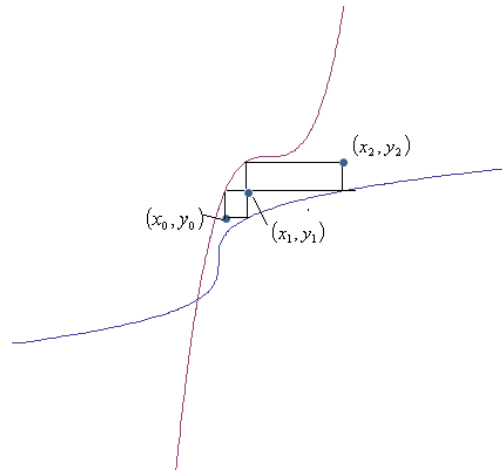
2. Graphical analysis.

In this part of the paper we introduce a geometric procedure that will help us understand the dynamics of some two-dimensional mappings. This procedure, called **graphical analysis**, enables us to use the graphs of functions to determine the behavior of orbits in many cases. Suppose we have the two-dimensional mapping

$$F_{c_1c_2} : \begin{cases} x' = f(y, c_1) \\ y' = g(x, c_2) \end{cases}$$

and wish to display the orbit of a given point (x_0, y_0) . We begin by superimposing the graph of $x = f(y, c_1)$ on the graph of $y = g(x, c_2)$. The points of intersection of the graph $x = f(y, c_1)$ with the graph of $y = g(x, c_2)$ give us the **fixed points** of $F_{c_1c_2}$. To find the orbit of (x_0, y_0) , we begin at the point (x_0, y_0) on the XOY plane. We first draw a horizontal line to the graph of $x = f(y, c_1)$. When this line meets the graph of $x = f(y, c_1)$, we have reached the point $(f(y_0, c_1), y_0)$ then draw a vertical line and denote it by V_1 . We again begin at the point (x_0, y_0) on the XOY plane we draw a vertical line to the graph of $y = g(x, c_2)$. When this line meets the graph of $y = g(x, c_2)$, we have reached the point $(x_0, g(x_0, c_2))$ then draw a horizontal line and denote it by H_1 . The intersection point of V_1 and H_1 is $(f(y_0, c_1), g(x_0, c_2)) = (x_1, y_1)$ the next point of the orbit of given point (x_0, y_0) . To display the orbit of (x_0, y_0) geometrically, we thus continue this procedure over and over, in the next step we denote V_{i+1} instead of V_i and H_{i+1} instead of H_i . The intersection point of V_i and H_i is the i th point of the orbit of (x_0, y_0) by the mapping of $F_{c_1c_2}$. In the Picture6. we

depicted graphical analysis of (x_0, y_0) by
$$\begin{cases} x_{n+1} = y_n^3 + c_1, \\ y_{n+1} = x_n^3 + c_2, \quad n = 0, 1, 2, \dots \end{cases}$$



Picture 6.

For an arbitrary initial point (x_0, y_0) the orbits is determined by the following formula

$$\begin{aligned}x_{n+1} &= y_n^3 + c_1 \\ y_{n+1} &= x_n^3 + c_2, \quad n = 0, 1, 2, \dots\end{aligned}$$

It is tame that $F_{c_1 c_2}$ mapping maps the vertical interval to the horizontal interval and inversely. Interval may be contract or extend. This proved the following theorem.

Theorem 2. If the mapping (2) has only one fixed point then every point except the fixed, tends to infinity, i. e. $x_n \rightarrow \infty, y_n \rightarrow \infty$.

Let $J(f)$ be the set of all points $(x_0, y_0) \in R^2$ that the orbit of them bounded.

Definition. The set $J(f)$ is called the filled Julia set.

Definition. The boundary of the filled Julia set is called Julia set.

By the graphical analysis we obtain the following theorems.

Theorem 3. If the mapping (2) has one fixed point then one $J(f)$ consist of only one point which is fixed.

Theorem 4. $J(f)$ is connected set if and only if the mapping (2) have fixed points more then one.

Theorem 5. Let the points $(p_1, q_1), (p_2, q_2), \dots, (p_n, q_n)$ to be the fixed points for the mapping (2), the points $(p_i, q_i) \neq (p_j, q_j)$ are arbitrary two points of them, the points (p_i, q_j) and (p_j, q_i) are the periodic points with prime period two.

Proof. The points $(p_i, q_i) \neq (p_j, q_j)$ are fixed, let

$$\begin{cases} x_0 = p_i \\ y_0 = q_j \end{cases} \Rightarrow \begin{cases} x_1 = q_j^2 + c_1 = p_j \\ y_1 = p_i^2 + c_2 = q_i \end{cases} \Rightarrow \begin{cases} x_2 = q_i^2 + c_1 = p_i \\ y_2 = p_j^2 + c_2 = q_j \end{cases}$$

We see $(p_i, q_j) \rightarrow (p_j, q_i) \rightarrow (p_i, q_j)$ by (2). The theorem is proved.

Statement 1. *The equations for finding fixed points and for finding periodic points with period two are the same, therefore this theorem is true. In first section we learnt the properties of fixed points, many of them are true for the periodic points with period two.*

Definition. The mapping F undergoes a *saddle node bifurcation* on the line (curve) $\xi(c_1, c_2) = 0$ depending on parameters defined on R^2 :

1. For $\xi(c_1, c_2) < 0$ (resp. $\xi(c_1, c_2) > 0$), F has no fixed point on R^2 .
2. For $\xi(c_1, c_2) = 0$, F has one fixed point on R^2 and this fixed point is neutral.
3. For $\xi(c_1, c_2) > 0$ (resp. $\xi(c_1, c_2) < 0$), F has two fixed points on R^2 , one attracting one repelling.

Definition. The mapping F undergoes a *period doubling bifurcation* on the line (curve) $\xi(c_1, c_2) = 0$ depending on parameters defined on R^2 :

1. For $\xi(c_1, c_2) < 0$ and $\xi(c_1, c_2) > 0$, F has no cycles of the period 2 on R^2 and there is unique fixed point $p_{c_1 c_2}$ (may be more) for F on R^2 .
2. For $\xi(c_1, c_2) < 0$ (resp. $\xi(c_1, c_2) > 0$), F has no cycles of the period 2 on R^2 and $p_{c_1 c_2}$ is attracting (resp. repelling).
3. For $\xi(c_1, c_2) = 0$, $p_{c_1 c_2}$ is neutral.
4. For $\xi(c_1, c_2) > 0$ (resp. $\xi(c_1, c_2) < 0$), there is unique 2-cycle $q_{c_1 c_2}^1, q_{c_1 c_2}^2$ on R^2 with $F(q_{c_1 c_2}^1) = q_{c_1 c_2}^2$. This 2-cycle is attracting (resp. repelling). Meanwhile, $p_{c_1 c_2}$ is repelling (resp. attracting).
5. As $\xi(c_1, c_2) \rightarrow 0 + 0$ (resp. $\xi(c_1, c_2) \rightarrow 0 - 0$), this 2-cycle $q_{c_1 c_2}^i \rightarrow p_{c_1 c_2}$.

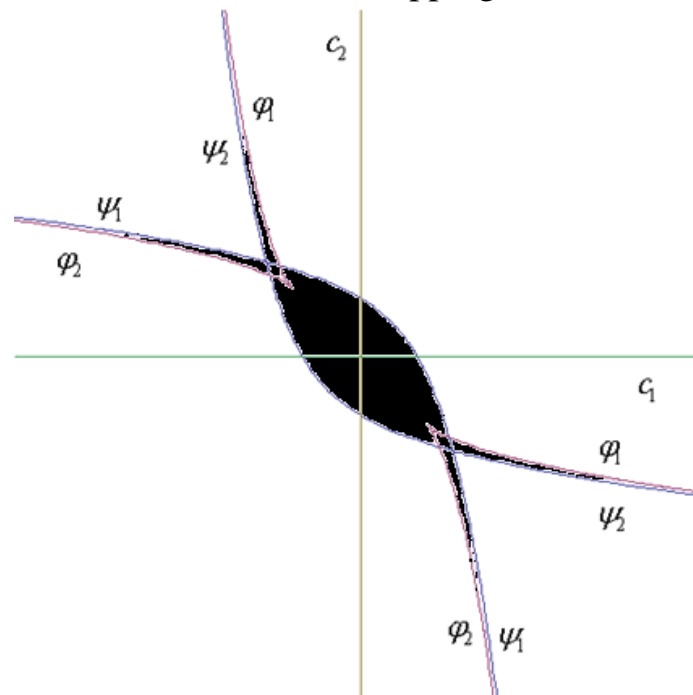
Definition. The lines which bifurcation occurs on them are called **bifurcation line** (=the analog of bifurcation point is in one dimension).

In our case the lines $\varphi_1, \varphi_2, \psi_1$ and ψ_2 are the bifurcation lines of the mapping (2).

Definition: The **critical points** of the mapping F are all points (x_c, y_c) which determinant of Jacobian matrix at these points is equal to zero $\Delta(J(F(x_c, y_c))) = 0$.

Definition: The **Mandelbrot set** M_F for the mapping F is the set of all points (c_1, c_2) on the parameter plane, which the orbits of the all critical points are bounded.

This picture is the Mandelbrot set for our mapping (2).



Picture 7.

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МИЛЛИЙ МУНОСАБАТНИНГ ИНТЕГРАЦИЯЛАШУВИДА ЎЗЛИКНИ АНГЛАШ МУАММОЛАРИ

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АННОТАЦИЯ

Ушбу мақолада Миллий муносабатнинг интеграциялашувида ўзликни англаш муаммолари каби долзарб масалалари ёритиб берилган. Глобаллашув даврида миллий маданиятга нималар бўляпти, деган саволга жавоб беришга ҳаракат қилишдан аввал миллий маданият тушунчасининг ўзи мазмунини аниқлаб олиш мақсадга мувофиқдир. Миллий маданият "модернлик даврида маданиятнинг миллийлашуви" натижасида ўрнатилган интеллектуал одатга кўра, маданият энг яхши миллий маданият сифатида тушунилади.

Калит сўзлар: маданият, глобаллашув жараёни, миллий ўзликни англаш, миллий маданият, тарих, маданий макон.

КИРИШ

Маълумки, ҳозирги давр глобаллашув жараёнларининг ниҳоятда чуқурлашиб кетганлиги ва ҳаётимизнинг барча жабҳаларига сезиларли таъсир этаётганлиги билан характерланади. Албатта глобаллашув жараёнининг ҳозирги давр инсоният ҳаётидаги таъсир доираси, тутган ўрни ва аҳамияти ҳақида бу борада тадқиқот олиб бораётган тадқиқотчи олимлар, сиёсатшунослар ҳамда таниқли давлат арбоблари томонидан турфа фикрлар, қарашлар, мулоҳазалар билдирилган. Кези келганда айтиш жоизки айни масаладаги қарашларда бирбирини инкор этувчи ҳолатларни ҳам кузатиш мумкин. Аммо бу борадаги фикрларнинг аксариятида глобаллашувнинг ҳам ижобий ҳам салбий томонларини эътироф этувчилар кўпчиликини ташкил этади десак хато қилмаган бўламиз. Хўш, глобаллашув жараёнини ҳақиқатдан ҳам ҳозирги ўта шиддатли ва мураккаб давр тезлиги талабларига жавоб берадиган, жамият тараққиётига хизмат қилувчи ижобий бир феномен сифатида қабул қилиш керакми, ёки аксинча, миллий маданиятнинг емирилишига, урф-одат, анъана, кадрларнинг заифлашувига олиб келадиган салбий жараён сифатидами?



Ҳар бир ижтимоий ҳодисанинг ижобий ва салбий томони бўлгани сингари, глобаллашув жараёни ҳам бундан мустасно эмас. Ҳозирги пайтда унинг ғоят ўткир ва кенг қамровли таъсирини деярли барча соҳаларда кўриш, ҳис этиш мумкин. Айниқса, давлатлар ва халқлар ўртасидаги интеграция ва ҳамкорлик алоқаларининг кучайиши, хорижий инвестициялар, капитал ва товарлар, ишчи кучининг эркин ҳаракати учун қулайликлар вужудга келиши, кўплаб янги иш ўринларининг яратилиши, замонавий коммуникация ва ахборот технологияларининг, илм-фан ютуқларининг тезлик билан тарқалиши, турли кадриятларнинг умуминсоний негизда уйғунлашуви, цивилизациялараро мулоқотнинг янги сифат касб этиши, экологик офатлар пайтида ўзаро ёрдам кўрсатиш имкониятларининг ортиши - табиийки, буларнинг барчасига глобаллашув туфайли эришилмоқда. Шу билан бир қаторда, унинг ўта таъсирчан маънавий, мафкуравий таҳдид сифатидаги жиҳатларига ҳам эътибор қаратиш лозим. Глобаллашув жараёнининг яна бир ўзига хос жиҳати шундан иборатки, ҳозирги шароитда у мафкуравий таъсир ўтказишнинг ниҳоятда ўткир куралига айланиб, ҳар хил сиёсий кучлар ва марказларнинг манфаатларига хизмат қилаётганини соғлом фикрлайдиган ҳар қандай одам, албатта, кузатиши муқаррар.

АДАБИЁТЛАР ТАҲЛИЛИ ВА МЕТОДОЛОГИЯ

Президент Ш.Мирзиёев ҳам глобаллашув ҳақида қуйидаги фикрларни билдиради: “Кейинги йилларда Ер юзида кескин геосиёсий ўзгаришлар рўй берди, халқаро миқёсда хавфсизлик ва барқарорлик тизими издан чиқмоқда. Глобаллашув жараёнининг тобора шиддатли тус олиши нафақат инсоният имкониятларини кенгайтирмоқда, балки зиддиятларнинг кескинлашуви, ривожланган ва қолоқ давлатлар ўртасидаги тафовутнинг ўсишига олиб келмоқда. Бунинг оқибатида тинчлик ва барқарорликка раҳна солаётган, моҳияти ва кўламига кўра трансмиллий хусусиятга эга турли хатти-ҳаракатлар содир этилмоқда”. Бу қарашдан ҳам кўриш мумкинки, глобаллашув улкан инсоний имкониятлар билан бир қаторда дунёда тинчлик ва барқарорликка соя солаётган бир жараён сифатида эътироф этилган.

Глобаллашув жараёнининг чуқурлашиб бориши натижасида инсон учун хавфли бўлган турли хил ноанъанавий таҳдидлар юзага келмоқда. Булардан энг хавфлилари инсонларнинг руҳиятига таъсир ўтказиш орқали миллатларнинг кадриятлари ва турмуш тарзини издан чиқаришга қаратилган ахлоқ-одоб, оила ва жамият ҳаётида жиддий таъсир кўрсатадиган маънавий таҳдидлар ҳисобланади.



Маънавий таҳдид – шахс, жамият ва давлатнинг маънавий соҳасидаги ҳаётӣ муҳим манфаатларига хавф туғдирувчи шарт ва шароитлар, омиллар мажмуидир. Маънавийга салбий таъсир кўрсатувчи ва миллий маънавий манфаатлар учун хавф бўлган ҳодиса ва жараёнларни келтириб чиқарувчи омиллар маънавий таҳдидлар ҳисобланади.

Сўнгги йилларда глобаллашув жараёнлари инсон ҳаёти ва фаолиятининг барча жабҳа ва соҳаларини қамраб олаётган долзарб ҳамда кескин муаммоларни юзага чиқармоқда. Глобаллашув байроғи остида дунёни қайта тақсимлашга қаратилган жиддий ҳаракатлар кўзга ташланмоқда. Глобаллашув, бир томондан, дунё ҳамжамияти ҳаётини, жаҳон сиёсати ва ҳалқаро муносабатларини белгилаб берувчи етакчи омилга айланмоқда, иккинчи томондан эса, алоҳида олинган давлат ва ҳудудлар ички сиёсатини таркиб топган умумдунёвий шароит билан мувофиқлаштириш заруратини келтириб чиқармоқда. Шунинг учун ҳам турли соҳа олимлари глобаллашув жараёнларига ўз муносабатини билдириш, бу жараёнларнинг оқибатларини талқин этиш ҳамда келажакка таъсирини ўрганишга ҳаракат қилмоқда.

Глобаллашув жараёнларининг бошланишини олим ва сиёсатчилар турли давр ҳамда ижтимоий-иқтисодий, сиёсий ҳаётидаги ўзгаришлар билан боғлашади. Таниқли немис социологи Ульрих Бек бу ҳақда шундай ёзади: “Иқтисодий глобаллашув қачон бошланди, деган савол тўсиқларга тўла чакалакзорга етаклайди. Айрим олимлар (Иммануэль Уоллерстайн) “капиталистик дунё тизими” нинг бошланишини XVI аср бошидаги мустамлакачиликнинг пайдо бўлиш даври, бошқалар байналминал концернларнинг пайдо бўлиши билан боғлайди. Яна баъзи мутахассисларнинг фикрича, глобаллашув мустаҳкам валюта курсининг бекор қилиниши ёки шарқий блокнинг инқирози билан бошланган”¹.

Глобаллашув жараёнининг бошланиши ва сабабларини аниқлашда қарашларнинг кўплиги унинг моҳияти борасидаги фикрларнинг ранг-баранглиги билан боғлиқ. Жумладан, глобаллашувни анча кенг-давлатлараро ва ҳудудлараро муносабатларнинг кенгайиши билан боғлиқ ҳодиса сифатида талқин этувчи олимлар уни Шарқ ва Ғарб мамлакатлари ўртасидаги алоқаларнинг кенгайишини таъминлаган Буюк Ипак йўлининг шаклланиш даври билан боғлайди. Глобаллашув масалаларини тадқиқ этган таниқли олимлардан бири И.Валлерстайн глобал иқтисодиётнинг («жаҳон капиталистик иқтисодиёти») пайдо бўлишини XVI асрга тақаган бўлса, Р.Робертсоннинг фикрича, бу жараён XV асрда бошланган, 1870 йилдан XX аср ўрталарига қадар кенг миқёс касб этган

ва “совуқ уруш” тугагандан сўнг янги йўналиш касб эта бошлаган. Рус олими В.М.Рюмин эса глобаллашувнинг уч босқичини ажратади ва ҳар босқични жаҳонда содир бўлган муайян воқеа-ҳодисалар билан боғлайди. Жумладан, унинг фикрига кўра, XV аср охири –XVI аср бошларини қамраб олган биринчи босқич-буюк жўғрофий кашфиётлар (Американинг кашф этилиши, Ҳиндистон томон денгиз йўлининг очилиши ва ҳ.к.) билан боғлиқ, иккинчи босқич-саноат инқилоби ҳамда бозор алмашинувининг кенгайиши натижасида вужудга келган ягона жаҳон бозори маконининг шаклланиши натижасида бошланган (XVIII аср), учинчи босқич эса XX аср охирида пайдо бўлган замонавий ахборот технологиялари мамлакатлар ва халқлар ўртасидаги катъий чегараларни бузганлиги билан боғланган. Албатта, глобаллашув борасидаги бу ва бошқа фикрлар муаллифлари ўз нуқтаи назарини муайян даражада асослаб берган.

ХУЛОСА

Бизнингча, глобаллашув жаҳон миқёсидаги интеграциялашув жараёни ва ҳодисалари сифатида талқин этилса, унинг янги ҳодиса эмаслиги ҳақидаги фикр асосли туюлади. Дарҳақиқат, Ўрта асрлардаги салиб юришлари оқибатида Шарқ ва Ғарб маданиятларининг муайян даражада уйғунлашуви ёки Англияда тўқув дастгоҳининг пайдо бўлиши Ҳиндистондаги миллионлаб тўқувчиларнинг хонавайрон бўлишига олиб келгани, Франция республикачилиқ ғояларининг пайдо бўлиши Шарқдаги яққа ҳукмдорлар ҳокимиятини заифлаштиргани, масалан, Россияда декабристлар ҳаракатига туртки бўлганини тасдиқлайди.

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PROSECUTOR'S OFFICE OF UZBEKISTAN AND TURKEY SYSTEM OF ORGANS, ITS SIMILAR AND DIFFERENT ASPECTS

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ABSTRACT

This article provides a comparative analysis of the system, directions of activity, functions and tasks of the prosecutor's offices of the Republic of Uzbekistan and Turkey. Also, according to the results of the comparative analysis, scientific conclusions were put forward about the similar and different aspects of the system of prosecution bodies of these two countries.

Keywords: prosecutor's office, model, system of prosecutor's offices, prosecutor, radish, organizational structure, General Prosecutor's Office of the Supreme Court of Appeal of the Republic of Turkey .

Integration of Uzbekistan into the world community, taking a worthy place in the system of international relations, effective implementation of its interests in the political, economic, scientific-technical, socio-cultural spheres is determined. Based on this, a new stage has emerged in the cooperation between Uzbekistan and Turkey. The rational approaches in the implemented mutual relations laid the groundwork for the opening of a new page in the foreign policy of both countries. Because Turkey, at the same time, as a country with great opportunities and a high position in the world, the Uzbek and Turkish peoples are very close to each other in terms of religion, language, history and culture. [1].

President of the Republic of Uzbekistan dated 01.28.2022 "On the Development Strategy of New Uzbekistan for 2022-2026" No. PF-60 - "Making the principles of justice and the rule of law in our country the most basic and necessary condition for development" one of its goals is to create a solid legal basis for open and fair prosecutor's activities, which strictly ensures legality, and to make the principle of "Law - priority, punishment - inevitable" the main criterion [2]. Naturally, the

creation of solid legal foundations of the prosecutor's office requires in-depth study of the system, directions of activity, functions and tasks of prosecutor's offices in developed countries. From this point of view, the scientific research of the system of prosecution bodies of the Republics of Uzbekistan and Turkey, the similar and different aspects in it, is one of the current issues.

It is known that the Republic of Turkey is a democratic, secular, social and legal state. In terms of state administration, it belongs to a unique form of a mixed (presidential-parliamentary) republic, and its political regime is a developing democracy. Today, the legal system of the Republic of Turkey is oriented towards the Romano-Germanic legal system.

Before elucidating the system of prosecutorial bodies of the Republic of Turkey, it is necessary to first of all touch on the current models of prosecutorial offices.

The analysis shows that two main models of prosecution bodies have been formed in the international experience. In this case, the entry of the prosecutor's office into the framework of one or another model is interconnected with the legal system of the state and the structure of the state mechanism. In the first model, the prosecutor's office is primarily a prosecution and prosecution office, while in the second model, it is a body that supervises the legislation [3].

Similarly, according to some researchers[4], all prosecution offices and their analogues can be classified into 2 types:

- 1) prosecutor's office - control body (most CIS member countries, Vietnam, Democratic People's Republic of Korea, Cuba, some countries of Latin America);
- 2) prosecutor's office - criminal prosecution body (all other countries).

From the above points, at the same time, taking into account the fact that the country's legal system is built on the basis of the European model, it can be concluded that the prosecutor's office of the Republic of Turkey belongs to the first model.

It should be noted here that when compared to the system of the prosecution bodies of the Republic of Uzbekistan, it is known that the system of the prosecution bodies of the Republic of Turkey (see scheme 1) has a simple appearance.

As mentioned above, the system of prosecution bodies of Uzbekistan has a relatively more complex structure. In particular, according to the Law of the Republic of Uzbekistan "On the Prosecutor's Office", the system of prosecution bodies (see scheme 2) consists of the following:

- Uzbekistan General Prosecutor's Office of the Republic;
- Karakalpakstan Republic prosecutor's office;

regions and Tashkent city prosecutor's offices;

districts and cities prosecutor's offices;

region to the prosecutor's office equalized Uzbekistan Republic Military Prosecutor's Office , Uzbekistan Transport Prosecutor's Office of the Republic;

district prosecutors equalized , territorial military , transport and specialized prosecutor's offices .

Uzbekistan General Prosecutor's Office of the Republic in the presence of Economical to crimes against to fight department and Mandatory execution bureau as well their in places departments activity shows [5].

From the schemes 1 and 2 given above, it can be seen that there are some similarities in the system of prosecution bodies of Uzbekistan and Turkey. In particular, the organizational structure of both state prosecutor's offices consists of a 3-level system based on the subordination of the lower-ranking prosecutor to the higher-ranking prosecutor.

The Military Prosecutor's Office also operates in Turkey, but according to some information, the issue of disbanding this body is on the agenda [6] .

At the same time, the system of prosecutor's offices of Uzbekistan differs from the system of prosecutor's offices of the Republic of Turkey by its relative comprehensiveness.

In particular, in the system of prosecutor's offices of the Republic of Turkey , the Transport Prosecutor's Office of the Republic of Uzbekistan, which is equal to the provincial prosecutor's office, and the regional military, transport and specialized prosecutor's offices, which are equal to district prosecutor's offices, are not provided for.

Also, as in Uzbekistan, the Department of Combating Economic Crimes (Department) or the Enforcement Bureau (Bureau) or their regional divisions do not operate under the General Prosecutor's Office of the Republic of Turkey.

Another difference is that in Turkey, 4 years of legal education are required to be appointed to the position of savci - prosecutor. After that, after 2 years of education at the Turkish Academy of Justice, another 2 years of internship will be completed. After completing the academy, the candidate who has completed 2 years of training is appointed to the position of district attorney-prosecutor, and it is noteworthy that he will settle in the building of the court and conduct his activities there. Even though they are located in the same building, prosecutors operate separately from judges. The most important difference is that the district attorney- prosecutor will have 2-3 secretaries who are

engaged only in copying texts, and the employees subordinate to him are not provided with staff-units.

Prosecutors perform their duties in judicial and administrative court bodies. These duties are performed by professional prosecutors [7].

In Uzbekistan, district, city prosecutor's offices and equivalent prosecutor's offices are headed by prosecutors who operate in a separate building. This prosecutor is appointed and dismissed by the General Prosecutor of the Republic of Uzbekistan. These prosecutors are subordinate to the relevant senior prosecutor and the General Prosecutor of the Republic of Uzbekistan and are accountable to them.

District, city and equivalent prosecutors may have deputies who are appointed and dismissed by the Military Prosecutor of the Republic of Uzbekistan, the Transport Prosecutor of the Republic of Uzbekistan, the Prosecutor of the Republic of Karakalpakstan, regional and Tashkent city prosecutors, in agreement with the Prosecutor General of the Republic of Uzbekistan. Also, prosecutors' senior assistants, assistants, senior investigators and investigators of the prosecutor's office, and trainees work in district and city prosecutors' offices and prosecutors' offices equivalent to them. and will be released from office[8]. These prosecutor-investigative officers report directly to district, city and equivalent prosecutors.

The difference between the systems of the two state prosecution bodies is even more visible at the regional level. For example, the interesting thing is that in Turkey every the regional prosecutor is the Chief Prosecutor. He will have up to 30 deputy and assistant prosecutors under his command. For example, 11 deputies and 35 prosecutors work under the General Prosecutor of the capital Ankara. The position of prosecutor is considered a civil service and can be held until the age of 65.

In Uzbekistan, prosecutors are headed by provincial and equivalent prosecutor's offices. These prosecutors are subordinate to the General Prosecutor of the Republic of Uzbekistan and are accountable to him. They are appointed and dismissed by the Prosecutor General (with the exception of the Military Prosecutor). Provinces and prosecutors equivalent to them lead the activities of district, city and equivalent prosecutor's offices respectively, issue orders, instructions, and orders that are mandatory for subordinate employees based on laws, orders of the Prosecutor General of the Republic of Uzbekistan and for the purpose of their execution.

Departments and departments are established in regional, Tashkent city prosecutor's offices and equivalent prosecutor's offices. Heads of departments and departments, senior assistants of prosecutors are appointed and dismissed by the Prosecutor General of the

Republic of Uzbekistan. These assistant prosecutors, senior prosecutors and prosecutors of departments and departments, senior investigators on special important cases and investigators on special important cases, senior investigators and investigators are appointed and dismissed by the regions and prosecutors equivalent to them.

The General Prosecutor's Office of the Supreme Court of Appeal of the Republic of Turkey (Turkish General Prosecutor's Office) has been one of the integral elements of the Turkish justice system since its establishment. It has been playing an active role in the uniform application of laws and the implementation of criminal justice throughout the country [9] .

Above-mentioned organizational structure of the General Prosecutor's Office of the Supreme Court of Appeal of the Republic of Turkey that it has 23 structural branches. The Prosecutor General has 1 deputy.

For information, since 2020, the position of the Prosecutor General of the Supreme Court of Appeal of the Republic of Turkey has been held by Bekir Sahin, and the position of Deputy Prosecutor General Rıdvan Gündoğdu [10] .

As the main structural branches, the Chambers for criminal cases are state prosecutors, administrative prosecutors, the Department of Emergency Appeals, the Department of Political Parties, the Department of Jurisdictional Disputes and Judicial Affairs for the Cancellation of Court Decisions in favor of the Law (for legal cases arising from civil legal relations), Law Department for annulment of court decisions in favor (criminal (for litigation arising from legal relations) , the Department of Criminal Chambers, the Department of Investigation of High Level Civil Servants, the Department of Criminal Investigation, the Department of International Relations and the Department of Education and Social Affairs. The rest of the structural branches perform more auxiliary functions and tasks (financial and economic support, archival work, work with employees, introduction of information and communication technologies, etc.).

It can be seen that the General Prosecutor's Office of Turkey is the body for ensuring justice and carrying out criminal prosecution.

In contrast to the organizational structure of the General Prosecutor's Office of Turkey, today the organizational-staff structure of the General Prosecutor's Office of the Republic of Uzbekistan has 2 times more, that is, 46 structural branches. 30 of them are the department, 5 are the department, the duty unit, the editorial office of "Huquq" newspaper and the Law Enforcement Academy.

According to the Law of the Republic of Uzbekistan "On the Prosecutor's Office", the General Prosecutor's Office of the

Republic of Uzbekistan is headed by the Prosecutor General of the Republic of Uzbekistan, who is appointed and dismissed by the President of the Republic of Uzbekistan. The Prosecutor General shall have a first deputy and deputies appointed and dismissed by the President of the Republic of Uzbekistan. Senior assistants and assistants of the Prosecutor General, chiefs of general departments, departments, departments, their deputies, senior prosecutors, prosecutors, senior investigators on special important cases and investigators on special important cases are appointed and dismissed by the Prosecutor General [11] .

Analyzing the organizational structure of the General Prosecutor's Office of the Republic of Uzbekistan, it can be seen that its structural branches are organized in accordance with 9 main areas of activity of the prosecutor's office.

In particular, there are 7 deputies of the Prosecutor General (including 1 first deputy), and the structural branches are distributed based on the areas assigned to them. It is noteworthy that 6 structural branches - the Department of Organizational Control and Analysis, the Department of Personnel, the Department of Personal Security, the Department of Analysis of Legality and Law Enforcement Problems, the First Department, and the Department of Public Relations and Legal Information are directly subordinate to the Prosecutor General.

In the organizational structure of the General Prosecutor's Office of the Republic of Uzbekistan :

– structural branches in the direction of control over the implementation of legislation (sh.j., Department of supervision over the implementation of legislation in the social sphere, Department of supervision over the implementation of legislation in the economic sphere, Department of supervision over the implementation of legislation related to the development of agrarian and food sectors, Armed Forces, State Security Service Department of supervision over the implementation of legislation in customs bodies, Department of supervision over the implementation of legislation in internal affairs bodies, Department of supervision over the implementation of legislation on minors, etc.);

- some structural branches in the direction of ensuring the authority of the prosecutor in the courts (sh.j., Department of ensuring the authority of the prosecutor in conducting economic court cases, Department of ensuring the authority of the prosecutor in conducting administrative court cases);

- structural branches specializing in organizational control, information-analytical activities, personal security (s.j., organizational-control and analysis, analysis of legality and law enforcement problems, and personal security departments, Information-Analytical

Department) of the General Prosecutor's Office of Turkey is not found in the structure.

At the same time, the Department for Political Parties in the organizational structure of the General Prosecutor's Office of Turkey does not exist in the organizational structure of the General Prosecutor's Office of the Republic of Uzbekistan.

In the organizational structure of the General Prosecutor's Office of the Republic of Uzbekistan, the Department for Ensuring the Prosecutor's Authority in Conducting Criminal Court Cases, the Department for Ensuring the Prosecutor's Authority in Conducting Civil Court Cases, the Department for Investigating Serious Crimes, the Department for Combating Organized Crime and Corruption, the Department for the Implementation of Information and Communication Technologies and Ensuring Information Security , International Legal Department, Affairs Department and Law Enforcement Academy are also present in the organizational structure of the General Prosecutor's Office of Turkey.

This point, it should be noted that the image of the prosecutor's office has changed radically in recent years at the initiative of the President of the Republic of Uzbekistan Sh.M. Mirziyoev. As an example of the high trust expressed by the head of state to the prosecutor's office, new tasks and functions are being assigned to the system. In turn, a number of structural structures and state units are being introduced in the system. It should be noted that these structural branches are not found in the system of the General Prosecutor's Office of the Supreme Court of Appeal of the Republic of Turkey.

For example, according to the Decree No. PF-6199 [12] of the President of the Republic of Uzbekistan dated April 6, 2021 "On measures to further improve the state management system in the fields of tourism, sports and cultural heritage" , in the organizational-staff structure of the General Prosecutor's Office, Sports, Culture , the department of supervision over the implementation of legislation in the fields of cultural heritage and tourism was established, and the positions of senior assistants of regional prosecutors in supervision over the implementation of legislation in the above areas were introduced.

According to the Decision of the President of the Republic of Uzbekistan dated December 10, 2021 "On additional measures to strengthen control over the implementation of the social and production infrastructure development program of the Republic of Uzbekistan and other state programs" [13] in the structure of the Department of Supervision over the implementation of legislation in the field of construction and

departments of supervision over the implementation of legislation in the field of construction are established in the regional prosecutor's offices, and they are responsible for the formation and implementation of state programs financed from the social and production infrastructure development program, consolidated budget funds and other centralized sources, as well as these programs the task of monitoring the intended use of funds.

With the Decision of the President of the Republic of Uzbekistan dated December 30, 2021 "On the approval of the investment program of the Republic of Uzbekistan for 2022-2026 and the introduction of new approaches and mechanisms for the management of investment projects"[14] in the organizational and staff structure of the Prosecutor General's Office, Foreign Trade, established the department of supervision over the implementation of legislation in the fields of investments and entrepreneurship.

Similarly, PF-81 No. 15 of the President of the Republic of Uzbekistan dated March 1, 2022 "On measures to improve the system of working with family and women, neighborhood and clergy" [15] and "Family and wife" dated March 7, 2022 On the basis of Decree No. PF-87 [16] "On measures to further accelerate work on systematic support of girls", the Department of Supervision over the implementation of legislation in the fields of ensuring the rights of women and girls and protecting them from harassment and violence was established.

PF-77 Decree of the President of the Republic of Uzbekistan dated May 24, 2023 "On the improvement of state control mechanisms in the fuel and energy sector and the introduction of the "digital energy control" system" the position of the responsible Deputy Prosecutor General was introduced, and the Department of Control over the Implementation of Legislation in the Fuel and Energy Sector was established in the organizational and staff structure of the Prosecutor General's Office.

In addition, according to the Decree of the President of the Republic of Uzbekistan dated May 31, 2023 "On measures to transform the field of ecology and environmental protection and organize the activities of an authorized state body" No. PF-81 [18], ecology, environment - the position of the Deputy Prosecutor General responsible for the supervision of compliance with the legislation in the field of environmental protection and forestry and its implementation was introduced, and the department of supervision over the enforcement of legislation in the field of ecology, environmental protection and forestry was established in the organizational and staff structure of the General Prosecutor's Office.

In general, according to the results of the study of the system of prosecution bodies of Uzbekistan and Turkey, it will be possible to put forward the following conclusions:

First of all, **The system of prosecutorial bodies of Uzbekistan and Turkey is a system** of prosecutorial bodies headed by the Prosecutor General, which performs interrelated functions and tasks aimed at ensuring the rule of law, strengthening legitimacy, protecting the rights and freedoms of citizens, the interests of society and the state protected by law, the legal order and state system, and is a single and centralized set of institutions;

secondly, the prosecutor's office of the Republic of Turkey is considered to be a body for ensuring justice and carrying out criminal prosecution (investigation) organized on the basis of the European model. The Prosecutor's Office of the Republic of Uzbekistan is a state body that exercises control over the precise and uniform implementation of laws on the territory of the country.

thirdly, compared to the system of the prosecution bodies of the Republic of Turkey, the system of the prosecution bodies of the Republic of Uzbekistan has a comprehensive and more complex structure;

fourthly, the system of prosecution bodies of Uzbekistan and Turkey **has the following similarities:**

- the organizational structure of both state prosecutor's offices consists of a three-tier system based on the subordination of subordinate prosecutors to the Prosecutor General;

- The existing structural branches in the organizational structure of the General Prosecutor's Offices of Uzbekistan and Turkey are organized in accordance with the main directions of activities of the prosecutor's offices;

- The Military Prosecutor's Office operates in Turkey, as in Uzbekistan ;

- to a number of structural branches in the organizational structure of the General Prosecutor's Office of the Republic of Uzbekistan (s.j., ensuring the authority of the prosecutor in conducting criminal and civil court cases, investigating serious crimes, fighting against organized crime and corruption, introducing information and communication technologies and ensuring information security departments) similar networks exist in the organizational structure of the General Prosecutor's Office of the Republic of Turkey.

fifthly, the system of prosecution bodies of Uzbekistan **differs** from the system of prosecution bodies of Turkey in the following respects:

- In the system of prosecutor's offices of the Republic of Turkey , regional military, transport and specialized prosecutor's offices are not provided for;

There are no specially authorized state bodies (Department or Bureau) under the General Prosecutor's Office of Turkey, as in Uzbekistan;

- Unlike Uzbekistan, in Turkey, the district attorney-prosecutor works in the court building, but they work separately from the judges;

- the district attorney- prosecutor does not have staff units subordinate to him;

- Unlike Uzbekistan, in Turkey, the provincial prosecutor - Başsavcı, that is, has the status of the Chief Prosecutor;

- In Turkey, the position of prosecutor is part of the state civil service;

- departments in the organizational structure of the General Prosecutor's Office of the Republic of Uzbekistan in the direction of control over the implementation of legislation, some departments in the direction of ensuring the authority of the prosecutor in the courts, organizational control, information-analytical activities, structural branches specializing in ensuring personal security are not found in the organizational structure of the General Prosecutor's Office of Turkey;

- The Department for Political Parties in the organizational structure of the General Prosecutor's Office of Turkey does not exist in the organizational structure of the General Prosecutor's Office of the Republic of Uzbekistan.

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INTERNETNING KELIB CHIQISHIGA DOIR QARASHLAR

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ANNOTASIYA

Ushbu maqola internetning aloqa, tijorat va kundalik hayotga ta'sirini yoritib beradi. Shuningdek, muhim nuqtalar va texnologik yutuqlarga e'tibor qaratgan holda, ushbu falsafiy mulohazalar Internetning evolyutsiyasi va uning zamonaviy jamiyatga chuqur ta'siri haqida tushunchalarni beradi.

Kalit so'zlar: internet, arpanet, tijoratlashtirish, dot-com boom va bust, mobil internet, ijtimoiy media, bulutli hisoblash, raqamli inqilob, texnologik evolyutsiya, kommunikatsiya texnologiyalari, texnologik innovatsiyalar

ABSTRACT

This article highlights the impact of the internet on communication, commerce and daily life. Also focusing on milestones and technological advances, these philosophical reflections provide insights into the evolution of the Internet and its profound impact on modern society.

Keywords: internet, arpanet, commercialization, dot-com boom and bust, mobile internet, social media, cloud computing, digital revolution, technological evolution, communication technology, technological innovation

KIRISH

ARPANET dastlab Amerika qo'shma shtatlarining mudofaa vazirligi tizimidagi ilmiy tadqiqot muassasalari o'rtasidagi tezkor aloqani amalga oshirish uchun ishlab chiqilgan bo'lib, uning vazifasi ma'lum bir hajmdagi ma'luotlarni tezkorlik bilan xavfsiz bir shaklda uzatishdan iborat edi. Qayd etib o'tish kerakki, insoniyat taraqqiyotiga hissa qo'shgan juda katta kashfiyot va ixtirolar harbiy soha bilan bog'liqdir. Shu jamladan, intertentning dastlabki ko'rinishi bo'lgan ARPANET ham bevosita harbiy soha olimlari tomonidan ishlab chiqilgan.

ARPANET va erta tarmoqlar (1960-yillar): Internetning kashshofi ARPANET (Advanced Research Projects Agency Network) bo'lib, u AQSh Mudofaa vazirligi tomonidan moliyalashtiriladi[1]. ARPANET turli tadqiqot muassasalaridagi kompyuterlarni ulash uchun mo'ljallangan



bo'lib, ularga resurslar va ma'lumotlarni almashish imkonini beradi.

TCP/IP ning rivojlanishi (1970-yillar): Transmission Control Protocol (TCP) va Internet Protocol (IP) turli tarmoqlar orasidagi aloqani standartlashtirish uchun ishlab chiqilgan. TCP/IP zamonaviy internet uchun asos bo'ldi.[2] Keyinchalik ma'lumotlarni uzatishning standartlari ta'kimlashtirildi va uzatuvchi va qabul qiluvchilar yagona dasturlar asosida ishlashgan o'tdi. Bu esa uning universallashtirishini ta'minlab, foydalanuvchilar ko'lamini kengayishiga olib keldi.

Butunjahon Internetning tug'ilishi (1991): Britaniyalik olim Tim Berners-Li Internetdagi ma'lumotlarga giperhavolalar orqali kirish usuli sifatida World Wide Web (WWW) ni taqdim etdi. Bu muhim burilish nuqtasi bo'lib, Internetni yanada qulayroq va foydalanuvchilarga qulayroq qildi. Bu esa hozirgi ko'rinishdagi internet paydo bo'lganini anglatar edi. World Wide Web – butunjahon o'rganchak to'ri qator elementlardan iborat. Internet yuz millionlab veb-serverlardan tarkib topgan. Ushbu serverlarda tegishli ma'lumotlar saqlanadi va murojaatchilar internetga kirganda aynan qaysidir cherverda saqlanayotgan ma'lumotlarni qo'lga kiritadi. Veb-serverdagi ma'lumotlar odatda gipermatn shaklida saqlanadi. Ana shu gipermatnlar esa foydalanuvchilarga veb-sahifa sifatida namoyon bo'ladi. Yagona dizaynt va kontekstga ega veb-sahifalar esa foydalanuvchilar tomonidan veb-sayt sifatida ishlatiladi. Hozirgi kunda veb-saytlarni ochish va ma'lumotlarni qabul qilishga mo'ljallangan dasturiy ta'minot mahsuloti brauzer deb nomlanadi. Eng ommaviy veb-brauzerlar google chrome bo'lib o'zining tezkorligi va qulayligi bilan mashhur.

Dot-Com Boom (1990-yillarning oxiri): 1990-yillarning oxirlarida Dot-Com Boom deb nomlanuvchi internet bilan bog'liq biznesda tez o'sish davri kuzatildi. Ko'pgina kompaniyalar gullab-yashnagan bo'lsa-da, u oxir-oqibat 2000-yillarning boshlarida Dot-Com Bustga olib keldi. Bu davrda PayPal kabi faqat internet tarmog'i orqali ishlaydigan pul uzatish tizimlari gullab yashnadi. Bu tizimlarning rivojlanishida zamonaviy innovatorlar Ilon Mask kabi yetakchi innovatorlarning o'rni katta bo'ldi. Endilikda elektron tijorat dunyo iqtisodiyotining ajralmas qismiga aylana bordi.

Keng polosali va yuqori tezlikdagi internet (2000-yillar): 2000-yillar keng polosali internetning keng qo'llanilishiga guvoh bo'lib, tezroq va ishonchli ulanishlarni ta'minladi. Bu multimedia kontenti, ijtimoiy media va onlayn xizmatlarning o'sishiga yordam berdi.

Mobil Internet va ijtimoiy media (2000-2010 yillar): Smartfonlar va mobil internetning yangi turi – WAP paydo bo'ldi. Unga ko'ra, foydalanuvchi faqat sarflagan trafigi uchungina pul to'laydigan bo'ldi. O'shandan buyon mobil internet odamlar orasida keng



tarqalib, ommalasha boshladi. Undan keyin GPRS va EDGE-ulanish turlari paydo bo'ldi. Bular mobil chatlarda muloqot qilish imkoni tufayli foydalanuvchilarning e'tirofiga sazovor bo'ldi. Bugunga kelib, 3G va 4G ulanish turlari eng mashhur hisoblanadi. 4G ulanish tezligi bo'yicha yutadi, 3G esa hududiy tarqalish ko'rsatkichlariga ko'ra yetakchilik qiladi. Kelgusida takomillashtirilgan 5G internetning paydo bo'lishi odamlarning internetga kirish va o'zaro munosabatini yanada o'zgartirdi.[3]

Bulutli hisoblash va IoT (2010-yillar): Bulutli hisoblash xizmatlari keng tarqaldi, bu foydalanuvchilarga ma'lumotlarni masofadan saqlash va ulardan foydalanish imkonini beradi. Yaxshilangan funksionallik uchun kundalik qurilmalarni internetga ulaydigan narsalar Interneti (IoT) paydo bo'ldi.

Davom etayotgan innovatsiyalar: Internet sun'iy intellekt, virtual haqiqat va yuqori tezlikdagi tarmoqlarni kengaytirish (5G) kabi yangiliklar bilan rivojlanishda davom etmoqda. Peyzaj dinamik, davom etayotgan o'zgarishlar internet kelajagini shakllantiradi.

ADABIYOT TAHLILI VA METODOLOGIYA

Ushbu tadqiqot Internet protokollarining evolyutsiyasini har tomonlama o'rganish uchun tavsiflovchi va analitik tadqiqot loyihasidan foydalangan. Dizayn tarixiy o'zgarishlar, texnologik yutuqlar va ularning ta'sirini batafsil o'rganishga yordam berdi.

1. Adabiyot sharhi:

Internet protokollarining evolyutsiyasi bilan bog'liq asosiy ishlarni, tarixiy hujjatlarni, texnik xususiyatlarni va tadqiqot ishlarini aniqlash uchun puxta adabiyotlar o'rganildi. Bu jarayon mavzu bo'yicha asosli tushunchani o'rnatishga yordam berdi va keyingi tahlillar uchun ma'lumot berdi.

2. Ma'lumotlarni yig'ish:

Birlamchi ma'lumotlar manbalari tarixiy hujjatlar, texnik xususiyatlar va internet protokollarining rivojlanishini batafsil tavsiflovchi arxiv materiallarini o'z ichiga oladi. Bu keng ko'lamli manbalarni, jumladan, tadqiqot ishlari, rasmiy hisobotlar va tegishli tashkilotlarning hujjatlarini o'z ichiga oldi.

Ikkilamchi ma'lumotlar manbalari birlamchi manbalardan olingan ma'lumotlarni to'ldirish va tasdiqlash uchun ilmiy maqolalar, kitoblar va onlayn resurslardan iborat edi.

3. Xronologik tahlil:

Tadqiqotda internet protokollarining tarixiy rivojlanishini kuzatish uchun xronologik tahlil usuli qo'llanildi. Bunga asosiy

voqealar, ishlanmalar va texnologik yutuqlarni vaqt jadvalida naqshlar va muhim nuqtalarni aniqlash uchun tashkil etish kiradi.

4. Qiyosiy baholash:

Turli internet protokollari va ularning internet evolyutsiyasiga qo'shgan hissasini tahlil qilish uchun qiyosiy baholash o'tkazildi. Bu global tarmoqning rivojlanishiga ta'sirini tushunish uchun turli protokollarning kuchli, zaif tomonlari va alohida xususiyatlarini baholashni o'z ichiga oladi.

5. Axloqiy mulohazalar:

Tadqiqot axloqiy me'yorlarga rioya qilgan holda, manbalardan to'g'ri iqtibos keltirilishini ta'minlagan va plagiatning oldini olgan. Foydalanilgan barcha ma'lumotlar ommaga ochiq va to'g'ri tavsiflangan materiallardan olingan.

MUHOKAMA VA NATIJALAR

Tadqiqotning maqsadi Internet protokollarining evolyutsiyasini chuqur tahlil qilish, dastlabki tarmoq texnologiyalaridan TCP/IP (Transmission Control Protocol/Internet Protocol TCP/IP bayonnomalari oilasi. Internetda ma'lumotlar uzatish uchun ishlatiladigan bayonnomalar to'plami. Dastlab UNIX operatsion tizimlari uchun yaratilgan. Hozirgi paytda barcha asosiy operatsion tizimlarga o'rnatiladi. protokollarini yaratishgacha bo'lgan rivojlanishni kuzatishdan iborat edi)[4].

Global aloqani osonlashtirish: Internet protokollarining evolyutsiyasi turli tarmoqlar bo'ylab ma'lumotlar almashinuvini ta'minlab, uzluksiz global aloqani qanday osonlashtirganini o'rganib chiqdik.

Mashtablilik va o'zaro ishlash imkoniyati: protokol yutuqlarining internetga ulangan ilovalar va xizmatlarning miqyosi va o'zaro ishlashiga ta'siri baholandi.

TCP/IP protokollariga o'tish standartlashtirilgan va o'zaro bog'langan global tarmoqni yaratishda hal qiluvchi rol o'ynadi.

IPv6 ni qabul qilish IPv4 cheklovlarini bartaraf etish va ulangan qurilmalar soni ortib borayotganiga moslashish uchun zarurdir.

Xavfsizlik protokollari onlayn muloqotning umumiy yaxlitligi va maxfiylikni sezilarli darajada yaxshiladi.

Keng qamrovli tahlil internet protokollarining ajoyib evolyutsiyasini ochib beradi va ularning zamonaviy raqamli landshaftni shakllantirishdagi hal qiluvchi rolini namoyish etadi. Topilmalar bog'langan dunyoning o'zgaruvchan ehtiyojlarini qondirish uchun protokollarni ishlab chiqishda davom etishning muhimligini ta'kidlaydi.

Ushbu bo'limda tadqiqot metodologiyasi, tarixiy tadqiqotlar, texnologik baholashlar va internet protokollarining evolyutsiyasi bilan bog'liq asosiy topilmalar haqida umumiy ma'lumot berilgan. O'rganishingizning aniq tafsilotlari asosida tuzatishlar kiritilishi mumkin.

XULOSA VA TAKLIFLAR

Internetning paydo bo'lishi quyidagi ijtimoiy hodisalarni keltirib chiqardi.

Birinchi, ijtimoiy qadriyatlar va munosabatlar tizimida internet orqali mo'ljallanish ko'nikmalari paydo bo'ldi va shakllandi. Endilikda insonlar ma'lum bir madaniyat, insonlar va narsalar haqida aynan internetgaya tayanib ma'lum bir qarorga kelishmoqda. Bu esa ijtimoiy hayotda internetning muhim ahamiyatga ega bo'lib borayotgani va insonlar qadriyatlar tizimi transformatsiyasini keltirib chiqarayotganini tushuntirib bera oladi.

Ikkinchi, internetdagi ma'lum bir g'oya va oqimlar, yangiliklar, tavakkalchilikka asoslangan o'yinlarga bog'lanib qolish kuzatilmoqda. Endi insoniyat hayotida salbiy illatlar yoki zararli odatlar tushunchasi doirasiga internetga haddan ziyod bog'lanib qolishni ham kiritish mumkin.[5] Bu esa psixologlar va boshqa soha mutaxassislari oldiga ulkan ijtimoiy vazifalarni yuklamoqda. Endilikda qaramlik natijasida insoniyat patologik va anatomik ko'rsatkichlari ham o'zgarib bormoqda. Bu kabi salbiy o'zgarishlar esa qo'shimcha resurslarni talab qilgan holda korreksiya qilishni taqozo etadi.

Uchinchi, internet ahloqsizlik va destruktiv harkatlarning makoniga aylandi. Ayniqsa, o'zbek segmentida ahloqsizlik, fahsh va buzuvchilikni targ'ib qilish g'oyatda avj olgan. Buning qator sabablari bo'lib kelgusida albatta bunga batafsil to'xtalib o'tamiz. Hozirgi o'rinda esa internetda o'zbek tilidagi faxshga chorlovchi kontentning ko'pligining asosiy sababi jamiyatda mana shunday destruktiv holatlarga bo'lgan talabning yuqoriligi yoki yana ham soddat qilib aytganda jamiyat a'zolari orasida mana shunday dunyoqarashga ega insonlarning soni bilan bog'liqdir.

To'rtinchi, internetsiz yashash imkonsizga aylanib bormoqda. Oddiy hunarmand yoki tadbirkor ham, davlat xizmatchisi yoki pensioner ham internetdan foydalanmasdan turib kamida maishiy masalalarini hal qila olmaydi. Bu esa insoniyatning kashfiyoti bo'lgan va elektr tarmog'iga bog'langan internetning kelgusida nafaqat buyuk taraqqiyot sababchisi, balki katta falokatlarning kelib chiqishi manbasiga ham aylantirib qo'yishi mumkin.

Internet protokollari evolyutsiyasining ushbu keng qamrovli tahlili o'nlab yillar davomida raqamli landshaftni shakllantirgan chuqur o'zgarishlarni yoritadi. Tarixiy hujjatlar, texnik



xususiyatlar va ilmiy adabiyotlarni sinchkovlik bilan o'rganish orqali ushbu tadqiqot internet protokollarining sayohatini aniqlagan asosiy ishlanmalar haqida qimmatli ma'lumotlarni taqdim etdi.

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KONDUKTOMETRIK TITRLASH

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ANNOTATSIYA

Konduktometrik titrlash xajmiy analiz usullaridan biri bo'lib, bu usulda neytrallash nuqtasi indilatorlar vositasi bilan emas elektr o'tkazuvchanlikni o'lchash orqali aniqlanadi. Bu usulning afzal tomonlari rangli, loyqa va agressiv muhitlarda ham qo'llash mumkinligidir. Bundan tashqari, konduktometrik usul bilan bir qancha eritmani, masalan, bir necha kislota aralashmasini bir yo'la titrlab, har bir kislota miqdorini aniqlash mumkin.

ABSTRACT

Conductometric titration is one of the methods of volumetric analysis, using the neutralization point is not with the instrument of the indicators electrical conductivity is determined by measurement. The advantages of this method are colored, fuzzy and aggressive it is also applicable in environments. In addition, the conductometric method titrate a single solution with, for example, a mixture of several acids, the amount of each acid can be determined.

KIRISH

Eritmalarning elektr o'tkazuvchanligini (qarshiligini) o'lchash orqali aralashmalar tarkibini aniqlash usullarini—konduktometrik usullar deyiladi. Bu fizik – kimyo usuli ilmiy –tadqiqot va ishlab chiqarish ehtiyojlarini uchun keng qo'llaniladi. Konduktometrik usullar yordamida dissostialanish darajasi va konstantalarni aniqlash mumkin.

Keyingi vaqtlarda suvdan boshqa erituvchilardagi eritmalar, masalan, spirt, efir, ammiak, va boshqalardagi eritmalar keng ravishda tekshirila boshlanadi. Bu tekshirishlar ilgarigi tushunchalarni faqat suvdagi eritmalaridagina to'g'ri kelishini, lekin suvda boshqa erituvchilardagi eritmalariga to'g'ri kelmasiligi mumkinligini ko'rsatadi. Natijada hamma xollarga to'g'ri keladigan kislota asos tushunchasi topishga kirishildi. Kengroq tarqalgan nazariyalardan: Brenstedning kislota asoslarining protolitik nazariyasi va Lyuyisning umumlashgan kislota asos nazariyalaridir. Brenstedning protolitik kislota-asos nazariyasiga binoan, kislota o'zidan proton ajratib chiqarish xususiyatiga ega modda (u protonlar donori) asos – proton biriktirib olish xususiyatiga ega bo'lgan moddadir (u protonlar aksteptori).



MUHOKAMA VA NATIJALAR

Kislotalarni aniqlash usullari orasida konduktometrik titrlash alohida o'rin tutadi. U etarlicha oddiy, arzon va aniq. Ushbu usul oziq-ovqat va boshqa tarmoq korxonalarining kimyoviy tahlil qilish laboratoriyasiga oson joriy etiladi[1,5,10]. Ushbu ishda suvsiz va aralash eritmalaridagi bir asosli aminokarbon kislotalarni kislota-asosli konduktometrik titrlash usulida yakka tartibdagi aniqlash natijalari keltiriladi. TADQIQOT USULI Tanlangan ob'ektlar sifatida aminouksus, m-va p-aminobenzoy kislotalarini titrladik. Shunday qilib erituvchilar sifatida muttasil etanol va propanol-2 ishlatildi. Titrlash 0,1 n etanol yoki izopropanol erituvchi muhitida etilat yoki kaliy izopropilat eritmasi bilan amalga oshirildi. Konduktometrik tadqiqot va titrlash ishlari P568 va KEL-1M o'zgaruvchi tok ko'priklarda olib borildi. Konduktometrik katak platina tizim bilan yopiladigan platina elektrodlar 6 mm masofada joylashgan 20x20 kv.mm hajmga ega. [2,4,5,6]. Kislota-asosli titrlash sharoitlariga erituvchilarning kimyoviy va fizik xossalarning ta'sirini o'rganish kislotalik konstantasi va dielektrik o'tkazuvchanlik o'rtasidagi chiziqli bog'liqlikni aniqlandi. Erituvchining avtoprotoliz konstantasining ulushi ham kislota-asosli titrlash uchun erituvchini tanlashda muhim ko'rsatkich hisoblanadi. Tadqiqotlar shuni ko'rsatdiki, erituvchining avtoprotoliz konstantasi qanchalik past bo'lsa, shunchalik farqlanadi. Shuning uchun kislotalarni differentsial titrlash uchun dielektrik o'tkazuvchanlik qiymatini va muhitning avtoprotoliz konstantasini kamaytirish kerak, bunga tegishli erituvchiga dielektrik o'tkazuvchanligi va avtoprotoliz konstantasi past qiymatlari bo'lgan erituvchini qo'shish orqali erishish mumkin[7,3,10].

Elektr o'tkazuvchanlikning asosiy omili ionlar harakatchanligi bo'lgani uchun, elektr o'tkazuvchanlikni **indikator sifatida** qo'llash mumkin.

Indikator sifatida elektr o'tkazuvchanlik qo'llaniladigan titrlash **konduktometrik titrlash** deyiladi (konduktor — o'tkazuvchi).

Ma'lumki, ishlab chiqarish sharoitida ko'pgina xomashyo, tayyor mahsulotlar, kislota yoki ishqorlarni sinab ko'rish kerak bo'ladi. Lekin bunday hollarda ba'zan kimyoviy titrlash usullaridan foydalanish qiyin, chunki eritma loyqa yoki rangli bo'lganidan oddiy indikatorlar (*fenolftalin, kraxmal, metiloranj*) tiniq rangni ko'rsatmaydi. Shunday hollarda konduktometrik titrlashdan foydalanish aniq natija beradi. Bir qancha moddalar aralashmasini ham titrlab, aniq konsentratsiyasini hisoblab topish mumkin. Bu usulning kamchiligi- *murakkab asboblarni talab etiladi, hisoblashga ko'p vaqt ketadi*.

Konduktometrik titrlash quyidagicha amalga oshiriladi:

Bunda *Kolraush sxemasidan* foydalaniladi. Titrlash olib boriladigan Arrenius idishiga **indikator elektrodi** tushiriladi. Idish tepasiga byuretka o‘matiladi. Lozim bo‘lsa, idish termostatga o‘matiladi.

Titrlash borasida elektr o‘tkazuvchanlikning o‘zgarishi kuzatib boriladi. Elektr o‘tkazuvchanlik bilan titrlash uchun ketgan titrant hajmi orasidagi bog‘liqlik grafigi chiziladi va *grafik orqali ekvivalent nuqta topiladi*.

Ionlarning molyar harakatchanligi qiymatlarini tahlil qilib, quyidagi qoidalarni keltirib chiqarish mumkin:

1. Teng konsentratsiyali kuchli kislota yoki kuchli asosning elektr o‘tkazuvchanligi ular tuzi elektr o‘tkazuvchanligidan katta.

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2. Teng konsentratsiyada kuchsiz kislota yoki kuchli asosning elektr o‘tkazuvchanligi ular tuzi elektr o‘tkazuvchanligidan kichik.

Ayrim ionlarning suvli eritmadagi molyar harakatchanligi (T=298 K)

Ion	1×10^4 , $\text{Om}^{-1} \text{m}^2/\text{mol}$	Ion	1×10^4 , $\text{Om}^{-1} \text{m}^2/\text{mol}$
H^+	349,8	Ag^+	61,9
Li^+	36,6	Cl^-	76,3
Na^+	50,1	CH_3COO^-	40,9
K^+	73,5	OH^-	198,3

Shuning uchun kislota eritmasini asos eritmasi bilan titrlashda ekvivalent nuqtada elektr o‘tkazuvchanlikning keskin o‘zgarishi ro‘y beradi. Bu usulning mohiyatini quyida misol orqali tushuntiramiz:

1) Kuchli kislota bilan kuchli asos bilan konduktometrik titrlash:

25 °C da eritmadagi HCl miqdorini aniqlash kerak. Uning konsentratsiyasi

0,1n bo‘lsin.

$V \gg V_0 + (c_0 - c_1) V_0 = 380,3 \text{ ml}$

Eritmaning

= *teng*

$\text{HCl} + \text{NaOH}$

$\text{NaCl} + \text{H}_2\text{O}$

$V = 10 \text{ ml}$ $c = ?$

$C = 0,1 \text{ n}$ $v = ?$

Titrlashni olib borish uchun **Kolraush sxemasi yig‘iladi**. Idishga konsentratsiyasi noma‘lum bo‘lgan HCl eritmasi solinadi. Idish tepasiga byuretka o‘matilib, **0,1n ishqor eritmasi** bilan to‘ldiriladi. Ma‘lum hajm - 0,5 yoki 1ml dan ishqor qo‘shib, elektr o‘tkazuvchanlik o‘lchanib boriladi.

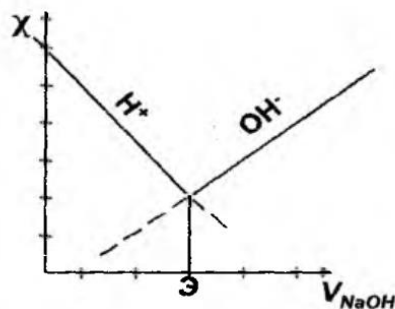
Xlorid kislotasiga natriy ishqori qo‘shilsa, gidroksil ionlari tez harakatlanadigan vodorod ionlari bilan birikadi va dissotsiyalanmayadigan suv hosil bo‘ladi. Vodorod o‘lchamida eritmada unga nisbatan kam

harakatlanadigan Na^* qoladi ($INa, \sim 43$). Eritma batamom neytrallanadi, unda asosan, **Na va Cl**

ionlari boiadi: $= 65,3 + 43 = 108,3$ teng.

Shu sababli titrlash borasida elektr o'tkazuvchanlik minimumga yetadi. Keyingi qo'shilgan **1 tomchi NaOH** ($loir = 174$), ya'ni gidroksil ionlarining harakatchanligi tufayli elektr o'tkazuvchanlik y ana ortadi. Olingan natijalar asosida grafik chizilsa ($x = f(V, NaOH)$), ya'ni abtsissa o'qiga titrlashga sarflangan ishqoming ml miqdori, ordinata o'qiga esa eritma elektr o'tkazuvchanligi qo'yilsa, rasmda ko'rsatilgan egri chiziq hosil bo'ladi.

Titrlash davomida hosil bo'lgan egri chiziqning singan joyidan abtsissa o'qiga pependikulyar chiziq tushirib, **E - ekvivalent nuqta** aniqlanadi. **Bu nuqtadan titrlash uchun sarflangan ishqor miqdori topiladi va quyidagi formula yordamida eritma konsentratsiyasi hisoblab topiladi:**



$$\frac{V_1}{V_2} = \frac{N_2}{N_1(HCl)}; \quad N_1(HCl) = \frac{N_2 \cdot V_2}{V_1}$$

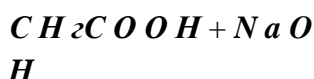
V_1 - berilgan HCl hajmi;

V_2 - titrlash uchun ketgan ishqoming miqdori, grafikdan topiladi; N_2 - ishqor konsentratsiyasi.

2)

Kuchsiz kislotani (masalan, sirka kislotasi), kuchli asos (NaOH)

bilan titrlash:



$C = ?$

$C = 0,1 \text{ M} = ?$

$V = 10 \text{ ml}$

XULOSA

Konduktometrik titrlash borasida bitta tezlikda harakatlanayotgan ionga almashinadi. Reaktsiyaga qatnashuvchi moddalar tabiatiga qarab, ekvivalent nuqtada elektr

o'tkazuvchanlik keskin o'zgaradi. Konduktometrik titrlash rangli indikatorlar bilan titrlashdan farqli o'laroq, loyqa, rangli eritmalarini, biologik suyuqliklarni titrlashda qo'llanishi mumkin. U nixoyatda aniq. Bir qancha moddalar aralashmasini ham titrlashda qo'llanishi mumkin. Kamchiligi murakkab asboblar talab etiladi, hisoblashga ko'proq vaqt ketadi. Konduktometrik titrlash quyidagicha amalga oshiriladi; titrlash olib boriladigan idishga indikator elektrody tushuriladi. SHu idishga titrlash olib boriladigan byuretkaga o'rnatiladi. Lozim bo'lsa, idish termostatga qo'yiladi. Titrlash borasida elektr o'tkazuvchanlikni o'zgarishi kuzati boriladi, grafik orqali ekvivalent nuqta topiladi.

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THE IMPORTANCE OF MODERN METHODS IN DEVELOPING YOUTH'S CREATIVE SKILLS

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ABSTRACT

This article highlights the essence of improving the mechanisms of using modern methods and technologies in the development of students' creative abilities, the scientific ideas of scientists about communicative competence, as well as the importance of forming communicative competence in students in professional educational institutions.

Keywords: Creativity, competence, communicative competence, mutual cooperation, communication, professional skills.

It is an important professional task of a pedagogue of a higher education institution to develop the ability to adapt to the innovations of the modern world, to prepare the young generation for the life of a constantly renewing society, and to actively participate in the processes of its improvement in accordance with the requirements of the times. Creativity includes the organization of the educational process, the construction of a creative educational process, the development of creative potential from educational technologies, the development of a balance of different methods, knowledge and skills. The essence of creativity is that intelligence is the mental potential of a person, and creativity is the ability to freely use this mental potential in a purposeful manner. The term creativity appeared in Anglo-American psychology in the 60s. It means the ability of an individual to create new concepts and new skills. J. Guilford shows a number of individual abilities characterizing creativity: - ability to direct thought according to the goal; - uniqueness (originality); - curiosity; - the ability to create hypotheses; - to be able to imagine (fantasy). In our country, as a result of consistent reforms aimed at creating conditions for human development and well-being, the realization of interests, bringing the quality and efficiency of education to a new level, opportunities for the development of students' creative

abilities are being created based on interactive teaching methods. Today, in order to improve the quality of education in the world and in our country, very large-scale reforms are being implemented, it is difficult to progress without ensuring education and its place and participation in the ongoing reforms in society. In this sense, extensive work is being carried out in our country to create a higher education system that meets international requirements. Today, in the Republic of Uzbekistan, a number of practical activities are being carried out in order to determine the priority directions of the systematic reform of professional education, to raise the process of training independent thinking highly qualified personnel to a new level in terms of quality, and to develop the social sphere and economic sectors based on advanced educational technologies. This is defined in the priorities of the President of the Republic of Uzbekistan Shavkat Mirziyoyev dated February 7, 2017 PF 4947 "Action Strategy". Also, in the decision of the President of the Republic of Uzbekistan dated April 20, 2017 PQ - 2909 - "On measures - activities for the further development of the higher education system", fundamental improvement of the higher education system and the priority tasks of the social and economic development of the country based on the fundamental restructuring of the content of personnel training,

On the basis of the above tasks, formation of communicative competence of future teachers is one of today's urgent issues in achieving educational efficiency. Reforms in the field of education in our republic require extensive use of effective factors of education, establishment of conscious cooperative relations among the participants of this process, formation of communicative competence of future teachers.

The essence of pedagogical cooperation in the educational process is reflected in the content of the joint activity of the teacher and the student, in this process the pedagogue helps the teacher to overcome the difficulties that have arisen. The main essence of pedagogical support is expressed by the description of the pedagogical process, its orientation towards a certain goal, as well as the tasks to be solved in terms of personality formation and education.

In interactive lessons, the main focus of the teacher should be on increasing the activity of students. The uniqueness of these methods is that they are implemented only through the joint activity of the pedagogue and students. Such a process of pedagogical cooperation has its own characteristics, including:

- forcing the student not to be indifferent during the lesson, to think independently, create and search;
- students' interest in science during the educational process permanence provision;



- strengthening of students' interest in science with a creative approach to each issue independently;
- includes continuous organization of collaborative activities of pedagogues and students.

The activity of the teacher in cooperation with students, within the framework of the lesson system, is expressed in the following forms of educational organization:

1. frontal work simultaneously with all learners;
2. work in groups: - work in static pairs; - work in groups; - intergroup work; - individual performance

Each of these organizational forms is characterized by a difference in the joint conduct of collective and individual education, a difference in the level of independence of learners, a difference in the management of the teaching process by the teacher, etc. A simple rule in practice testifies to this that in the first 20 minutes of a theoretical lesson, new knowledge should be given to students, and then the given knowledge should be strengthened through the implementation of debates, working in small groups and other such non-traditional methods.

The purpose of any education is the formation of knowledge and the skills and abilities to apply it in practice, to develop the necessary personal qualities and instructions.

Therefore, pedagogical cooperation is considered one of the main elements in the educational process, and one of the urgent tasks of today is to master and introduce interactive educational methods that allow students to activate and think independently. First of all, it implies abandoning the dialog of "educator - learner" and switching to a three-way interaction in the form of "educator - group - learner" in increasing student activity. The study group is divided into mobile subgroups according to their composition, and each of them learns the study material on its own. Experience shows that due to this, a much stronger connection is established between us and the students, personal and at the same time educational collective morale is strengthened. Collaborative action of students is formed, which helps to activate the learning process, to form empathy and communicativeness in them: - in the process of completing the task in cooperation, students are motivated to discuss the opinions expressed by their peers. ; - learners ask each other questions, so they need to know how to formulate questions clearly, to argue the answers, and to achieve understanding, they need to listen carefully to each other; - when working in groups, learners ask for help when needed and learn to help others.

Working in small groups relieves them of stressful situations, that is, they are free from fear and shame in front of the

whole team when they give the wrong answer. Group members will evaluate the answer in a friendly manner, allowing them to develop a sense of self-confidence. In a group of 4-5 people, a timid person feels much more relaxed than in front of a group of 25 people. This form of education ensures mutual enrichment of students' knowledge: exchange of knowledge only with methods of cooperation and action (knowledge), obtaining a common product - problem solving.

The general goal of the education system is to create responsible and well-rounded members of our society who can meet the requirements of a democratic state with equal rights.

The Law of the Republic of Uzbekistan "On Education" today set a number of requirements that pedagogues should implement and increase the effectiveness of teaching. They should organize the following:

1. Teaching skills
2. Nurturing skills
3. Personal qualities that provide an approach to humanitarian principles in educational processes
4. Ability to objectively control and evaluate the knowledge of learners

By developing the pedagogical competence of modern teachers in the process of professional activity, it can affect the life of a person and his social development to a certain extent. The main idea of the development of the educational system in modern society is the intellectual and moral-spiritual development of a person on the basis of purposeful independent activity in various fields. Before developing the professional competence of a modern teacher, it is necessary to know the true essence of this concept, and then the ways to improve it.

In scientific literature, the word competence is defined as follows:

Competence (from the Latin *Competentio* to *Competo*, to meet, to match) is the professional's personal ability to solve professional problems at a certain level. Competence also means officially described requirements for personal, professional, etc. qualities of employees of a certain organization, company (or some group of employees).

Professional competence is the specialist's acquisition of knowledge, skills and abilities necessary for professional development and the ability to use them appropriately during his work. The teacher, of course, assumes the mastery of knowledge and actions in a certain independent direction, along with the acquisition of specific knowledge and skills. Therefore, professional competence requires the pedagogue to enrich his specialized knowledge, to be able to follow new information and use it, to be

inquisitive and to be able to process new knowledge and apply it to his work.

K. Angelovski determines the structure of the teacher's professional competence through pedagogical skills

Pedagogical skills are divided into four groups here:

1. The ability to "translate" the content of the objective process of education into specific pedagogical tasks: to study the individual and the team, to determine readiness for active assimilation of new knowledge and design on this basis, to develop the team and individual students; determining the complex of educational, training and development tasks, concretizing them and defining the main task.

2. The ability to build and implement a logically complete pedagogical system: comprehensive planning of educational tasks; reasonable selection of forms, methods and means of its organization.

3. The ability to identify and establish relationships between the components and factors of education, to apply them in practice: to create the necessary conditions (material, moral, psychological, organizational, etc.); activation of the student's personality, development of his activity;

4. The ability to record and evaluate the results of pedagogical activity: introspection and analysis of the educational process and the results of the teacher's activity; defining a new set of dominant and subordinate tasks.

In Uzbekistan, a number of researches have been conducted on the professional competence of the teacher and its specific aspects. According to the research conducted by B. Nazarova, professional competence consists of the following structural foundations:

- Special or professional competence (professional activity at a high level organization).

- Social competence (joint organization of professional activities, social responsibility).

- Self-competence (being able to develop oneself socially and professionally).

Extreme professional competence (ability to work in unexpected situations).

Summarizing the results of the above research, it is necessary for a specialist to have a high level of knowledge in the process of organizing education, to be able to develop himself and to know the way out of any unexpected situations.

So, a teacher is a person who plays an important role in the process of socialization, who has a complex human image, who embodies professional qualities. At the heart of the achievements in all spheres of social life lies his work. A teacher should have a pedagogical and psychological approach to the educational process, a thorough assimilation of knowledge,

the ability to control oneself in the communication process, and the ability to get out of different situations.

In conclusion, it can be said that it is necessary to educate a well-rounded person who is fully intellectually developed, educated with social qualities, loyal to national and spiritual values, thinks in a new way, has his own personal and civil position, and embodies all the qualities of the national ideology. one of the urgent tasks. All of the above-mentioned skills serve as a foundation for students, i.e. future junior specialists, to organize their activities in the future, independently manage their work, carry out scientific research, and take their place in the team.

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TOSHKENT VILOYATIDA ARPANING SARIQ PAKANALIK VIRUSINING TARQALISHINI O'RGANISH

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ANNOTATSIYA

Ushbu tadqiqot ishi Toshkent viloyati tunanlar kesimida bu'gdoy (*Triticum aestivum*) ekilgan dalalarda ASPV ning tarqalishi, va ASPV ning tarqatuvchi vektorlarini o'rganishdan iborat.

Kalit so'zlar: BYDV, BYSMV, WSMV, *Sitobean avenae* L.

ABSTRACT

This research work consists of studying the spread of BYDV in the fields of wheat (*Triticum aestivum*) in the Tashkent region, as well as studying the vectors of BYDV spread.

Keywords: BYDV, BYSMV, WSMV, *Sitobean avenae* L.

KIRISH

Bugungi kunda oziq-ovqat xavfsizligini ta'minlash dunyoning xar bir mamlakati uchun eng muhim vazifa hisoblanadi. Bug'doy o'simligi hozirgi vaqtda geografik jixatdan turli iqlim sharoitlarida yetishtirilayotgan birinchi o'simliklardan biri hisoblanadi. Poaceae oilasiga mansub bug'doy o'simligi makkajo'xoridan keyin eng muhim madaniy o'simlik hisoblanadi. Dunyoda bug'doy yetishtirishda Yevropa Ittifoqi, Xitoy va Hindiston etakchi o'rinda turadi [1]. Asosiy oziq-ovqat mahsuloti bo'lgan bug'doy doimiy ravishda abiotik va biotik omillari tahdid solmoqda. G'alla ekinlarini kasallantiradigan arpaning sariq pakanalik (ASPV) virusi boshqoqli ekinlarning iqtisodiy jihatdan eng muhim virusli kasalligi bo'lib, dunyoning deyarli barcha don yetishtiruvchi mintaqalarda uchraydi.

ADABIYOTLAR TAHLILI VA METODOLOGIYASI

Dunyo miqyosida g'alla usimligini kasallantiruvchi viruslar soni 100 dan oshgan, Yevropa davlatlarida fitopotogen viruslarinig 40 ga yakini identifikatsiya kilingan. Bug'doy o'simligini kasallantiradigan ASPV bug'doyda eng ko'p hosil yo'qotilishiga olib keladigan 4 ta virusdan biri bo'lib, har yili butun dunyo bo'ylab hosildorlikga jiddiy ta'sir ko'rsatadi [2]. ASPV ilk bor 1951 yilda arpada aniqlangan. Keyinchalik



bug'doy, jo'xori, sholi va makkajo'xori kabi donli o'simliklarni ham kasallantirishi aniqlanganligi haqida ma'lumotlar yig'ilgan [3]. O'zbekistonda bug'doni kasallantiruvchi bir qancha viruslar aniqlangan, shulardan arpaning sariq pakanalik virusi, bug'doyning yo'l-yo'l mozaika virusi va arpaning sariq yo'l-yo'l mozaika viruslari aniqlangan [4-5]. Ushbu virus mexanik vositalar, gul changlar, urug'lar orqali tarqalmaydi. ASPV faqat g'alla shira (afid) lari orqali tarqaladi. ASPV ning 25 ga yaqin shira turlari adabiyotlarda keltirilgan [6].

Bugdoy dalalarining viruslarning tarqalish darajasi Yu.I.Vlasov usulida aniqlandi. Dalani diagonal buyicha har 15-20 metrda 1m uzunlikdagi usimliklar tekshirildi. Dalani chekka qismlaridagi 10-20 ta joydagi kasal usimliklar qayd qilib borildi [7].

MUHOKAMA VA NATIJALAR

Fitoviruslarni tabiatdagi aylanishini o'rganish fitovirusologiyaning dolzarb muammolaridan biri hisoblanadi. Virus sirkulyatsiyasini o'rganishda yil fasllariga qarab tabiatda saqlanishi va ko'payishi viruslarning sirkulyatsiyasida muhim ahamiyatga ega. Fitopatogen viruslarni xo'jayin o'simliklarda aniqlash va xo'jayin o'simlikga yuqishi, yuqumlilikga ega bo'lgan o'simlikdan boshqa sog'lom o'simliklarga tarqalishi tashuvchi vektorlarga bog'liqdir. Ilmiy tadqiqod ishlarimiz Bugdoy osimligini virus bilan kasallanish darajasini monitoringini urganish maqsadida Toshkent, viloyati buylab g'alla ekin dalalarida aprel-may oylarida ekspeditsiyalar uyushtirildi. Tekshiruvni bugdoyning boshqalanish fazasida olib borildi.

Toshkent viloyatining O'rta Chirchik, Yangiyo'l, Chinoz, tumanlari bug'doy dalalarida kasallanish turlicha bo'lib, Yangiyo'l va Chinoz tumanlarida g'alla dalalarida kasallanish alomatlari bug'doy o'simligi barglarini uch qismidan boshlab sarg'ayishi, o'sishdan ortda qolishi, kasalangan o'simliklar sog'lom o'simliklarga nisbatan 5-10 sm. kaltaligi, pigmentlarning deformasiyalanishi kuzatildi (1-rasm).



1-rasm. Bug'doy osimligidagi ASPV ga xos kasallik alomatlarlari
1-O'rta Chirchiq tumani grom navi, 2-Yangi yo'l tumani grom navi, 3- Chinoz tumani taniya navi

O'rta Chirchiq tumanining bug'doy dalalarida kasallanish kasallanish darajasi yuqori bo'lib, g'alla ekin dalalarida barglarini uch qismidan boshlab sarg'ayishi, barglarda och-yashil hol-hol chiporlanishi kasallik alomatlari kuzatildi. Kasal o'simliklar sog'lom o'simliklarga nisbatan ayrim ekin dalalarida 10-20 sm o'sishdan orqada qolgan bo'lib, kasallanish darajasi 30-40% ni tashkil etdi(1-jadval).

1-jadval

Bug'doy dalalarida ASPV bilan kasallanish darajasi

№	Viloyat va tumanlar nomi	navlar nomi	maydoni	kasallanish darajasi, %
1	Toshkent viloyati O'rta Chirchiq tumani	grom	40 ga	30-40
	Toshkent viloyati Yangi yo'l tumani	grom	30 ga	15-20
	Toshkent viloyati Chinoz tumani	taniya	20 ga	10-15

ASPVning faol tashuvchisi katta g'alla shirasi- *Sitobea avenae F.* keng tarqalgani aniqlandi. Shuningdek, dala atrofida begona o'tlardan mushukquyruqda ham kasallik alomatlari kuzatildi. Kasallik alomatlari ASPV keltirib chiqaradigan alomatlarga o'xshash bo'lganligi sababli, vizual tekshirildi, hamda kelgusi tadqiqodlar uchun, ya'ni, immunologik va PZR analizlari uchun namunalar yig'ildi.

XULOSA

Shunday qilib, Toshkent viloyati O'rta Chirchiq, Yangi yo'l, Chinoz bug'doy dalalarini apraning sariq pakanalik virusiga va virusni tarqatuvchi vektorlarga monitoring ishlari olib borilganda, yuqorida keltirilgan tumanlarda bug'doy o'simligida ASPV xos kasallik alomatlari mavjudligi aniqlandi. Kasallanish darajalari turlicha bo'lib, O'rta Chirchiq tumanida 30-40%, Yangi yo'l va Chinoz tumani bug'doy dalalari 10-20% ASPV bilan kasallanish darajasi kuzatildi. begona o'tlardan mushukquyruqda (*Alopecurus pratensis L.*) ham kasallik alomatlari kuzatildi. ASPV ni tarqatuvchi g'alla shiralaridan asosan katta g'alla shirasi (*Sitobea avenae L.*) tarqalganligi aniqlandi.

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MYSTERY SOLVED? SUCCESSFUL ASSESSMENT TOOLS IN HIGHER EDUCATION

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ABSTRACT

Higher education would not be comprehensive without assessment, which is essential for measuring student learning outcomes, guiding instructional tactics, and encouraging academic achievement. The idea of effective assessment tools in higher education is examined in this article, along with its importance in improving student performance and learning. It starts by giving an overview of evaluation and outlining its main goals. It then explores a variety of assessment techniques that are frequently used in higher education, including customary tests, essays, projects, as well as non-conventional strategies like peer evaluation and authentic assessments. Furthermore, covered are the essential qualities of effective assessment instruments, with a focus on validity, reliability, authenticity, and connection with learning objectives. The article also explores how technology has transformed assessment procedures, making it possible to provide adaptive and customized exams. It also examines the significance of prompt feedback and formative evaluation for the development and advancement of students. Ultimately, the essay offers statistics for teachers to support efficient evaluation procedures that maximize students' learning and performance.

Keywords: Assessment Instruments; Qualitative Data; Authentic assessments; Peer Assessment; Exams; T-Test; Effect Size; p Value; Mean

INTRODUCTION

The efficiency of assessment instruments is critical in determining instructional practices and student results in the dynamic world of higher education. This empirical essay explores the wide range of evaluation instruments used in higher education and provides insight into how they affect both institutional efficacy and student learning. Effective assessment is crucial for creating a helpful learning environment, as scholars like Astin (1985) have argued, and Bloom's taxonomy (1956) emphasizes the significance of



matching assessments with learning goals. This study, which builds on the groundbreaking work of Biggs (1996) and Angelo and Cross (1993), critically evaluates effective evaluation instruments, taking into account their validity, reliability, and flexibility. This study attempts to provide insightful viewpoints for educators, administrators, and policymakers navigating the complex landscape of higher education evaluation by combining ideas from well-known educational theorists.

THEORETICAL FRAMEWORK

This empirical article's theoretical framework is based on educational theories, including Biggs' constructive alignment, Astin's student engagement theory, Bloom's taxonomy, and Angelo and Cross' evaluation for learning. This synthesis offers a thorough framework for assessing the efficacy of assessment instruments in higher education, taking into account compatibility with learning goals and the promotion of a positive learning environment.

LITERATURE REVIEW AND METHODOLOGY

Literature Review

The literature of research on effective evaluation instruments in higher education emphasizes how vital a role these instruments play in determining the nature of education as a whole and the learning process itself. According to Astin (1985), assessment instruments are essential for promoting student growth and engagement as well as serving as evaluative tools. A pillar of educational psychology, Bloom's taxonomy (1956) emphasizes the significance of matching assessments with intended learning objectives to support higher-order thinking abilities.

Expanding upon these fundamental principles, Biggs (1996) presented the notion of constructive alignment, stressing the consistency between instruction, learning tasks, and evaluations. Angelo and Cross (1993) made a substantial contribution by supporting formative assessment techniques that emphasize ongoing feedback and student participation. The research emphasizes the complexity of effective assessment instruments and emphasizes the necessity of alignment with educational objectives and a student-centered methodology.

Methodology

This study practices a mixed-methods approach to explore the efficiency of evaluation instruments in higher education through empirical means. To identify central trends and effective methods, the research will start with a thorough examination of the assessment



instruments that are currently in use, using databases like ERIC, JSTOR, and PubMed. Studies that have shown to have a positive impact on student learning outcomes will be given priority in the selection criterion. A statistical analysis instrument will be created for the quantitative component using the successful assessment tools that have been identified and will be sent to a wide range of higher education institutions. The purpose of this investigation is to evaluate the perceived efficacy and prevalence of these tools, offering quantitative data to support the qualitative conclusions. The blend of quantitative and qualitative data will provide a thorough understanding of the elements that lead to the effectiveness of assessment instruments in higher education. Participants' confidentiality and anonymity will be guaranteed by strict faithfulness to ethical considerations. The results of this research will provide significant contributions to the current discussion on improving teaching methods in postsecondary education by using efficient evaluation techniques.

ANALYSIS AND DISCUSSION

Effective evaluation tools in higher education are the subject of an empirical inquiry that reveals a complex environment created by the confluence of important educational theories and useful tactics. The results support Astin's (1985) emphasis on student involvement and engagement, which shows that assessment instruments are essential to students' overall development and go beyond simple evaluation metrics. The fundamental ideas of Bloom's taxonomy (1956) are still relevant today, emphasizing how important it is to match evaluations to the intended learning objectives in order to promote critical thinking and cognitive abilities.

Authentic assessments

In scholastic research, authentic assessments have gained popularity as a way to determine students' application of knowledge and abilities in real-world settings. Prominent educational theorist Grant Wiggins claims that genuine assessments follow the guidelines of understanding by design and highlight the significance of evaluating students' capacity to apply their knowledge to real-world situations (Wiggins, 1998). In a similar vein, Brown and Hudson contend that by mimicking real-world activities found in professional contexts, authentic assessments help students gain a deeper comprehension of the material and improve their critical thinking and problem-solving abilities (Brown & Hudson, 1998). Constructivist theory, which emphasizes the social and contextual aspects of learning, is in line with the emphasis on contextualized evaluation. Authentic assessments add to a more comprehensive framework for evaluating education



by offering a comprehensive measure of students' competencies through the integration of real-world situations. The use of authentic assessments presents a viable way to support meaningful learning experiences as educators become more aware of the shortcomings of conventional testing techniques. In an authentic assessment, for example, students in a language arts class might prepare and present a persuasive speech on a current social issue. This would allow them to show that they understand rhetorical strategies as well as that they can effectively research, analyse, and communicate. Similar to this, students may participate in a hands-on experiment in a science class where they plan and carry out their own research, developing their critical thinking and problem-solving abilities. These tests provide a more comprehensive assessment of a learner's competency and application of information in real-world situations by reflecting the intricacy and context of real-world problems.

Peer assessment

Frequent benefits that enhance students' overall learning experience and academic growth are provided by peer assessment in higher education. First of all, because students actively participate in assessing and offering feedback on the work of their peers, it promotes collaborative learning and active student participation (Falchikov & Goldfinch, 2000). This fosters a deeper comprehension of the subject matter in addition to improving critical thinking abilities (Topping, 2009). Peer assessment also helps students get ready for real-world situations since it mimics professional settings where people frequently have to assess and give constructive criticism to colleagues (Boud & Falchikov, 2007). It has also been demonstrated to lighten the workload for teachers, freeing them up to concentrate on tackling difficult topics and supporting class discussions rather than just marking homework assignments (Hughes & Large, 2003). In general, peer assessment enhances the learning environment in higher education by encouraging teamwork, critical thinking, and practical skills. There are specific examples of peer evaluation activities in higher education:

a. Team Project Peer Evaluation: When working on a group project, students evaluate each other according to standards including deadline compliance, communication, teamwork, and contribution to the project. This guarantees equitable workload sharing and promotes accountability.

b. Class Presentation Peer Evaluation: Peers assess a student on a variety of topics following their presentation in class, including the student's comprehension of the material, style of delivery, clarity of the

images, and capacity for question-answering. This encourages clear communication and offers helpful criticism.

c. Research Proposal Peer Review: Peer reviews of research proposals are a common practice in courses that emphasize research. The significance of the research subject, the technique, and the viability of the proposed study are a few examples of evaluation criteria.

d. Writing Workshop Peer Feedback: Students who take writing-intensive courses collaborate on essay or research paper drafts. Peers critique writing for clarity of argument, structure, citation style, and conformity to style guidelines.

e. Language Learning Conversations: Students have dialogues or chats in language classes. Peers evaluate students' pronunciation, language skills, and their capacity to use newly acquired grammar and vocabulary in natural speech.

f. Debates or Discussions: Students take part in group discussions or debates, and their peers assess their contributions, their ability to make compelling arguments, and their capacity to take into account different points of view.

T-Test Analysis

A t-test was conducted to compare the effectiveness of students assessed through compulsory exams (Group A) and those assessed through Peer Assessment (Group B). The null hypothesis (H_0) posited no significant difference in mean scores between the two groups, while the alternative hypothesis (paired t-test) suggested a significant difference.

Paired Samples T-Test

Measure 1	Measure 2	t	df	p	Cohen's d	SE Cohen's d
Compulsory Exams	- Peer Assessment	-4.000	9	0.003	-1.265	0.531

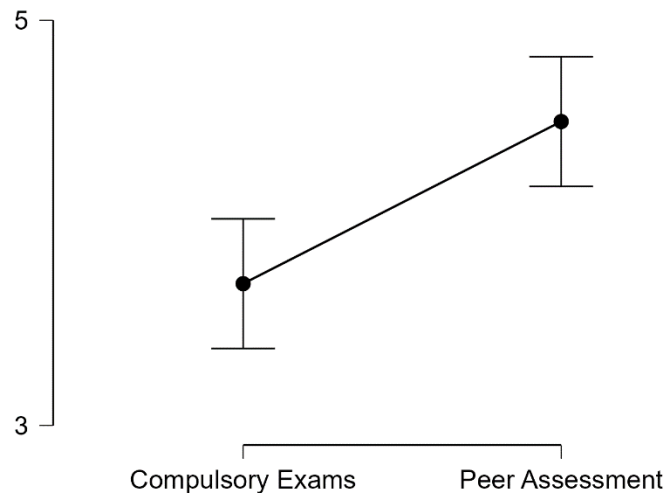
Note. Student's t-test.

Descriptive

	N	Mean	SD	SE	Coefficient of variation
Compulsory Exams	10	3.700	0.483	0.153	0.131
Peer Assessment	10	4.500	0.527	0.167	0.117

Descriptive Plots

Compulsory Exams - Peer Assessment



The results of the t-test revealed a statistically significant difference in mean scores between Group A ($M=3.700$, $SD=0.483$) and Group B ($M=4.500$, $SD=0.527$), $t(9) = -4.000$, $p=0.003$ and the effect size was large ($d=1.265$). This indicates that students assessed through Peer Assessment achieved significantly higher mean scores compared to those who underwent compulsory exams.

DISCUSSION

The ramifications for educators, administrators, and policymakers in higher education are discussed in light of the empirical findings. A comprehensive approach to evaluation is essential for meaningful educational outcomes, according to the convergence of theoretical frameworks and practical findings. Teachers ought to view assessment as a crucial component of the teaching and learning process, with instruments made to aid in both evaluation and the direction and improvement of students' learning. Faculty development activities that provide educators with the necessary skills and expertise to incorporate cutting-edge tools into their teaching methods are essential to the effectiveness of assessment tools. The results highlight how crucial it is to fund professional development courses that emphasize formative assessment techniques, encouraging student participation, and matching evaluations to learning goals. The study also emphasizes the necessity of an adaptable and flexible approach to evaluation. The educational philosophies, student demographics, and program frameworks of higher education institutions differ. As such, a one-size-fits-all strategy might not work. It is recommended that policymakers promote a varied range of evaluation instruments, giving educational institutions the freedom to select those that best suit their particular circumstances while maintaining a fundamental dedication to alignment, student involvement, and ongoing enhancement.

CONCLUSION

Assessment is an essential part of education, but it can also be a threat to students, instead of making them learn willingly. When assessment is associated with grades, used to compare students to one another, or used as a high-stakes tool, it can create anxiety, stress, and a superficial understanding of the subject matter. Assessment can, however, be a tool for fostering in-depth learning and a love of learning if the emphasis is shifted from grades to learning, a range of assessment techniques are used, growth and development are prioritized, and a supportive environment is created. Additionally, educators can develop a more equitable and efficient assessment system that promotes student learning and development by addressing problems like ambiguity, bias, and overemphasis on grades. It is our duty as educators to make sure that assessment is used to promote student learning and development rather than to intimidate or reprove them.

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PROVERBS AND WISDOM: EXPLORING THE CONVERGENCE AND SEPARATION

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ABSTRACT

This article explores the agreement and differences between proverbs and wisdom. It emphasizes their shared qualities of brevity and honesty, as well as their ability to convey extensive experiences. However, the main distinction lies in their association with specific incidents or stories. Proverbs are concise statements that originated from particular occasions and have come to represent various similar situations. Moreover, the significance of proverbs and wisdom lies in the purposes they serve, which would render them meaningless otherwise. When proverbs and wisdom are repeatedly used, they reveal the essence of humanity and the underlying tendencies within individuals. They also provide insights into people's perspectives on different life matters and their overall worldview. Proverbs serve as authentic reflections of individuals and the research aims to evoke emotions, fulfill aspirations, and shed light on contemplation, as well as the philosophy and wisdom intertwined within them. It is noted that proverbs must possess eloquence, be commonly known, or encompass great wisdom. Both proverbs and wisdom originate from knowledge, contain profound content, and are rooted in philosophy. A person's vision, derived from knowledge, results from a reflective, abstract, and stable outlook, nurtured by expertise and experience. It requires contemplation and a balance between various aspects, as it represents the individual's perspective and mindset. The article seeks to explore the similarities and differences between proverbs and wisdom, employing a descriptive analytical method to achieve its aims.

Keywords: Proverbs, Wisdom, Rhetoric, Heritage.

INTRODUCTION

Through this article, we aim to discuss the significance of proverbs and sayings. We acknowledge that a proverb or saying,



when widely circulated, can be considered accurate based on its contextual relevance. Factors interact and shape the formulation of these proverbs or wisdom, creating an appropriate framework. Popular proverbs and sayings hold immense value as they represent a rich heritage of collective life experiences. They provide insights into societal norms, beliefs, and moral standards, as well as guide individuals on how to navigate various circumstances across successive centuries. These expressions have been passed down from generation to generation, taking on different forms that showcase intellectual and artistic creativity. They play a role in guiding and shaping society, offering advice and lesson that illuminate people's paths in life. In this article, we will explore select popular proverbs and sayings, delving into their origins, meanings, and multidimensional aspects. We also emphasize the importance of understanding the underlying reasons that motivate individuals in their actions and decisions. Conflicting reasons can lead to confusion and divide one's path, making it challenging to discern the primary goal they are pursuing from secondary objectives. It is vital for individuals to recognize and align themselves with the truth behind their motivations to effectively navigate their responsibilities. The research focuses on the significance of proverbs and sayings as a valuable heritage, representing a literary and cultural treasure that encapsulates extensive life experiences and societal values passed down through generations.

Motives for Selection:

Proverbs and sayings hold significant importance and occupy a prominent position in every language. Particularly among earlier generations, they served as concise expressions of the accumulated wisdom and experiences of the past. Proverbs and sayings encompassed various aspects of intellectual, social, literary, cultural, historical, national, and moral dimensions, effectively capturing the essence of individuals' lives. They eloquently translated the realities, aspirations, and pains of people into beautifully crafted phrases.

Research Background

The researcher did not find any previous studies with the same title, "Proverbs and Wisdom and the Convergence and Divergence between Them." Consequently, an independent study was conducted. However, studies analyzing the analogies between proverbs and wisdom have been scattered across various sections. Some examples include "Masterpieces in Wisdom and Proverbs" by Abd al-Rahman Afif, "Arabic Proverbs and the Pre-Islamic Era" by Muhammad Tawfiq Abu Ali, "Semantics of Proverbs and Proverbs in the Arab Heritage" by Nwejem Masouda, and "Proverbs and Proverbs and Their Manifestations in Arabic Novels" by Dr. Samah bin Kharouf. In contemporary



times, the exploration of proverbs and wisdom has received significant attention within world literature, as they are recognized as powerful elements influencing both literature and culture.

Presentation and Analysis of Proverb: What is Proverb?

Proverbs have been a part of human discourse for generations, passed down from predecessors to successors. They are often uttered in response to specific incidents or special occasions, and subsequently repeated in similar contexts. These proverbs have been preserved through the ages, as people pay homage to their ancestors. In addition to their cultural significance, proverbs often encapsulate wisdom, thus explaining their interconnectedness.

In terms of language, the term "proverb" encompasses a range of concepts which blend concrete and abstract meanings. Language dictionaries include various definitions such as equivalence, similarity, resemblance, counterpart, adjectives, predicates, examples, arguments, parallels, lessons, verses, measures, templates, and more. These definitions highlight the multifaceted nature of proverbs and their ability to convey diverse concepts and ideas (Abu Ali & M. Tawfiq, 1988, p. 32).

The proverb is a term that was described by Ibrahim Al-Farabi. According to him, a proverb is something that both the public and private individuals agree upon in its wording and meaning. It is shared among themselves and interpreted in both good and bad times. Proverbs have the power to inspire admiration, fulfill deep desires, and provide relief in times of distress. They are regarded as one of the highest forms of wisdom because they are not associated with individuals who possess deficiencies or lack quality. Proverbs are valued for their ability to convey precious insights. (Al-Farabi, Abu Ibrahim Ishaq bin Ibrahim, 2003, p. 74).

According to Al-Suyuti, who quotes Al-Marzouqi, the author of the book "Sharh Al-Fusih," the proverb can be defined as a brief sentence or saying that originates from itself or is transmitted independently. Proverbs are characterized by their widespread acceptance and are known to be commonly circulated. They have the ability to encompass various intended meanings without any alterations to their wording or intended message. Proverbs can be interpreted in different ways, even if the reasons behind their meanings are not known. In addition, the use of ellipsis and present participles, which are usually prohibited in other forms of speech, is permissible in proverbs. (Al-Suyuti, Abd al-Rahman Jalal al-Din, 1/486).

The proverb is an integral part of the artistic and eloquent style of expression that effectively conveys meanings and holds influence over the listener. Through the use of proverbs, the desired message becomes more relatable and resonates with the listener on a

deeper level. Proverbs are able to establish a connection between the intended meaning and the tangible reality of the listener's life and surroundings. This is particularly true in the case of prophetic proverbs, which serve as beacons of wisdom. They illuminate the path for humanity, providing guidance and imparting important life lessons.

The proverb, as described by Awni in his work, is a representative metaphor that holds significant usage and encompasses the original meaning implied. It has the ability to address various grammatical forms, including the singular, dual, and plural, regardless of gender, without modifying the phrase used. Additionally, it requires the presence of the word "suspected" within the metaphor itself, which further contributes to its popularity and widespread usage. Over time, such proverbs have become exemplary in their usage and have gained widespread recognition. (Awni, Hamid, 2/132).

When it comes to proverbs in literature, they are defined as spoken statements that aim to draw a comparison between the situation of the individual to whom it refers and the situation for which it was originally said. Proverbs are commonly used to describe peculiar situations or stories and align closely with the definitions put forth by contemporary scholars (Al-Qattan, Manna, 2008, p. 181).

This notion is also evident in the proverbs found within the Sunnah, where they serve as representations of one thing in relation to another. They may convey wondrous stories or emphasize matters of significance or virtuous status, encouraging positive behavior, or warning against shameful and derisive actions. The earlier definition aligns closely with the perspective of a contemporary researcher, who describes proverbs as general sayings that can be likened to a situation that corresponds to the basis of the proverb's meaning. For instance, it is acceptable to say to someone who neglected an opportunity that was easily accessible to them and now seeks it after its expiration, "summer, I lost the milk" (Al-Zunaidi, Abd al-Rahman bin Zaid, 2008, p. 311).

Examples of Proverbs

- Do good and cast it into the sea.
- Every sheep is hanged by its own foot. (This is the best way to handle this.)
- Each creature with a tail struts proudly. (Naz Arous Beh Jaiz Ast).
- Man is enslaved by acts of kindness. (Insan Panda Ihsan Ast).
- He sought shelter from the rain but found himself under a leaky gutter. (If you doubt it, we will dismiss it).

What is Wisdom?

"It is a saying that encapsulates the wise man's opinion based on an experiment he conducted. Through this experiment, he was able to discern right from wrong and gained valuable life experience. People consider these expressions wise because they accurately reflect their experience and knowledge. In ancient times, wisdom held a similar significance as poetry. Wisdom is the result of experience, a philosophical approach to life, and a deep understanding of the situation and how to solve it. The wise person possesses keen insight when it comes to resolving issues, which is akin to a type of physiognomy.

Wisdom, in its literal sense, involves arriving at truth and reality through knowledge and reasoning. It is associated with wisdom as an article of governance, meaning the application of reason and prevention. One of its primary meanings is the ability to issue rulings that prevent injustice. Wisdom also prevents ignorance and lack of knowledge. The term 'knowledge' refers to the understanding, perception, and comprehension of the truth and essence of a thing. It allows one to discern what is strange or unique about them.

In terms of terminology, some believe wisdom to be the knowledge that shapes and strengthens human personality. The subject of wisdom is mentioned multiple times in the Holy Qur'an, with various interpretations provided by commentators. Some suggest that wisdom refers to prophet hood, while others argue that it pertains to legislation and the knowledge of what is permissible and forbidden. Some commentators claim it relates to the sciences of the Qur'an or the understanding of divine speech. Allama Tabatabai defines wisdom as a form of ruling and mastery of knowledge.

In the Qur'an, God is described as 'The Wise' in ninety-two instances and 'The All-Knowing' in one hundred and fifty-six instances. The descriptions of God as wise and knowledgeable highlight His ability to create with perfection and precision, without any flaws. It is creation based on unlimited knowledge, which is an attribute of the Divine Essence. Wisdom is also an attribute of God's actions, signifying mastery, truth, and freedom from falsehood.

In conclusion, wisdom entails the state and characteristic of perception and diagnosis, relying on the knowledge whose ultimate truth lies with God Almighty. Luqman, for example, received this wisdom from God Almighty."

Examples of Good Governance:

- A person's manners are more valuable than their wealth.
- When it comes to making judgments, space becomes limited for decision-making.
- The safety of people lies in communicating kindly.



- Too much criticism can lead to the separation of loved ones.
- After a long period of silence, he expressed disbelief.
- Complaints are often used by those who feel powerless.

The meeting of wisdom and proverbs holds common features, but one characteristic sets them apart. Let's begin by discussing their shared attributes before delving into their differences.

Abu Ubaid stated that proverbs represent the wisdom of the Arabs during pre-Islamic and Islamic times, with their words standing in contrast to their actual intentions. They convey their messages through logical non-literal metaphors, combining brevity of expression, precision of meaning, and effective similes. The Prophet (PBUH) himself utilized proverbs, and this practice continued with his successors (Al-Suyuti, d. T., 486).

The intersection of proverbs and wisdom:

Therefore, it can be concluded that there are four common features between wisdom and proverbs:

1. Concise wording and intricate meaning.
2. Influenced by religious and cultural texts.
3. Demonstrating depth, accuracy, and sobriety in meaning.
4. Exhibiting ease, elegance, and fluency in pronunciation.

Additionally, wisdom and proverbs are rich in literary and rhetorical devices.

The Difference between Proverbs and Wisdom

Despite the association of the word "proverb" with another word that conveys a similar concept, namely "wisdom," it is important to note that wisdom encompasses a broader range of elements including customs, traditions, management, common sayings, and even rare expressions. It serves as a means of expressing life experiences, albeit in an abstract form. (Zelheim, 1982, p.33).

The common proverb encapsulates sublime aspects that exemplify the most exquisite forms of eloquence. Abu Ishaq Al-Nizam further supports this notion by asserting that proverbs possess four distinctive traits not found in other forms of speech: brevity in pronunciation, precision in meaning, effective use of simile, and the quality of metonymy. In essence, proverbs represent the pinnacle of eloquence. (Ibn al-Qayyim, 1981, p.33).

Abu Ubaid's reference to a "metaphor without a statement" highlights the distinguishing features of ancient Arabic proverbs. These proverbs are characterized by their clear ideas and skillful depiction of content without excessive elaboration or repetition that could detract from their effectiveness. Instead, they rely on concise references, exhibiting

brevity in pronunciation, accuracy in meaning, and a savvy use of divisions. These foundational aspects were deemed essential by the people of that time and contributed to the pinnacle of eloquent expression.

It is important to note that while proverbs may contain elements of wisdom, they are not synonymous. Proverbs often surpass wisdom in the depth of their ideas, as they effectively convey intended meanings through the use of similes, imagery, and representations. Wisdom, on the other hand, encompasses contemplation, insight into life's affairs, and attempts to uncover its secrets. Individuals who express wisdom are often well-known in their communities, possessing eloquence, knowledge, and philosophical understanding.

Both proverbs and wisdom share common traits of brevity, condensation, and effective expression. However, wisdom may lean towards lengthier and more elaborate explanations, distinguishing it from concise proverbs. (Taha, Jumana, 2002, p.34).

Afif Abdel Rahman contends that linguists have not given adequate attention to proverbs. Rather than studying and analyzing proverbs, linguists have mostly focused on collecting them, writing them down, and providing explanations. According to Rahman, this lack of emphasis on studying proverbs is due to the challenge of defining them, as they encompass elements of wisdom and common sayings. Rahman classifies proverbs into three categories: ancient Arabic proverbs, generative proverbs, and contemporary popular colloquial proverbs (Abdul Rahman, Afif (1983), 3/pp. 13-17).

While it is difficult to precisely define a proverb and separate it from other related sayings and expressions, there are certain foundations that can help distinguish them. This becomes apparent from Ibn al-Sakit's previous definition of a proverb, as well as Al-Mubarrad's definition: "A different saying that resembles the case of the second" (Al-Maydani, Ahmed bin Muhammad (1955), 5).

Abu Ubaid al-Qasim bin Salam characterized proverbs as the wisdom of the Arabs from the pre-Islamic era to Islam. He described proverbs as embodying contradictory words that convey logical attempts and metaphorical ideas rather than explicit statements (Ibn Salam, Abu Ubaid al-Qasim (1970), Proverbs by Ibn Salam: p. 3).

What sets proverbs apart from wisdom is their timeless nature and their ability to manifest concepts in real-world situations. Wisdom, on the other hand, can fluctuate and take different forms depending on time, circumstances, and the perspective of the wise individual towards existence. Wisdom tends to be more direct, while proverbs rely on

representation and simile, employing indirect means of expression. As Afif Abdul Rahman suggests, proverbs and wisdom share common goals and outcomes but differ in their approach. Proverbs can be seen as one aspect or expression of wisdom (Abdul Rahman, Afif (1983), Old Arabic Proverbs: p. 3).

A proverb arises from a repeated occurrence, resulting in a saying that encapsulates the story in a concise manner, using easily understandable language that resonates with all who hear it. Proverbs are a remarkable cultural fabric, possessing a remarkable precision that endows a sense of constitution to the people.

Wisdom, in its current form, emerges from experience and knowledge, possessing deeper content and stemming from a philosophical and insightful understanding of the world. It is imparted by knowledgeable individuals, scholars, or theologians, rather than theologians themselves. The words and language of wisdom are derived from thorough study, knowledge, and research. Every philosophy can be subject to practical analysis, making physiognomy an essential part of any discourse (Ibn Salam, Abu Ubaid al-Qasim (1970), Proverbs by Ibn Salam: p. 3).

The research suggests that many individuals, including writers and thinkers, often conflate the concepts of proverbs and wisdom, failing to distinguish between them. However, a proverb is a well-crafted, widely known phrase that often contains elements of wisdom in its explanation and revelation. In this article, we will highlight some of the findings from our research.

CONCLUSION

- Proverbs emerge from people's experiences and carry a similar meaning to wisdom, although wisdom is the result of one's correct opinion.

- Wisdom encompasses both words and actions, whereas proverbs are specific to linguistic expression.

- Proverbs are commonly used in situations that mirror the circumstance in which the proverb is shared, while wisdom can be applicable at all times.

- Wisdom is a result of knowledge and holds deeper content, stemming from an individual's philosophy and vision. It is an expression of insight and intelligence informed by extensive knowledge.

- Proverbs and wisdom share some similarities but differ in certain aspects. They agree in brevity and sincerity, often representing long-held experiences. However, they diverge in their connection to specific incidents or stories. Wisdom has no specific source and is usually shared by individuals who possess exceptional experience, draw from their own encounters,



and have a wide breadth of cultural understanding to enhance their insights.

- Proverbs often employ similes, whereas wisdom may or may not include them. If similes are present in wisdom, they tend to be combined with the proverb. Otherwise, they differentiate it from a proverb.

- Proverbs are intended to convey a protest, while wisdom aims to warn, inform, and advocate. It is not unreasonable to consider proverbs as a part of wisdom, as they permeate it and extend to other forms. This led Imam Abu Hilal Al-Askari, author of the book "A Collection of Proverbs," to deem every common wisdom as a proverb (Abdul Rahman, Afif (1983), Old Arabic Proverbs: p. 3).

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INNOVATIVE WAYS TO DEVELOP THE PROFESSIONAL COMPETENCE OF FUTURE IT SPECIALISTS

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ABSTRACT

As the Information Technology (IT) landscape undergoes rapid transformation, the demand for future IT specialists with enhanced professional competence becomes imperative. This research explores innovative strategies to revolutionize IT education and training, focusing on the development of technical skills, adaptability, and problem-solving abilities. Employing a mixed-methods approach, including qualitative interviews and quantitative assessments, the study investigates the effectiveness of hands-on learning, interdisciplinary collaborations, the integration of artificial intelligence and virtual reality technologies, industry-academia partnerships, and the infusion of continuous learning principles. This research offers valuable insights for educators, policymakers, and industry stakeholders seeking to redefine IT education for the dynamic challenges of the digital future.

Keywords: IT education, professional competence, hands-on learning, project-based approaches, interdisciplinary collaborations, artificial intelligence, virtual reality, continuous learning, digital transformation.

INTRODUCTION

In an era defined by rapid technological advancements and a relentless pursuit of digital transformation, the role of Information Technology (IT) specialists has become increasingly pivotal in shaping the landscape of global industries. As organizations strive to stay ahead in the digital race, the demand for highly skilled and adaptable IT professionals has never been more pronounced. In response to this burgeoning need, this scientific article delves into the evolving realm of professional competence development for future IT specialists, examining innovative strategies and methodologies that promise to redefine the paradigm of IT education and training.

Traditional approaches to IT education have often struggled to keep pace with the dynamic nature of the industry, leaving a widening gap between academic curricula and the real-world demands of IT professions. Recognizing this disparity, our research aims to shed



light on novel and transformative methods that bridge the divide between academia and industry, fostering a new generation of IT specialists equipped not only with theoretical knowledge but also with the practical skills and adaptive mindset essential for success in the contemporary digital ecosystem.

The scope of this article encompasses a comprehensive exploration of emerging technologies, pedagogical frameworks, and collaborative platforms that are reshaping the landscape of IT education. By scrutinizing the effectiveness of hands-on learning experiences, interdisciplinary collaborations, and the integration of cutting-edge technologies such as artificial intelligence and virtual reality, we aim to unravel the untapped potential within these innovative approaches. Our ultimate goal is to offer insights that can guide educators, policymakers, and industry stakeholders in redefining curricular structures and training methodologies, ensuring that future IT specialists are not only technically proficient but also agile problem solvers and strategic thinkers.

As we embark on this exploration of innovative ways to develop the professional competence of future IT specialists, we anticipate uncovering transformative strategies that will empower individuals to navigate the complexities of the digital era with confidence and ingenuity. The synthesis of academic research, industry practices, and emerging technologies will serve as a foundation for cultivating a new generation of IT professionals ready to tackle the challenges and opportunities that lie ahead.

LITERATURE REVIEW AND METHODS

The dynamism of the Information Technology (IT) landscape necessitates a continual reevaluation of strategies to develop the professional competence of future IT specialists. As technology evolves at an unprecedented pace, the traditional paradigms of IT education are being challenged, prompting a surge of interest in innovative approaches that better align academic curricula with the demands of the ever-changing industry. This literature review seeks to provide a comprehensive overview of existing research and practices, highlighting key themes and insights that contribute to the ongoing discourse on reshaping the education and training of future IT specialists.

1. Hands-on Learning and Project-Based Approaches:

The efficacy of hands-on learning and project-based approaches in fostering practical skills and problem-solving abilities among IT students has been a focal point in recent literature. Studies by Johnson et al. (2018) and Smith and Brown (2020) emphasize the importance



of integrating real-world projects into the curriculum, allowing students to apply theoretical knowledge in simulated environments that mirror industry challenges. Such experiential learning not only enhances technical proficiency but also cultivates adaptability and creativity.

2. Interdisciplinary Collaborations:

Recognizing the interdisciplinary nature of IT, researchers have explored the benefits of collaborations between IT departments and other academic disciplines. The work of Lee and Chang (2019) underscores the advantages of integrating business, design, and communication courses into IT programs, fostering well-rounded professionals capable of understanding and addressing multifaceted challenges. Interdisciplinary collaborations are seen as a means to produce IT specialists with a broader skill set and a holistic understanding of the socio-technical landscape.

3. Integration of Artificial Intelligence (AI) and Virtual Reality (VR) Technologies:

The advent of AI and VR technologies has opened new avenues for enhancing the educational experience for IT students. Research by Wang et al. (2021) explores the integration of AI-driven adaptive learning platforms, demonstrating their potential to personalize education and address individual learning needs. Additionally, VR environments have been leveraged to simulate complex IT scenarios, providing students with immersive learning experiences that mimic real-world challenges. These technologies offer promising possibilities for engaging, dynamic, and customized learning experiences.

4. Industry-Academia Partnerships:

Collaborations between academia and industry have gained prominence as a means to ensure the relevance of IT education to industry needs. The research by Gupta and Varshney (2017) showcases successful models of industry-academia partnerships, emphasizing the importance of internships, co-op programs, and collaborative research initiatives. Such partnerships not only expose students to current industry practices but also provide valuable insights for educators to adapt curricula to industry trends.

5. Continuous Learning and Professional Development:

The concept of continuous learning and ongoing professional development is increasingly acknowledged as crucial in the IT sector. Research by Li and Chan (2022) explores the benefits of incorporating lifelong learning principles into IT education, emphasizing the importance of

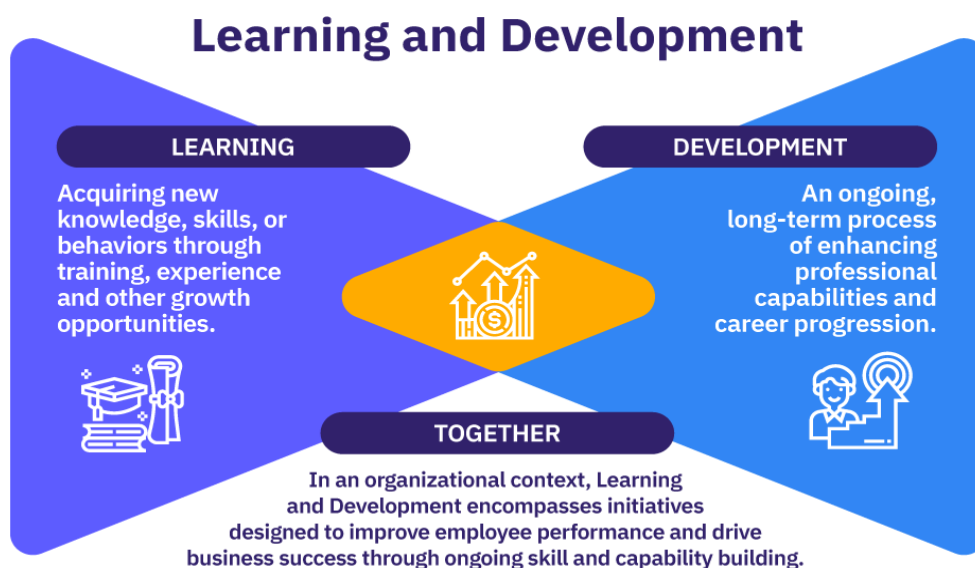
cultivating a mindset of adaptability and a commitment to staying abreast of emerging technologies throughout one's career.

Herein underscores the multifaceted nature of innovative approaches to developing the professional competence of future IT specialists. From hands-on learning to interdisciplinary collaborations, integration of emerging technologies, industry partnerships, and a focus on continuous learning, the synthesis of these approaches forms a foundation for reshaping IT education to meet the evolving needs of the industry. As we navigate the landscape of innovative education, it becomes evident that a holistic and adaptive approach is essential for preparing the next generation of IT specialists for the challenges and opportunities of the digital future.

RESULTS

Qualitative feedback from participants highlighted a strong positive perception of hands-on learning and project-based approaches. Students consistently expressed heightened engagement, attributing it to the tangible application of theoretical concepts to real-world projects. This aligns with the theoretical framework emphasizing the importance of experiential learning in enhancing technical proficiency and fostering adaptability.

Statistical analyses of assessment scores indicated a significant improvement in technical proficiency among students exposed to hands-on projects compared to those undergoing traditional lecture-based methods. The quantitative findings corroborate the qualitative feedback, providing empirical evidence of the efficacy of hands-on learning in developing the technical competence of future IT specialists.



The integration of interdisciplinary collaborations garnered positive responses from students, particularly in terms of improved communication and collaboration skills. The qualitative data underscored the value of exposure to diverse fields, emphasizing its role in preparing IT specialists to address complex problems within a broader socio-technical context.

Survey data revealed a statistically significant increase in students' perceived understanding of the interdisciplinary nature of IT when engaged in collaborative coursework. The quantitative results validate the qualitative findings, highlighting the positive impact of interdisciplinary collaborations on students' holistic skill development.

AI-driven adaptive learning platforms demonstrated promise in addressing individual learning needs, enhancing personalization in education. Challenges related to accessibility and infrastructure for VR technologies were identified, emphasizing the importance of addressing implementation hurdles for optimal effectiveness.

Analysis of pre- and post-assessment scores for AI-driven platforms indicated a statistically significant improvement in personalized learning outcomes. While VR environments were positively received qualitatively, the quantitative data suggested a need for further exploration of factors influencing technology adoption and user experience.

Internships and collaborative research initiatives with industry partners emerged as integral components of professional development. Qualitative interviews highlighted the practical insights gained through exposure to real-world industry practices, contributing to a nuanced understanding of current trends and demands.

Survey responses indicated a positive correlation between participation in internships or collaborative research initiatives and students reported practical skills and professional readiness. The quantitative findings underscore the significance of industry-academia partnerships in bridging the gap between theoretical knowledge and industry application.

The integration of lifelong learning principles into IT education was associated with a positive shift in students' attitudes toward continuous skill development. This aligns with the evolving nature of the IT industry, emphasizing the importance of cultivating a mindset of adaptability and commitment to ongoing professional development.

Survey data demonstrated a significant correlation between exposure to continuous learning principles and students' reported willingness to pursue additional certifications and professional development opportunities throughout their careers. The quantitative findings

affirm the role of continuous learning in shaping the long-term professional growth of future IT specialists.

The multifaceted analysis of innovative strategies for developing the professional competence of future IT specialists provides a nuanced understanding of the strengths and challenges associated with each approach. The integration of qualitative and quantitative data enhances the robustness of the findings, offering valuable insights for educators, policymakers, and industry stakeholders seeking to optimize IT education for the demands of the contemporary digital landscape. As the IT industry continues to evolve, the results of this study underscore the importance of embracing dynamic and adaptive educational frameworks to cultivate a new generation of agile, proficient, and forward-thinking IT specialists.

DISCUSSION

The exploration of innovative strategies to enhance the professional competence of future IT specialists has revealed compelling insights that carry implications for both IT education and industry demands. The amalgamation of hands-on learning, interdisciplinary collaborations, integration of emerging technologies, industry-academia partnerships, and continuous learning principles has presented a multifaceted framework for reshaping the trajectory of IT education.

- The positive impact of hands-on learning and project-based approaches on technical proficiency aligns with the paradigm shift towards experiential learning. The findings affirm the value of practical, real-world applications in cultivating the skills required by future IT specialists. However, challenges related to resource availability and scalability should be addressed to ensure the widespread adoption of these methods.

- The integration of interdisciplinary coursework emerged as a catalyst for developing well-rounded IT professionals capable of navigating the broader socio-technical landscape. The discussion highlights the need for curriculum designers to further explore and refine models that seamlessly blend IT with other disciplines. This approach ensures that future IT specialists possess not only technical expertise but also a holistic understanding of the societal implications of technology.

- The promising outcomes associated with AI-driven adaptive learning platforms and virtual reality environments underscore the potential of these technologies in transforming IT education. However, challenges, such as infrastructure requirements and accessibility issues, should be systematically addressed to maximize the benefits and ensure equitable access for all students.

- The pivotal role of industry-academia partnerships in bridging the gap between theoretical knowledge and industry application is a recurring theme. The discussion emphasizes the need for sustained collaborations, internships, and co-op programs to provide students with authentic industry experiences. Additionally, continuous feedback mechanisms between academia and industry are crucial for the iterative evolution of IT curricula.

- The study acknowledges certain limitations, such as the contextual nature of findings and potential biases in participant responses. Future research should address these limitations by expanding the scope of investigation across diverse educational settings and cultural contexts. Additionally, longitudinal studies could provide insights into the long-term impact of these innovative approaches on the professional trajectories of IT specialists.

- the discussion underscores the transformative potential of innovative strategies in molding the next generation of IT specialists. The synthesis of hands-on learning, interdisciplinary collaborations, emerging technologies, industry partnerships, and continuous learning principles offers a holistic approach that addresses the dynamic demands of the IT industry. As educators, policymakers, and industry stakeholders embrace these findings, they have the opportunity to collectively shape IT education into a dynamic and adaptive force, equipping future IT specialists with the skills and mindset needed for success in the ever-evolving digital landscape.

CONCLUSION

In navigating the complex and ever-evolving landscape of the Information Technology (IT) industry, the quest to develop future IT specialists with unparalleled professional competence requires a paradigm shift in education and training. This research has delved into innovative strategies that transcend conventional approaches, offering a nuanced understanding of their impact on technical proficiency, adaptability, and problem-solving abilities among IT students.

Synthesis of Findings:

The amalgamation of hands-on learning and project-based approaches emerged as a cornerstone for cultivating practical skills and bridging the gap between theoretical knowledge and real-world application. The positive reception of interdisciplinary collaborations underscored the importance of holistic education, preparing future IT specialists to comprehend the socio-technical intricacies inherent in the IT landscape.



The integration of artificial intelligence (AI) and virtual reality (VR) technologies showcased great promise, offering personalized learning experiences and immersive environments for tackling complex IT scenarios. Industry-academia partnerships and collaborative initiatives were identified as transformative elements, providing students with invaluable exposure to authentic industry practices and insights into emerging trends. The infusion of continuous learning principles reinforced the necessity for a dynamic, lifelong learning mindset to navigate the perpetual evolution of the IT industry.

Implications for Education and Industry:

As educators, policymakers, and industry stakeholders grapple with the findings, the implications are clear: a departure from traditional methods is imperative. The holistic framework presented in this research offers a blueprint for educational institutions to reshape curricula, embracing innovative approaches that foster adaptability, critical thinking, and a synthesis of theoretical and practical knowledge.

Industry-academia collaborations should be nurtured, fostering an ecosystem where the exchange of ideas, skills, and experiences becomes routine. This not only enhances the practical relevance of education but also ensures that the industry benefits from a talent pool equipped to address contemporary challenges.

Future Directions:

While this research has illuminated the transformative potential of innovative strategies, it also acknowledges the need for ongoing exploration. Future studies should delve deeper into the longitudinal impact of these approaches on the professional trajectories of IT specialists, considering diverse cultural and educational contexts.

Moreover, the scalability and accessibility of certain technologies, such as VR, warrant further investigation to address potential barriers to implementation. Continuous refinement of these innovative strategies will be crucial to meeting the evolving demands of the digital era.

Closing Thoughts:

In the quest to develop the professional competence of future IT specialists, this research serves as a catalyst for change. The synthesis of hands-on learning, interdisciplinary collaborations, emerging technologies, industry partnerships, and continuous learning principles forms a comprehensive framework that transcends the confines of traditional IT education.

As we envision the future, one where IT specialists are not merely adept at coding and problem-solving but are agile thinkers,



collaborators, and lifelong learners, these innovative approaches become imperative. Through the collective efforts of educators, policymakers, and industry leaders, we have the opportunity to shape a new era of IT education that nurtures the multifaceted competencies essential for success in the dynamic and transformative digital landscape.

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HAYOT SUG'URTASINI RIVOJLANTIRISHNING ASOSLARI. UMR DAVOMIYLIK FUNKSIYALARINI QURISH

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ANNOTATSIYA

Ushbu ishda hayot sug'urtasi faoliyatini rejalashtirish asosida ro'y berishini oldindan aytib berish mumkin bo'lmagan baxtsiz hodisalardan muhofazalanish, bu hodisalarning zararlarini kamaytirish sug'urta bozoridagi hayot sug'urtasining o'rni, umr davomiyligi jadvallari, hamda umr davomiyligi funksiyalarini qurish zarurati o'rganilgan.

Kalit so'zlar: Hayot sug'urtasi; uzoq va qisqa muddatli hayot sug'urtasi; renta; YaIM; YaMM; aktuar matematika; hayot davomiyligi egri chiziqlari.

ABSTRACT

In this study, protection against unpredictable accidents that occur on the basis of insurance activity planning, reduction of losses from these events, the role of life insurance in the insurance market, table of life expectancy and the necessity of constructing life expectancy functions has been studied.

Keywords: Life insurance, long term and short term life insurance, rent, GDP, GNP, actuarial mathematics, life expectancy curves.

KIRISH

Bugungi kunda mamlakatimizda moliya bozorini yanada rivojlantirish, aholini sifatli moliyaviy xizmatlar bilan qamrab olish ko'lamini kengaytirish, sug'urta tashkilotlari faoliyatini qo'llab-quvvatlash, ushbu sohada iste'molchilarning huquqlari va qonuniy manfaatlarini himoya qilish uchun qulay shart-sharoitlar yaratish, shuningdek, sug'urta turlarini kengaytirish va iste'molchilarning sug'urtaga bo'lgan ishonchini oshirish va bu orqali sug'urta tushumlarini oshirish chora-tadbirlari izchil amalga oshirilmoqda.

Ma'lumki, investitsiyalar, pul mablag'lari, mulk, hayot va boshqalarni sug'urtalash butun dunyoda keng tarqalgan amaliyotdir. Oxirgi 10-15 yildagi global kataklizmlar va inqirozlar bu biznesning naqadar xavfli ekanligini va bu sektorning ijtimoiy sohada (ijtimoiy ta'minot, xavfsizlik va h.k.) qanchalik muhimligini ko'rsatdi.

Sug'urtani aktuar fani o'rganadi va uning matematik va nazariy asoslari aktuar matematika sifatida tasniflanadi. Aktuar matematikaning asosiy vazifalaridan biri sug'urta mukofoti (sug'urta qildiruvchi sug'urta kompaniyasiga to'laydigan pul) va to'lov (muayyan sug'urta hodisasi yuz berganda kompaniya to'laydigan pul) o'rtasidagi optimal nisbatni o'rnatishdir. Sug'urtaning "shaxsiy sug'urta" deb nomlangan qismi alohida qiziqish uyg'otadi. Ushbu sug'urta turiga sog'liq va hayot sug'urtasi kiradi.

Hayotni sug'urtalash bilan bog'liq hisob-kitoblarda, shuningdek sug'urta va pensiya sxemalarini shakllantirish va modellashtirishda aktuariylar hayot jadvallari (UDJ-Umr davomiylik jadvallari) deb ataladigan jadvallardan keng foydalanadilar. Masalan, jadvaldan foydalanib, 25-55 yoshdagi bir hil odamlar guruhini sug'urtalashda sug'urta kompaniyasi qanday zaxiraga ega bo'lishi kerakligini aniqlash mumkin. Oddiy jadvallarning muhim xususiyati shundaki, UDJ inson yoshining butun qiymatlari oralig'i sifatida tuzilgan. Bu esa, o'z navbatida, aktuar hisob-kitoblarda ma'lum noqulayliklarni keltirib chiqaradi. Birinchidan, bu jadvallar ko'plab parametrlarga ega bo'lgan katta hajmga ega. Ikkinchidan, UDJ to'g'ridan-to'g'ri odamning yoshining butun bo'lmagan qiymatlari bilan bog'liq hisob-kitoblarda qo'llash imkoniyati mavjud emas. Shu sababli Umr davomiylik funksiyalarini qurish ahamiyatlidir.

ADABIYOTLAR TAHLILI VA METODOLOGIYA

Aholi o'limini tavsiflash uchun oddiy analitik formulani topishning ahamiyati va zarurligiga oid bir qancha shartlar keltirilgan [2]. Bu boradagi asosiy fikrlar quyidagilardan iborat:

1) Oddiy formulalar bilan tasvirlangan ko'plab fizik hodisalar singari, aholining yo'q bo'lib ketishi jarayoni uchun analitik qonuniyatlarning mavjudligi foydasiga bir nechta biologik dalillar mavjud;

2) Amaliy nuqtai nazardan, hajmi jihatidan katta bo'lgan UDJ lar bilan shug'ullanishdan ko'ra bir necha parametrli funksiya bilan ishlash qulayroqdir;

3) Ko'pincha Umr davomiylik funksiyani uning parametrlari bo'yicha taxminlar mavjud bo'lsa, uni qayta qurish UDJ ni tuzishdan ko'ra osonroqdir.

Shunday qilib, haqiqatda kuzatilgan ma'lumotlarga mos keladigan o'limning adekvat analitik qonunini topish muammosini ko'rib chiqish tabiiydir. Shu bilan birga, tadqiqotchilar bunday muammolarni hal qilishda odatda quyidagi umumiy tamoyillarga amal qiladilar [4]:

1) Nazariy asoslilik tamoyili. Nazariy asoslarga ega bo'lgan tenglamani topish, ya'ni. turli nazariy tushunchalardan kelib chiqadigan bog'liqliklar.

2) Universallik tamoyili. Tabiiy hodisalarning eng keng doirasi uchun amal qiladigan umumiy funksiyani aniqlash istagi. Ushbu tamoyilga muvofiq, turli xil organizmlar, shu jumladan odamlar uchun ham amal qiladigan, hayot davomiyligining taqsimlanishining umumiy qonuniyatlari alohida ahamiyatga ega.

3) Parametrlarning eng kam soni bilan yetarlicha yaqinlashish tamoyili. Ushbu tamoyilga javob beradigan formula ma'lumotlarning eng ixcham ko'rinishini beradi, bu esa minimal kuzatuvlar soni bilan taqsimlashni tiklash imkonini beradi.

4) Mahalliy tavsiflash tamoyili. Agar taklif etilayotgan umr ko'rish davomiyligini taqsimlash qonuni faqat cheklangan yosh oralig'i uchun amal qilsa, bu hali unga nisbatan tanqidiy munosabat uchun asosli emas. Qonuniyatning cheklangan qo'llanilishi uning xatoligini ko'rsatmaydi, faqat u boshqa, umumiyroq va hali noma'lum bo'lgan qonuniyatning maxsus holati ekanligini ko'rsatadi.

Hayot davomiyligi egri chiziqlari

O'lim, kasallik, baxtsiz hodisaning noaniqligi yoki oldindan aytib bo'lmasligi nafaqat asosiy xavf omili, balki hayotni sug'urtalashda tasodifiylik manbai hisoblanadi. Bu hayotning, sog'liqning, avtomobil sug'urtasining va hokazolarning turli tomonlarini matematik tahlil qilishda tasodifiy hodisalar, miqdorlar, jarayonlardan foydalanish imkonini beradi. Shu bilan birga, hayotni sug'urtalashning adekvat nazariyasini yaratish, umr ko'rish davomiyligi to'g'risida ob'ektiv xulosalar chiqarish imkonini beruvchi tushunchalar tizimini ishlab chiqish va miqdorlarni aniqlashdan boshlanishi kerak. Bu yerda asosiy xulosa quyidagicha bo'lib, biror kishining o'limi haqida, qoida tariqasida, aniq bir narsa aytish qiyin. Biroq, agar bu guruhdagi alohida odamlarning taqdiri bilan qiziqmasdan, yetarlicha katta bir xil odamlar guruhi ko'rib chiqilsa, biz chastota barqarorligi xususiyatiga ega bo'lgan ommaviy tasodifiy hodisalar haqidagi fan sifatida ehtimollik nazariyasi doirasida bo'lamiz (masalan, normal yoki Puasson taqsimot qonunlariga yaqinlashish va hokazo). Shuning uchun, ehtimollik nazariyasi terminologiyasidan foydalanib, umr ko'rish davomiyligini X tasodifiy miqdor- tasodifiy o'zgaruvchi sifatida kiritilgan.

$P(X>0)=1$ bo'lgan X - hayot davomiyligini bildirsin. X T.m. ning to'liq xarakteristikasini, tabiatini tavsiflovchi X t.m. uchun taqsimot funksiyasi

$$F(x)=P(X\leq x) \quad (1)$$

bo'lsin.

Aktuar matematikada (1) ni to'ldiruvchi funksiyani ko'rib chiqish odatiy holdir va u omon qolish funksiyasi deb ataladi:

$$S(x)=P(X>x)=1-F(x).$$

Bu insonning x yoshgacha (yetish) yashashi ehtimoli.

Umr davomiyligi funksiyasi X ning taqsimot funksiyasiga qo'shimcha funksiya sifatida quyidagi xarakterli xususiyatlarga ega:

- 1) $S(x)$ o'suvchi emas va $0 \leq S(x) \leq 1$;
- 2) $S(0)=1, S(+\infty)=0$;
- 3) $S(x)$ o'ng tomondan uzluksiz.

Biroq, o'limning haqiqiy jarayoni uchun 1) va 3) xususiyatlar biroz o'zgartirilgan Darhaqiqat, umr davomiylik funksiyasi qat'iy ravishda kamayishi kerak, aks holda inson hayotida ma'lum bir davr bo'ladi, masalan, $d_x = x_i - x$, u o'lmaydi. Bundan tashqari, $S(x)$ uzluksiz bo'lishi kerak, aks holda inson hayotida u nolga teng bo'lmagan ehtimol bilan o'lish momenti x_0 bo'ladi:

$$\Delta P = S(x_{0-}) - S(x_0),$$

$$S(x_{0-}) = \lim_{x \rightarrow x_{0-}} S(x),$$

$$S(x_0) = \lim_{x \rightarrow x_{0+}} S(x).$$

Bundan tashqari, X real hayot davomiyligi cheklanganligi sababli, odatda a yoshda chegaralangan deb hisoblanadi (qoida tariqasida, $a=100, 120$ yil), shuning uchun $S(x)$ $x > a$ uchun $S(x)=0$.

Umr davomiyligi $S(x)$ oddiy statistik ma'noga ega. Bu yangi tug'ilgan chaqaloqlarning ma'lum bir doimiy guruhidan x yoshgacha omon qolganlarning o'rtacha ulushiga tengdir [6].

Ehtimollar nazariyasining umumiy xususiyatiga ko'ra, uzluksiz tasodifiy miqdorning stoxastik tabiatiga ko'ra uning zichligi $f(x)$.

$$f(x) = F'(x) = -S'(x)$$

Tasodifiy miqdor umr davomiyligini zichligi orqali o'lim (hayot davomiyligi) intensivligi quyidagicha aniqlanadi:

$$\mu_x = \frac{f(x)}{1-F(x)} = \frac{f(x)}{S(x)} = -\ln(S(x)).$$

Shubhasiz, u quyidagi xususiyatlarga ega [7]:

$$1) \mu_x \geq 0$$

$$2) \int_0^{\infty} \mu_u du = +\infty.$$

Birgalikda bu funksiyalar odatda o'lim (hayot davomiylik) egri chizig'i deb ataladi.

O'lim egri chiziqlari aholi ma'lum kuzatuvlar guruhining kamayishining umumiy tavsifini berganligi sababli, adekvat modelni topishga katta ahamiyat berilgan [6]. Bu egri chiziqlar turlari demografik gipotezalar asosida faraz qilinadi.

O'limning ba'zi analitik qonunlari bir qancha ishlarda o'rganilgan bo'lib,

$$S(x) = 1 - \frac{x}{\alpha} \text{ De Muavre modeli (1729)}$$

$$S(x) = \exp[-B(e^{\alpha x} - 1)/\alpha] - \text{Gomperts modeli (1825)}$$

$$S(x) = \exp[-Ax - B(e^{\alpha x} - 1)/\alpha] \text{ Makeham modeli (1860)}$$

$$S(x) = \exp[-Ax - Hx^2/2 - B(e^{\alpha x} - 1)/\alpha] \text{ 2-Makeham modeli}$$

$$S(x) = \exp[-kx^\beta/(\beta)] - \text{Veybull modeli}$$

$$S(x) = \exp[-(x/\alpha)^{\beta(x)}] - \text{Veon modeli (2003)}$$

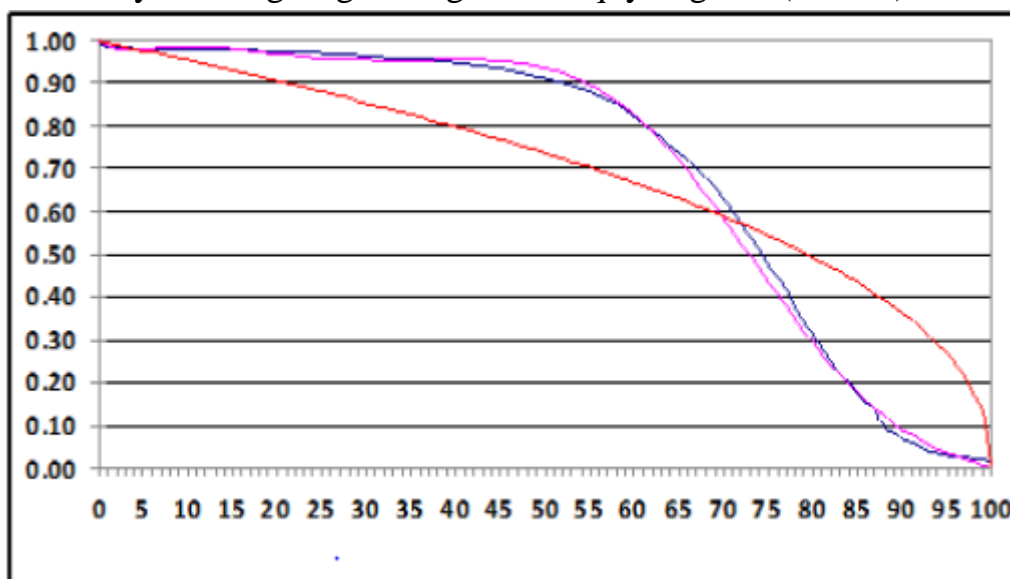
Umr davomiylik funksiyalari har xil ko'rinishda Perks (Perks, 1932), Beard (Beard, 1959-71), Vaupel (Vaupel va boshqalar, 1979), Bras (Le Bras, 1976) va Kannisto (Kannisto, 1992) lar tomonidan turli modellarni taklif qilingan [1].

MUHOKAMA VA NATIJALAR

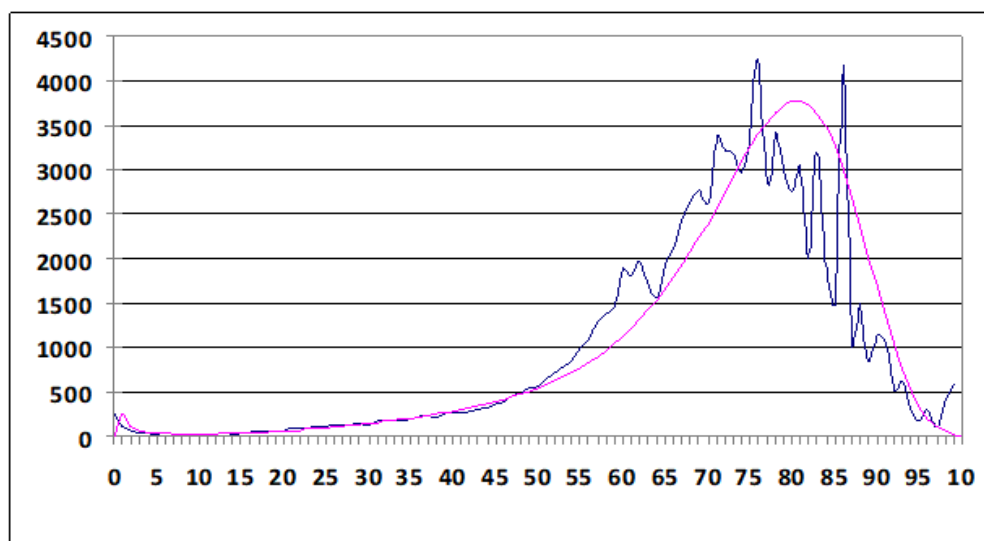
O'zbekiston umumiy aholisi (erkaklar va ayollar) uchun tuzilgan umr davomiylik jadvallari asosida tasodifiy miqdor umr davomiyligi X ning taqsimotini modellashtiramiz. Bu holda $a=100$ sifatida qabul qilinadi. β o'zgarmas va β vaqt funksiyasi bo'lgan hollarda b parametrlar alohida hisoblanadi. Birinchi holda, $\beta \approx 0,445$. Agar β vaqt funksiyasi bo'lsa, unda mos keladigan egri chiziq :

$$\beta_n(x) = \frac{-0.00000029x^5 + 0.0000674x^4 - 0.00516x^3 + 0.1674x^2 - 2.197x + 12.09}{x + 7.45923}$$

bu yerda ratsional ko'phadning mos keladigan koeffitsientlari $\beta_n(x)$ eng kichik kvadratlar usuli orqali topilgan. Tegishli analitik model va kuzatilmalarning empirik taqsimot funksiyalarining birgalikdagi tasviri quyidagicha (1-rasm).



1-rasm. Qurilgan model va empirik umr davomiyligi taqsimot funksiyasining birgalikdagi grafigi.



2-rasm. Kuzatilma gistogrammasi va model zichligining birgalikdagi grafigi.

XULOSA

Hayotni sug'urtalash bilan bog'liq hisob-kitoblarda aktuariylar uchun qulay bo'lgan umr davomiylik funksiyalari, keng qamrovli muammolarga yechim beradi. Bu Umr davomiylik jadvallaridan ancha qulay. UDJ to'g'ridan-to'g'ri odamning yoshining butun bo'lmagan qiymatlari bilan bog'liq hisob-kitoblarda qo'llash imkoniyati mavjud emas. Shu sababli Umr davomiylik funksiyalarini qurish ahamiyatlidir.

Yuqoridagi natijalar orqali ushbu modeldan nafaqat iqtisodiyot va matematika fanlarida, balki demografiya va biologiyada ham foydalanish imkonini mavjud. Umr davomiyligi egri chiziqlari aholi ma'lum kuzatuvlar guruhining kamayishining umumiy tavsifini berganligi sababli, adekvat modelni topishda katta ahamiyatlidir.

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G'O'ZA NAVLARINING F₂ KOMBINATSIYALARIDAGI O'SIMLIK KO'SAK SONI BELGISINING IRSIYLANISHI VA O'ZGARUVCHANLIGI HAMDA DURAGAYLARIDA QARINDOSHLIK DEPRESSIYASI

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ANNOTATSIYA

Hozirgi kunda g'o'za o'simligining biotiplarida inbreeding depressiyasi kuzatilmoqda. Inbreeding depressiyasi o'simlik ekinlari hosilining pasayishi va anomaliyalar paydo bo'lishi olib keladi. Maqolada dala sharoitlarida yetishtirilgan o'rta tolali (*G. hirsutum L.*) g'o'za navlarining F₂ kombinatsiyalaridagi o'simlik ko'sak soni belgisining irsiylanishi va o'zgaruvchanligi hamda duragaylarida qarindoshlik depressiyasi ko'rsatkichlarining tahlili natijalari keltirilgan. G'o'za navlarining F₂ kombinatsiyalari o'simlikdagi ko'sak soni belgisi, bu belgisining irsiylanishi va o'zgaruvchanligi hamda duragaylarida qarindoshlik depressiyasi ko'rsatkichlari bo'yicha Ishonch x Toshkent-6, Toshkent-6 x Ishonch, Toshkent-6 x Navbahor-2 va C-6524 x Navbahor-2 kombinatsiyalarida ijobiy ekanligi aniqlandi.

Kalit so'zlar: *G. hirsutum L.*, g'o'za, nav, genotip, ko'sak,

KIRISH

G'o'za o'simligi dunyoning ko'plab mintaqalarida yetishtiriladigan qimmatli texnik ekin hisoblanadi. Bu o'simlik, shuningdek, rivojlangan va rivojlanayotgan dunyo mamlakatlarida ham yetishtiriladigan sanoat ekinidir[1]. O'rta tolali *G. hirsutum L.* turiga mansub g'o'za navlari jahonning 77 ta mamlakatida asosiy dala ekini sifatida ekilib, 32,0 million gektarga yaqin maydonni egallaydi va turli tuproq-iqlim sharoitlarida yetishtiriladi. Butun dunyo bo'ylab paxta savdosi yiliga taxminan 20,0 milliard AQSh dollarini tashkil etadi [2].

Jahonda asosiy qishloq xo'jalik ekinlaridan biri bo'lgan g'o'zaning zamon talabiga mos navlarini yaratish bo'yicha ilmiy izlanishlar olib borilmoqda. Bu borada asosiy paxta maydonini egallagan o'rta tolali g'o'za navlari bilan bir qatorda, ularga nisbatan tola texnologik ko'rsatkichlari yuqori bo'lgan g'o'za genofondi manbalarini qo'llash, madaniy g'o'za turlarining navlari, tizmalari va duragaylarining morfobiologik belgilari bo'yicha yuqori potensialga ega genotiplarni ajratib olish va seleksiya ishlariga jalb etish muhim ahamiyatga ega. G'o'za tadqiqotlarida potensial ota-onalar

orasidan duragaylash yo'li bilan yuqori mahsuldor paxta genotiplarini yaratish muhimdir.

Hozirgi kunda g'o'za o'simligining biotiplarida inbreeding depressiyasi kuzatimoqda. Inbreeding depressiyasi o'simlik ekinlari hosilining pasayishi, anomaliyalar va deformatsiyalarning paydo bo'lishi olib keladi. Bu zararli retsessiv genlar organizmda gomozigota holda to'planishi bilan izohlanadi [3].

Inbreeding bir xil organizmlar populyatsiyasi ichidagi yaqin turlarning chatishtirishdir [4].

Inbreeding depressiyasi - qarindosh bo'lmagan juftlashdan nasl bilan solishtirganda qarindosh-urug'lar natijasida kelib chiqadigan nasllarning hayotiyligi va mahsuldorligining pasayishi hisoblanadi. Qarindoshlik depressiyasi sababli gomozigotalik oshadi.

Inbreedingning eng ekstremal shakli o'z-o'zini urug'lantirishdir. Inbreeding nasldagi fenotipik belgilarning mustahkamligini oshirishga olib keladi va oxir-oqibatda biologik tajribalarni o'tkazish uchun qulay bo'lgan genetik jihatdan bir xil (inbred liniyalar) liniyalarini ishlab chiqarish uchun amalga oshiriladi.

Inbreeding depressiyasi - qarindoshlik natijasida yuzaga keladigan avlodlarning hayotiy qobiliyatining pasayishi. Bu o'zini fenotipdagi irsiylikning past qiymati, biologik moslashish qobiliyatining pastligi va kasalliklarga qarshi immunitetning pasayishi sifatida namoyon bo'ladi. Natijada, omon qolish va reproduktiv muvaffaqiyatning pasayishi kuzatiladi.

O'z-o'zini changlatish natijasida paydo bo'lgan o'simliklar, odatda inbreeding depressiyasiga moyil bo'lib, odatda kamroq hayotga ega.

Inbreeding depressiyasiga ta'sir qiluvchi asosiy omillar mutatsiyalar, seleksiya va genetik driftidir.

D.A.Musaev va M.F.Abzalovlar [5] gen kolleksiyani yaratishda hamda g'o'zaning irsiyat va mutatsiyasini o'rganishda inbreeding usulidan foydalanganlar. Mualliflar keyingi genetik tadqiqotlar uchun noyob inbred g'o'za liniyalarini oldilar.

G'o'zadagi qarindosh-urug' depressiyasi haqida nashr etilgan ma'lumotlar kam. Xususan, *G. hirsutum* L. va *G. barbadense* L. o'rtasidagi turlararo duragaylash tola uzunligi va mustahkamligi kabi tola belgilari bo'yicha elita germplazmasi o'rtasida genetik xilma-xillikni oshirishda foydali vosita hisoblanadi. Turlararo duragaylarning tijorat potentsiali tur ichidagi duragaylarga qaraganda yuqori, turlararo duragaylashda inbreeding depressiyasining kamayishi aniqlangan.

N.G.Simongulyan ko'p yillik tadqiqotlar natijalariga asoslanib, o'z-o'zini changlatishning haddan tashqari ko'p

bo'lishi g'o'za navlari va liniyalarining depressiyasining kuchayishiga olib keladi, degan xulosaga keldi[6].

Shodieva O.M. va boshqalar tajribalarida yuqori yashovchanlik va mahsuldorlikka yo'naltirilgan seleksiya bilan g'o'zada hosil bo'lgan inbred liniyalarda majburiy o'z-o'zini changlatish jarayonida sezilarli darajada tushkunlik ta'sirini kuzatdilar[7].

G'o'za tadqiqotlarida potensial ota-onalar orasidan duragaylash yo'li bilan yuqori mahsuldor paxta genotiplarini yaratish muhimdir. Ushbu tadqiqotning maqsadi F_{1-2} diallel populyatsiyalarida ota-onalarga nisbatan belgining irsiylanishi va qarindoshlik depressiyasini baholash.

Ushbu tadqiqotning maqsadi F_{1-2} diallel populyatsiyalarida ota-onalarga nisbatan belgining irsiylanishi va qarindoshlik depressiyasini baholash.

TAJIRIBA SHAROITI VA USULLARI

Dala tajribalari O'ZR FA Genetika va o'simliklar eksperimental biologiyasi institutining Toshkent viloyati, Zangi ota tumanida joylashgan mintaqaviy eksperimental bazasining tajriba dala maydonida 2018-2022 yillarda olib borildi.

Tajriba maydonlaridagi agrotexnik tadbirlar O'ZR G va O'EBI ning tajriba xo'jaligida qabul qilingan tartibda olib borildi. Ekish markirovka qilingan dalalarda 90x20x1 sxemasida aprel oyining uchinchi dekadasida o'tkazildi. Chigitlar yerga 4-5 sm chuqurlikda qadaldi. Har ikkala fonda o'rganilayotgan material (navlar, F_{1-2} duragaylari) randomizatsiya usuli bilan 3 qaytariqda, har bir qaytariqda 3 qatorga, har bir qatorda 50 uyaga ekildi. F_2 duragaylarida tanlovlar soni 150 tadan o'simliklarni tashkil etdi.

Tadqiqot ob'ekti sifatida g'o'zaning *G. hirsutum* L. turiga mansub, irsiy jihatdan kelib chiqishi turlicha bo'lgan Ishonch, Navbaxor-2, Toshkent-6 va S-6524 navlarining F_{1-2} duragaylaridan foydalanildi.

Tajribamizdagi *G. hirsutum* L. turiga mansub Ishonch va Navbaxor-2, Toshkent-6 va S-6524 navlarining diallel F_{1-2} duragaylarida qimmatli-xo'jalik belgilaridan – o'simlik ko'sak soni aniqlandi.

NATIJA VA UNING MUHOKAMASI

G'o'za nav va duragaylari belgilarining dispersion tahlili o'tkazildi. Bunda har bir belgi bo'yicha genotiplar o'rtasidagi farqlar ishonchliligi Fisher kriteriyasi (F), tajribaning umumiy xatosi (SD) va o'rtacha ko'rsatkichlarning farqlanish xatosi (SE) darajalari aniqlandi[3]. Qarindoshlik

depressiyasi ID= formulasi yordamida baholandi[4]. $ID = (F_1 - F_2) \times 100 / F_1$.

1-jadval

G‘o‘za navlarining F_2 kombinatsiyalaridagi o‘simlik ko‘sak soni belgisining irsiylanishi va o‘zgaruvchanligi hamda F_{1-2} duragaylarida qarindoshlik depressiyasi ko‘rsatkichlari

G‘o‘za navlarining F_2 kombinatsiyalari	Optimal			ID (Optimal)
	M±SE	V%	h^2	
Ishonch x Navbahor-2	15,56±0,52	14,61	0,56	-2,37
Ishonch x Toshkent-6	16,61±0,67	15,44	0,66	2,29
Ishonch x C-6524	19,74±0,51	11,21	0,56	-27,35
Navbahor-2 x Ishonch	19,14±0,84	14,71	0,71	-32,00
Navbahor-2 x Toshkent-6	15,78±0,55	14,71	0,56	-2,47
Navbahor-2 x C-6524	17,27±0,60	14,18	0,62	-2,19
Toshkent-6 x Ishonch	15,65±0,56	14,90	0,58	18,49
Toshkent-6 x Navbahor-2	17,23±0,66	14,71	0,63	0,40
Toshkent-6 x C-6524	15,56±0,44	13,51	0,66	-6,21
C-6524 x Ishonch	18,3±0,81	15,56	0,74	-20,39
C-6524 x Navbahor-2	15,94±0,66	15,98	0,65	1,60
C-6524 x Toshkent-6	15,81±0,50	14,06	0,54	-8,29

Tajribada dala sharoitida g‘o‘za navlarining F_2 kombinatsiyalarining o‘simlikdagi ko‘sak soni belgisining o‘rtacha ko‘rsatkichlari bo‘yicha eng yuqori Navbahor-2 x Ishonch (19,14±0,84 dona), Navbahor-2 x Ishonch (19,14±0,84 dona) va C-6524 x Ishonch (18,3±0,81 dona) duragaylarida bo‘ldi.

G‘o‘za navlarining F_2 kombinatsiyalarining o‘simlikdagi ko‘sak soni belgisi eng past va eng yuqori irsiylanishi darajasi C-6524 x Toshkent-6 va C-6524 x Ishonch kombinatsiyalarida (mos ravishda 54 % va 74%) bo‘ldi.

G‘o‘za navlarining F_2 duragaylardagi o‘zgaruvchanlik ko‘rsatkichi 11,21 % dan 15,98 % gacha aniqlandi. O‘simlikdagi ko‘sak soni belgisining F_{1-2} duragaylarida qarindoshlik depressiyasi ko‘rsatkichlari Ishonch x C-6524 va Navbahor-2 x Ishonch kombinatsiyalarida kuchli salbiy (mos ravishda ID=-27,35 va ID=-32,00), Toshkent-6 x Ishonch kombinatsiyasida esa kuchli ijobiy (ID=18,49) qayd etildi.

XULOSA

Tajribagi natijasidan xulosa qilish mumkinki, g‘o‘za navlarining F_2 kombinatsiyalari o‘simlikdagi ko‘sak soni belgisi, bu belgisining irsiylanishi va o‘zgaruvchanligi hamda duragaylarida qarindoshlik depressiyasi ko‘rsatkichlari bo‘yicha Ishonch x Toshkent-6,

Toshkent-6 x Ishonch, Toshkent-6 x Navbahor-2 va C-6524 x Navbahor-2 kombinatsiyalarida ijobiy ekanligi aniqlandi.

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ТОСПОВИРУСЛАР ТАВСИФИ ВА ДИАГНОСТИКАСИ

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АННОТАЦИЯ

Тосповирус гуруҳларини ўрганишга барча ривожланган мамлакатларда катта аҳамият берилмоқда, чунки улар кенг қамровли қишлоқ хўжалиги экинлари, мевали дарахтлар, узум ва гулларни касаллантириб қишлоқ хўжалигига катта зарар келтиради. Тосповирусларларнинг хўжайин ўсимликлари ва улардаги касаллик аломатлари, ташувчи векторлари, геномининг тузилиши ва диагностикаси ҳақида малумотлар берилган.

Калит сўзлар: тосповирус, трипс, *N. benthamiana* ўсимлиги, иммунострип анализи, полимераза занжир реакцияси

ABSTRACT

The study of tospovirus groups is of great importance in all developed countries, because they cause great damage to agriculture by infecting a wide range of agricultural crops, fruit trees, grapes and flowers. This article provides information on the host plants of tospoviruses and their disease symptoms, carrier vectors, genome structure and diagnostics are given.

Keywords: tospovirus, thrips, *N. benthamiana* plant, immunostrip analysis, polymerase chain reaction

КИРИШ

Сўнги йилларда ўсимлик вирусларининги тосповирус гуруҳларини ўрганишга барча ривожланган мамлакатларда катта аҳамият берилмоқда, чунки улар кенг қамровли қишлоқ хўжалиги экинлари, мевали дарахтлар, узум ва гулларни касаллантирадилар [1]. Сўнги йилларда турли мамлакат ларда қишлоқ хўжалик экинларини тосповируслар билан касалланиши, уларнинг салбий оқибатларига тааллуқли ахборотлар йиғилди. Тосповируслар жуда агрессив ўсимлик вируслари доирасига кириб, дунё бўйича улардан келадиган зиён йилига 1 триллион АҚШ долларини ташкил этади[2].



АДАБИЁТЛАР ТАҲЛИЛИ ВА МЕТОДОЛОГИЯ

Тосповируслар биринчи марта 1915 йили Австралияда аниқланган бўлиб, 1990 йилга қадар олимлар бу вируслар шу қадар кенг кўламли ўсимликларни касаллантириши ҳақида тасаввурга ҳам эга эмас эдилар. Тосповирус сўзи (*tomato spotted wilt virus*) сўзидан келиб чиққан бўлиб, морфологик ва геном жиҳатдан ўхшаш вируслар шу гуруҳга, яъни *tospovirus* туркуми ва *Bunyaviridae* оиласига жамланди. Сўнгги 20 йил ичида дунё бўйича турли оилаларга мансуб ўсимликларни касаллантирувчи тосповируслар ўрганиб чиқилди, баъзи тосповируслар жуда кенг тарқалган бўлиб, баъзилари бир нечта мамлакат орасида чегараланган. Масалан, *tomato spotted wilt virus* - помидорнинг доғланиб сўлиш вируси (ПДСВ) дунё бўйича кенг тарқалган бўлиб, сабзавот экинлари ва гулларни касаллантириши Шимолий ва Жанубий Америка, Европа, Осиё ва Австралияда қайд этилган[3]. *Peanut Bad Necrosis virus* (*Bad Necrosis virus* деб ҳам аталади) иқтисодий ўта хавфли вирус ҳисобланиб, Ҳиндистон далаларида кенг тарқалгандир. Шунга ўхшаш *Impatiens Necrotic Spot Virus* (*INSV*) Шимолий Америка ва Европанинг бир нечта мамлакатларида қайд этилган.[4]. Сўнгги йилларда *Iris Yellow Spot virus* Шимолий ва Жанубий Америка, Европа ва Ҳиндистонда, шунингдек Тожикистонда пиёз экинларини касаллантириши қайд этилди. *Capicum Chlorosis Virus* (*CaCV*) Осиёнинг кўпчилик мамлакатлари ва Австралияда помидор, булғор калампири ва ловияни касаллантириши аниқланди. Шундай қилиб, чоп этилган турли маълумотларнинг таҳлили тосповируслар ўз ватанларидан турли йўллар билан чиқиб географик кенгликда тарқалаётгани маълум бўлди. Шунингдек, тосповируслар тезлик билан янги экосистемага мослашиб, кенг кўламдаги ўсимликларни, шунингдек бегона ўтларни касаллантиради[5]. Тосповируслар геномининг тузилиши. Тосповируслар полеоморфик тузилишга эга бўлиб, диаметри 80-110 нмни ташкил этади, у 3 қисмга бўлинган катта (L), ўртача (M) ва кичик (S). Ҳар қайси бўлакда РНК бўлиб, бу 3 РНК геноми нуклеокапсид оқсиллари билан индивидуал ўралгандир, улар биргаликда липидли мембранага конвертланган ва вирус бўлакчаси шаклини олган, конвертли мембрана вируснинг геномик материални химоялаш вазифасини бажаради. Ушбу учта геном сегментлари қўшимча конверт ичида ҳар бир вирус бўлакчаси бир нечта репликация оқсиллини сақлайди, репликация янги ҳужайра организмда вирус репликациясига жавобгардир. Ҳар бир вирус бўлакчаси 2 та гликопротеиндан иборат бўлиб, улар мембрананинг юза қисмида жойлашган ва вирус бўлакчасини ўраб туради. Бу гликопротеинлар ўз ўлчамлари таркибидаги шакар билан фарқланиб, вируснинг

ҳаёт циклининг турли фаолиятларида муҳим ўрин тутди, масалан, вирус хужайрага кирганда ва ҳашорат орқали юктирилганда. Шундай қилиб, тосповирус бўлакчалари гибрид тузилишга эга бўлиб, оқсил ва РНК геномидан ва вирус гликопротеинлари ҳамда липид таркиби, мембранадан иборат бўлиб, бошқа фитовирусларга нисбатан мураккаб тузилишга эгадир. Тосповирусларнинг тарқалиши. Тосповирусларнинг табиатда тарқалиши, яъни касал ўсимликдан соғлом ўсимликка юқиши полифаг бўлмиш трипсларнинг бир неча турлари орқали амалга ошади. Бу вируслар уруғ орқали юкмайди. Трипслар жуда майда ҳашоратлар бўлиб, уларнинг узунлиги атиги 1 мм атрофида бўлади. Шу сабабли, уларни далада ёки ўсимлик меваларда ёки гулларда аниқлаш анча мушкулдир, натижада, улар мевалар орқали ўз ватанларидан бошқа жойларга кенг тарқаб кетган. Трипсларнинг дунё бўйлаб кенг тарқалиши, тосповирусларнинг тарқалишига сабаб бўлмоқда ва тосповируслар илгари қайд этилган регионларда ҳам кенг тарқала бошлади. Трипсларнинг 12 хил тури тосповирусларни тарқатувчи “вектор” лар деб қайд этилган бўлиб, трипсларнинг бир тури бир неча тосповирусни ташувчиси эканлиги қайд этилган ва шунингдек бир тосповирус бир неча трипс турлари орқали тарқалади. Трипсларнинг 4 хил гурӯҳга таълуқлиси вирусларни ташувчилардир. Улар *ilar viruses*, *some viruses*, *carpo viruses* ва тосповируслар [6]. Буларнинг 3та гурӯҳи гулчанг ва трипс орқали тарқалувчи вируслар бўлиб, трипс касал ўсимлик гулчанги орқали озиқланганда, сўнг соғлом ўсимлик билан озиқланганда вирусни юктиради. Барча трипслар ҳам тосповирусларни ташиш қобилиятига эга эмас, ҳозиргача дунё бўйича 5.500 трипс тури аниқланган бўлса, улардан 12 тури (яъни 0,16%) турли хил тосповирусларни ташишувчиси эканлиги қайд этилган. Тосповируслар ўсимлик вирусларининг шундай бир кичик гурӯҳига кирадик, улар ҳам ўсимлик хужайрасида ҳам трипс организмидан кўпаяди.

Тосповируслар диагностикаси. Тосповируслар ўсимлик шираси орқали юктирилганда, бир қатор индикатор ўсимликларда ўзига хос касаллик аломатларини ривожланиши кузатилади. Бу вирусга сезгир индикатор ўсимлик тамакининг *Nicotiana bentamiana* нави бўлиб унда касаллантирилган баргларида некротик доғланиш кузатилди. Шунингдек “Agdia” фирмасида ишлаб чиқилган иммунострип (immunostrip) мембраналари ва ПЦР диагностикаси ёрдамида тосповирусни помидор меваларида аниқланди.



1-расм. Сабзаёт экинларида вирус касалликлари аломатлари.

А, Б - бақлажоннинг ПДСВ билан касалланган барги ва меваси; В, Г - помидорнинг ПДСВ билан касалланган барги ва меваси; Д, Е - БМВ билан касалланган бодринг барги ва меваси (Расмлар муаллиф томонидан олинган).

ХУЛОСА

Шундай қилиб, Ўзбекистонда илк бор *tomato spotted wilt virus* - помидорнинг доғланиб сўлиш вируси (ПДСВ) помидор меваларида ва ўсимлигида, бақлажон ҳамда бодринг ўсимликларида индикатор ўсимликлар, иммунострип ва ПЗР усулларида аниқланди.

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CLASSIFICATION OF TRANSFORMATIONS IN TRANSLATION

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ABSTRACT

The process of translation, serving as a bridge between diverse languages and cultures, is a nuanced and intricate endeavor. This article delves into the intricate world of linguistic transfer by presenting a comprehensive classification of transformations employed in the translation process. As language is inherently dynamic and culturally bound, understanding the various transformations that occur during translation becomes imperative for practitioners and scholars alike.

Keywords: Translation, Transformations, Linguistic Adaptation, Cultural Transfer, Contextual Modification, Cross-Linguistic Communication, Language Bridge, Translation Strategies, Source Language, Target Language, Multilingualism.

INTRODUCTION

The issue of translation transformations has been widely studied by many famous linguists. According to Schweitzer, the term “transformation” is used in translation studies in a metaphorical sense. In fact, we are talking about the relationship between the original and final linguistic expressions, about the replacement in the process of translation of one form of expression by another, which we figuratively call transformation or transformation. Thus, translation transformations are essentially interlingual operations of “re-expression” of meaning (Schweitzer 1988, P:79).

The proposed classification system elucidates the multifaceted nature of transformations, categorizing them into distinct types based on syntactic, semantic, and pragmatic considerations. From lexical substitutions to syntactic restructuring and cultural adaptation, the taxonomy provides a systematic framework to analyze and comprehend the myriad ways in which meaning is transposed across linguistic boundaries. The article also explores the interplay between source and target languages, shedding light on how transformations are influenced by linguistic structures, cultural nuances, and communicative contexts.

Drawing upon theoretical frameworks from translation studies, linguistics, and cognitive science, this article contributes to the evolving discourse on translation by offering a nuanced understanding of the mechanisms at play. By classifying transformations, it not only



facilitates a deeper appreciation of the challenges inherent in the translation process but also opens avenues for refining translation methodologies, advancing machine translation technologies, and enhancing cross-cultural communication. In navigating the intricate landscape of translation transformations, this work aspires to foster a more profound comprehension of the art and science of linguistic transfer.

LITERATURE REVIEW

J.I. Retzker divides transformations into two types - lexical and grammatical. He lists the following varieties as the first:

- 1) differentiation of values;
- 2) specification of meanings
- 3) generalization of meanings
- 4) semantic development
- 5) antonymic translation
- 6) holistic transformation
- 7) compensation for losses during the translation process.

By grammatical transformations, J.I. Retzker understands replacements of parts of speech or members of a sentence (Retzker 1980, P: 72-84). In addition to lexical and grammatical transformations, V.N. Komissarov also identifies mixed lexical and grammatical transformations (antonymic translation, explication (descriptive translation) and compensation.) (Komissarov 1990, pp. 172-186).

A.M. Fiterman and T.R. Levitskaya, along with lexical and grammatical ones, highlight stylistic transformations (Levitskaya, Fiterman 1963, C:). On the stylistic transformations of T.A. Kazakova refers to metaphor and metonymy. In her classification they are called translation techniques. (Kazakova 2008, P: 237-259). But by transformations she does not mean transformations caused by the natural asymmetry of the lexical-grammatical systems of the FL and the TL, but rather the techniques used by the translator that are not based on interlingual relations.

In his work "Language and Translation" L.S. Barkhudarov conducts a detailed analysis of translation transformations and comes to their following classification, based on the techniques used by the translator:

- Permutations (changing the order of words and phrases, parts of sentences);
- Substitutions (forms of words, parts of speech, members of sentences, simple sentences with complex ones, combining sentences, dividing sentences, replacing subordinating/coordinating connections, conjunctions with non-conjunctions, specification, generalization, antonymic translation, compensation);

- Additions
- Omissions

At the end of the chapter on translation transformations, the author concludes that the translation transformations listed above in their “pure form” are rare. As a rule, various types of transformations are carried out simultaneously, that is, they are combined with each other - a rearrangement is accompanied by a replacement, a grammatical transformation is accompanied by a lexical one, etc. (Barkhudarov 2010, P: 230).

Domestic linguists were the first to define translation transformations and develop their classification. The term “translation transformation” does not appear in Western studies.

J.P.Vine and J.Drabelne were the first to classify translation techniques for methodological purposes (Molina, Hurtado 2002, P:499). They identified seven basic procedures, reproducible at three levels: lexical, morphological-syntactic and message level. J.P. Vinet and J. Drabelne classified procedures as 1) direct, which include techniques of borrowing, tracing and literal translation, and 2) indirect (oblique), which include transposition (replacing the form of a word), modulation (replacement of the abstract with a concrete cause and effect), equivalence (replacement of a SL idiom with an equivalent TL idiom), adaptation (use of an expression understandable in the TL cultural environment). In addition to the seven basic procedures, researchers also identify the following techniques: compensation, explication, implication, generalization, specification and others (Vinay, Darbelnet 1977).

M. Baker writes about the problem of lexical and grammatical inequivalence and strategies for overcoming it. In a situation of semantic nonequivalence, the author proposes to use the capabilities of the semantic field, for example, a hyponym can be replaced by a hypernym if the desired reality is not found in the target language. This strategy can be attributed to the transformation of generalization. Using a more neutral word is also suggested. Cultural substitution by the author means the replacement of a specific cultural reality or expression with a reality or expression of the target language that is different in meaning, but similar in impact on the translation audience. Paraphrasing changes to a hypernym or explanation of a translation unit with a semantically complex meaning. M.Baker also allows for the possibility of omitting some elements of the text. To avoid cumbersome explanations, the translator may omit a word or expression if it is not fundamentally important for the development of the plot of the story. To overcome grammatical and syntactic differences, the



author suggests a number of strategies, but does not classify them (Baker 1992. P:26-80).

DISCUSSION AND RESULTS

The issue of translation transformations used in simultaneous translation has been little studied. Basically, in the theory of classification of translation transformations, differentiation by type of translation was not carried out. A.I. Gorokhova, in her PhD thesis, was the first to conduct a comparative analysis of transformations used in simultaneous and written translation. As a result of her work, she came to the conclusion that there are both general and specific transformations that are inherent only to simultaneous or only written translation. The author considers the special transformations of written translation to be the replacement of the full name of a state or organization with an abbreviation, the replacement of a common phrase with a short phrase or one word. The author considers the substitution of sentence type and other syntactic substitutions to be special transformations of simultaneous translation (Gorokhova 2004).

One of the main translation techniques used in simultaneous translation is compensation. In the process of simultaneous interpretation, the translator must take into account the background knowledge of the audience, cope with time constraints and adapt the syntax of the sentence to the TL. As part of receiving compensation, the translator uses a number of transformations.

E.K. Vyunova classifies the method of compensation from the point of view of its object. Thus, the following are distinguished: 1) Compensation for precision information. It includes proper names and various names (organizations, geographical, printed publications, etc.), numbers. In conditions when the translator does not have the opportunity to refer to the text of the speech, a certain percentage of such information may be lost or transmitted, but using the skill of compensation (transformation of generalization) (Vyunova 2014, P:27).

The second object of compensation is modality. V.V. Vinogradov defines modality as a semantic category that expresses the relationship of the content of a statement to reality on the part of the speaker. At the same time, in the scope of this category, Vinogradov included all possible modal meanings: reality, unreality, desire, necessity, reliability, possibility, motivation, emotiveness, etc. (Vinogradov 1986, P: 594) The implementation of this type of compensation means the absence of gross distortion of the meaning of the original text during translation (Z. Djumanazarova 2023, P:2).

The third object of compensation in E.K. Vyunova's classification is communicative intention. Communicative intention (intention) denotes the specific purpose of the speaker's utterance, i.e. whether he asks, or asserts, or calls, condemns or approves, advises or demands, etc. (Ladyzhenskaya, Michalskaya 1998). E.K. Vyunova says that in this case, compensation will be aimed at preserving the general meaning of the statement or filling a pause in the event of the loss of some part of the translated information. The use of this type of compensation will be adequate if the main idea of the original is not grossly distorted (Vyunova 2014, p: 30).

By examining the literature on this topic, one can come to the conclusion that there is a dual interpretation of the concept. That is, on the one hand, translation transformations are understood as transformations caused by the natural asymmetry of the lexical-grammatical systems of the foreign language and the TL. On the other hand, the techniques used by the translator are not based on interlingual relations. Translation transformations are also used to convey communicative intent. Since the scope of this study does not allow us to consider all types of transformations, we will focus on the following transformations from the classification of L.S. Barkhudarov:

- 1) Substitutions (lexical substitutions, generalization, specification, compensation, antonymic translation)
- 2) Additions
- 3) Omissions

CONCLUSION

In exploring the intricate landscape of translation transformations, this article has undertaken a thorough examination of the various classifications proposed by eminent linguists and scholars in the field. Translation, as the conduit between diverse linguistic realms, demands a nuanced understanding of the transformations that occur during the process. The complexities of linguistic transfer involve not only syntactic and semantic considerations but also extend to cultural and communicative dimensions.

The proposed classification system, rooted in the work of renowned scholars such as J.I. Retzker, V.N. Komissarov, A.M. Fiterman, T.R. Levitskaya, and others, sheds light on the multifaceted nature of translation transformations. The categorization into lexical, grammatical, and stylistic transformations, as well as the acknowledgment of mixed transformations, reflects the intricate interplay of linguistic elements in the translation process. Additionally, the inclusion of stylistic transformations underscores the importance

of preserving the artistic and expressive qualities of the source text in the target language.

L.S. Barkhudarov's classification, encompassing substitutions, additions, and omissions, provides a practical framework for understanding the techniques employed by translators. The acknowledgement that these transformations often coexist, with a rearrangement accompanied by a replacement or a grammatical transformation paired with a lexical one, highlights the dynamic and adaptive nature of the translator's craft.

The discussion further delves into the contributions of domestic linguists and their pioneering efforts in defining and classifying translation transformations. It is noteworthy that the term "translation transformation" itself has not been widely explored in Western studies, emphasizing the distinctive focus of this line of inquiry in the realm of translation studies.

The examination of translation techniques used by simultaneous translators, particularly the concept of compensation, unveils a dimension where transformations serve the pragmatic purpose of adapting to the constraints of real-time interpretation. The classification by E.K. Vyunova, focusing on compensation for precision information, modality, and communicative intention, underscores the adaptability and strategic decision-making inherent in the simultaneous interpretation process.

As the discourse on translation transformations progresses, it becomes evident that the challenges and strategies involved extend beyond linguistic equivalences. M. Baker's insights into addressing lexical and grammatical inequivalence through semantic field utilization and cultural substitution add layers to the toolkit available to translators. Moreover, the discussion of transformation strategies for overcoming grammatical and syntactic differences signals the complexity of navigating linguistic structures between source and target languages.

In conclusion, this comprehensive exploration of translation transformations not only enhances our theoretical understanding of the mechanisms at play but also holds practical implications for translation practitioners, educators, and researchers. The dynamic interplay of lexical, grammatical, and stylistic elements, coupled with the strategic use of compensation in simultaneous interpretation, underscores the artistry and adaptability inherent in the translation process. As we continue to unravel the intricacies of linguistic transfer, this work contributes significantly to fostering a deeper comprehension of the art and science of translation, offering valuable insights for future research and advancements in the field.

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MA'NAVIYAT – SHAXS XAVFSIZLIGINI TA'MINLASH VA PSIXOLOGIK HIMOYALASHNING XXI ASRDAGI «DRAYVER» VOSITASI

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ANNOTATSIYA

Maqolada XXI asrda shaxs xavfsizligini ta'minlash va uni psixologik himoyalashdagi asosiy «drayver» vosita sifatida ma'naviyat dalillangan. Shuningdek, ma'naviyatni shakllantirish – Yangi O'zbekiston yoshlarining axborot psixologik xavfsizligini ta'minlashdagi eng ta'sirchan usul sifatida bayon qilingan.

Kalit so'zlar: ma'naviyat, konsepsiya, shaxs, globallashuv, axborot xavfsizligi, axborot psixologik xavfsizlik, shaxs xavfsizligi.

АННОТАЦИЯ

В статье духовность доказывается как главный «драйверный» инструмент обеспечения личной безопасности и психологической защиты в XXI веке. Также формирование духовности описывается как наиболее эффективный способ обеспечения информационной и психологической безопасности молодежи Нового Узбекистана.

Ключевые слова: духовность, концепция, человек, глобализация, информационная безопасность, информационная психологическая безопасность, безопасность личности.

ABSTRACT

The article proves spirituality as the main «driver» tool for ensuring personal safety and psychological protection in the 21st century. Also, the formation of spirituality is described as the most effective way to ensure the information and psychological security of the youth of New Uzbekistan.

Keywords: spirituality, concept, human, globalization, information security, information psychological security, personal security.

KIRISH

Ezgulik va insonparvarlik tamoyiliga asoslangan «Harakatlar strategiyasidan – Taraqqiyot strategiyasi sari» g'oyasini «Yangi O'zbekiston — ma'rifatli jamiyat» konsepsiyasini amalga oshirish orqali butun jamiyatimiz bo'ylab konstruktiv dunyoqarashni umummilliy



harakatga aylantirish oliy maqsad qilingan. Shu bois ham, Taraqqiyot strategiyasida inson qadrini ulug'lashga yo'naltirilgan ijtimoiy himoya siyosati bo'yicha belgilangan vazifalar doirasida so'nggi yillarda ijtimoiy institutlar yagona tizimini *shakllantirish*, platformaning samarali faoliyat ko'rsatishini *ta'minlash*, uzluksiz ta'lim tizimi samaradorligini *optimallashtirish*, yosh avlodni tarixiy, milliy va umuminsoniy qadriyatlar asosida munosib ma'naviy *tarbiyalash*, ham ichki, ham tashqi siyosatni davlatimiz, xalqimizning oliy manfaatlarini, el-yurtimizning farovonligi va har bir fuqaro xavfsizligidan kelib chiqqan holda O'zbekiston Respublikasini xalqaro munosabatlarning teng huquqli sub'ekti sifatida dunyohamjamiyatiga *tanishtirishga* qodir yuqori malakali kadrlarni **tayyorlash** masalasiga har qachongidan ham yuqori e'tibor qaratilmoqda.

ADABIYOTLAR TAHLILI VA METODOLOGIYA

Bugun dunyoda yuz berayotgan globallashuv jarayonining mohiyatini atroflicha anglab yetish har qanday kishilik jamiyati uchun o'ta muhim ahamiyatga ega hodisadir. Global muammolar va globallashuv jarayonlari asosan XX asrning mahsuli bo'lsa-da, «global» atamasi qadimdan fanda ma'lum. Globallashuv tushunchasi fransuzcha «global» so'zidan olingan bo'lib, eng umumiy, umumjahon, yer sharini qamrab oluvchi mazmunini anglatadi. Oxirgi yillarda dunyo miqyosida axborot texnologiyalarining keskin rivojlanib ketayotganligi, Internet tizimning barcha davlatlar, madaniy hududlar, barcha yoshdagi insonlar uchun qulay axborot almashinuvi vositasiga aylanib borayotganligi munosabati bilan xavfsizlikning o'ziga xos yana bir turi **axborot xavfsizligi** paydo bo'ldi. 36,7 millionlik mamlakatimiz aholisining 65 foizini 30 yoshgacha bo'lgan yoshlar tashkil etadi. Birgina, ochiq axborot tizimlarida yurtimizdagi 18-30 yosh oralig'ida bo'lgan 7-8 millionli axborot iste'molchilarining informatsion-psixologik xavfsizligini ta'minlash hozirgi kunning dolzarb talablaridan biri sifatida yaqqol namoyon bo'lib ulgurdi. Buning dolzarbligi davlatimiz uchun milliy mustaqillikni yanada mustahkamlash, bozor munosabatlarini tadrijiy rivojlanishini ta'minlash, ijtimoiy islohotlarni chuqurlashtirish jarayonlarida yaqqol ko'rinmoqda.

Globallashuv va integrasiyalashuv sharoitida oltin, platina, javohirdan ko'ra ko'proq qiymatga ega bo'lgan "axborot" zamonaviy jahon bozori munosabatlarida o'zining munosib o'rniga ega bo'la boshladi. "Kim axborotga egalik qilsa, u dunyoni boshqaradi" qabilidagi fikrlarning bot-bot esga olinayotgani ham bejiz emas. Bundan 4-5 asr oldin jahonda yetakchilik qilish uchun qo'shin soni, qurol-yarog' arsenalini, hatto dengizdagi kemalar, umuman, harbiy salohiyatning ahamiyati katta edi. Globallashuv jarayonining yirik



nazariyotchilaridan biri Jorj Modelskining ta’biri bilan aytganda, «moziyda moddiy-materialistik mezonlar bo’yicha gegemonlik darajasi ayni shu mamlakatning kuchliligini belgilar edi» [1].

Sivilizasiyalar silsilasida axborotning birlamchi ahamiyat kasb etishi uchun avvalo tezlikning ortishi evaziga masofani qisqartirishga erishish zarur edi. Bu yo’lda dastlab kompas qo’l keldi, so’ngra Morze telegrafi, A.Bell ixtiro qilgan telefon, Popov tomonidan yaratilgan ilk radioqurilmadan foydalanildi. Televidenie va internet esa yuqoridagi maqsadga erishish uchun ulkan imkoniyatlar eshigini ochib berdi. Tadqiqotchi V.N. Moshkin tili bilan aytganda, «yoshlarni axborotlar oqimidan asrashning yagona yo’li bu o’z vaqtida amalga oshirilgan pedagogik va psixologik ta’limdir» [2].

Ilmiy manbalarda ta’kidlanganidek, **axborot xavfsizligi** – aslida jamiyatning ob’ektiv, xolis, haqqoniy axborot manbaiga ega bo’lishi uchun yaratilayotgan shart-sharoitlarni nazarda tutadi. Albatta, bunga mustaqil axborot vositalari orqali yoshlarga yetib keladigan ma’lumotlar oqimi ham kiradi. Aslida bu vositalar aynan mustaqil bo’lganliklari uchun ham birinchi navbatda moliyaviy, qolaversa, siyosiy va boshqa tomonlardan hech bir siyosiy kuch, alohida davlat yoki ijtimoiy qatlamning manfaatlariga xizmat qilmasliklari kerak. Chunki mustaqil OAV aslida odamlarda sodir bo’layotgan turfa xil jarayonlarga nisbatan xolis fikrning shakllanishiga imkon berishi lozim. Lekin amaliyotda ming afsuski, har doim ham shunday bo’lavermaydi va jamiyat o’z a’zolarini, ayniqsa yosh avlodni turli axborot xurujlaridan himoya qilishga majbur bo’ladi. Zero, yurtboshimiz ta’kidlaganlaridek: «**Ma’naviyat boshqa sohalardan oldinda yurishi, yangi kuchga, yangi harakatga aylanishi kerak**» [3].

NATIJALAR

Bugun mamlakatimizdagi mafkurachilar oldida turgan vazifalarning mazmuni va yo’nalishi aynan yurtboshimizning barkamol avlod tarbiyasi g’oyalariidan kelib chiqishi tabiiy. Xo’sh, bugun bizga aynan qanday yoshlar kerak? Savolning inson sifatlariga qaratilishi bevosita insonning xarakterologik sifatlarini nazarda tutadi. Lekin biz bir maqola doirasida barcha sifat hamda fazilatlarini sanab chiqish fikridan yiroqmiz. Biz e’tiborni shaxsda yaxlit ijobiy sifatlarini shakllantiruvchi yetakchi, asosiy sifatlarga va ularning shakllanishi shart-sharoitlariga qaratmoqchimiz va bunda barkamollik fazilatlarini shakllantiruvchi ikkita asosiy bo’g’in – **oila** va **ta’lim muassasalarining** rolini ajratmoqchimiz.

Biz, globallashuv jarayonida shaxs, jumladan, yoshlar muammosiga qay tomondan yondashmaylik, u chuqur va keng qamrovli mulohazani talab etadigan voqeilikdir. Ushbu maqolada



ilgari surilayotgan muammo predmetida shaxsni xoh **gumanistik**, xoh **psixologik** nuqtai nazardan talqin qilmaylik, biz unga moddiy olamning bir bo‘lagi sifatida *ontopsixologik* nuqtai nazaridan yondashamiz. Agar “shaxs” tushunchasining tarkibiy belgilovchilarini umumlashtiradigan bo‘lsak, turli xil psixologik nazariyalar va ilmiy maktablar shaxsni doimiy o‘zgarib turuvchi muhitga moslashish natijasida rivojlanib boruvchi individ tavsifining *sintezi* sifatida qaraydilar. Shuningdek, individning xulq-atvoriga muvofiq atrof-muhit ta‘sirini belgilovchi me‘yorlar shakllanadi. Demak, shaxs hayoti davomida psixologik mazmun kasb etadigan nisbiy barqarorlikka ega bo‘lgan o‘zida *sub’ekt* bilan *ob’ektning* o‘zaro ta‘sirini shakllantiruvchi motivatsiya hamda ehtiyojlar munosabati tizimini namoyon qiluvchi **ijtimoiy hosila** ekan.

Globalashuv – jamiyat taraqqiyotining integratsiyalanishi natijasida hamda siyosiy, ijtimoiy, iqtisodiy, mafkuraviy va ekologik axborot tizimlarining rivojlanishi jarayonida yuzaga keladi. Ta‘kidlash kerak, kommunikatsiya vositalaridagi tub o‘zgarishlar ham globalashuv jarayonining shiddat bilan rivojlanishini ta‘minlamoqda. Shuningdek, globalashuv jarayoni ba‘zi mamlakatlarning o‘z maqsad-iddaolarini amalga oshirishida ham qo‘l kelmoqda. Turli axborot yutuqlaridan foydalangan holda qadriyatlarimizga zid bo‘lgan tamoyillarni informatsion tajovuz qilish yo‘li bilan mamlakatimiz aholisi, jumladan, yoshlarimiz ongiga singdirishga harakat qilishmoqda. Misol tariqasida aytadigan bo‘lsak, ayrim kuchlar tomonidan hozirda demokratiyani «eksport» qilish, uning qandaydir universal modelini joriy etish kabi tendensiyalar asnosida diniy ekstremistik g‘oyalar, xalqaro terrorizmni mamlakatimiz sarhadlariga kiritishga urinishlar mavjud. Aksariyat urinishlarning mohiyatini chuqurroq tahlil etadigan bo‘lsak, bunday harakatlar mazmunida yoshlarda avvalo fikr qaramligini, so‘ngra «etnosentrizm» hissini shakllantirish yotganligini guvohi bo‘lish mumkin. Masalan, xavfsizlikning asosiy sub’ektlaridan hisoblanmish **shaxs xavfsizligi** ijtimoiy-psixologik jihatlarining o‘rganilishi, xavfsizlikni ta‘minlash borasida qanday ijtimoiy va psixologik ta‘sirlarga e‘tibor qaratish zarurligini anglashga imkon yaratadi.

Ba‘zi hollarda globalashuv jarayoni axborot tajovuzini niqoblashda, uning mohiyatini jamoatchilikdan yashirishda o‘ziga xos mafkuraviy shakl vazifasini ham bajarmoqda. Xususan, globalashayotgan dunyoda axborot xalqlararo va davlatlararo munosabatlarda muhim ahamiyat kasb etadi. Ya‘ni u jahon hamjamiyati hayotida ham ijobiy, ham salbiy kuch sifatida namoyon bo‘lishi mumkin. Shu ma‘noda texnikaviy-texnologik sohada katta imkoniyatga ega bo‘lgan mamlakatlar qulay sharoitga ega bo‘ladilar. Mana shu ustunlik tufayli ular o‘z shaxsiy manfaatlariga mos keluvchi qadriyatlar, nuqtai-nazarlar, g‘oyalar, fikrlarni ilgari surmoqdalar. Natijada, har qanday



mahalliy hodisa yoki voqea juda qisqa fursat ichida zamonaviy axborot texnologiyalari yordamida global hodisa yoki voqeaga aylanib ulgurmoqda. Bu vaziyatlar, o'z navbatida, fojeali xarakterga ega bo'lgan quyidagi oqibatlarga olib kelishi mumkin: ijtimoiy aloqa doirasining torayishiga, qadriyatlar mazmunining o'zgarishiga, faqat bugungi kun uchun yashab, istiqbolni o'ylamaslikka, «Men» siymosining deformatsiyalashuviga, psixologik tushkunlikning yuzaga kelishiga (ichki beqarorlik, ichki ziddiyat, yolg'izlik hissi, ijtimoiy qo'rquv, shaxsiy xarakterining aksentuatsiyalashuvi). Ana shu jihatdan olib qaraganda ham dunyoning mafkuraviy manzarasida o'ta muhim o'rin egallab ulgurgan bu jarayonni, ya'ni kelajagimiz hisoblangan yoshlarimiz ongi-shuurini zabt etishga qaratilgan axborot tajovuzlarining mohiyatini ochib berishda ma'naviy-ma'rifiy tarbiya katta amaliy ahamiyatga egadir.

Ijtimoiy-psixologik tadqiqotlarning ko'rsatishicha, Vatanga mehr, kelajakka ishonch, kasbga sadoqat kabi shaxs sifatlarining mavjudligi to'g'ri dunyoqarashning shakllanishiga asos bo'ladi. Yangicha fikrlash va tafakkur yuritish aynan mustaqillik mafkurasi ruhida tarbiya topib, sayqal topgan milliy ong, dunyoqarash va e'tiqoddir.

O'spirinlik va yoshlik davrlari dunyoqarashlar tarbiyasi uchun eng sezgir, qulay, psixologik ibora bilan aytganda, **senzitiv** bo'lgani uchun ham bu yo'nalishda olib boriladigan ishlarimizni, «**Uzluksiz ma'naviy tarbiya konsepsiyasi**»ni, ya'ni ularda Vatanga sadoqat, tadbirkorlik, irodalilik, mafkuraviy immunitet, mehr-oqibatlilik, mas'uliyatlilik, bag'rikenglik, huquqiy madaniyat, innovatsion fikrlash, mehnatsevarlik kabi muhim fazilatlarni bolalikdan boshlab bosqichma-bosqich shakllantirish ishlarini izchil amalga oshirish bilan uyg'un tarzda olib borilmoqda. Bunda 1994-yilda ishlab chiqilgan «**Oila-mahalla-ta'lim muassasasi**» hamkorligi konsepsiyasi doirasida ushbu dasturni amaliyot tatbiq etish jarayonini sifatli amalga oshirish uchun milliy an'analarni hayotga qaytarish, murosasozlikni tarbiyalash ham katta amaliy ahamiyat kasb etadi. Ma'lumki, mustaqil dunyoqarashga ega yuksak ma'naviyatli shaxslargina turli xil talqindagi tazyiqlarga ruhan barqaror qarshilik ko'rsata oladilar. Bunda, ota-ona madaniy saviyasining yuqori bo'lishi ma'naviyati yuksak, ma'rifatli, iste'dodli, komil farzandlarni voyaga yetkazishda hal qiluvchi rol o'ynaydi. Vatan ravnaqiga munosib hissa qo'sha oladigan, ijtimoiy ongi shakllangan, milliy g'ururi baland, oilaparvar, millati, xalqi va ona Vatanini ko'z qorachig'idek e'zozlashga qodir farzandlar bolalik yillarida avvalo oila muhitida munosib tarbiya olgan bo'ladilar. Zero, ota-ona farzandlar uchun hamisha o'rnak va namuna timsollaridir.

Yoshlarni ma'naviy-axloqiy tarbiyalashda oila mafkurasi, ma'naviyati va undagi ijtimoiy-psixologik muhit alohida amaliy



ahamiyatga egadir. Sababi, oila muqaddas maskan bo'lib, unda bolalar tarbiyasi bilan shug'ullanish so'zsiz ota-onaning vazifasi hisoblansa, bunda oila boshliqlariga itoat, yuksak ehtirom ko'rsatish esa farzandlarning burchi sanaladi. Mamlakatimiz yoshlarining ma'naviyati va madaniyatini rivojlantirish jamiyatimizdagi davlat siyosati darajasiga ko'tarilgan vazifalardan biri bo'lib, xilma-xil mafkuraviy kurashlar avj olgan hozirgi davr ota-onalar hamda ustoz-murabbiylardan turli buzg'unchi oqimlar yoshlarni o'z girdobiga tortmasligi uchun **shaxs tarbiyasida** hushyor va sergak turishni taqozo etmoqda. Zero, ayrim ota-onalar, ustoz-murabbiylarimizning loqaydligi-yu beg'amligi haqida: «Kishining o'z qaramog'idagi kimsalarga beparvo bo'lishi uning gunohkor ekanligiga kifoyadir», deya hadisushariflarda ham eslatilgan. Bu birgina shaxs xavfsizligi doirasida namoyon bo'ladigan holatlar bo'lib, u jamiyat va davlat xavfsizligiga ham bevosita ta'sir o'tkazadi. Fojeali holatlar doirasi kengayib, ta'sir ko'rsatish darajasi kuchayishi mumkin. Chunki, barqarorlikning uchinchi darajasi (birinchisi – siyosiy boshqaruv, ikkinchisi – siyosiy tuzum) **shaxs xavfsizligining** ta'minlanganligidir. Aynan uchinchi daraja barqarorlikning ta'minlanganligini aniqlaydi, barqarorlikni davlat va jamiyat darajasida ta'minlashning galdagi vazifalarini belgilab beradi.

Bu esa globallashuv jarayonida shaxs xavfsizligining psixologik jihatlarini ilmiy jihatdan tahlil etish uni ta'minlash borasidagi mavjud qarashlarni oydinlashtiradi. Jamiyatning muayyan sohasida yuzaga kelishi mumkin bo'lgan xavf yoki tahdidlarni (siyosiy, psixologik, ma'naviy, harbiy, iqtisodiy, ijtimoiy, ekologik, tibbiy, texnik va boshq.) aniqlash, ularni baholash uchun amaliy yordam beradi.

MUHOKAMA

Umuman olganda, ijtimoiy-psixologik jihatdan **shaxs xavfsizligi** hamda bu borada yuzaga keladigan (kelishi mumkin bo'lgan) xavf-tahdidlar ichki va tashqi ta'sirlar vositasida paydo bo'ladi, ularni quyidagicha qayd etish mumkin:

Birinchidan, shaxs xavfsizligiga salbiy ta'sir ko'rsatishi mumkin bo'lgan ijtimoiy muhit (turli favqulodda vaziyatlar, jinoiy muhit, ishsizlik va hokazo);

Ikkinchidan, shaxsning salbiy individual-psixologik xususiyatlari ta'sirlari asosida boshqalar uchun xavf tug'dirish (telefon terrorizmi, sadizm, oldindan o'ylanmagan tajovuzlar va hokazo);

Uchinchidan, shaxsning ijtimoiy-psixologik sifatlari (soddalik, ishonuvchanlik va b.q.) ta'sirida o'zi uchun xavfni yuzaga keltirish (o'z joniga qasd qilish, ba'zi destruktiv guruhlar aldovining qurboniga aylanish va hokazo).



XULOSA

1) Ta'lim-tarbiya tizimi samaradorligini oshirishga yo'naltirilgan tub islohotlar mazmuni madaniyatli, yuksak ma'naviyatli, erkin fikrlovchi shaxsni tarbiyalashga qaratilganligini inobatga oladigan bo'lsak, bugun yoshlarimiz o'zligini anglashi, teran dunyoqarashning shakllanishi va iymon-e'tiqod sohibi bo'lishlari uchun barcha shart-sharoitlar va zamin tayyorlangan.

2) Hozirda butun «mafkurachilar armiyasi»ga uzluksiz ma'naviy tarbiya g'oyalari yoshlar ongiga singdirishdek oliyjanob vazifa yuklatilgan bo'lib, bularning barchasini muvaffaqiyatli amalga oshirish Yangi O'zbekistonda milliy o'zlikni anglagan, betakror madaniyat va yuksak ma'naviyatning merosxo'rlari ekanligini teran anglyadigan yoshlarga – kelajagimiz vorislariga ega bo'lishimizga imkon beradi.

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Ti(OⁱPr)₄ АСОСИДАГИ КАТАЛИТИК СИСТЕМАЛАР ЁРДАМИДА АЦЕТИЛЕН СПИРТЛАРИНИНГ ОЛИНИШИ

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АННОТАЦИЯ

Янги комплекс каталитик системалар ёрдамида илк бор фенилацетилен ва айрим альдегидлар асосида ацетилен спиртларини синтез қилиш усуллари ишлаб чиқилган. Альдегидлар молекуласидаги радикаллар ҳажми ва сонининг маҳсулот унумига таъсири асосида ацетилен спиртларининг ҳосил бўлиш самандорлик қатори, жараён селективлиги асосида қўлланилган комплекс каталитик системаларнинг нисбий каталитик фаоллик қатори ишлаб чиқилган.

Kalit so'zlar: fenilatsetilen, benzaldegid, alkinillash reaksiyasi, atsetilen spirti, katalizatorlar, selektivlik, reaksiya mexanizmi, mahsulot unumi.

АННОТАЦИЯ

Разработаны методы синтеза ацетиленовых спиртов на основе фенилацетилена и некоторых альдегидов с использованием новых комплексных каталитических систем. Основываясь на влиянии объема и количества радикалов в молекуле альдегида на выход продукта, был разработан ряд эффективностей образования ацетиленового спирта, а также ряд относительных каталитических активностей используемых сложных каталитических систем на основе селективности процесса.

Ключевые слова: фенилацетилен, бензальдегид, реакции алкинирования, ацетиленовые спирты, катализаторы, селективность, механизм реакции, выход продукты.

ABSTRACT

New methods for the synthesis of acetylene alcohols based on phenylacetylene and some aldehydes using complex catalytic systems the following were first developed. Based on the effect of the volume and number of radicals in the aldehyde molecule on the product yield, a series of relative catalytic activity of complex catalytic systems used based on process selectivity was developed.

Keywords: phenylacetylene, benzaldehyde, alkynylation reaction, acetylene alcohols, catalysts, selectivity, reaction mechanism, yield products.



КИРИШ

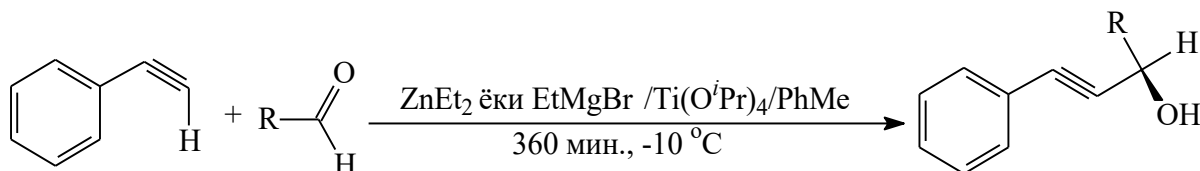
Бугунги кунда дунё олимлари томонидан бутиллитий ва бинафтол (BINOL) асосида тайёрланган литий бинафтолат катализатори ёрдамида бир қатор янги органик бирикмалар- спиртлар, эфирлар, кислоталар, элемент органик бирикмалар синтез қилинмоқда ҳамда саноатда кенг масштабда мақсадли ишлаб чиқарилмоқда [1-3]. Фенилацетиленнинг ароматик альдегидлар билан юқори селективликга эга бўлган катализитик система– (S)-BINOL/Ti(OⁱPr)₄ ёрдамида нуклеофил бирикиши натижасида молекуласида бир нечта ароматик ҳалқа ва гидроксил гуруҳи сақланган, биологик фаол ҳисобланган ҳирал ароматик ацетилен спиртлари ва диоллари синтез қилинган [2, 4]. Seul университети профессори Deok Chan Ha ва унинг жамоаси BINOLнинг ҳосиласи– 1-(2-(пирролидин-1-илметил)нафталин-1-ил)нафталин-2-ол лиган-ди ёрдамида диэтилруҳ ёки дифенилруҳларнинг (Et₂Zn yoki Ph₂Zn) α,β-ацетилен альдегидга селектив бирикиши натижасида мос равишдаги пропаргил спиртларини 84-97% унум билан синтез қилишга эришган [5]. Makoto Nakajima BINOL-2Li ёрдамида ароматик альдегидларни терминал алкинлар билан алкиниллаш натижасида 41-93% унум билан ароматик ацетилен спиртлари синтез қилинган. Жараён ТГФ эритмасида, атмосфера босими остида, -78 °C ҳарорат, 30 минут давомида олиб борилган. Ушбу ҳирал катализаторнинг кичик структуравий модификацияси альдегидларни алкиниллашда энантиоселективликнинг кескин ўзгаришига ва маҳсулот унумининг ортиши, қўшимча ва чиқинди моддалар миқдорининг камайишига олиб келди [4-7]. Nankay университети профессорси Mengchun Ye илмий лабораториясида Rh-ArCl/ArBr/ArI катализитик муҳитда 1,1'-би-2-нафтолнинг ариллаш реакцияси натижасида 3,3'-диарил-BINOL рацемати синтез қилинган. 3,3'-диарил-BINOL дан катализатор сифатида тўйинмаган спиртлар олишда фойдаланилган ва 2018 йилдан бошлаб саноатда ишлаб чиқаришга жорий қилинган [7, 8]. Ушбу лаборатория ходимлари томонидан айрим альдегидлар ва диацетилен (бута-1,3-диин-1-илтриизопропилсилан) асосида илк бор яратилган янги катализитик система (R)-BINOL/Cy₂NH/ZnEt₂/Ti(OⁱPr)₄ иштирокида 16 соат давомида, хона ҳароратида биологик фаол бирикма ҳисобланган фалкариндиол ҳосилаларининг энантиоселектив синтези амалга оширилган [9].

ОЛИНГАН НАТИЖАЛАР ТАҲЛИЛИ

Ti(OⁱPr)₄ асосидаги катализитик системалар ёрдамида ацетилен спиртларининг олиниши: Ti(OⁱPr)₄ асосидаги



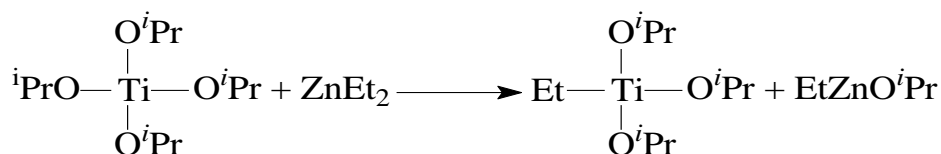
каталитик системалар- $ZnEt_2/Ti(O^iPr)_4/PhMe$ ёки $EtMgBr/Ti(O^iPr)_4/PhMe$ ёрдамида сирка альдегиди, кротон альдегиди, циклогексанкарбальдегид ва бензальдегидни фенилацетилен (PhA) билан этиниллаш реакцияси асосида куйидаги ацетилен спиртлари (АС)– 4-фенилбутин-3-ол-2 (1), 1-фенилгексен-4-ин-1-ол-3 (2), 1-циклогексил-3-фенилпропин-2-ол-1 (3) ва 1,3-дифенилпропин-2-ол-1 (4) ни синтез қилиш реакциялари ўрганилди. Жараённинг реакция схемаси ва механизми куйидагича таклиф этилди.



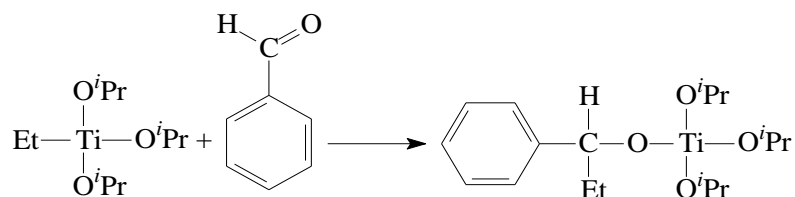
Бу ерда: R= -Me (1), -CH=CH-Me (2), -cHex (3), -Ph (4).

Реакция механизми: $ZnEt_2/Ti(O^iPr)_4/PhMe$ каталитик система ёрдамида PhA га бензальдегид таъсир этирилганда реакция бир вақтнинг ўзида уч йўналишда бориши мумкин.

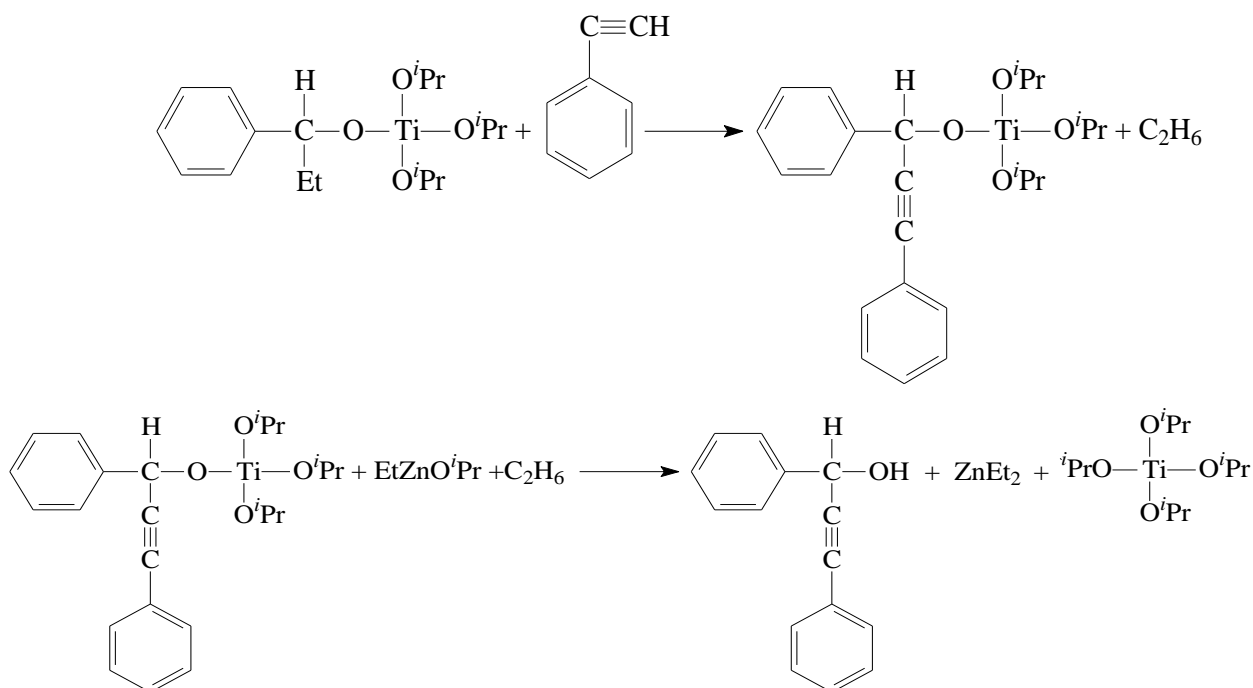
Дастлаб $Ti(O^iPr)_4/PhMe$ эритмасида $ZnEt_2$ билан таъсирлашиб, стабил каталитик компонент $EtTi(O^iPr)_3$ ҳосил қилади.



Ҳосил бўлган $EtTi(O^iPr)_3$ бензальдегид билан бирикиш реакцияга киришиб каталитик фаол оралик бирикмага айланади. PhA нинг ҳаракатчан водороди каталитик компонент молекуласидаги этил радикалига, фенилэтинил радикали эса танқис электрон зичлиги эга углеродга бирикади.

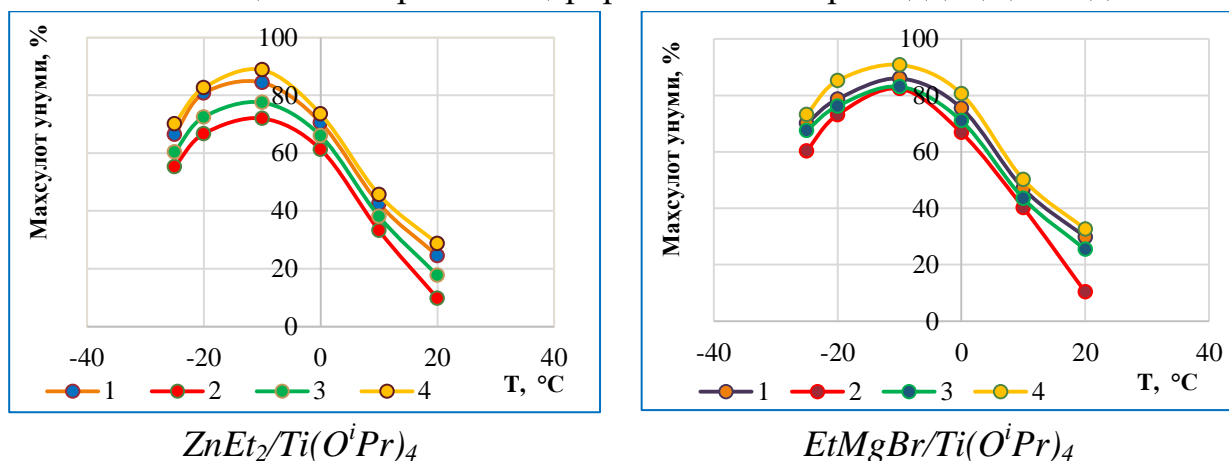


Натижада дастлаб АС нинг триизопропилоксититан ҳосиласи, сўнгра $EtZnO^iPr$ таъсирида 1,3-дифенилпропин-2-ол-1 ҳосил бўлади.



АС синтези жараёни учун энг муқобил шароитни топиш мақсадида танланган альдегидларни этиниллаш реакцияларига ҳарорат (-25÷20 °С), реакция давомийлиги (120÷600 минут), бошланғич моддалар, каталитик системалар ($ZnEt_2/Ti(O^iPr)_4$, $EtMgBr/Ti(O^iPr)_4$), эритувчилар (PhMe, ТГФ, Et_2O) табиати ва миқдори таъсирлари тизимли равишда ўрганилди.

АС синтез қилиш жараёнига ҳароратнинг таъсири тадқиқ қилинди.



1-расм. АС унумига ҳарорат таъсири
(эритувчи PhMe, реакция давомийлиги 360 минут)

Танланган каталитик системаларда реакциялар -10 °С ҳароратда олиб борилганда АС максимум унум билан синтез қилинди. Ҳарорат -25 °С қилиб олинганда системадаги каталитик фаол марказларнинг беқарорлашуви, реакция хона ҳароратида олиб борилганда эса системадаги молекулалар ҳаракат тезлигининг камайиши,

юқори энергияга эга фаол молекулалар кам миқдорда ҳосил бўлиши, $Ti(O^iPr)_4$ димерланиб қисман каталитик фаоллигини йўқотиши натижасида АС унумини камайиши кузатилди.

Альдегидларни PhA билан алкиниллаш жараёнлари 120 дан 600 минут интервалларида ўрганилганда, АС энг юқори унум билан реакция 360 минутда олиб борилганда синтез қилинди. Реакция 120 минутда ўтказилса катализаторлар фаоллиги, PhA эрувчанлиги ва диссоцияланиши юқори чўққига чиқмаслиги ёки реакция вақти 420 дан 600 минутгача узайтирилса системада алкоголятлар, ацеталлар ва винилокси эфирлар ҳосил бўлиб АС унуми самарадорлигига салбий таъсир қилиши аниқланди.

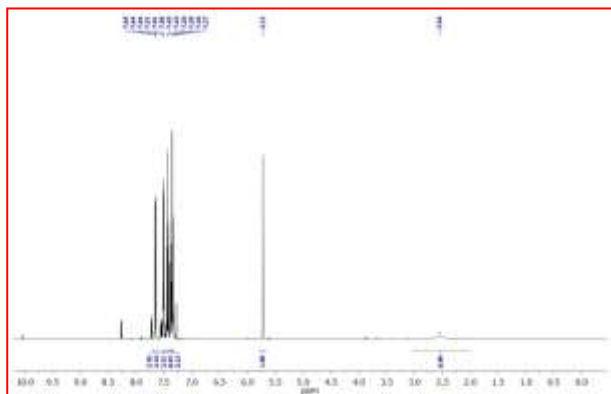
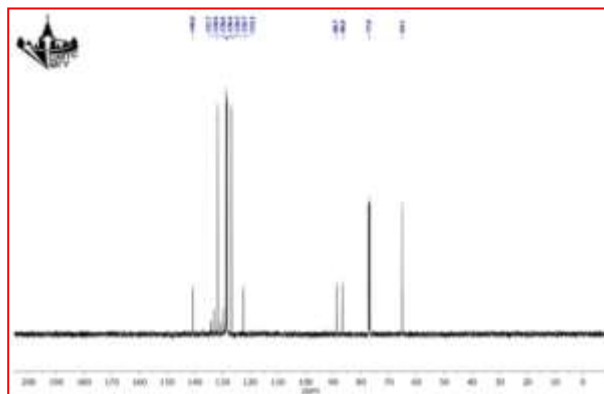
АС синтез жараёнига PhMe, ТГФ, Et_2O каби эритувчилар таъсири ўрганилди. АС унуми PhMe эритмасида энг юқори чиқди. PhMe жараёнда реагент сифатида реакцияга кириша олмаслиги, молекуласида ҳалқа бўйлаб π -электронларини делокаллиниши содир бўлиб маълум қисм энергиянинг камайиши натижасида кўшимча маҳсулотлар кам ҳосил бўлиши кузатилди.

Танланган каталитик системаларда $ZnEt_2$ га нисбатан $EtMgBr$ молекуласида электроманфийлиги юқори бўлган бромнинг таъсири натижасида молекула кутбланган ҳолатга ўтади ва кучли диссоцияланишга учраб АС унумини ўсиши аниқланди. Жумладан, $ZnEt_2/Ti(O^iPr)_4$ системасида 1- 84,4%, 2- 72%, 3- 77,5% ва 4- 88,8% $EtMgBr/Ti(O^iPr)_4$ системасида эса нисбатан юқори 1- 86%, 2- 82%, 3- 83% ва 4- 91% унумда синтез қилинди.

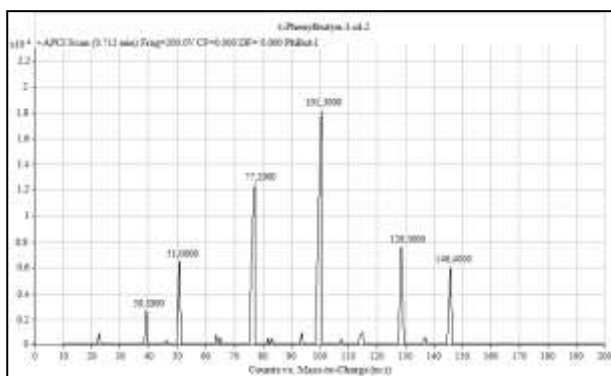
$Ti(O^iPr)_4$ асосидаги каталитик системаларда АС синтез қилиш жараёни учун энг муқобил шароит топилди. Унга кўра катализатор $EtMgBr/Ti(O^iPr)_4$ (3:0,25 моль нисбатда), эритувчи PhMe, ҳарорат $-10^\circ C$, реакция давомийлиги 360 минут, бошланғич маҳсулотлар 3:1 нисбатда олинган ҳолат танланди. АС тузилиши спектроскопия усулларида таҳлил қилинди. **1-** $R_f = 0,47$; (86%): ^1H-NMR ($CDCl_3$): δ 7.18-7.27 (m, 5H, ArH), 4.78 (d, $J=6.5$ Hz, 1H, CHOH), 2.05 (d, 1H, OH), 1.56 (d, $J=7.0$ Hz, 3H, CH_3OH). $^{13}C-NMR$: δ 131.7, 128.3, 127.7, 91.3, 83.8, 58.6, 24.4; **2-** $R_f = 0,52$; (82,4%): ^1H-NMR ($CDCl_3$): δ 1.14-1.23 (m, =CH- CH_3), 4.13-4.21 (m, >CH-OH), 5.2 (d, 1H, OH), 5.53-5.71 (m, -CH=CH-), 5.91-6.27 (d, $J=5.8$ Hz, =CH-(=CH- CH_3), 6.45 (m, 2H), 7.62 (m, 3H). $^{13}C-NMR$: δ 122.1, 116.8, 117.2, 96.3, 88.4, 67.5, 21.2; **3-** $R_f = 0,43$; (83,1%): ^1H-NMR ($CDCl_3$): δ 7.45-7.41 (m, 2H), 7.33-7.28 (m, 3H), 4.38 (t, $J=5.9$ Hz, 1H), 1.95-1.90 (m, 2H), 1.86-1.78 (m, 3H), 1.72-1.64 (m, 2H), 1.32-1.11 (m, 5H). $^{13}C-NMR$ ($CDCl_3$): δ 131.7, 131.7, 128.27, 128.24, 122.8, 89.3, 85.7, 67.7, 44.3, 28.6, 28.2, 26.4, 25.92, 25.90; **4-** $R = 0,39$; (90,8%). ^1H-NMR ($CDCl_3$): δ 7.82-7.74 (m, 2H), 7.55-7.42 (m, 6H), 5.88 (d, $J=5.8$ Hz, 1H), 2.42(d,



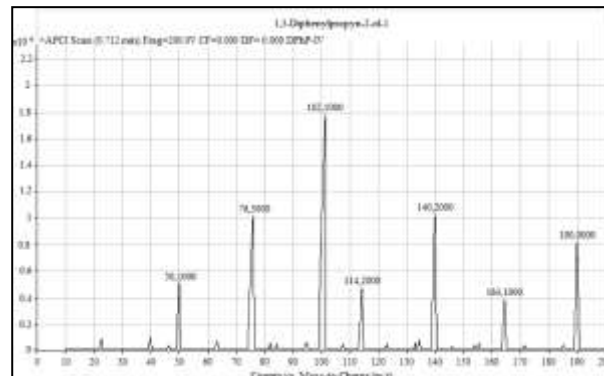
$J=5.9$ Hz, 1H). ^{13}C - NMR: δ 140.4, 131.2, 128.3, 128.7, 128.3, 128.2, 126.6, 122.5, 88.5, 86.8, 65.2.

2-расм. 4 ^1H - NMR спектри3-расм. 4 ^{13}C - NMR спектри

Синтез қилинган АС хромато- масс спектр натижалари ўрганилди.



5-расм. 1 хромато-масс спектри



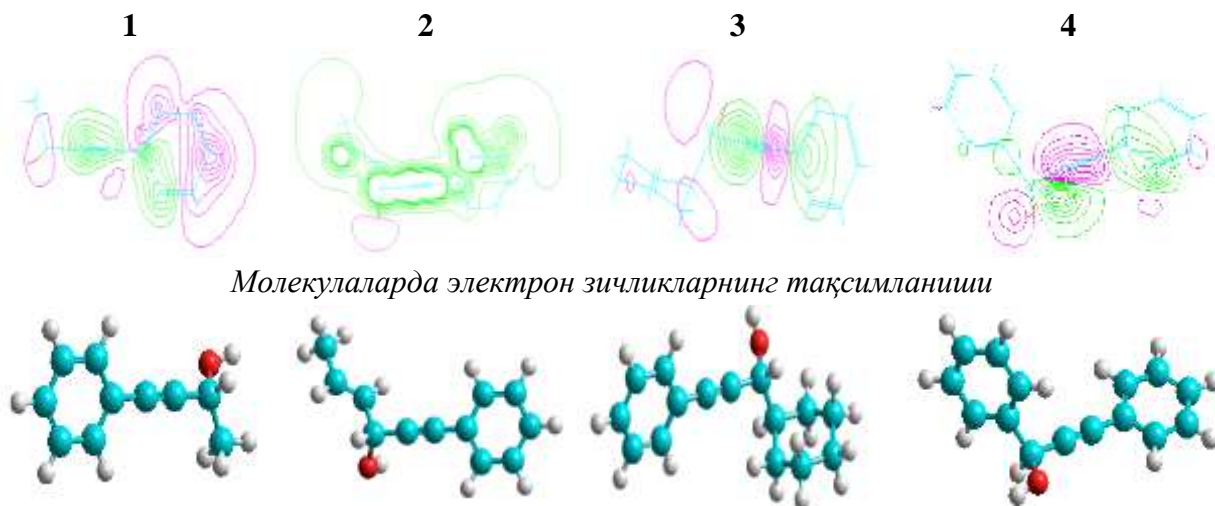
6-расм. 4 хромато-масс спектри

АС тузилиши ИҚ- спектроскопик усулда ўрганилди. **1** ИҚ-спектрида: $3400-3200\text{ cm}^{-1}$ ($-\text{OH}$), 3080 ; 3056 ; 3030 cm^{-1} ($\text{C}_{\text{Ar}}-\text{H}$), $2960-2870\text{ cm}^{-1}$ ($-\text{CH}_3$), 2234 cm^{-1} ($-\text{C}\equiv\text{C}-$) ва $1597-1440\text{ cm}^{-1}$ ($-\text{C}=\text{C}-$) $_{\text{Ar}}$ боғининг валент тебранишлари кузатилди. **2** нинг қуйидагича ютилиш соҳалари: $3400-3200\text{ cm}^{-1}$ ($-\text{OH}$), 3084 ; 3055 ; 3020 cm^{-1} ($\text{C}_{\text{Ar}}-\text{H}$), 2970 ; 2940 ; 2880 cm^{-1} ($-\text{CH}_3$), 2240 cm^{-1} ($-\text{C}\equiv\text{C}-$), 1675 cm^{-1} ($-\text{C}=\text{C}-$) $1592-1482\text{ cm}^{-1}$ ($-\text{C}=\text{C}-$) $_{\text{Ar}}$ боғининг валент тебраниши кузатилди. **3** нинг ютилиш соҳалари: $3400-3200\text{ cm}^{-1}$ ($-\text{OH}$), 3085 ; 3050 ; 3020 cm^{-1} ($\text{C}_{\text{Ar}}-\text{H}$), $2926-2854\text{ cm}^{-1}$ ($-\text{CH}_2$), 2236 cm^{-1} ($-\text{C}\equiv\text{C}-$), $1595-1484\text{ cm}^{-1}$ ($-\text{C}=\text{C}-$) боғининг валент тебраниши кузатилди. $3450-3200\text{ cm}^{-1}$ ($-\text{OH}$), 3080 ; 3055 ; 3025 cm^{-1} ($\text{C}_{\text{Ar}}-\text{H}$), 2890 cm^{-1} ($-\text{CH}$), 2225 cm^{-1} ($-\text{C}\equiv\text{C}-$), 1585 ; 1560 ; 1460 cm^{-1} ($-\text{C}=\text{C}-$) $_{\text{Ar}}$ боғининг валент тебраниши **4** га тегишлилиги кузатилди.

Альдегидларни карбонил гуруҳи углеродига жойлашган радикаллар табиати ва уларнинг фазовий таъсир этиш хоссасига кўра реакция бориши ва маҳсулот унумига таъсир

этиш қонунияти топилди, унга кўра кротон альдегиди < циклогексанкарбальдегид < сирка альдегид < бензальдегид бўйича этиниллаш реакциясини самарадорлиги ошиб бориши аниқланди.

АС молекулаларининг фазовий тузилиши, молекулаларда электрон зичликни тақсимланиши ACDFREE12 дастури орқали ўрганилди.



Молекулаларда электрон зичликларнинг тақсимланиши

Молекулаларнинг 3D фазовий структура тузилиши

7-Расм. АС айрим фазовий тузилишлари

Ацетилен спиртларининг қўлланилиши соҳалари: Синтез қилинган АС “Фарғона нефтни қайта ишлаш заводи” МЧЖ да нефть ва нефть маҳсулотларини олтингугуртли бирикмалардан тозаловчи препарат сифатида қўлланилганда нефть ва нефть маҳсулотлари таркибидаги олтингугурт, водород сульфид, сульфидлар ҳамда дисульфидларнинг 38-52% миқдорини комплекс ҳосил қилиш усули орқали ажратиб олишга ва нефть маҳсулотлари сифатини оширишга эришилган. Шунингдек АС саноат корхоналари айланма оқава сувлар таркибида туз қатлам ҳосил қилувчи компонентларга қарши ингибиторлик хоссалари “Ohangaronsement” АЖ ўрганилди. Натижалар шуни кўрсатдики, оқава сувлар таркибида туз қатлам ҳосил қилувчи намуналарга қарши АС таъсирчанлигининг фаоллиги, уларнинг металл катионларини ўзида сақлаб қолиш селективлиги (89,0%) аниқланди.

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DEVELOPING STUDENTS' CRITICAL THINKING SKILLS THROUGH QAR STRATEGY

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ABSTRACT

This paper aims to explore usage of QAR (Question Answer Relationships) strategy to improve students critical thinking ability. The study was conducted by the research question “Is QAR strategy effective in developing students’ critical thinking skills”. Research participants were teachers of Tashkent, Uzbekistan. After the research, high present of teachers support to utilize this strategy and share positive ideas and recommendation.

Keywords: critical thinking, strategy, QAR (Question Answer Relationships), student, research.

INTRODUCTION

It is essential to note that, current stuff of any sphere are required to be knowledgeable in both soft and hard skills .Hard skills are set of abilities which are connected with professional perspective such as IT skills, language proficiency, math and others as well as soft skills are set of aptitudes which are related to human behavior and personality, namely, critical thinking, time management, team-working and so on. In this reason, sociologists and pedagogues highly emphasize to develop both skills from the early age of learners to higher education. Especially critical thinking skills is considered fundamental and very important one in life. According to Nadia Mirela Florea and Elena Hurjui [1], critical thinking is a fundamental ability developed by teachers in learning. Wijaya [2] argues critical thinking is the activity of analyzing ideas in a more specific direction, discerning things sharply, and developing in a more perfect direction. Elaine Johnson (2002: 185) [3] also states that the aim of critical thinking is to achieve a deep understanding. From some definitions can be concluded that, understanding of the ability to think critically has the meaning of the power of thought that must be built on the learner so that a character or personality is imprinted in the learner's life to solve all problems of his life by identifying any information received then able to evaluate and then summarize it systematically and then able to express an opinion in an organized way [4].



A student / prospective teacher who thinks critically then he will be able to:

1. Recognize various issues in education easily.
2. Identify, analyze the cause of the problem and the degree of relationship of a particular problem.
3. Able to make solutions and evaluate them as formulating problems related to National Exam is needed or not.
4. Thereby critical thinking in the world of education is very important because it will improve the skills and professionalism in its activities in education.

- In the research there is another term QAR -Question Answer Relationships should be discussed. Raphael created the QAR approach in 1986. The Pearson and Johnson (1978) question taxonomy served as the foundation for the initial QAR program. The authors of the taxonomy advocated for the identification of questions in connection to both the material being read and the reader's prior knowledge rather than in isolation. It was created as a way for pupils to immediately understand the relationship between questions and responses through the many types of questions. The QAR method aids pupils in taking into account information from the text or their own prior knowledge. This method seeks to clarify students' thought processes. Their capacity to comprehend various inquiry styles and the connection between the query and the answer grows as a result. QARs assist students in differentiating among questions based on where the answer can be found .It helps them find the answers to their questions, whether it means locating a specific fact, drawing an inference, or connecting the reading to their own experience.

- It inspires students to think creatively and work cooperatively while challenging them to use higher-level thinking skills.

The Question-Answer Relationship (QAR), a question-generating and question-answering approach, enhances comprehension by assisting students in comprehending the various kinds of questions. The fact that some solutions are "Right There" in the text, some require the reader to "Think and Search," and still others can only be replied "On My Own," helps kids understand that they must first think about the topic before coming up with a response. Both before and after reading, QAR can be used. Students will learn how to pose and respond to questions based on the text as a result of this method, which aids understanding.

METHODS

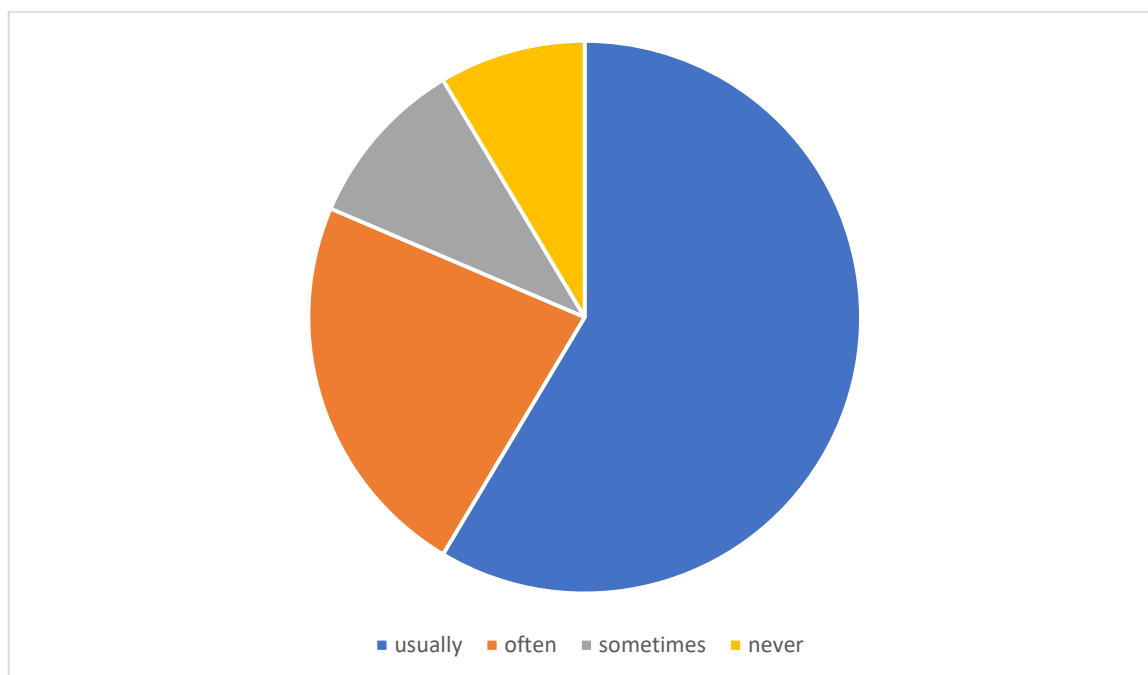
This study is included in the qualitative research. The location of the research is Tashkent, Uzbekistan. Methods that researcher uses in this study among 60 English teachers of higher



education as a sample from the population. The interview was used to measure teachers' preference answers that respondents only answered according to their working experience. The research question is "Is QAR strategy effective in developing students' critical thinking skills". All interviews were conducted via Telegram messenger online and teachers sent their response after recording voice. Because of online interview it took less time to gather and analyze answers.

RESULTS AND DISCUSSION

According to teachers' responses it could be apparent that, nowadays teachers prefer to exploit more problem-based activities to enhance students' critical and analytical thinking since it is one of the requirements of society for better staff. Additionally, these kinds of activities are more interesting and instructional for both student and a teacher as there are a lot of distractions around the student and it is getting challenging to attract learners' attention and share knowledge at the same time. Another useful point from some teachers for the researchers: "Critical thinking skills cannot be developed by one activity in one lesson. It should be regularly repeated and it takes some time for both students and teachers. Activities should be colorful and suitable for the audience according to their age, interest (technology, music, art), professional branch (medicine, pedagogy, information technology, management) and learning styles (auditory, tactile, visual) unless they can be adapted by teachers. Also, the skill-based activities are easy to conduct in group work and pair work in order to cultivate the sense of friendship, collaboration and leadership skill as well as students transfer their knowledge. Among 60 interviewer teachers 45 teachers approved QAR (Question Answer Relationships) strategy is effective to develop critical thinking skills. In their lessons they usually give some tasks, prepare activities according to this strategy. In particular, "Think and Search" activity is more popular and preferable among teachers. In Chart 1 it is visible usage frequency of QAR strategy in teachers' lessons.



In accordance with the results of the chart it can be clear that, 59 percent of teachers usually prefer QAR strategy in their classes. As long as 23 percent of teachers often exploit this strategy to improve students' critical thinking. 14 percent of educators from time to time would like to utilize QAR strategy in their classes and finally 12 percent of teachers never use this strategy however they will make activities by QAR in the future.

CONCLUSION

In conclusion, critical thinking abilities are becoming a more crucial component of education, although teaching them to students can frequently be difficult. A critical thinking culture must be developed in the classroom since students can be enthusiastic and motivated in the classroom. Modern educators therefore make an effort to pay attention to students' critical thoughts and allow them to develop critical thinking through well- chosen approaches and procedures. Future generations may have their own independent, vast, and universal goals. Specifically, QAR strategy can be integrated in classes to serve for development of critical thinking skills of students. It was proved in the research which was conducted among 60 teachers of higher education in Uzbekistan.

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OVERCOMING BARRIERS IN LEARNING READING SKILL AND METHODS OF IMPROVING READING SKILL

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ABSTRACT

This article highlights how to overcome obstacles in learning to read and improve reading skills. We all know that reading skills are more difficult than listening, speaking, and writing skills, but you can learn more about using new and easy methods to learn it through this article.

Keywords: Reading skills, innovative methods, studies, and researchers' opinions about reading skills.

INTRODUCTION

This article provides information on how to improve reading skills for children of all ages and what students should focus on. I will try to answer the question "What is Reading Comprehension?" Reading Comprehension allows us to understand what a small text is about, what knowledge students can get from it, and what vocabulary is used through the text. According to OCED's views on reading for development, the Program for International Students Assessment (PISA): "Reading is more important for success".

In fact, to achieve success, in person must work tirelessly and study hard. There is a golden wisdom of our ancestors about this, that is, "The result of our work is from God".

METHODS

This article describes methods for developing reading skills. There are many strategies and methods of improving reading skills. For example :

7 strategies to improve your reading comprehension skills :

- Improve your vocabulary.
- Come up with questions about the text you are reading.
- Use context clues.
- Look for the main idea.
- Write a summary of what you read.
- Break up the reading into smaller sections.



- Pace yourself.
- Eliminate distractions.

You can improve your reading abilities by following these steps:

- Highlight. As you read, highlight important information, so that you can find it again later. ...

- Write in the margins. Annotate your text with comments, questions, examples, and more.

- Read out loud. ...
- Explain what you've read to someone else. ...
- Test yourself.
- Develop a habit of reading daily.
- Set specific goals for your reading.
- Review the texts beforehand.
- Try to understand the purpose.
- Use different reading strategies.
- Take notes as you read.
- Summarise what you read.

Practice is one of the best ways to improve your skills. Practice will ultimately help you develop your reading skills, and you can set aside 10 to 15 minutes each day to read. If you practice your reading skills, you can read news articles, fiction, magazine issues, or any other type of text.

Practise reading texts quickly: you can time yourself. For example, give yourself 3 minutes to read 300 words, then give yourself 2 minutes to read 300 words, then try in 1 minute. You can repeat this idea with the same text at first, but then try it with different texts as you get better at it. Don't freeze.

There are four types of reading skills that every reader should know:

1. skimming,
2. scanning,
3. intensive reading,
4. speed reading.

- Skimming is a technique that allows you to quickly read through a text and pick out the main ideas.

- Scanning is reading rapidly to find specific facts.

- Intensive reading involves learners reading in detail with specific learning aims and tasks.

- Speed reading is a skill honed through practice. Reading a text involves comprehension of the material.

RESULTS AND DISCUSSIONS

If we follow the strategies and techniques above, we will see how our reading skills improve. Enhanced cognitive abilities: Regular reading skills can help improve your concentration, memory, and critical thinking skills. In addition, factual knowledge enhances cognitive processes like reasoning and problem-solving. We all know that reading is good for us. It can improve brain and memory function and keep your brain operating more effectively as you age. Reading also enhances connectivity in the brain, reduces stress, promotes relaxation, improves sleep, and has the potential to decrease the likelihood of developing Alzheimer's.

Reading makes us better thinkers by improving our critical thinking and problem-solving skills, boosting our general and specific knowledge and developing our social and communication skills. Research shows that regular reading can lower blood pressure, reduce stress and improve sleep quality. Researchers have also found a link between reading books and longevity; reading keeps your brain active and promotes mental and emotional fitness.

CONCLUSION

In conclusion, you can learn reading skills very easily through this article. You can only learn by following the above methods and strategies. I pray that you make the most of every moments of your life and teach others what you have learned because it is Allah who gives and takes away everything. May Allah increase your knowledge.

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ЦИКЛ КРЕБСА

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АННОТАЦИЯ

Цикл лимонной кислоты был описан биохимиком Хансом Адольфом Кребсом в 1937 году и поэтому также называется циклом Кребса. С помощью различных экспериментов ученый выяснил, какие промежуточные продукты образуются при окислении пирувата и что это должен быть циклический процесс. Цикл лимонной кислоты является «узлом» метаболической системы. Его наиболее важной функцией является производство НАДН для дыхательной цепи. Водород, связанный с НАДН, окисляется до воды в митохондриальной мембране молекулярным кислородом. Энергия, выделяющаяся при этом, используется для синтеза АТФ. Этот процесс, также известный как окислительное фосфорилирование, является наиболее эффективным процессом производства АТФ.

Ключевые слова: цикл трикарбоновых кислот, НАДН, глюкоза, жиры, ФАДН

ABSTRACT

The citric acid cycle was described by biochemist Hans Adolf Krebs in 1937 and is therefore also called the Krebs cycle. With the help of various experiments, the scientist found out which intermediates are formed during the oxidation of pyruvate and that it should be a cyclic process. The citric acid cycle is the "node" of the metabolic system. Its most important function is the production of NADH for the respiratory chain. The hydrogen bound to NADH is oxidized to water in the mitochondrial membrane by molecular oxygen. The energy released during this process is used for the synthesis of ATP. This process, also known as oxidative phosphorylation, is the most efficient ATP production process.

Keywords: tricarboxylic acid cycle, NADH, glucose, fats, FADN.

ВВЕДЕНИЕ

Цикл лимонной кислоты — это цикл, лежащий в основе метаболизма, который связан с дыхательной цепью у всех организмов, потребляющих кислород. Встречается в митохондриях эукариот и в цитоплазме прокариот. Он является частью клеточного дыхания и у аэробных организмов предшествует собственно процессам окисления в дыхательной цепи. Цикл лимонной кислоты является третьим из четырех этапов катаболизма углеводов (расщепление богатых энергией углеводосодержащих соединений). Это происходит после гликолиза и окислительного декарбоксилирования и непосредственно перед дыхательной цепью. Подсчитано, что более 90% энергии, получаемой с пищей, является результатом цикла Кребса.

РЕЗУЛЬТАТЫ

Результатом цикла Кребса является синтез небольшого количества АТФ и образование НАД \cdot Н₂, который далее направляется на следующий этап клеточного дыхания — дыхательную цепь (окислительное фосфорилирование), расположенную на внутренней мембране митохондрий. Образовавшаяся в результате гликолиза пировиноградная кислота (пируват) поступает в митохондрии, где она в конечном итоге полностью окисляется, превращаясь в углекислый газ и воду. Сначала это происходит в цикле Кребса, затем при окислительном фосфорилировании. До цикла Кребса пируват декарбоксилируется и дегидрируется. В результате декарбоксилирования отщепляется молекула СО₂, дегидрирование — это отщепление атомов водорода. Они соединяются с НАД. В результате из пировиноградной кислоты образуется уксусная, которая присоединяется к коферменту А. Получается ацетилкофермент А (ацетил-КоА) — СН₃СО~S-КоА, содержащий высокоэнергетическую связь. Превращение пирувата в ацетил-КоА обеспечивает большой ферментативный комплекс, состоящий из десятков полипептидов, связанным с переносчиками электронов. Цикл Кребса начинается с гидролиза ацетил-КоА, при котором отщепляется ацетильная группа, содержащая два атома углерода. Далее ацетильная группа включается в цикл трикарбоновых кислот. Ацетильная группа присоединяется к щавелевоуксусной кислоте, имеющей четыре атома углерода. В результате образуется лимонная кислота, включающая шесть атомов углерода. Энергию для этой реакции предоставляет макроэнергетическая связь ацетил-КоА.

ОБСУЖДЕНИЕ

Цикл лимонной кислоты представляет собой круговой метаболический путь. Он состоит из 8 отдельных реакций, которые катализируются специфическими ферментами и необходимы для выработки энергии и получения промежуточных продуктов для синтеза важных биомолекул. У эукариот цикл лимонной кислоты протекает в митохондрии, а у прокариот — в цитоплазме. Отправной точкой является двухуглеродная молекула ацетил-КоА. Он вводится в цикл и там окисляется с образованием двух молекул углекислого газа (CO_2). Затем мы выдыхаем газообразный углекислый газ через легкие. Один цикл дает три молекулы НАД и по одной молекуле ФАД₂ и ГТФ. Молекулы-переносчики электронов (НАД и ФАД₂) затем переносятся на внутреннюю митохондриальную мембрану. Здесь происходит окончательное окисление, то есть дыхательная цепь, которая следует за циклом лимонной кислоты. Опишем поэтапно все 8 реакций цикла Кребса: Шаг 1: оксалоацетат (C₄) + ацетил-КоА (C₂) → цитрат (C₆). Образуется соединение, состоящее из 6 атомов углерода, цитрат (= соль лимонной кислоты). На следующем этапе группа OH переносится от цитрата к соседнему атому углерода. Поэтому цитрат перегруппировывается в изоцитрат с помощью фермента аконитазы. Шаг 2: Цитрат (C₆) → Изоцитрат (C₆). Оба соединения имеют одинаковые атомы, просто они расположены по-разному (= изомеры). В результате изоцитрат окисляется, т.е. испускает электроны. Электроны переносятся на переносчик электронов НАД + H⁺. Это создает молекулу НАДН. Кроме того, на этом этапе отщепляется молекула CO_2 . Шаг 3: изоцитрат (C₆) → α-кетоглутарат (C₅). Это то, что известно как декарбоксилирование. В нем участвует фермент под названием изоцитратдегидрогеназа. Шаг 4. На следующем этапе реакции происходит дальнейшее окисление и удаление CO_2 . Вновь образуется молекула НАДН. Кроме того, мультиферментный комплекс переносит группу кофермента А на образовавшуюся молекулу. Образуется сукцинил-КоА, который представляет собой молекулу, которая, как и ацетил-КоА, содержит связь с очень высокой энергией. Шаг 5. Затем сукцинил-КоА снова отщепляется от кофермента А с помощью фермента, называемого сукцинил-КоА-синтетазой. Это высвобождает энергию в виде ГТФ. Затем ГТФ превращается в АТФ. Полученная молекула называется сукцинатом. Шаг 6: сукцинат теперь окисляется до фумарата на следующей стадии реакции. Высвобождающиеся при этом электроны и протоны водорода передаются окислителю ФАД. Это создает молекулу FADH. Фумарат также используется для создания



различных аминокислот, таких как тирозин и фенилаланин. Шаг 7. На следующем этапе фермент фумараза заставляет молекулу воды связываться с двойной связью фумарата. В этой реакции гидратации образуется малат (анион яблочной кислоты). Шаг 8. Затем ОН-группа малата окисляется до карбонильной группы малатдегидрогеназой на последней стадии реакции. Образуется молекула оксалоацетата. Также образуется молекула НАДН. Оксалоацетат теперь может снова реагировать с ацетил-КоА с образованием цитрата и снова проходить цикл. Можно разделить цикл Кребса на две фазы. Первая половина отвечает за распад углеродного скелета в виде элиминации углекислого газа (катаболический). Вторая половина служит для восстановления (анаболический) акцепторной молекулы (оксалоацетат).

ЗАКЛЮЧЕНИЕ

Цикл Кребса представляет собой метаболический процесс, происходящий в клетках для выработки энергии. Этот цикл происходит в цитоплазме клеток и необходим для клеточного дыхания. Цикл Кребса начинается с поступления в цикл ацетил-КоА, соединения, образующегося в результате углеводного, липидного и белкового метаболизма. Ацетил-КоА соединяется с оксалоацетатом с образованием цитрата. В ходе ряда химических реакций цитрат расщепляется на CO_2 и воду, высвобождая энергию в виде АТФ. Во время цикла Кребса образуется несколько важных промежуточных соединений, включая цитрат, изоцитрат, α -кетоглутаровую кислоту и янтарную кислоту. Эти соединения важны не только для производства энергии, но и для биосинтеза аминокислот и жирных кислот.

Цикл Кребса также важен для контроля гомеостаза организма. Например, когда организму требуется дополнительная энергия, увеличивается выработка ацетил-КоА, что увеличивает скорость цикла Кребса.

Таким образом, цикл Кребса является важным метаболическим процессом для производства энергии в клетках. Это происходит в цитоплазме и использует соединения, образующиеся в результате метаболизма углеводов, липидов и белков. Помимо производства энергии, цикл Кребса также важен для биосинтеза различных соединений и для контроля гомеостаза в организме.

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ДНК МАРКЕРЛАРИ АСОСИДА ЮМШОҚ БУҒДОЙНИНГ ЮҚОРИ ҲАРОРАТГА ЧИДАМЛИ ГЕНОТИПЛАРИНИ ТАНЛАШ

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АННОТАЦИЯ

Буғдой селекцияси жараёнларида ДНК маркерлар технологиясидан фойдаланиш юқори ҳарорат каби абиотик стресс омилларига чидамли бўлган янги навларини яратишни осонлаштирди. Мазкур тадқиқотда СИММУТ кўчатзорларига мансуб юмшоқ буғдойнинг 33 та тизмалари ҳамда маҳаллий Семурғ (назорат) навидан фойдаланилди. Юқори ҳароратга чидамлиликнинг лобаратория таҳлиллари асосида L030, L095, L124, L138 ва L190 юмшоқ буғдой тизмалари чидамли эканлиги аниқланди. Тадқиқотда юқори ҳароратга чидамлилик билан генетик боғланган 6 та (Wmc25, Wmc44, Wmc273, Wmc327, Xcfa2147 ва Xcfd76) ДНК маркерларидан фойдаланилди. Статистик таҳлиллар орқали Wmc44 ДНК маркери чидамлилик билан генетик боғланган, энг ишончли маркер эканлиги аниқланди, шунингдек геномида чидамлилик маркер аллели (280 ж.а.) мавжуд бўлган L019, L095, L124 ва L138 тизмалари ажратиб олинди. Геномида Wmc44 ДНК маркер аллели мавжуд бўлган ҳамда фенотипик жиҳатдан чидамлиликни номоён қилган L095, L124 ва L138 тизмалари ажратиб олинди ҳамда уларнинг уруғ кўпайтириш кўчатзорлари ташкил этилди. Келгусида, уларни янги нав сифатида амалиётга тадбиқ этиш кўзда тутилган.

Калит сўзлар: Баҳорги юмшоқ буғдой, *Triticum aestivum* L., ДНК маркери, юқори ҳарорат, чидамлилик.

ABSTRACT

The implementation of DNA marker technology in wheat



breeding has facilitated the development of new varieties with tolerance to abiotic stress factors like high temperatures. In this study, 33 bread wheat lines from CIMMYT nurseries and the local Semurg variety (control) were analyzed. Based on laboratory tests for high-temperature tolerance, five winter wheat lines (L030, L095, L124, L138, and L190) were identified as tolerant. Six DNA markers (Wmc25, Wmc44, Wmc273, Wmc327, Xcfa2147, and Xcfd76) associated with high temperature tolerance were used in the study. Statistical analysis revealed that the Wmc44 marker was the most reliable indicator of tolerance. Four lines (L019, L095, L124, and L138) were found to carry the tolerant allele (280 bp) of this marker in their genomes. The L095, L124, and L138 lines, which possess the Wmc44 marker allele and demonstrated phenotypic tolerance, were isolated for further development. Seed propagation nurseries have been established for these lines, to eventually introduce them as new, temperature-tolerant wheat varieties.

Keywords: Winter wheat, *Triticum aestivum* L., DNA marker, high temperature, tolerance.

КИРИШ

Буғдой (*Triticum aestivum* L.) дунёнинг асосий экинларидан бири бўлиб, ғаллачиликда юқори ва барқарор ҳосил олиш энг муҳим мақсад ҳисобланади. Бугунги кунда буғдой бошқа ҳар қандай экинларга қараганда кўпроқ қишлоқ хўжалиги ерларида етиштирилади ва одамлар учун энг муҳим озиқ-овқат манбаи бўлиб қолмоқда. Ривожланаётган мамлакатларда одамлар учун зарур бўлган протеин калорияларининг 40 фоиздан ортиғи тўғридан-тўғри буғдой маҳсулотларидан келади. Қорақалпоғистон Республикасида етиштириладиган буғдой навлари асосан интенсив навлар бўлишига қарамай, нафақат сув танқислиги ва шўрланиш балки, юқори ҳарорат таъсирида ҳам ҳосилдорлик ва дон сифати бугунги кун талабларига жавоб бермайди. Кузги буғдойнинг кўп навлари Оролбўйи галофит деҳқончилик тизимида юқорида қайд этилган стресс омилларига жуда сезгир. Бинобарин, Қорақалпоғистон шароити учун баҳорги буғдойнинг юқори ҳарорат таъсирига чидамли янги, серҳосил навларини етиштириш ва яратиш бугунги кундаги энг муҳим тадқиқот йўналишларидан биридир.

Юқори ҳароратга чидамлилик табиатда миқдорий бўлиб, бир қатор генлар/QTL (миқдорий хусусият локуслари) томонидан бошқарилади [1]. Сўнгги ўттиз йил ичида юқори ҳароратга чидамлиликнинг генетик асосларини аниқлашга ҳаракат қилинди. Langdon хромосомалари алмаштирилган линиялари биринчи марта



юқори ҳароратка бардошли генларни хариталашда ишлатилган ва улар билан боғлиқ генлар 1991 йилда 3A, 3B, 4A, 4B ва 6A хромосомаларида топилган [2]. Хи ва бошқалар [3] кейинчалик 3A, 3B ва 3D хромосомалари Норе буғдой навида юқори ҳароратка чидамлик билан боғлиқлигини аниқлашди. Chinese Spring ва Норе навлари ўртасидаги хромосомалари алмаштирилган линиялардан фойдаланган ҳолда, Норе навининг 2A, 3A, 2B, 3B ва 4B хромосомалари юқори ҳароратка бардошлиликни сезиларли даражада оширган [4]. Биргаликда, 3A ва 3B хромосомалари буғдойнинг юқори ҳароратка бардошлилигини назорат қилувчи асосий генларни ўз ичига олганлиги аниқланган.

Молекуляр маркерлар ва миқдорий генетика ривожланишидаги ютуқлар буғдойнинг юқори ҳароратка бардошлилигига таъсир қилувчи QTLни аниқлаш учун кучли воситаларни тақдим этди. Юқори ҳароратка бардошлилигига сезиларли таъсир кўрсатадиган кўплаб QTLлар бардошлилик кўрсаткичлари сифатида турли маркерлар ёрдамида аниқланган [5]. Асуña-Galindo ва бошқалар QTL мета-таҳлили ёрдамида [6] 1B, 2B, 2D, 4A, 4B, 4D, 5A ва 7A хромосомаларида курғоқчилик ва юқори ҳароратка чидамлик билан боғлиқ бўлган саккизта асосий QTL кластерини аниқлашди. Бу ўша ҳудудлардаги генларни аниқлаш учун генетик хариталаш усуллари қўллаш мумкинлигини кўрсатди. Хромосомалари алмаштирилган линиялардан фойдаланган ҳолда ўтказилган тадқиқотларга мувофиқ, юқори ҳароратка бардошлиликни назорат қилувчи кўплаб QTLлар 3B хромосомасида жойлашган [7].

Юқори ҳароратка бардошлиликни яхшилашга қаратилган муваффақиятли MAS дастурининг муҳим шарти конститутив QTLни аниқлашдир. Яқинда, юқори ҳароратка бардошлилик билан боғлиқ QTL харитаси учун ўз вақтида ва кечки экиш муддатлари ишлатилган ва 2B ҳамда 7B хромосомаларда конститутив QTL аниқланган [5]. Ушбу усулни қўллаш орқали олимлар гамма нурланиши орқали Shi 4185 элита буғдой нави мутантдан келиб чиққан Fu 4185 нави донининг оғирлигини назорат қилувчи 5DL хромосомасида битта атроф-муҳит жихатдан барқарор QTL аллелини аниқлашди [8]. Юқори ҳарорат стрессининг буғдой ишлаб чиқаришда дон оғирлигига жиддий таъсирини ҳисобга олган ҳолда, юқори ҳароратли стресс остида дон оғирлиги билан боғлиқ QTL ни танлаш буғдой ҳосилдорлигини ошириши мумкин.

МАТЕРИАЛЛАР ВА УСЛУБЛАР

Тадқиқот материаллари. Тадқиқотда CIMMYT кўчатзорларига мансуб юмшоқ буғдойнинг 33 та тизмалари



ҳамда маҳаллий Семурғ (назорат) навидан фойдаланилди. Бунда, назорат намунасига шартли равишда L001, қолган намуналарга L002 дан L034 гача тартибда ном берилди.

Юқори ҳароратга чидамликни баҳолаш. Юмшоқ буғдой намуналари юқори ҳароратга чидамлигини Г.В. Удовенко, (1988) услуби асосида олиб борилди.

Геном ДНК ажратиш. Буғдой намуналари инкубаторда, петри идишларида ўстирилиб, улардан СТАВ усулида геном ДНК ажратилди.

ПЗР таҳлили. Тадқиқот намуналарини шўрга чидамликка алоқадор 6 та ДНК маркерлар панели тузилиб (Wmc25, Wmc44, Wmc273, Wmc327, Xcfa2147 ва Xcfd76), ушбу панел билан полимераза занжир реакцияси (ПЗР) таҳлили амалга оширилди.

Гель-электрофорез. Тадқиқот намуналарининг геном ДНКси (0,9%) ва ПЗР маҳсулотларининг молекуляр оғирлиги (2,5%) агароза гелида аниқланди.

Статистик таҳлиллар. Олинган барча рақамли маълумотлар NCSS12 дастурий пакерининг бир омилли ковариация таҳлили (One-Way ANCOVA) асосида ҳисобланди.

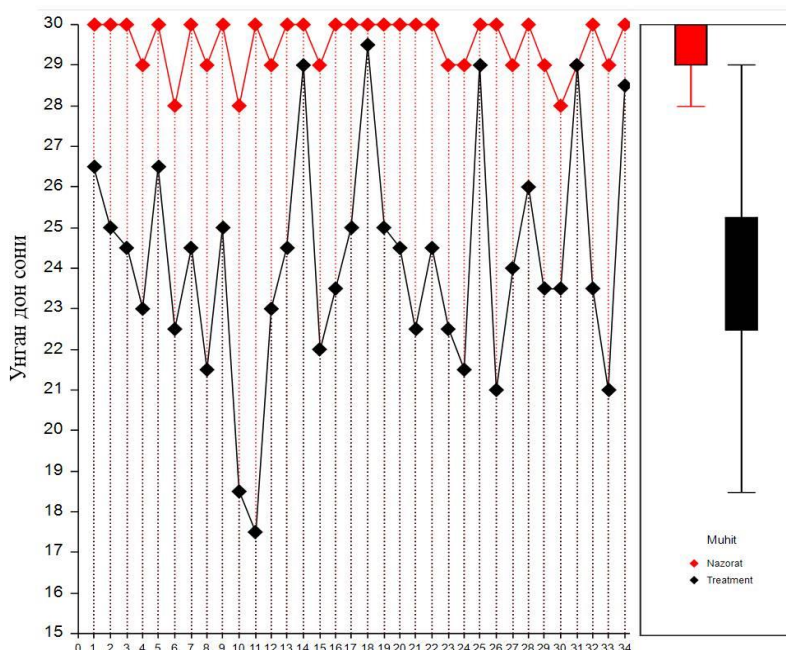
НАТИЖАЛАР ВА УЛАРНИНГ МУҲОКАМАСИ

Юқори ҳарорат қишлоқ хўжалик экинлари ҳосилдорлиги ва сифати учун жуда муҳим омил ҳисобланади. Аммо сўнги йилларда мамлакатимизга аномал иссиқ оқимларининг кириб келиши ўсимликлар вегетатив давомийлигининг бузилишига ва ҳосилдорликнинг кескин камайишига сабаб бўлмоқда. Бу эса, глобал иқлим ўзгаришлари билан боғлиқдир. Қорақалпоғистон иқлими учун мос бўлган буғдой навларини танлаш ва жорий этиш олимлар олдида турган асосий масалалардан бири ҳисобланади.

Тадқиқот намуналарини юқори ҳарорат стрессига бардошлилик кўрсаткичлари лаборатория шароитида ўрганилди ва таҳлиллар амалга оширилди. Бунинг учун юмшоқ буғдой намуналарининг донлари иссиқ сув ҳаммомида маълум вақт тутиб турилиб, термик ишлов берилди. Юқори ҳарорат стрессига донларнинг униш кучи, яшовчанлиги ва юқори ҳароратга чидамлик кўрсаткичлари ўрганилди. Юқори ҳарорат стресси таъсир эттирилмаган назорат намуналарида танланган 34 та намунадан 3 таси 90% унган, 9 таси 96% унган, қолган намуналарнинг барчаси эса 100% унганлиги аниқланди. Термик ишлов берилган тажриба намуналари орасидан L119 намуна 58,3%, L117 намунаси 61,6% унганлигини кўрсатган бўлса, L030, L095, L124, L138, ва



L190 намуналари 93,3-98,3% униб чиққанлиг кузатилди (1-расм).



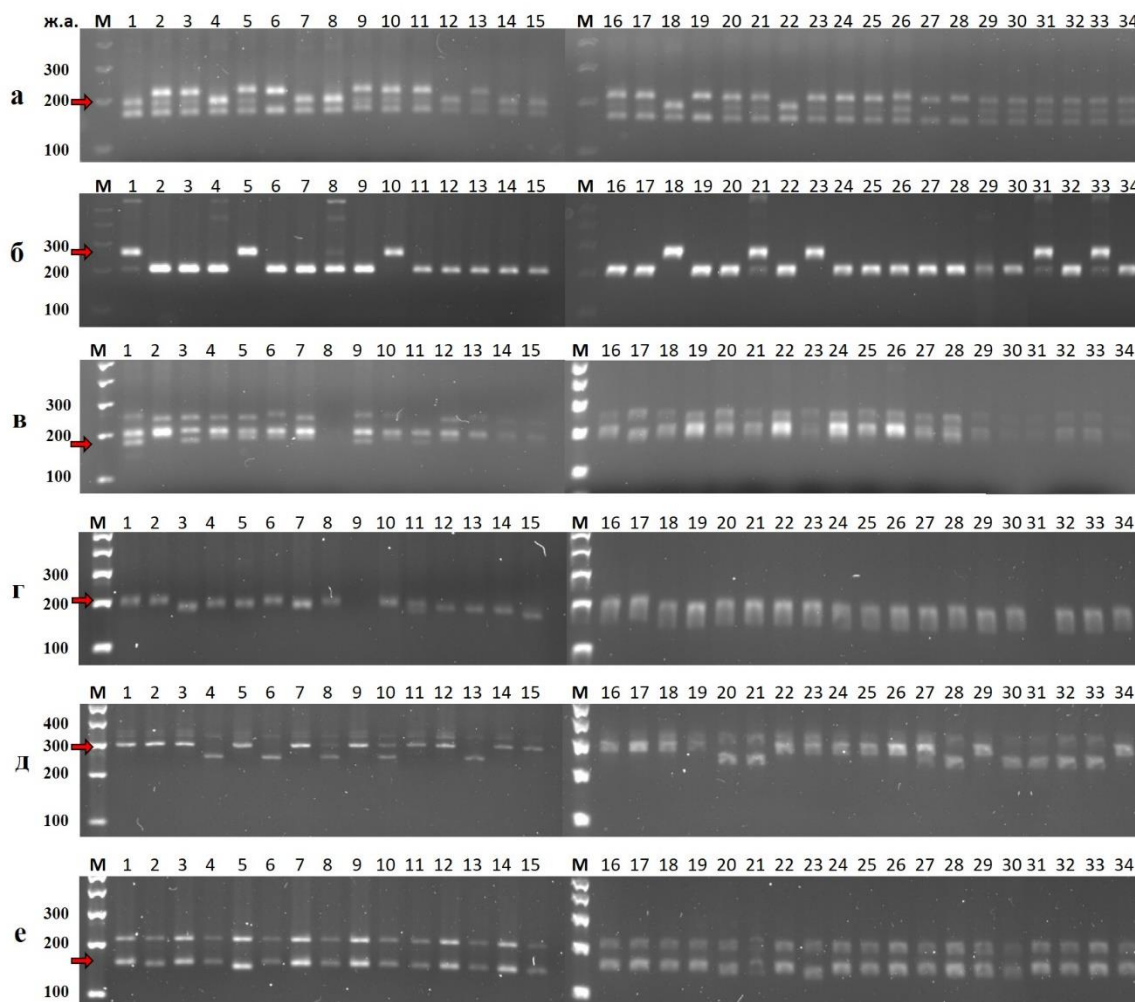
1-расм. Баҳорги буғдой намуналарининг юқори ҳарорат стрессидан сўнг униб чиққан донлар сони кўрсаткичи. **1** - L001, **2** - L106, **3** - L007, **4** - L009, **5** - L157, **6** - L112, **7** - L060, **8** - L061, **9** - L062, **10** - L117, **11** - L119, **12** - L165, **13** - L019, **14** - L124, **15** - L073, **16** - L027, **17** - L026, **18** - L030, **19** - L132, **20** - L134, **21** - L033, **22** - L079, **23** - L035, **24** - L081, **25** - L138, **26** - L087, **27** - L040, **28** - L042, **29** - L043, **30** - L142, **31** - L095, **32** - L097, **33** - L047, **34** - L190.

Юмшоқ буғдойнинг унувчанлик кўрсаткичи экилган 100 та уруғдан унган донлар сонини аниқлаш орқали аниқланди. Донларнинг юқори ҳароратга чидамлилигини эса термик ишловдан кейинги унган донларнинг барг ва илдизларининг узунлигини ўлчаш орқали, “балл” тизимида баҳоланди. Тажрибадаги намуналарнинг донлари назорат каби яхши ўсган бўлса энг юқори балл (5) билан баҳоланади, илдиз ва барглари уруғдан кичик бўлса 1 балл, уруғ билан тенглашган бўлса 2 балл, уруғдан каттароқ бўлишига қараб 3 ва 4 баллар билан баҳоланди. Ўрганилган намуналардан L119 тизмаси униш кўрсаткичи энг паст бўлганлиги кузатилган. L061, L117, L073, L081, L040 ва L047 тизмаларнинг униш кўрсаткич 4,5 балл деб белгиланди. Қолган тизмаларнинг униш кўрсаткичи назорат каби юқори эканлиги тажрибада кузатилди.

Бироқ илдиз ва поянинг биомасса тўплаши турли даражада бўлганлиги ҳам аниқланди. Назорат ва тажриба намуналарида илдизнинг қуруқ массаси бўйича энг паст кўрсаткич L073 тизмасида 0,15 г бўлганлиги кузатилган, L007, L060, L027, L132 ва L157

тизмаларида 0,19 г бўлган бўлса, L124 тизмасида 0,29 г, L030 тизмасида 0,33 ва L138 тизмасида эса 0,35 г эканлиги қайд этилди.

Абиотик стрессларга чидамлик билан генетик боғланган ДНК маркерлар панелидан фойдаланиб полимераза занжир реакцияси (ПЗР) таҳлили амалга оширилди (2-расм).



2-расм. Бугдой тизмарининг юқори ҳароратга чидамликка алоқадор НК маркерлар билан ПЗР скрининги. **М** – молекуляр оғирлик маркери (**ж.а.** – жуфт асос); **1** - L001, **2** - L117, **3** - L142, **4** - L134, **5** - L138, **6** - L112, **7** - L132, **8** - L119, **9** - L106, **10** - L124, **11** - L073, **12** - L060, **13** - L062, **14** - L061, **15** - L097, **16** - L087, **17** - L079, **18** - L095, **19** - L081, **20** - L027, **21** - L042, **22** - L043, **23** - L019, **24** - L047, **25** - L033, **26** - L035, **27** - L009, **28** - L040, **29** - L007, **30** - L026, **31** - L030, **32** - L165, **33** - L190, **34** - L157; **а** - Wmc25 (200 ж.а.), **б** - Wmc44 (280 ж.а.), **в** - Wmc273 (180 ж.а.), **г** - Wmc327 (200 ж.а.), **д** - Xcfa2147 (300 ж.а.), **е** - Xcfd76 (170 ж.а.).

Таҳлил натижаларига кўра чидамлик билан генетик боғланган Wmc25 ДНК маркерининг (а) 200 жуфт асос

(ж.а.)ли аллели 9 та буғдой тизмалари (L001 (андоза нав), L134, L132, L119, L060, L061, L097, L095 ва L043) геномида гомозигота ҳолатда мавжуд эканлиги аниқланди. Шунингдек, 16 та тизмаларда (L117, L142, L138, L106, L124, L062, L027, L033, L042, L047, L009, L035, L007, L026, L030 ва L165) Wmc25 ДНК маркерининг тегишли аллели гетерозигота ҳолатда мавжудлиги кузатилди. Қолган 9 та тизма намуналари (L112, L073, L087, L079, L081, L019, L040, L190 ва L157) геномида чидамлилик аллели (200 ж.а.) учрамади.

Wmc44 ДНК маркерининг (б) текширилаётган буғдой тизмаларининг 8 тасида чидамлилик билан генетик боғланган 280 ж.а. аллели мавжудлиги, шулардан 4 тасида (L138, L124, L095 ва L019) гомозигота, 4 тасида (андоза нав, L042, L030 ва L190) гетерозигота ҳолатда эканлиги намоён бўлди. Қолган тизмалар геномида чидамлилик аллели учрамади.

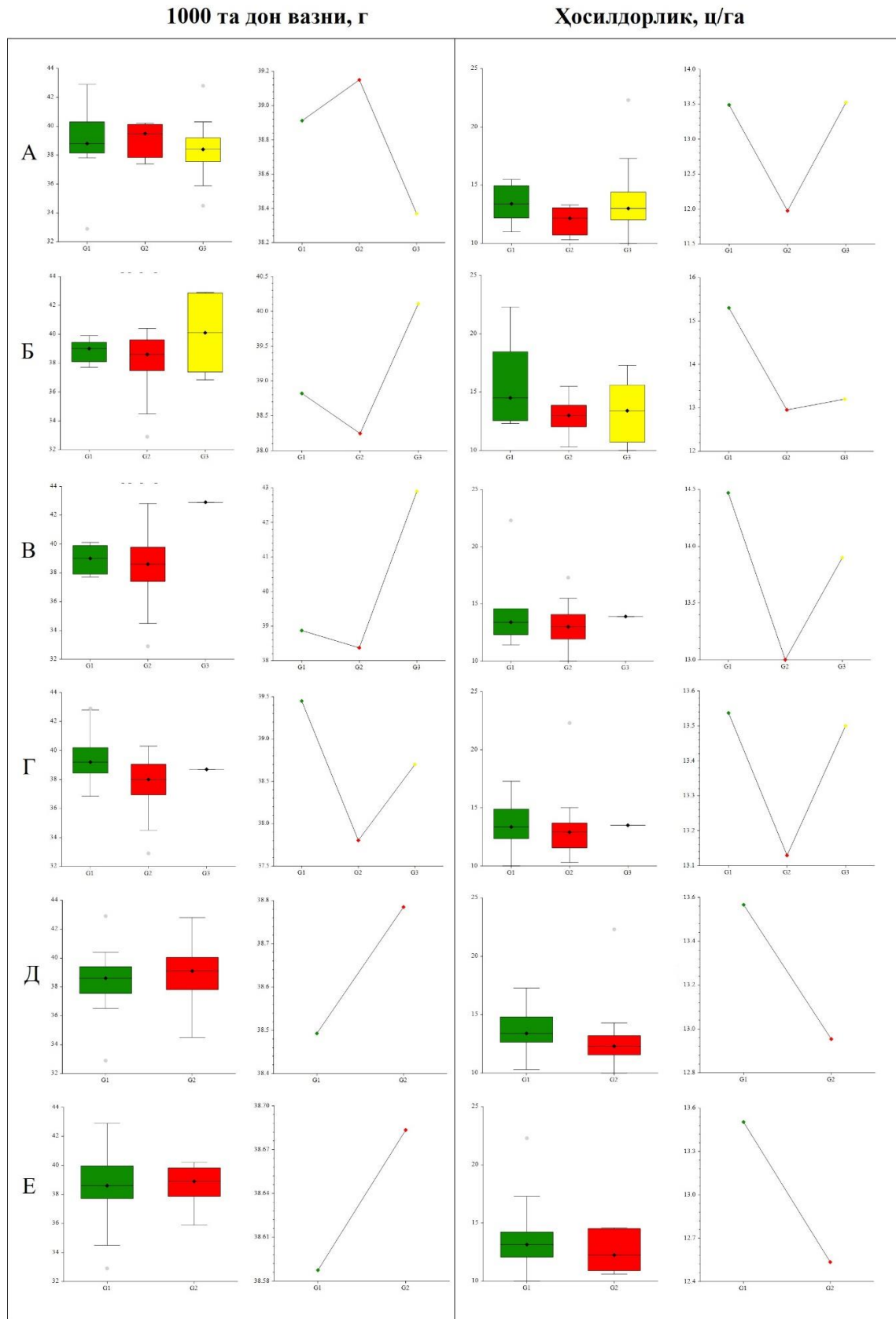
Wmc273 ДНК маркерининг (в) чидамлилик билан генетик боғланган 180 ж.а. аллели 6 та L001, L142, L106, L073, L190, L030 буғдой тизмалари геномида гетерозигота ҳолатида мавжуд эканлиги маълум бўлди. Қолган 28 та тизмалар геномида учрамади.

Wmc327 ДНК маркерининг (г) 200 ж.а. аллели 17 та буғдой тизмалари (L001, L117, L112, L119, L124, L073, L060, L062, L061, L087, L079, L027, L042, L043, L019, L040 ва L157) геномида гомозигота ҳолатида мавжуд бўлиб, L073 тизмасида эса гетерозигота ҳолатда эканлиги кузатилди, шунингдек қолган 16 та тизма геномида учрамади.

Xcfa2147 ДНК маркерининг (д) 300 ж.а. аллели 21 та буғдой тизмалари (L001, L117, L142, L138, L132, L106, L073, L060, L061, L097, L087, L079, L095, L081, L043, L019, L047, L033, L035, L007 ва L157) геномида мавжуд эканлиги маълум бўлди. Қолган 13 та тизмалар (L134, L112, L119, L124, L062, L027, L042, L009, L040, L026, L030, L165 ва L190) геномида ушбу маркерининг чидамлилик аллели учрамади.

Xcfd76 ДНК маркерининг (е) 165 ж.а. аллели андоза нав ва қолган деярли барча тизмалар геномида мавжудлиги кузатилди. Фақатгина, L117, L138, L097, L027, L019 ва L026 тизмалари геномида учрамади.

Тадқиқот намуналарининг генотипик маълумотлари билан 1000 та дон вази ва ҳосилдорлик кўрсаткичларининг статистик таҳлили амалга оширилди (3-расм).



3-расм. Юқори ҳароратга чидамлилиқ ДНК маркерлари самарасини баҳолаш (Бир-омилли ANOVA) таҳлили.

А - Wmc25 (200 ж.а.), Б - Wmc44 (280 ж.а.), В - Wmc273 (180 ж.а.),
Г - Wmc327 (200 ж.а.), Д - Xcfa2147 (300 ж.а.), Е - Xcfd76 (170 ж.а.).

Таҳлил натижаларига кўра, геномида Wmc44 маркерининг гомозигота ва гетерозигота чидамлик аллелини (280 ж.а.) тутган буғдой тизмалари ноль-сегрегант (геномида чидамлик аллели мавжуд бўлмаган) тизмаларга қараганда 1000 та дон вазни ва ҳосилдорлик кўрсаткичлари сезиларли даражада юқори бўлган.

Фенотипик жиҳатдан чидамли ва геномида чидамлик маркер аллели мавжуд буғдой тизмалари ажратиб олиниб, уларнинг уруғ кўпайтириш кўчатзорлари ташкил этилди.

ХУЛОСАЛАР

Тадқиқот натижалари асосида қуйидаги хулосаларга келинди:

Дунё олимларининг буғдойда юқори ҳарорат стрессига чидамликка алоқадор илмий тадқиқот натижалари асосида ДНК маркерлар панели ишлаб чиқилди;

Лаборатория синовлари асосида L030, L095, L124, L138 ва 190 тизмалари юқори ҳарорат стрессига бошқа намуналарга қараганда чидамлироқ эканлиги аниқланди;

Статистик таҳлиллар орқали Wmc44 ДНК маркери чидамлик билан генетик боғланган, энг ишончли маркер эканлиги аниқланди ҳамда геномида маркер аллели (280 ж.а.) мавжуд бўлган L019, L095, L124 ва L138 тизмалари ажратиб олинди;

Wmc44 ДНК маркер аллеллари ва фенотипик жиҳатдан бўлган L095, L124 ва L138 тизмалари ажратиб олинди ҳамда уларнинг уруғ кўпайтириш кўчатзорлари ташкил этилиб, келгусида уларни янги нав сифатида амалиётга тадбиқ этиш кўзда тутилган.

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АННОТАЦИЯ

Липиды - это гидрофобные вещества биологического происхождения; они плохо растворимы в воде и хорошо – в органических растворителях. До 90% пищевых липидов представлено жирами, которые расщепляются липазой (класс гидролаз), действующей только на эмульгированные жиры. Поэтому липаза активна в тех отделах пищеварительного тракта, где имеются условия для эмульгирования жиров и оптимум рН для действия липазы (слабощелочная или нейтральная среда). В ротовой полости жиры не перевариваются, хотя есть липаза, вырабатываемая железами дорзальной поверхности языка, относительно устойчивая при кислых значениях рН желудочного сока. В ротовой полости пища долго не задерживается, далее она попадает в желудок, где вырабатывается желудочная липаза. Она расщепляет жиры молока, находящиеся в эмульгированном состоянии, поэтому активна в детском возрасте. У взрослых желудочная липаза сохраняет активность при преимущественно молочном питании. Основное переваривание жиров происходит в тонком кишечнике при участии панкреатической липазы, которая предварительно активируется желчными кислотами, поступающими в составе желчи в двенадцатиперстную кишку. Кроме того, желчные кислоты эмульгируют жиры. Желчь поступает в кишечник в результате стимулирования сокращения желчного пузыря под влиянием холецистокинина – одного из гастроинтестинальных гормонов, синтезируемого слизистой двенадцатиперстной кишки в ответ на поступление пищи, содержащей липиды.

Ключевые слова: обмен липидов, жиры, глицерин, класс гидролаз, ХМ.

ABSTRACT

Lipids are hydrophobic substances of biological origin; they are poorly soluble in water and well - in organic solvents. Up to 90% of food lipids are represented by fats, which are cleaved by lipase (a class of hydrolases) acting only on emulsified fats. Therefore, lipase is active in those parts of the digestive tract where there are conditions for fat emulsification and optimum pH for lipase action (slightly alkaline or neutral medium). Fats are not digested in the oral cavity, although there is lipase produced by the glands of the dorsal surface of the tongue, which is relatively stable at acidic pH values of gastric juice. In the oral cavity, food does not linger for a long time, then it enters the stomach, where gastric lipase is produced. It breaks down milk fats that are in an emulsified state, so it is active in childhood. In adults, gastric lipase remains active with a predominantly dairy diet. The main digestion of fats occurs in the small intestine when learning.

Keywords: lipid metabolism, fats, glycerin, hydrolase class, HMM.

ВВЕДЕНИЕ

Окисление жирных кислот – важный источник энергии для многих тканей – сердечной мышцы, скелетных мышц, паренхиматозных органов. Не используют жирные кислоты как источник энергии только головной мозг и эритроциты. Окисление жирных кислот можно представить как три этапа. Первый, протекающий в гиалоплазме, сводится к активации жирных кислот при участии ацил-КоА синтетаз. При этом образуется активная форма жирных кислот – ацил-КоА, процесс требует затраты энергии АТФ. Второй этап представляет собой транспорт жирной кислоты через митохондриальную мембрану при участии небелковой аминокислоты – карнитина. Третий этап протекает в митохондриях и представляет собой процесс β - окисления, главными ферментами этого процесса являются дегидрогеназы. Процесс этот протекает только в аэробных условиях, каждый цикл β -окисления повторяется многократно, при этом длина жирной кислоты становится меньше на два углеродных атома, которые отщепляются от жирной кислоты в виде ацетил-КоА. Атомы водорода из реакций, катализируемых дегидрогеназами, поступают в ДЦ, а ацетил-КоА сгорает в ЦТК, который также поставляет водороды в ДЦ.

РЕЗУЛЬТАТЫ

Жирные кислоты с транс-конфигурацией двойной связи могут поступать в организм с пищей, например в составе



маргарина. В этих кислотах отсутствует излом, характерный для цис-связи, поэтому жиры, содержащие такие ненасыщенные кислоты, имеют более высокую температуру плавления, т.е. более твёрдые по консистенции.

Большинство жирных кислот синтезируется в организме человека, однако полиеновые кислоты (линолевая и α -линоленовая) не синтезируются и должны поступать с пищей. Эти жирные кислоты называют незаменимыми, или эссенциальными. Основные источники поли-еновых жирных кислот для человека - жидкие растительные масла и рыбий жир, в котором содержится много кислот семейства ω -3. Ацилглицеролы - сложные эфиры трёхатомно-го спирта глицерола и жирных кислот. Глицерол может быть связан с одной, двумя или тремя жирными кислотами, соответственно образуя моно-, диили триацилглицеролы (МАГ, ДАГ, ТАГ). Основную массу липидов в организме человека составляют триацилглицеролы - жиры. У человека с массой тела 70 кг в норме содержится до 10 кг жиров. Они запасаются в жировых клетках - адипоцитах и используются при голодании как источники энергии. Моно- и диацилглицеролы образуются на промежуточных этапах распада и синтеза триацил-глицеролов. Атомы углерода в глицероле по-разному ориентированы в пространстве, поэтому ферменты различают их и специфически присоединяют жирные кислоты у первого, второго и третьего атомов углерода. Номенклатура и состав природных триацил-глицеролов. В молекуле природного жира содержатся разные жирные кислоты. Как правило, в позициях 1 и 3 находятся более насыщенные

ОБСУЖДЕНИЕ

Синтез фосфолипидов (ФЛ) протекает в ЭПС многих тканей, но наиболее интенсивно – в печени, молочной железе, стенке кишечника и требует помимо насыщенных жирных кислот (например, пальмитата) и мононенасыщенных жирных кислот (олеата), в отличие от синтеза жиров, еще и ПНЖК (арахидоната). До стадии образования ДАГ синтез ФЛ сходен с синтезом жира, а далее к ДАГ присоединяется фосфохолин из активной его формы – ЦДФ-холина, в результате образуется фосфатидилхолин и освобождается ЦМФ. Для синтеза сфингомиелинов и гликолипидов необходим церамид (N-ацильное производное аминок спирта сфингозина), который образуется из сфингозина и жирной кислоты, а сфингозин в свою очередь синтезируется из пальмитата и серина с участием HS-КоА и витамина В6. (Серин – единственная аминокислота, связывающая обмен аминокислот с обменом сложных липидов). При

присоединении к церамиду фосфатидилхолина образуются сфингомиелины, а при добавлении углеводов образуются гликолипиды. Метаболизм фосфолипидов. Внутриклеточные фосфолипиды расщепляются лизосомальными фосфолипазами (ФЛаза) А1, А2, С, Д. Из фосфолипаз заслуживают внимания: 14 ФЛаза А2, которая от второго углеродного атома глицерина отщепляет ПНЖК (арахидоновую кислоту), участвующую в биосинтезе эйкозаноидов. ФЛаза А2, содержащаяся в яде змей, при укусе отщепляет ПНЖК и в результате образуются лизофосфатиды, вызывающие гемолиз эритроцитов. ФЛазаС, которая в цитоплазматической мембране расщепляет фосфатидилинозитол-4,5-бисфосфат (ФИФ2), образующийся из фосфатидилинозитола (ФИ), на два вторых посредника – ДАГ (диацилглицерол) и ИФ3 (инозитол-1,4,5-трисфосфат). Лизосомальные болезни накопления (сфинголипидозы). В основе механизма их развития лежит дефицит лизосомальных гидролитических ферментов, участвующих в катаболизме сложных липидов в клетке. При этом лизосомы, а позднее клетки и органы (головной мозг, печень, селезенка), увеличиваются в размерах за счет накопления цереброзидов (при болезни Гоше), ганглиозидов (при генерализованном гликозидозе и болезни Тей-Сакса), сфингомиелинов (при болезни Нимана-Пика). При увеличении в размерах головного мозга (наряду с гепато- и спленомегалией) он сдавливается костями черепа, в результате повышается внутричерепное давление, страдает интеллект (олигофрения), происходит повреждение мозговых структур.

ЗАКЛЮЧЕНИЕ

Цикл Кребса представляет собой метаболический процесс, происходящий в клетках для выработки энергии. Этот цикл происходит в цитоплазме клеток и необходим для клеточного дыхания. Цикл Кребса начинается с поступления в цикл ацетил-КоА, соединения, образующегося в результате углеводного, липидного и белкового метаболизма. Ацетил-КоА соединяется с оксалоацетатом с образованием цитрата. В ходе ряда химических реакций цитрат расщепляется на CO₂ и воду, высвобождая энергию в виде АТФ. Во время цикла Кребса образуется несколько важных промежуточных соединений, включая цитрат, изоцитрат, α-кетоглутаровую кислоту и янтарную кислоту. Эти соединения важны не только для производства энергии, но и для биосинтеза аминокислот и жирных кислот.

Цикл Кребса также важен для контроля гомеостаза организма. Например, когда организму требуется

дополнительная энергия, увеличивается выработка ацетил-КоА, что увеличивает скорость цикла Кребса.

Таким образом, цикл Кребса является важным метаболическим процессом для производства энергии в клетках. Это происходит в цитоплазме и использует соединения, образующиеся в результате метаболизма углеводов, липидов и белков. Помимо производства энергии, цикл Кребса также важен для биосинтеза различных соединений и для контроля гомеостаза в организме.

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РАҚАМЛИ ШАҲАР ЖАМОАТ ТРАНСПОРТИНИ ЖОРИЙ ЭТИШ МУАММОЛАРИ

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АННОТАЦИЯ

Мақолада замонавий жамоат транспортини ривожлантириш орқали шаҳарлардаги экологик вазиятни яхшилаш масалалари муҳокама қилинган. Мақола шаҳар транспортининг техник ва эксплуатацион кўрсаткичларини яхшилаш, ҳамда йўл транспорт ҳодисаларини камайтиришга қаратилган илмий тадқиқотларга эътибор қаратган. Транспорт фаолиятини ташкил этиш ва бошқаришда рақамли технологияларнинг аҳамиятини урғулаган ҳамда шаҳар жамоат транспортини яхшилаш учун замонавий ва илмий асосланган ечимларни таъминлаш зарурлигини таъкидланган.

Калит сўзлар: рақамли шаҳар, жамоат транспорти, экологик вазият, техник кўрсаткичлар, йўл транспорт ҳодисалари, рақамли технологиялар, илмий тадқиқот, транспорт бошқаруви.

PROBLEMS OF IMPLEMENTATION OF DIGITAL CITY PUBLIC TRANSPORT

ABSTRACT

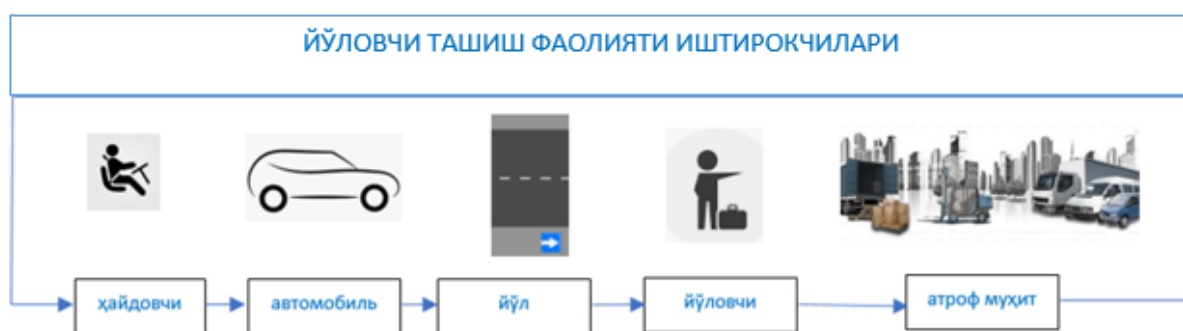
The article discusses the issues of improving the environmental situation in cities through the development of modern public transport. The article focuses on scientific research aimed at improving the technical and operational performance of urban transport and reducing road traffic accidents. It emphasizes the importance of digital technologies in the organization and management of transport activities and the need to provide modern and science-based solutions to improve urban public transport.

Keywords: digital city, public transport, environmental situation, technical indicators, road traffic incidents, digital technologies, scientific research, transport management.

Илм-фан, техника-технология тараққиёти инсоният
яшаш тарзини қанчалик ривожлантириб бормасин амалга



оширилган ишлар чуқур сарҳисоб қилинганда фан ва технология олдига янгидан-янги долзаб муаммолар пайдо бўлиб боради. Замонавий транспорт воситалари кашф этилганига қарийиб бир асрдан ошган бир вақтда инсоният ўзи яратган транспорт воситалари ёрдамида мисли кўрилмаган янги имкониятларни қўлган киритди. Космосга парвоз, океан ҳамда денгиз ости ва усти бўйлаб қатнов, ақл бовар қилмас даражада тезликга эришилган бўлсада бу имкониятларнинг салбий таъсири натижасида инсон учун зарур бўлган биргина тоза ҳаво борган сари ечиб бўлмас катта муаммога айланиб бормоқда. Сўнги йилларда олиб борилган глобал муаммоларнинг энг долзарб йўналишларидан бири бу шаҳар жамоат транспортини жадал ривожлантириш ёрдамида шаҳар ҳудудида экологик вазиятни яхшилаш бўлиб қолмоқда. Йирик шаҳарларда мавжуд жамоат транспортини муаммоларини бартараф этишга қаратилган илмий тадқиқотларнинг асосий йўналишлари тежамкор автотранспорт воситаларини яратиш, уларнинг техник эксплуатацион кўрсаткичларини яхшилаш, шаҳар ҳудудида автотранспорт воситалари сонининг кескин ошиб кетиши ҳамда йўл транспорт ҳодисалари олдини олиш ва ҳақозолардан иборат. Бироқ шаҳар ҳудудида экологик вазиятни яхшилаш комплекс чора-тадбирларни талаб этиши сир эмас. Биргина йўловчи ва юк ташиш фаолиятини тартибга солиш бўйича соҳа истилоҳида қисқача атама билан “Шаҳар жамоат транспорт формуласи” иштирокчилари гуруҳини белгилаш (1-расм), уларнинг белгиланган техник талабларга кўра асосий кўрсаткичлари, тури, вазни ва миқдор жиҳатдан ўзаъро сабаб-оқибат муносабатларини аниқлаш узлуксиз сифатли хизмат кўрсатишда муҳим рол ўйнайди.



1-расм: Шаҳар жамоат транспортининг шартли формуласи

Транспорт фаолиятининг асосий ташкил этувчилари бўлган ҳайдовчи, транспорт воситаси, йўл, юк ва йўловчи, пиёда, атроф муҳит кабиларнинг ҳар бирининг талаб этилган сифат кўрсаткичларига эришиш даражасини узлуксиз ва тадрижий кузатиб бориш, зарур ҳолларда ўз вақтида техник қўллаб қувватлаш, уларнинг

ўзаъро таъсир муносабатлари натижасида юзага келаётган салбий ўзгаришларга илмий асосланган таҳлилий хулоса бериш учун соҳанинг барча йўналишлари ва бўғинларига рақамли технологияларни кенг жорий этиш, замановий BigData каби маълумотлар базаларини яратиш, замонавий бошқарув технологияларини яратиш кечиктириб бўлмас чора-тадбирга айланишга улгурди. Шаҳар ҳудудида транспорт фаолиятини яхшилаш бўйича соҳа йўналишларида тинимсиз ҳаракатлар олиб борилиб ижобий натижаларга эришилмоқда. Бироқ бир йўналишда амалга оширилган амалий тадбирлар натижасида эришилган ижобий натижа бошқа йўналишлардаги вазиятнинг ўз вақтида ижобий натижага эриша олмаётганлиги сабабли яқинда умумий ҳолат ўзгаришсиз қолиши, айрим ҳолларда кўплаб чора-тадбирлар самарасиз бўлиб қолаётганлиги кузатишмоқда. Мисол учун йўловчиларга қулайлик яратиш мақсадида харид қилинаётган замонавий автобуслар шаҳар ҳудудидаги кўча-йўл тармоғининг барча бўлақларида ҳолат талаб этилган даражада эмаслиги, ҳаракат интенсивлиги мувозанати тизимлаштирилмаганлиги, атроф муҳитнинг салбий таъсири натижасида улардан фойдаланишда кутилган натижа бермаяпти. Энг ачинарлиси шаҳар жамоат транспорти инвестицион муҳитининг жозибадорлиги паст даражада қолишига таъсир этмоқди. Бутун дунёда шаҳар жамоат транспортида хизмат кўрсатишни бозор иқтисодиётига асосланган рақобат муҳитида ташкил этиш учун брутто шарти асосидаги механизм самарали бўлиб келмоқда (2-расм).

Брутто-шарти асосида фаолиятни ташкил этишда иштирокчиларнинг мажбурият ва ҳуқуқ чегаралари белгилаш, назорат қилиш, таҳлил қилиш ва илмий асосланган хулоса беришда транспорт формуласи иштирокчилари фаолиятини доимий кузатиш, кўрсаткичларни вақт бирлигида ҳудуд кесимида рўйхатга олиш, архивлаш, қайта ишлаш натижасида замонавий истиқболли ечимларни таъминлаш учун соҳани рақамлаштириш зурурати ортиб бормоқда. Брутто-шарти асосида хизмат кўрсатувчиларга биргина кўрсаткич, яъни босиб ўтилган йўл учун тўловни амалга ошириш шаҳар ҳудуди бўйлаб кўча йўл тармоқларидаги вазиятнинг ўзаъро тубдан фарқ қилиши, ҳаракат интенсивлигининг ўзгариш динамикасининг ҳисобга олиш мураккаблиги натижасида бажарилган хизматнинг ҳақиқий нархини белгилашда номуносивликлар келтириб чиқармоқда. Бу эса ўз навбатида йўловчи ташиш фаолиятига инвестиция киритиш истагида бўлган хусусий сектор учун хавф бўлиб кўринмоқда.



2-расм: Брутто-шарти иштирокчиларининг функционал вазифалари

Юқоридаги мавжуд муаммоларни тизимли бартараф этиш учун шаҳар жамоат транспорти фаолиятини ташкил этиш ва бошқаришга масъул бўлган буюртмачи томонидан соҳа фаолиятининг асосий ташкил этувчилар гуруҳини уларнинг ўзаъро таъсир чегараларини аниқ белгилаган ҳолда белгилаш, уларнинг асосий техник иқтисодий кўрсаткичларини вақт, ҳудуд, меъёр кесимида рўйхатга олиш бўйича рақамли маълумотлар базасини яратишни ташкил этиш энг муҳим чора-тадбир бўлиб қолмоқда (3-расм).

Хулоса ўрнида шуни таъкидлаб ўтиш мумкинки шаҳар жамоат транспорти фаолиятини сифатли ташкил этишга соҳада тизимли илмий тадқиқот олиб бориш, олинган натижаларни босқичма босқич фаолиятга тадбиқ этиш билан мураккаб муаммоларга самарали ечим топиш орқали эришиш ҳеч кимга сир эмас. Бу учун энг аввало масъул буюртмачи давлат ташкилоти бутун фаолият бўйича керакли кўрсаткичларни миқдор ва вазн кўринишида вақт ва ҳудуд кесимида узлуксиз инобатга олувчи ягона ахборотлар базасини яратиши зарур ҳисобланади. Бунинг натижасида соҳанинг рақобат майдонига айланган инвестицион жозибadorлигини оширишга хизмат қилувчи ишончли ва кафолатланган маълумотлар тақдим этилишига эришиш мумкин.



3-расм: Рақамли бошқарув

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CO METALLINING NIKOTINAMID VA KARBAMID BILAN ARALASH AMIDLI KOMPLEKS BIRIKMALARI SINTEZI VA TADQIQOTI

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ANNOTATSIYA

Temir (II), kobalt (II), nikel (II), mis (II) va ruxning nikotinamid bilan komplekslari sintez qilindi. Olingan birikmalar kimyoviy tahlil, kondüktometriya, termogravimetriya, IR va diffuz aks ettirish spektroskopiyasi yordamida tavsiflangan.

Kalit so'zlar: karbamid, nikotinamid, aralash amid, ionizatsion izomeriya, tiokarbamid, termal parchalanish.

ABSTRACT

Complexes of iron (II), cobalt (II), nickel (II), copper (II) and zinc with nicotinamide were synthesized. The obtained compounds were characterized by chemical analysis, conductometry, thermogravimetry, IR and diffuse reflectance spectroscopy.

Keywords: urea, nicotinamide, mixed amide, ionization isomerism, thiourea, thermal decomposition.

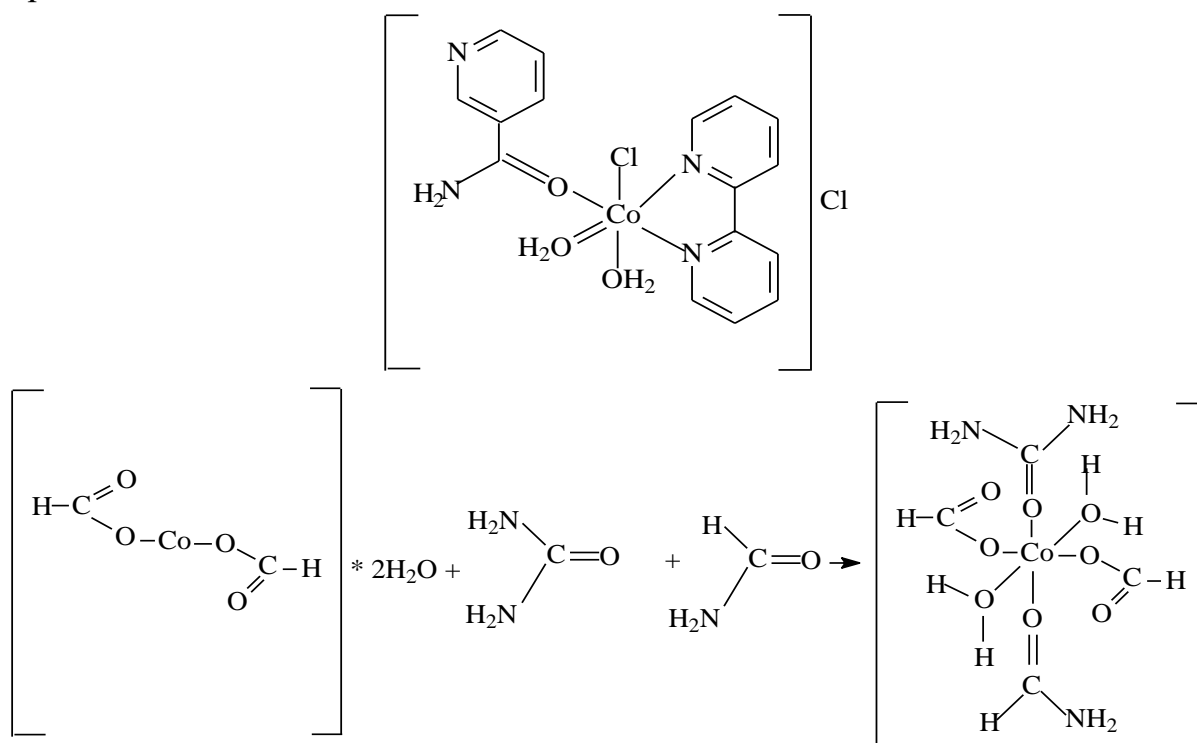
KIRISH

Ma'lumki, biologik faol preparatlar tarkibiga hayotiy metallarning kiritilishi nafaqat ularning zararliligini kamaytiradi, balki ko'p hollarda preparatning biologik faolligini oshiradi va ko'pincha yangi biologik xususiyatlar ochiladi.

Koordinatsion kimyoda xossalari va tuzilishi jihatidan bir-biridan katta farq qiluvchi ko'p sonli turli ligandlar mavjud. Bunday birikmalarning muhim sinflaridan biri benzimidazollar va uning hosilalari bo'lib, ular o'simlik va biologik obektlarda juda keng tarqalgan. Ular orasida gerbitsid, fungitsid, farmakologik va boshqa xususiyatlarga ega dori vositalari aniqlandi. Nikotinamid molekulasida azot geteroatomi orqali koordinatsiyalanib, monodentantli ligand rolini o'ynaydi.

ADABIYOTLAR TAHLILI VA METODOLOGIYA

Kvantkimyoviy tadqiqot usullar yordamida $\text{Cu}_2(\text{CH}_3\text{COO})_4 \cdot \text{AA} \cdot \text{ANK}$ tarkibli ikki yadroli mis asetati kompleksi va $\text{Zn}(\text{CH}_3\text{COO})_2 \cdot \text{TK} \cdot \text{ANK}$ tarkibli oktaedrik konfiguratsiyali rux atsetatining tuzilishi, elektron strukturasi va reaksiya qobiliyati tadqiq qilindi. Atomlarda zaryadlarning taqsimlanishi, koordinatsion bog'dagi atomlarning gibril holati qayta tahlil qilindi. ESDO natijalari asosida Mn(II) va Co(II) larning har xil amidlar bilan kompleks birikmalaridagi markaziy atom oltita koordinatsion bog'ga ega ekanligi ko'rsatildi. Kobaltli birikmalar uchun parchalanish parametrlari kristall maydon 10 Dq bilan hisoblab chiqildi. Sintez qilingan komplekslarning termik holati tadqiq qilindi. Natijada AA kompleksi bosqichma-bosqich suv va asetamid molekulasining parchalanishi bilan yo'qotilishi aniqlandi. Kompleks termolizining bosqichi asetat gruppasi, neytral ligandlar, markaziy ion koordinatsiyalanish usuliga va kompleks tuzilishiga sezilarli bog'liqdir. Tadqiqot natijalari asosida dastlabki ikki valentli marganes, kobalt, nikel, mis va rux asetatining ikki molekula amidlar bilan mexanokimyoviy o'zaro ta'sirida ikkita suv molekulasining almashinishi, shuningdek asetat gruppasining bidentatli koordinatsiyalanish natijasida markaziy atomning suvdan to'la xalos bo'lishi aniqlandi.

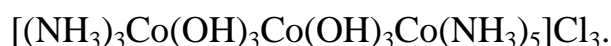


Kobalt metallining nikotinamid va formaamid bilan hosil qilgan kompleks birikmasi

Metall karboksilatleri kompleks birikmalarining suvli eritmalarining bug'doy, qizilmiya, bosma va g'o'za hosildorligiga

stimulyatorlik ta'siri urug'larni namlash yo'li bilan sinovdan o'tkazilgan. Mazkur tajriba ishlari O'zbekiston Respublikasi FA botanika instituti, paxtachilik ilmiy-tekshirish instituti va Respublika urug'chilik va paxtachilik ilmiy-tekshirish institutida olib borilgan. O'tkazilgan tajribalar G-6 preparatidan foydalanilganda urug'ning unib chiqish energiyasi alohida tashkil qiluvchi komponentlarni qo'llashga nisbatan sinergetik samaradorlik hisobiga ortadi.

Masalan, dekamin- μ -amino-dixrom(III) xloridi $[(NH_3)_5Co-NH_2-Co(NH_3)_5]Cl_5$ -ikki o'zakli kompleks. NH_2 ko'prik vazifasini o'tadi. Kompleksdagi kobalt atomlari bir-biri bilan NH_2 -guruh orqali birikadi. Geksaamin- μ -amino- μ -dioldikobalt (III) xloridi $[(NH_3)_3Co(NH_2)(OH)_2Co(NH_3)_3]Cl_2$ Ammoniy tetraoksalato- μ -diol-(III)dixromat $(NH_4)_2[(C_2O_4)_2Cr(OH)_2Cr(C_2O_4)_2]$. Uch o'zakli kompleks: geksaamin- μ -geksool-uchkobalt(III) xloridi



Rentgenostruktur analizni shiddat bilan rivojlanayotganligi natijasida oxirgi yillarda karbamidli kompleks birikmalarning kristall tuzilishiga bag'ishlangan ishlar ko'paymoqda. Bu ishlar mualliflari tomonidan koordinatsion poliedrlarni o'ziga xosliklari ko'rib chiqilgan. $NiJ_2 \cdot 10K$ (I), $Ni(NCS)_2 \cdot 8K$ (II), $Ni(NCS)_2 \cdot 4K$ (III) kabi birikmalar uchun tuzilishni ayrim turlari ko'rsatilgan Barcha hollarda karbamid molekullari vodorod bog'lari karkasini hosil qiladi. Ko'rib chiqilgan rentgenostrukturalar natijalari metall va atsidoligandlar tabiati karbamidni koordinatsiyalanishiga ta'sir qilmasada, u kompleksni tuzilishi va xossalari sezilarli ta'sir ko'rsatishidan dalolat bermoqda. Komplekslarni termik xossalari o'rganish ularni katalizatorlar sifatida ishlatish va oraliq koordinatsion birikmalar olish nuqtai nazaridan qiziqish uyg'otadi. Umumiy xolda karbamidli komplekslarga termik ta'sir qilinganda ular suyuqlanadi, suvsizlanadi va kompleks parchalanadi. Ko'p hollarda karbamidli komplekslar $130-140^\circ C$ atrofida suyuqlanishi va bunga metall hamda atsidoligandlar ta'sir qilmasligi aniqlangan, ayrim hollarda esa termik ta'sir natijalariga tayangan holda kompleks birikmaning barqarorligini kislotaga qoldig'i va amidli ligandga bog'liqligi haqida va ularni termoliz sxemasiga ta'siri haqida mulohaza yuritish mumkin. $Co(ClO_4)_2 \cdot 6K$ (I) $Co(ClO_4)_2 \cdot 4K \cdot 2H_2O$ (II) tarkibli komplekslarni DTA ini tahlil qilish natijasida mualliflar $Co \leftarrow O=C=$ bog' kobalt perxlorat geksakarbamididagiga nisbatan II kompleksda barqaror degan xulosaga keldilar. Kobalt (II) ni mos komplekslarini qizdirish egrilarida suvsizlanish va parchalanish termoeffektlari bilan bir qatorda izomorf o'zgarishlarga mos keluvchi effektlar ham kuzatiladi. Turli kislotaga qoldiqlari tutgan marganes va ruxni karbamidli komplekslarini termik parchalanishini kuzatish natijasida $\Delta v = v(CO)_{komp.} - v(CO)_{karb.}$ qanchalik yuqori



bo'lsa, termik barqarorlik ham shunchalik yuqori va metall-ligand bog' shunchalik mustahkam bo'lishi aniqlangan. Rux va marganes xloridlar eng yaxshi akseptorlar deb topildi[1].

Olib borilgan tahlillar asosida beshta kompleks birikmalarning kristall va molekulyar strukturalari aniqlashtirildi va rasshifrovka qilindi. $\text{CoC}_4\text{H}_4\text{O}_4 \cdot 4\text{H}_2\text{O}$ va $\text{CoC}_4\text{H}_4\text{O}_4 \cdot 2\text{H}_2\text{O} \cdot (\text{NA})_2 \cdot 2\text{H}_2\text{O}$ molekulari tuzilishi kobalt atomining oktaedr bo'lishi bilan polimer xarakterga ega. Suksinatli dianion ko'prik koordinasiyasini namoyon qiladi. NA molekulasiga aksial koordinirlangan H_2O almashinish suksinat gruppasining koordinasiyalanish xarakteriga ta'sir o'tkazmasligi ta'kidlandi. Mis asetati monogidratining ikki yadroli tuzilishi past haroratda (-1830C) saqlanishi isbotlangan. EPR spektri anomaliyasi bo'yicha xona va past haroratlarda mis asetatini formamid, asetamid, nikotinamid, monometilolkarbamid, karbamid, salisilamid, izonikotin kislotasi gidrazidi, ftivazid va nitrokarbamid uchun $\text{Cu}_2(\text{CH}_3\text{COO})_4 \cdot 2\text{H}_2\text{O}$ tipidagi ikki yadroli tuzilish taklif qilindi.

Sintez qilingan komplekslarning termik holati tadqiqot natijalari formamid, asetamid va propionamid komplekslarining bosqichma-bosqich organik ligandni yo'qotishi bilan parchalanishini ko'rsatdi. Asidoligandlar, markaziy ion tabiati va tuzilish xarakteri birikmaning termoliz turg'unligiga selilarli ta'sir ko'rsatadi. Komplekslarning deaktivatsiyasi karboksil gruppasi dentatnligining oshishi bilan kechishini ko'rsatdi. Uzluksiz ishlaydigan reaktorlarda 10 tadan ortiq kompleks birikmalar o'rganilgan. Komplekslarning degidratatsiya va deaktivatsiya mexanizmining kinetik parametrlari hisoblab chiqildi. Tadqiq qilingan birikmalarda dominirlovchi mexanizm bo'lib fazalararo silindrik simmetriya va Juravleva-Lesoxina-Tempelmannning uchlamchi diffuziya modeli bo'lishi aniqlandi.

Olingan natijalarning foydalanish sohasi o'tkazilgan tadqiqotlar asosida foydalanish mumkinligi ko'rsatilgan. Ayrim holatlarda metall karboksilatlarining amidlar bilan o'zaro tanlab ta'sirlashuvi asosida metallar va organik ligandlarni tozalash, ajratish va aniqlash ishlari olib boriladi. Kam qonlikka, yallig'lanishga, aterosklerozga qarshi ta'sir ko'rsatuvchi metall oksidlari va kompleks birikmalarning fizik-mexanikaviy va dekarativ xossalarini yaxshilash uchun glazurli komponentlarni olingan, shuningdek g'o'za, bug'doy, makkajuxori, sofler va bosmalarning hosildorligini oshiruvchi yuqori samaradorli stimulyatorlar yaratilgan.

$[\text{Cr}_3\text{O}(\text{O}_2\text{CCH}_3)_6(\text{NA})_3] \cdot \text{PF}_6 \cdot 3\text{CH}_3\text{CH}$ (I) tarkibli Cr^{3+} ning nikotinamid-(NA) bilan kompleksi bir guruh olimlar tomonidan o'rganilgan. Kukunsimon namuna I ning 2-300 K harorat oralig'ida magnitlik xossasini o'lchash Cr^{3+} ning uchta ioni antiferromagnit ravishda $j = -10,4 \text{ cm}^{-1}$ bilan bog'langanligini ko'rsatdi. Birikma (I) ning RCA usuli bilan

kristall strukturasini aniqlangan. Cu^{2+} ning mochevina bilan $[\text{Cu}_2(\text{O}_2\text{CCnH}_{2n+1})_4(\text{CO}(\text{NH}_2)_2)_2]$ ($n=5$ dan 11 gacha) va $[\text{Cu}_2(\text{O}_2\text{CC}_5\text{H}_{11})_4(\text{CO}(\text{NH}_2)_2)_2]$ – II tarkibli koordinatsion birikmasi mualliflar [147] tomonidan sintez qilingan va o'rganilgan. Olingan komplekslarning tadqiqotlari element analizi, elektron spektroskopiyasi, tebranma spektroskopiyasi, difraksiya rentgen nurlarining difraksiyasi, magnitlik xossalari o'lchash usullari bilan olib borilgan. RSA ning II usuli bilan uchun kristall struktura aniqlandi. Sintez qilingan birikmalarning biologik faolligi izlanishlari asosida funksion xossalari aniqlandi. $[\text{ZnO}_7\text{H}_2\text{C}_{13}\text{H}_{17}] \cdot \text{C}_7\text{O}_3\text{H}_5$ tarkibli salisilatning [sinka triakva (salisilat) (nikotinamid)] kristall strukturasini da keltirilgan.

Nikotinamid kislotada IR spektrini yutish va lazerli spektrlarini o'rganib formatlash atsetat gruppasi va nikotinamid kislotaning koordinatsiya usullarini aniqlash mumkin. Rentgonostrukturaviy analizda kobalt atsetat va nikotinamidning $\text{Co}(\text{CH}_3\text{COO})_2 \cdot \text{ANK} \cdot 4\text{H}_2\text{O}$ tarkibli kompleks bog'lanish strukturasini isbotlandi.

Koordinativ oktaedr ekvatorial birikishidan to'rtta molekulasini va nikotinamidagi ikkita azot geteroatomi hisobiga ishlaydi.

Atsetat gruppasi suv molekulasini va ANK dagi amin gruppasi azot atomi bilan vodorod bog' asosida bog'langan hamma komplekslarini IR spektrida tekshirish natijasida IR spektri chizig'idagi $\nu(\text{CO})$ 1700-1710 cm^{-1} sohasi yoki chegarasida dublet ko'rinishidagi chiziq aniqlandi chiziqlar halqalar va $\nu(\text{N-H}_2)$ ning va $\nu_{\text{os}}(\text{COO})$ intensiv chiziqlari bilan to'siladi. N kompleksi IR spektrida 16200 cm^{-1} $\nu_{\text{os}}(\text{COO})$ 16200 cm^{-1} kompleksida esa 1576 cm^{-1} kuzatiladi. $\nu_{\text{os}}(\text{COO})$ ning pasayishi N: bog'lanishining Cd bog'lanishiga o'tishining sababi bog'larning kuchliligining pasayishidir. M-O bog'ida monodentatlashning atsetat gruppasi bilan bog'lanishida bog'larning kuchliligi ortadi. M-O $\nu_{\text{os}}(\text{COO})$ esa o'sadi, $\nu_{\text{os}}(\text{COO})$ kamayadi. $\nu_{\text{os}}(\text{COO})$ boshqa faktorlarga ham bog'liq. Shu holatda atsetat ioniga nisbatan kichik bo'ladi.

NATIJALAR

Kobalt (II) nikotinatini ikki turli amid tutgan koordinatsion birikmalarini sintez qilish.

Kompleks $\text{Co}(\text{Nk-N})_2 \cdot 2\text{K} \cdot 2\text{TK} \cdot 2\text{H}_2\text{O}$ agat xovonchada 0,1802 g karbamid va 0,2284 g tiokarbamid bilan ta'sirlashishidan sintez qilindi.

$\text{Co}(\text{Nk-N})_2 \cdot 2\text{AA} \cdot 2\text{ANK} \cdot 2,5\text{H}_2\text{O}$ sintez qilishda 0,5628 g $\text{Co}(\text{Nk-N})_2 \cdot 4\text{H}_2\text{O}$ 0,1772 g atsetamid va 0,3664 g nikotinamid bilan agat xovonchada xona haroratida

3 soat davomida ta'sirlashtirildi.

$\text{Co(Nk-N)}_2 \cdot 2\text{TK} \cdot 2\text{ANK} \cdot 3\text{H}_2\text{O}$ tarkibli birikma 0,2884 g tiokarbamid va 0,3664 g nikotinamid ta'sirlashdi.

$\text{Co(Nk-N)}_2 \cdot 2\text{K} \cdot 2\text{ANK} \cdot 3\text{H}_2\text{O}$ tarkibli birikmani olish uchun 0,5628 g kobalt nikotinat tetragidrat 0,3664 g nikotinamid va 0,1802 g karbamid bilan xona haroratida agat xovonchada 3 soat davomida ishqalandi.

Sintez qilingan birikmalarning kimyoviy taxlil natijalari jadval 2 da keltirilgan.

1-jadval. Kobalt nikotinatining karbamid va nikotinamid bilan aralash amidli kompleks birikmalarining element taxlili natijalari

Birikma	Me, %		S, %		N, %		C, %		H, %	
	topildi	hisoblandi	topildi	hisoblandi	topildi	hisoblandi	topildi	hisoblandi	topildi	hisoblandi
$\text{Co(NKN)}_2 \cdot 2\text{K} \cdot 2\text{TK} \cdot 2\text{H}_2\text{O}$	9.87	9.65	10.6	0.5	3.0	2.9	1.64	1.4	4.50	4.58
$\text{Co(NKN)}_2 \cdot 2\text{AA} \cdot 2\text{AHK} \cdot 2,5\text{H}_2\text{O}$	8,10	8,31	-	-	6,00	5,77	47,48	7,32	4,80	4,93
$\text{Co(NKN)}_2 \cdot 2\text{TK} \cdot 2\text{ANK} \cdot 3\text{H}_2\text{O}$	7.79	7.83	8.64	8.50	8.6	8.59	41.7	1.4	4.60	4.52
$\text{Co(NkN)}_2 \cdot 2\text{K} \cdot 2\text{ANK} \cdot 3\text{H}_2\text{O}$	8.25	8.18	-	-	19.5	19.4	43.2	43.3	4.70	4.72

XULOSA

1. Mexanokimyoviy usul bilan 2 valentli kobalt va nikel nikotinatlar va rux suksinatining har xil amidli koordinatsion birikmalar sintez qilindi.
2. Sintez qilingan kompleks birikmalarning tarkibi element analiz natijalari bilan aniqlangan. Mexanokimyoviy sintezda ayrim kompleks birikmalarda amin gruppasidagi vodorodning polyarlanishi oshishi hisobiga suv molekulasini miqdori oshishi aniqlandi, bunday holatlar karbomid va nikotinamidli birikmalarda kuzatildi.
3. Ilmiy izlanish asosida olingan natijalar ushbu sinfga kiruvchi koordinatsion birikmalarni o'rganishda ilmiy asoslangan ma'lumotlar sifatida qo'llanilishi mumkin.

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TALABALARNING AXBOROT TEXNOLOGIYALARI FANIDA MUSTAQIL O'QUV FAOLIYATINI TASHKIL ETISHDA MULTIMEDIALI MATERIALLARDAN FOYDALANISH

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ANNOTATSIYA

Ushbu maqolada oliy ta'limda Axborot texnologiyalari fanida mustaqil o'quv faoliyatini tashkil etishda zamonaviy axborot texnologiyalari, multimedial materiallardan foydalanish metodikasi bayon qilingan.

Kalit so'zlar: Mustaqil ta'lim, LMS, ijtimoiy media, bulutli texnologiyalar, mobil ta'lim, zamonaviy yondashuvlar, multimedia vositalari, elektron darslik, 3D-kitob, video darslar.

KIRISH

Ta'lim jarayonida kompyuter va axborot texnologiyalaridan mukammal foydalanish uchun asosiy e'tibor eng avvalo o'qituvchi va talabaga zarur bo'lgan sharoitni yaratishga va AKTni o'quv jarayonlarida samarali qo'llashiga qaratilishi lozim. Respublikamizda o'quv jarayoniga AKTni joriy etish bo'yicha talabalar uchun tegishli vositalardan foydalanish bo'yicha mos me'yor va standartlar ishlab chiqilib bir qator amaliy ishlar amalga oshirilmoqda.

Talabalarning mustaqil o'quv faoliyatini muvaffaqiyatli tashkil etishda ko'rsatmali qo'llanmalarni to'g'ri tanlashning ahamiyati katta. Axborot texnologiyalari bo'yicha tasavvurlarni hosil qilishda ayniqsa videomaruzalaridan foydalanish orqali yuqori samaradorlikka erishish mumkin. Bunda talaba yangi bilimlarni egallashi uchun murakkab jarayonlarni bir necha marta ko'rish imkoniyati tug'iladi.

ADABIYOTLAR TAHLILI VA METODOLOGIYA

Oliy ta'limdagi ta'lim jarayonida ko'proq qo'llanilayotgan o'qitish uslublarida mavjud bo'lgan muammolar, shu jumladan, axborot texnologiyalari fanidan mustaqil ta'limni tashkil etishda kompyuterning multimedia texnologiyalaridan yetarli darajada foydalanilmayotganligi sababli ba'zi bir talabalarda mustaqil mavzularni o'zlashtirishda hamda mustaqil fikrlash faoliyatining yetarlicha rivojlanmay qolishiga olib kelmoqda.

Bu kamchiliklarning yechilishi va ularning muayyan faoliyati sohasida amalga oshirish bir qator o'ziga xos talab va sharoitlarga bog'liq. Jumladan, mustaqil ta'limni tashkil etishda Internet tarmog'iga mo'ljallangan multimedial resurslarni keng ko'lamda joriy qilish hamda ularni qo'llash usullarini ishlab chiqishni taqozo etmoqda.

Zamonaviy yondashuvlar ta'limning turli sohalarida yangi axborot-kommunikatsiya texnologiyalarini rivojlantirishning eng muhim yo'nalishlariga mos keladi. Bu yangi AKT shakllanishidagi yutuqlarning natijasi bo'lgan yangi, alternativ ta'lim texnologiyalaridir. Raqamli asrda ta'lim olishning muqobil modellarini tahlil qilish ta'lim shakllari qanday o'zgarayotganligini va buning uchun qanday yangi manbalar kerakligini ko'rsatmoqda (o'quv platformalari, mobil ta'lim va ta'lim uchun bulutli texnologiyalar, ijtimoiy media).

Bularning barchasi o'qituvchilarning yangi vakolatlarini, yoshlarni ijtimoiylashtirish usullarini, o'quv jarayonini boshqarishning zamonaviy vositalaridan foydalangan holda o'qitishni yangi ko'rinishda tashkil qilishni, AKTdan foydalanishga asoslangan o'quv dasturlari va baholash usullarini shakllantirishga yangicha yondashuvlarni belgilaydi.

Zamonaviy ta'lim olish usullardan 2019-2020 va 2020-2021 o'quv yillaridagi pandemiya sharoitida vujudga kelgan muammolarni hal qilishda foydalanildi. Shuningdek Respublikamiz oliy ta'limida ommalashayotgan masofaviy ta'lim o'qitish turi uchun ham yuqorida ko'rilgan o'qitish usullari va vositalardan unumli foydalanish maqsadga muvofiq.

Shuningdek talabalarning mustaqil talim jarayonini tashkil qilishda ham ko'rsatilgan usullar muximligi amalga oshirilgan tahlillar orqali aniqlandi. Bunda tayorlangan multimedial ishlanmalar ayniqsa muhim vosita ekanligi talabalarning mavzularni yaxshi o'zlashtirishi, mustaqil vazifalarni to'g'ri va mukammal bajarishlari, umumiy baho ko'rsatkichi oshganligi ko'rindi.

Talaba mustaqil ta'limning asosiy maqsadi — o'qituvchining rahbarligi va nazoratida muayyan o'quv ishlarini mustaqil ravishda bajarish uchun bilim va ko'nikmalarini shakllantirish va rivojlantirish.

Talaba mustaqil ishni tayyorlashda muayyan fanning xususiyatlarini hisobga olgan holda quyidagi shakllardan foydalanishi tavsiya etiladi.

- taqdim etilgan multimedial elektron darslik va o'quv qo'llanmalar bo'yicha fan mavzularini o'rganish;

- tarqatma materiallar (taqdimot, 3D-kitob, o'rgatuvchi dialoglar, PDF fayllar) bo'yicha ma'ruzalar qismini o'zlashtirish;

- avtomatlashtirilgan o‘rgatuvchi va nazorat (test) qiluvchi tizimlar bilan ishlash;
- videoma’ruzalar orqali ko‘rsatilgan amaliy vazifalarni mustaqil bajarish;
- yangi jarayonlar va texnologiyalarni o‘rganish;
- mavzu bo‘yicha internetdan ma’lumotlar olib ular ustida ishlash.

Mustaqil o‘zlashtirilgan mavzular bo‘yicha talabalar tomonidan referatlar tayyorlash va uni taqdimot qilish tavsiya etiladi.

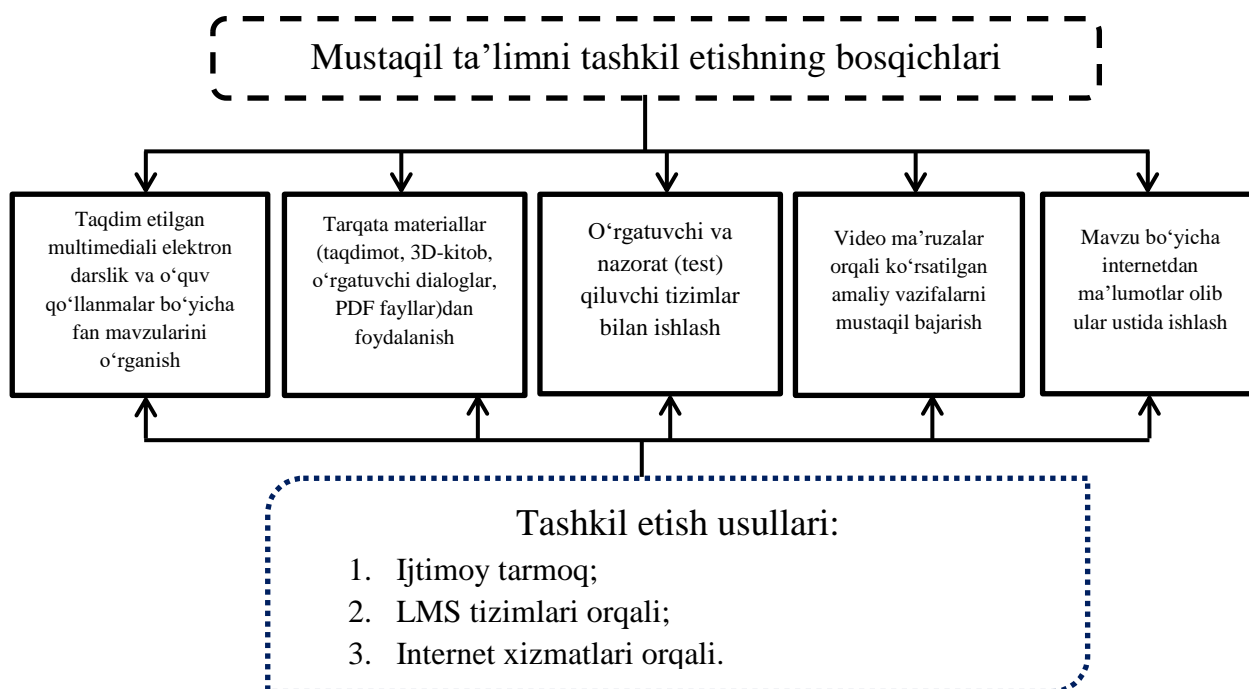
Bunda ular asosiy va qo‘shimcha adabiyotlarni o‘rganib hamda Internet saytlaridan foydalanib referatlar va ilmiy ma’ruzalar tayyorlash va uni taqdimot qilish tavsiya etiladi. Amaliy mashg‘ulot mavzusiga doir uy vazifalarini bajaradilar.

NATIJALAR VA MUHOKAMA

Ilmiy izlanishlarimiz natijalariga ko‘ra, bugungi kunda respublikamiz oliy ta’limida axborot texnologiyalari fanidan mustaqil ta’limni tashkil etish shakllarini takomillashtirishda ba’zi bir muammolar borligi aniqlandi. Bular quyidagilardan iborat:

- talabalarning qiziqishini orttirishga yo‘naltirilgan axborot ta’lim muhitini yaratish hamda ushbu muhitda multimediali ilovalar va EDlarni shakllantirish;
- talabalarning psixologik va psixofiziologik xususiyatlarini hisobga olgan holda o‘zini-o‘zi baholovchi diagnostik apparat dasturiy vositalari yordamida kreativ fikrlashga oid amaliy mashqlar bazasini shakllantirish;
- talabalar foydalanishi uchun Internet tarmog‘ida videodarslar bankini shakllantirish;
- multimediali dars ishlanmalarini yaratish orqali mustaqil ta’lim olishning takomillashtirilgan mexanizmini ishlab chiqish.

Multimediali resurslarning asosiy maqsadi – o‘quv materialini ko‘rgazma shaklida taqdim etish, mustaqil tayyorgarlikning didaktik imkoniyatlarini kengaytirishdan iborat bo‘lib, u axborot texnologiyalari fanining mustaqil ta’limida qo‘llanilsa, ushbu fanning o‘quv faoliyatiga nisbatan motivatsiyani shakllantirishga, asosiy bilimlarni egallashga, ularni tizimlashtirishga, talabalarning mustaqil faoliyatiga o‘quv-uslubiy yordamlashishga, o‘zini-o‘zi nazorat qilishi uchun bilim, ko‘nikma va malakalarni shakllantirishga yordam beradi. Shuningdek, fanning nazariy asoslarini yanada samarali o‘zlashtirishga, fanga nisbatan qiziqishni oshirishga xizmat qiladi. Buning uchun avvalo, auditoriyadan tashqari o‘quv faoliyatining tashkiliy bosqichlarini ishlab chiqish lozim. Quyidagi rasmda mustaqil ta’limni tashkil etishning bosqichlari keltirilgan:



Mustaqil ta'limni tashkil etish.

Talabalarning axborot texnologiyalaridan erishgan yutuqlarini rag'batlantirish orqali ularning ushbu fanga bo'lgan qiziqishi va hurmati oshadi. Bu ularda ushbu fanining yanada qiziqib o'rganishi uchun muhim poydevor bo'lib xizmat qiladi.

Olib borilgan tadqiqotlar natijasiga ko'ra, oliy ta'limda axborot texnologiyalari fanida talabalarning mustaqil ta'limni tashkil etishda o'quv motivlarini kuchaytirishga oid shakllar, metodlar, usullar va vositalarga yetarlicha e'tibor qaratilmaganligi aniqlandi. Mustaqil ta'limda talabalarning o'quv motivlarini kuchaytirish uchun avvalo, talabalarda qiziqish, xohish, qobiliyatni yetarli darajada shakllantiradigan o'quv muhitining tarkibiy qismlaridan foydalanish lozim. Bular quyidagilardan iborat:

- mavzuga oid video darslarni tinglash;
- kreativ fikrlashga oid amaliy topshiriqlarni bajarish hamda ularning natijalarini multimediali amaliy dasturlar yordamida tahlil qilish;
- test va nostandart testlar yordamida o'z bilimni sinab ko'rish.

Yuqorida ko'rsatib o'tilgan muammolarni bartaraf etish uchun Internet tarmog'ida asinxron va sinxron o'qitishga mo'ljallangan ta'lim portalida axborot texnologiyalari fani uchun tegishli bo'lim yaratilib, unga video darslar, kreativ, kognitiv fikrlashga oid amaliy topshiriqlar, multimediali interaktiv ishlanmalar, on-line, off-line test hamda nostandart testlar shakllantirildi.

Ushbu tizimda joylashtirilgan resurslar 1-2 kurs talabalarning psixologik va psixofiziologik xususiyatlariga moslashtirilgan



bo'lib, undan axborot resurs markazlarida, uy sharoitida ta'lim olish imkoniyati mavjud. Yaratilgan multimediali ilovalarni talabalar shaxsiy kompyuterlar, portativ qurilmalar va mobil telefonlar orqali kirib foydalanadilar. Ulardan talabalar brouzer dasturi orqali kirib tegishli resurslarni o'ziga yuklab xohlagan vaqtda foydalanish imkoniyatiga ega bo'ladi.

Talabalarning dars jarayonida olgan bilim, ko'nikma va malakalari ham aynan mustaqil o'rganish davomida rivojlanadi.

Axborot resurs markazlarida talabalar mavzuga oid video darslarni tinglashi, ko'rgazmali materiallarni ko'rishi va ushbu darslarda keltirilgan amaliy vazifalarni bajarib ko'rishi lozim. Bulardan kursning "Video darslar" va "Amaliy topshiriqlar" bo'limlarida foydalanishi mumkin.

Quyidagi jadvalda O'zbekiston Milliy Universiteti xorijiy filologiya fakulteti talabalari 1-2 kurs talabalarining mustaqil ta'lim davomida nazariy ma'lumotlarni o'rganish va amaliy topshiriqlarni bajarishda multimediali ta'lim resurslaridan oqilona foydalanish imkoniyatlari o'z aksini topgan.

Mustaqil ta'limning mazmuni, multimedia texnologiyalaridan foydalanish imkoniyatlari

1-jadval

№	Mustaqil ta'lim mavzulari	Multimediali ta'lim resurslaridan foydalanish
1.	Onlayn va Offlayn tarjimon dasturlar orqali til o'rganish.	Video darslar, elektron trenajyorlar, nostandart testlar
2.	Kompyuter lingafon sinflarining zamonaviy texnik va dasturiy vositalari.	Taqdimot, interaktiv 3D-kitob, elektron trenajyorlar, nostandart testlar
3.	Animatsion taqdimotlarni oflayn va onlayn rejimda yaratish vositalari va manbaalari	Interaktiv 3D-kitob, video darslar, taqdimot, ED, nostandart testlar
4.	Google va Microsoft vositalari va xizmatlari.	Video darslar, Elektron trenajyorlar, nostandart testlar, testlar
5.	CoursLab dasturlari va uning imkoniyatlari	ED, taqdimot, nostandart testlar
6.	MOODLE, LMS, AICC, SCORM va TinCan tushunchalari haqida.	ED, taqdimot, Video darslar, interaktiv 3D-kitob, nostandart testlar
7.	Kompyuter tarmoqlari. Tarmoq topologiyasi.	Video darslar, Elektron trenajyorlar, nostandart testlar, testlar
8.	Masofaviy ta'lim.	Video darslar, interaktiv 3D-kitob, nostandart testlar

9.	Ommaviy onlayn ochiq kurslar	Video darslar, elektron trenajyorlar, ED, nostandart testlar
10.	Smart-elektron o'quv texnologiyalari	Taqdimot, interaktiv 3D-kitob, elektron trenajyorlar, nostandart testlar

Tadqiqot doirasida yaratilgan ta'lim resurslari 1-2 kurs talabalarining mustaqil talimini tashkil etishda quyidagi pedagogik imkoniyatlarni yaratdi:

1. Axborot texnologiyalari fanini o'rganish uchun zamonaviy o'qitish vositalari bilan ta'minlaydi. Tizim resurslari axborot texnologiyalarini o'qitish sifatini oshirishda bir qator uslubiy ma'lumotlar bilan ta'minlaydi.

2. Axborot texnologiyalari fanini o'qitishda multimedia texnologiyalaridan foydalanish, sifatli ta'limning mavjudligini hamda har qanday vaziyatda foydalanish imkoniyatini sezilarli darajada oshiradi. Shuningdek, talabalarning aqliy faoliyatini rivojlantirish uchun maxsus axborot muhiti sifatida xizmat qiladi.

3. Talabalarning axborot texnologiyalari fanidan o'zini-o'zi rivojlantirishi uchun muayyan darajada xizmat qiladi. Yaratilgan ta'lim resurslari axborot texnologiyalari fanini o'rganish uchun masofadan turib muloqot qilish va ta'lim olish imkoniyatlarini yaratadi.

4. Talabalar uchun axborot texnologiyalari fanidan o'quv-ma'lumotlar bilan ta'minlashni oshiradi. Bu axborot texnologiyalari fanidan o'quv-ma'lumotlarni tizimli tashkil etishga, kompyuter dasturlari yordamida mashg'ulotlar o'tkazish imkoniyatini yaratadi. Bunda interaktiv axborot muhiti sifatida o'quv va bilim jarayonlarini boshqarishning yaxlit o'zaro bog'liqligini ta'minlaydi.

5. Talabalar uchun qulay ruhiy muhitni yaratadi. Mustaqil ta'limda axborot texnologiyalari ta'lim jarayonidan muayyan mavzuni o'rganishda qiziqishni kuchaytirish imkonini beradi. Shuningdek, o'qituvchi va talaba o'rtasida to'g'ridan-to'g'ri muloqot qilish muhitini yaratadi.

6. Axborot texnologiyalari bo'yicha taqdim etilayotgan ta'lim resurslaridan faniga oid shaxsiy o'qitish materialini taqdim etadi (mavzuni mustaqil o'rganish, o'tilgan mavzularni takrorlash). Shuningdek, fanga oid ma'lumotlarni bir necha bor taqdim etishga hamda o'tilgan mavzularni qayta tushuntirish uchun samarali hisoblanadi.

7. Axborot texnologiyalari fanidan talabalarning ijodiy salohiyatini rivojlantiradi. Yaratilgan ta'lim rusursi axborot texnologiyalari ta'limining sifatini oshirish uchun xizmat qiladi, ya'ni talabalarning ijodiy salohiyati, intellektual va axloqiy jihatlarini rivojlantiradi hamda mustaqil fikrlashni, ijodiy faoliyatini qo'llab-quvvatlash imkoniyatlarini kengaytiradi.

XULOSA

Axborot texnologiyasining rivojlanishi insonlarning og'irini yengil qiladi, bilim darajasining o'sishiga, har bir sohada yuqori malakali mutaxassislarni ko'payishiga olib keladi. Mamlakatimizning rivojlanishini, jahon hamjamiyati bilan hamnafas bo'lishini AKTlarsiz tasavvur qilish qiyin. Ta'lim samaradorligi oshirilishida, yetishib kelayotgan yosh avlodni jahon talablariga javob bera oladigan qadrlar qilib tayyorlashda, albatta, axborot texnologiyalari beqiyos o'rin tutadi.

Hozirgi davrda O'zbekistonda zamonaviy axborot-texnologiyalarini mamlakatimiz hayotiga kiritish – ijtimoiy ishlab chiqarish va rivojlanish samaradorligini oshirish vazifalarini yechishga yo'naltirilgan respublika hukumati faoliyatining ustuvor vazifalaridan biridir. Mutaxassislar tayyorlashning sifatini oshirish katta ahamiyat kasb etadi. Aytish kerakki, kelajakdagi oliy o'quv yurtlaridagi mutaxassislar o'zlarining professional faoliyatidagi tasavvur va tushunchalarini amaliy masalalar yechishda qo'llashi, masalalarni ko'zlagan maqsadda ko'rishi va tadbiiq qilishi hamda yangi bilimlarni qo'lga kiritishi lozim.

Ishlab chiqilgan dars ishlanmalari orqali "Axborot texnologiyalari" fani mavzularining nazariy va amaliy asoslari batafsil yoritildi. Mavzuning nazariy asoslarini yoritishda talabalarni qiziqishlari multimedia tenologiyalari asosida o'rganib chiqildi va quyidagi masalalar yechildi:

- Axborot texnologiyalari fani mavzularini pedagogik dasturiy vositalar yordamida talabalarga yetkazishning dolzarbligi, texnologik taraqqiyot va fan bo'yicha yangiliklar, shuningdek, o'quv jarayonini tashkil etishning zamonaviy uslublari sohasidagi so'nggi yutuqlar o'rganildi va tahlil qilindi;

- o'qitishda yuqori samarali zamonaviy ta'lim texnologiyalarini o'quv jarayoniga tatbiq etish yo'llari batafsil yoritib berildi;

- "Axborot texnologiyalari fani mavzularini o'qitishda pedogogik dasturiy vositalardan foydalanib xamda ilg'or pedagogika va axborot-kommunikatsiya texnologiyalari asosida o'quv-uslubiy materiallari tayyorlandi;

- Axborot texnologiyalari fani mavzulari bo'yicha keyslar va ishlanmalar yaratildi.

Axborot texnologiyalari fani mavzularini o'qitishda AudioMaster, AutoPlay Media Studio, iSpring, Camtasia Studio, Adobe Premiere Pro kabi dasturiy vositalarning imkoniyatlari yordamida dars ishlanmalari multimediali elektron darslik, interaktiv testlar, video ma'ruzalar ko'rinishda yaratildi.

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A REVIEW ON CARBON NANOTUBES FOR HYDROGEN STORAGE

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ABSTRACT

Hydrogen is considered as renewable, and a clean energy carrier and a clean fuel without toxic emission and can easily fuel cells for electricity generation. Hydrogen is highly required for advanced energy conversion systems. One of the potential uses of hydrogen lies in zero emission vehicles powered by a proton exchange membrane fuel cell stack. However, the storage of this substance is considered one of the most important points, therefore this research is focused on the usage of carbon nanotubes. The discovery of high hydrogen storage capacity of carbon nanotubes makes an onboard hydrogen storage system based on carbon nanotubes very promising. In this research, the basic and unique properties of carbon nanotubes are introduced, and the development of synthesis technologies of this novel material is summarized. As well as the unique pore and surface structures of carbon nanotubes are evaluated. Based on the experimental results and theoretical predictions that hydrogen can be effectively adsorbed in carbon nanotubes and after suitable pretreatment, carbon nanotubes may achieve a hydrogen storage capacity higher than 6.5 wt% and 63 kgH₂/m³.

Nevertheless, efforts have to be made to reproduce and verify the hydrogen storage capacity of carbon nanotubes both theoretically and experimentally, to investigate their volumetric capacity and cycling characteristics, to elucidate their adsorption/desorption dynamics, kinetics and mechanism, and finally to clarify the feasibility of carbon nanotubes as a practical onboard hydrogen storage material.

Keywords: Hydrogen, nanomaterials, carbon nanotubes, energy, storage capacity and pollution

INTRODUCTION

The ever fast progress of science and technology accelerates the development of world economy and culture (Noh J. S, et al, 1987). On one hand the start of a new millennium presents human beings with countless opportunities and challenges and as a result, rapidly brings many of us a higher living standard (Veziroglu T. N and Barbir K, 1992).

On the other hand, our world is facing a rapid depletion of natural resources and serious global environmental pollution, mostly due to the overuse of fossil fuels. Nowadays, public concern about the global environmental problems caused by the utilization of fossil fuels and the over dependence of economy on fossil fuels is increasing, and many countries including USA, European Union, Japan, China, etc., are funding in an increasing budget year by year for the searches of possible alternative energy sources to replace fossil fuel. Carbon nanotubes have garnered significant interest due to their promising applications and facile synthesis (Iijima S,1991). This study highlights the applications of CNTs in the field of hydrogen production and storage. Hydrogen energy attracted researchers because of its clean, renewable and sustainable energy with low impact on the environment around the globe (Schwarz J. A,1994). It is expected hydrogen energy systems replace the prevailed fossil fuel in the coming years.

Hydrogen systems exhibit many disadvantages such as production cost and storage aspects (Fan Y. Y,et al,1999). CNTs have the greater capability as support for the manufacture of effectual contrasting in hydrogen production systems (Agarwal R. K,et al,1987). The main focus of this article is their different manufacturing methods along with their models and the purification techniques to obtain the best quality CNTs and then use them in different applications (Veziroglu T. N and Barbir K,1992).

Recently some scientist turned their eyes to hydrogen adsorption in carbonaceous materials with high surface area hoping that the inclusion of porous carbon materials in a hydrogen storage tank can enhance the overall hydrogen storage density by physisorption under certain pressure and temperature condition. In the past ten years, great advances have been made and 3-6 wt% hydrogen adsorption capacities can be obtained for high surface area activated carbons at cryogenic temperatures of liquid nitrogen or lower (Liu C,et al ,1999), but at ambient temperature, activated carbons have very low hydrogen adsorption capacity. More recently, tremendous interest have been aroused by the discovery (Carpentis C,et al,1980)and reproduction of the high hydrogen storage capacity of a novel nonporous carbon material carbon nanotubes.

Hydrogen uptake in Carbon Nanotubes

Activated carbons and activated carbon fibers are considered as good adsorbents, it is due to their high surface area and abundant pore volume, conventional porous (Chambers A,et al ,1998). For the conventional porous carbons, their hydrogen uptake capacity is found to be proportional to their specific surface area and pore

volume, while, regretfully, a high hydrogen adsorption capacity can only be obtained at very low temperatures such as liquid nitrogen temperature, consistent with theoretical calculations. In contrast, in spite of their relatively low specific surface area and small pore volume compared in activated carbons, carbon nanotubes and carbon nanofibers show a surprisingly high hydrogen storage capacity, in the search of reasonable interpretations for this phenomenon, scientists employed different theoretical calculations and simulations. The intentions of the theoretical work are to answer the following important questions.) How do structural characteristics of CNTs influence their physical/chemical hydrogen storage process? (Veziroglu T. N and Barbir K,1992). Where does the adsorption occur, in inner hollow cavities and/or other pore spaces (e.g. inter-tube space and aggregated pores) of CNTs? (Dillon A. C,et al,1997). During the adsorption of hydrogen onto carbon nanotubes, what interaction, chemical or physical, occurs between hydrogen and carbon? (Carpentis C,et al,1980)What is the hydrogen adsorption mechanism of CNTs? (Agarwal R. K,et al,1987)How high can the maximum hydrogen adsorption capacity of CNTs be reached? Simplistic geometric estimate and qualitative discussion since hydrogen molecules at elevated pressure on a solid surface are expected to form a close packed configuration, obtained a simple geometric estimate for close packing capacity of hydrogen molecules above a plane of graphite using purely geometric agreement, which yielded 2.8wt% or 4.1 wt% hydrogen uptake for one layer of hydrogen adsorbed on a single graphene layer.

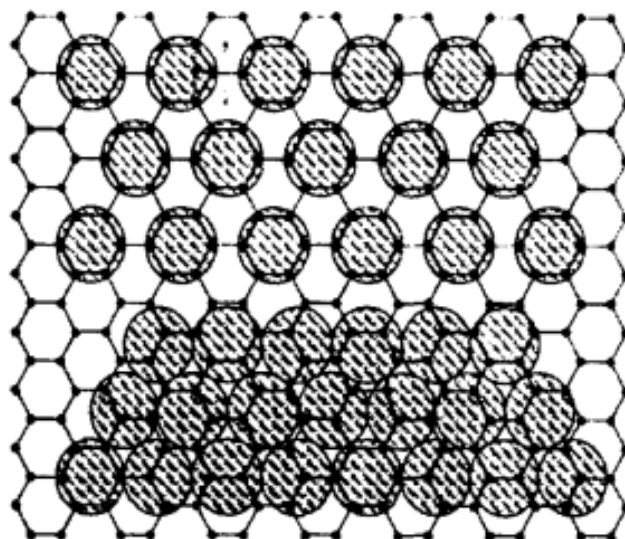


Figure 1. related density of a commensurate and an incommensurate monolayer of H₂ on a graphite surface (Schwarz J. A,1994).

As for carbon nanotube, one important issue currently being debated is whether hydrogen adsorption also occurs in the interstitial channels between adjacent nanotube channels in a rope of SWNTs (Schwarz J. A,1993).

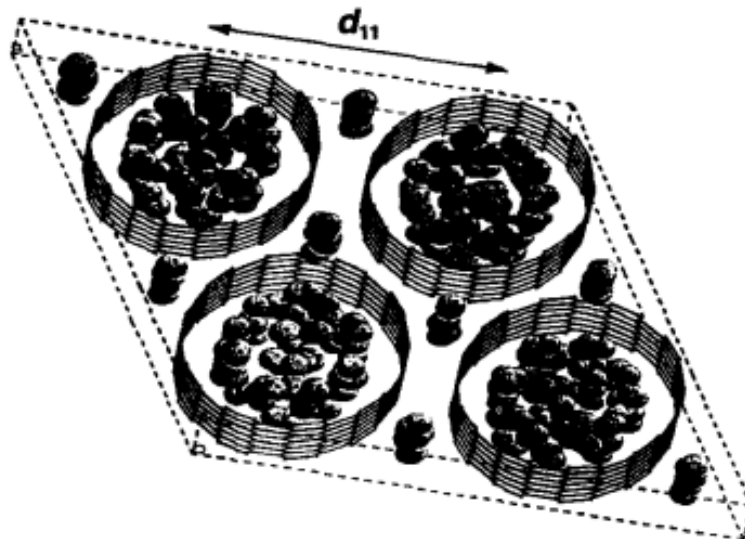


Figure 2. a typical configuration of H₂ molecules adsorbed on a triangular array of CNTs with a lattice constant of d_{11} (Schwarz J. A,1994)

Based on this, the hydrogen adsorption amount under high pressures would be higher than the simplistic geometric estimation. Moreover, it is considered that a hydrogen molecule adsorbed in the interstitial space undergoes much stronger surface attraction than on a single planar graphene surface, since it is in close proximity to three graphene surfaces. Therefore, the hydrogen adsorbed in the interstitial space would be expected to be denser than on a single graphene surface.

Possible Hydrogen Adsorption Sites in Carbon Nanotubes There are many types of pores in carbon nanotubes as discussed above. It can be preliminarily concluded from the theoretical calculations and experimental results that inner cavities, interstices in SWNT bundles, small, aggregated pores of several nanometers among CNTs and carbon islands on the surface of MWNTs are possible sites for hydrogen adsorption (Chambers A, et al, 1998).

The inner cavities of CNTs are primary hydrogen adsorption sites. Many simulations reveal that nano-sized inner cavities in SWNTs and MWNTs (with small diameter) have strong adsorption potentials for hydrogen adsorption and the inner cavities of SWNTs with larger diameter will hold more hydrogen molecules. Experimental results also have proved that cutting and

tips-removing process [(Liu C,et al ,1999), (Iijima S,1991), (Ye Y,et al1999), (Veziroglu T. N and Barbir K,1992)] improves the hydrogen storage capacity of CNTs. Figure 3 shows that a tip-removing process leads to the great increase of small mesopore volume that can be attributed to inner cavities, consistent with the improved hydrogen storage capacity of the MWNTs (Schwarz J. A,1993).

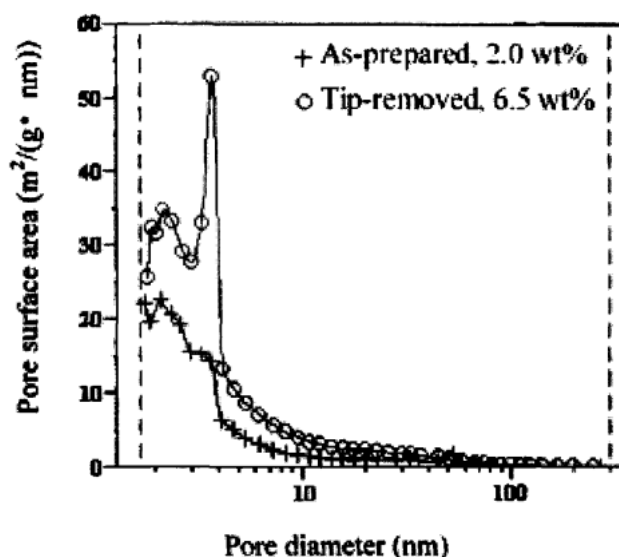


Figure 3. pore size distribution and hydrogen storage capacity of the MWNTs in the as prepared state and after trip removing process (Fan Y. Y,et al,1999).

Table 1. summary of experimental results of electrochemical hydrogen storage in CNTs.

Material	Synthesis method	Discharge capacity (mAh/g)	Weight hydrogen storage capacity (wt.%)	Reference
SWNTs (low purity)	Arc discharge	110	0.41	(Veziroglu T. N,1999)
SWNTs (purity 90%)	Laser-ablation	440	1.6	(Fan Y. Y,et al,1999)
Li-MWNTs+SWNTs	CVD	160	0.59	(Noh J. S,et al,1987)
SWNTs (purity 80%)	Arc discharge	800	2	(Chen P,1999)
SWNTs (purity 95%)	H2 arc discharge	316	1.2	(Iijima S,1991)

CONCLUSIONS

As the conclusion of this research, hydrogen fuel is clean, versatile, efficient and safe, and is the best fuel for transportation, hydrogen energy will play an important role in the energy structure of the future world. As the first experimental result and some of the theoretical prediction indicate that carbon nanotubes can be a promising candidate for efficient hydrogen storage, which may accelerate the development of hydrogen fuel cell driven vehicles. Nevertheless, many efforts have been made to reproduce and verify the hydrogen storage capacity of carbon nanotubes both theoretically and experimentally, to investigate their volumetric capacity, cycling characteristics and release behavior, to correlate the surface and pore structure with hydrogen adsorption behavior, to elucidate the adsorption mechanism. and finally, to clarify the feasibility of carbon nanotubes as a practical onboard hydrogen storage material.

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ROLE OF MOBILE APPLICATION IN USING VIRTUAL LABORATORIES IN EDUCATION

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ABSTRACT

This article is aimed at improving the quality of education of zoology students and the use of virtual laboratories created on the basis of computer simulation models in the educational process using an electronic program.

Keywords: virtual laboratory, training, computer, educational process, electronic program.

Radically improving the quality of education, equipping educational institutions with modern laboratories and educational equipment, developing the knowledge, skills and qualifications of students and teachers remains an important and topical issue today.

This article is devoted to the use of virtual laboratories created on the basis of computer simulation models for zoology students and to improve the quality of education in the educational process using a mobile application. The mobile application helps to improve the quality of education in its place.

“Virtual Laboratory” - a set of computer software tools that can replace the actual performance of laboratory work, considered in laboratory classes, available in the educational process. At the same time, of course, it is necessary to think about whether the volume of knowledge of students will suffer in the process of assimilation of educational material by a student or students.

From today, the level of development of information technology provides pupils or students with the convenience and simplicity of transferring various types of educational and methodological documents to files, that is, in electronic form:

- methodological or teaching aids;
- laboratory equipment and quality processes of various stages of laboratory work;
- simulation models that reflect the process of laboratory work;

- bases of confirmed results of laboratory data and measurements;
- computer programs that ensure the rapid execution of samples of registration of reporting documents;
- various forms of self-testing on the computer.

Files developed in electronic format are presented in a form convenient for viewing not only on personal computers or laptops, but can also be used on modern devices and high-definition digital TVs or, conversely, on mobile phones and smartphones.

All this makes it possible to optimize the independent work of schoolchildren or students, conduct it on a large scale at home, use travel time in transport and thereby improve the quality of education.

In order to further improve the use of simulation models in the educational system, we use a mobile application created on the basis of the Android operating system. That is, the role of a mobile application in teaching 7th grade students of biology (zoology) using a mobile application is incomparable. Keeling introduces you to the mobile app.

1. This picture shows a general view of a mobile application with which you will get acquainted with the pages of grade 7 biology on several topics.



Figure 1.

2. Figure 2 shows the internal structure of the android mobile application for using virtual laboratories created on the basis of computer simulation models in teaching biology (zoology) grade 7, i.e. it contains theoretical information, topics and virtual laboratories, as well as complete information about the author . You will be able to receive.



Figure 2.

The version of the “virtual laboratory” mobile application discussed above was developed for schoolchildren in electronic form, that is, it includes graphics, video, audio and animation. This approach can significantly save material and time resources when replicating and distributing educational and methodological literature of educational institutions. With the help of these simulation models, you can get detailed information on practical and laboratory topics of biology teaching.

The current trend in the educational process exists within each subject, for example, in biology lessons, taking into account the complexity of the lessons, homework and independent work of students, we create simulation models of biological processes, and improve the quality of education using simulation modeling. models, in order to increase, we have developed virtual laboratories in an improved form, and this serves as the basis for the training system. Therefore, virtual laboratories in the field of biology are descriptive and introductory in nature and are designed to visualize various biological processes. Therefore, part of the practical and laboratory work can only be descriptive, and introductory in nature and consists of viewing graphic, audio, video and animation data on the topic under study. Such practical and laboratory work is also based on the individual processing of information materials by students.

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КИЙИМ ИШЛАБ ЧИҚАРИШДАГИ ГАЗЛАМА ҚАЙТИМЛАРИ МИҚДОРИ ТУРЛИЧА БЎЛГАН ТЎҚИМАЛАРНИНГ ФИЗИК ХОССАЛАРИНИНГ ЎЗГАРИШИ

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Тошкент тўқимачилик ва енгил саноат институти

АННОТАЦИЯ

Ушбу мақолада 100% пахта толасидан ва арқоқ ипи 30% вискоза толаси+70% пахта толали қайтимдан олинган, танда ипи 100% пахта толасидан ва арқоқ ипи 45% вискоза толаси+55% пахта толали қайтимдан олинган, танда ипи 100% пахта толасидан ва арқоқ ипи 10% лавсан толаси+90% пахта толали қайтимдан олинган, танда ипи 100% пахта толасидан ва арқоқ ипи 20% лавсан толаси+80% пахта толали қайтимдан олинган, танда ипи 100% пахта толасидан ва арқоқ ипи 20% вискоза толаси+80% пахта толали қайтимдан олинган ва танда ипи 100% пахта толасидан ва арқоқ ипи 50% вискоза толаси+50% пахта толали қайтимдан олинган тўқималарнинг механик хоссалари аниқланди.

Калит сўзлар: тўқиманинг узилиш кучи, узилишдаги узайиши, чизиқий зичлиги, қайтимлар

ABSTRACT

In this article, the 100% cotton fiber and weft yarn are made of 30% viscose fiber + 70% cotton fiber, the warp yarn is made of 100% cotton fiber, and the weft yarn is made of 45% viscose fiber + 55% cotton fiber, the weft yarn is made of 100% cotton fiber and weft yarn 10% Dacron fiber + 90% cotton fiber yarn, 100% cotton fiber weft yarn and warp yarn 20% Dacron fiber + 80% cotton fiber yarn, 100% cotton fiber weft yarn and weft yarn - 20% viscose fiber + the mechanical properties of fabrics obtained from 80% cotton return fiber, and warp yarn from 100% cotton fiber and weft yarn from 50% viscose fiber + 50% return cotton fiber were determined.

Keywords: tissue tensile strength, elongation at rupture, linear density, returns

КИРИШ

Ҳозирги пайтда тўқимачилик саноатида ишлаб чиқарилаётган тўқималар турли хилма-хилдир. Уларнинг тузилиши, ишлатилиш мақсадлари, тола таркиби ва хусусиятлари бўйича бир-биридан фарқланади.



Қайтимлар миқдори турлича бўлган тўқималарнинг асосий хусусиятларидан бири ҳаво ўтказувчанлиги, узилиш кучи, ишқаланишга чидамлилиги, рангининг узилиш кучи ва ҳоказолардир.

Масалан, қайтимлар миқдори турлича бўлган тўқималар ўзидан ҳаво, сув, газ, буғ, чанг, тутун суюқликлар, радиоактив нарларини ўтказиш қобилиятига эгадир. Ҳаво ўтказувчанлиги-намунанинг ўзидан ҳаво ўтказиш қобилияти бўлиб, у ҳаво ўтказувчанлик коэффициентини билан баҳоланади. Ҳаво ўтказувчанлик коэффициентини намунанинг икки томонидаги ҳаво босимларининг маълум бўлган фарқ шароитида бир секунд вақт ичида 1 квадрат метрли юзадан ўтган ҳаво ҳажмининг миқдорини кўрсатади.

АДАБИЁТЛАР ТАҲЛИЛИ ВА МЕТОДОЛОГИЯ

Қайтимлар миқдори турлича бўлган тўқималарнинг танда ва арқоқ йўналиши бўйича зичлиги қанчалик юқори бўлса, унда ҳаво ўтказувчанлик коэффициентини шунчалик паст бўлади. Шу сабабли, ҳар қандай қайтимлар миқдори турлича бўлган тўқималарни ишлаб чиқаришда мавсумга эътибор қилиниб ишлаб чиқарилади.

Тўқималарнинг иккинчи бир хусусияти уларнинг сув ўтказувчанлигидир. Тўқималарнинг сув ўтказувчанлиги бу маълум даражадаги босим таъсирида ўзидан сувни ўтказиш қобилияти. Бу хусусият сув ўтказувчанлик коэффициентини билан баҳоланади. Сув ўтказувчанлик коэффициентини эса бир секунд давомида бир квадрат метрга тенг бўлган, газлама юзасидан ўтган сув ҳажмининг миқдорини кўрсатади:

Уни аниқлаш учун $5 \cdot 10^3 \text{ Па}$ га тенг бўлган босим остида ҳажми $0,5 \text{ дм}^3$ бўлган сув газламадан ўтганда сарфланган вақт ўлчанилади.

Тўқималарнинг сув ўтказувчанлиги ҳам унинг тола таркиби ва пардозланишига боғлиқ бўлади.

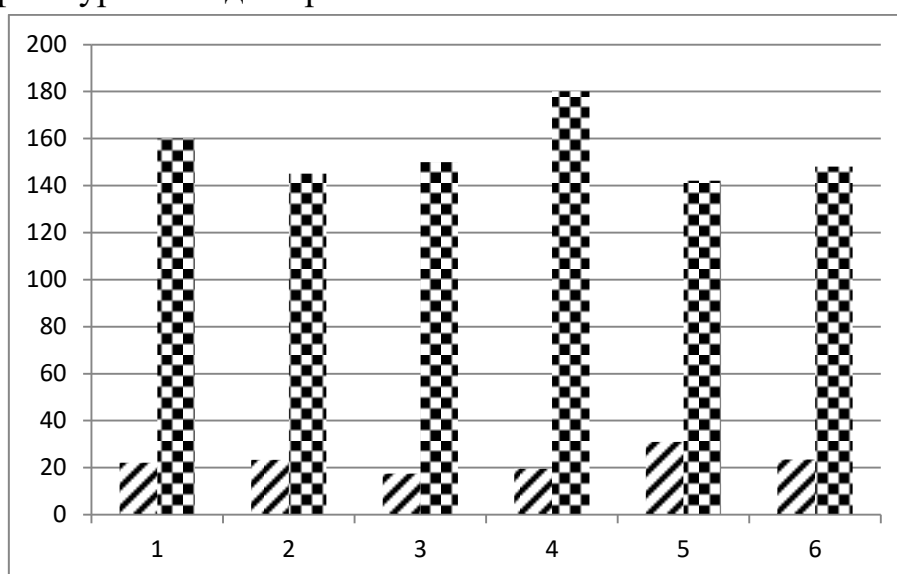
Ишчилар учун олинган ушбу тўқима биринчидан ҳаво ўтказувчанлиги юқори бўлиши, ёмғирли кунларда сувни ўзидан кам ютиши учун махсус пардозланган бўлиши керак.

Тўқималарнинг физик хоссаларини аниқлаш борасида тадқиқот ишлари олиб борилди, яъни ҳаво ўтказувчанлиги ва сув ўтказувчанлиги тадқиқ этилди. Олинган синов натижалари 1-жадвалда келтирилди.

1-жадвал. Қайтимлар миқдори турлича бўлган тўқималарнинг физик хоссаларининг ўзгариши

т/р	Газламанинг тола таркиби	Ҳаво ўтказувчанлиги, $\text{dm}^3/\text{sm}^2 \text{ sek}$	Сув ўтказувчанлиги, mm.сув.уст
1.	Танда ипи 100% пахта толасидан ва арқоқ ипи 30% вискоза толаси+70% пахта толали қайтимдан олинган	22,12	160
2.	Танда ипи 100% пахта толасидан ва арқоқ ипи 45% вискоза толаси+55% пахта толали қайтимдан олинган	23,34	145
3.	Танда ипи 100% пахта толасидан ва арқоқ ипи 10% лавсан толаси+90% пахта толали қайтимдан олинган	17,43	150
4.	Танда ипи 100% пахта толасидан ва арқоқ ипи 20% лавсан толаси+80% пахта толали қайтимдан олинган	19,50	180
5.	Танда ипи 100% пахта толасидан ва арқоқ ипи 20% вискоза толаси+80% пахта толали қайтимдан олинган	30,92	142
6.	Танда ипи 100% пахта толасидан ва арқоқ ипи 50% вискоза толаси+50% пахта толали қайтимдан олинган ип	23,45	148

Тадқиқот натижалари асосида қайтимлар миқдори турлича бўлган тўқималарнинг ҳаво ўтказувчанлиги, сув ўтказувчанлигининг ўзгариши 1 - расмда график кўринишида берилган.



▨ -ҳаво ўтказувчанлиги; ▣ -сув ўтказувчанлиги.

1-расм. Қайтимлар миқдори турлича бўлган тўқималарнинг ҳаво ўтказувчанлиги ва сув ўтказувчанлигининг ўзгариши.

пах1

толали қайтимдан олинган тўқиманинг кўрсаткичларига нисбатан солиштирадиган бўлсак, танда ипи 100% пахта толасидан ва арқоқ ипи 45% вискоза толаси+55% пахта толали қайтимдан олинган тўқиманинг ҳаво ўтказувчанлиги 5,2% га ортади, сув ўтказувчанлиги 9,4% га камаяди, танда ипи 100% пахта толасидан ва арқоқ ипи 10% лавсан толаси+90% пахта толали қайтимдан олинган тўқиманинг ҳаво ўтказувчанлиги 21,2% га, сув ўтказувчанлиги 6,2% га камаяди, танда ипи 100% пахта толасидан ва арқоқ ипи 20% лавсан толаси+80% пахта толали қайтимдан олинган тўқиманинг ҳаво ўтказувчанлиги 11,8% га камаяди, сув ўтказувчанлиги 11,2% га ортади, танда ипи 100% пахта толасидан ва арқоқ ипи 20% вискоза толаси+80% пахта толали қайтимдан олинган тўқиманинг ҳаво ўтказувчанлиги 28,5% га ортади, сув ўтказувчанлиги 11,2% га камаяди ва танда ипи 100% пахта толасидан ва арқоқ ипи 50% вискоза толаси+50% пахта толали қайтимдан олинган тўқиманинг ҳаво ўтказувчанлиги 5,7% га ортади, сув ўтказувчанлиги 7,5% га ортади. Синов натижаларидан тўқиманинг ҳаво ўтказувчанлиги танда ипи 100% пахта толасидан ва арқоқ ипи 45% вискоза толаси+55% пахта толали қайтимдан олинган тўқимада юқори эканлиги кўринди.

ХУЛОСА

Олиб борилган тадқиқот натижалари таҳлилидан кўриниб турибдики, танда ипи 100% пахта толасидан ва арқоқ ипи 20% вискоза толаси+80% пахта толали қайтимдан олинган тўқиманинг ҳаво ўтказувчанлиги бошқа тўқималарнинг кўрсаткичларига нисбатан юқори эканлиги ҳамда танда ипи 100% пахта толасидан ва арқоқ ипи 45% вискоза толаси+55% пахта толали қайтимдан олинган тўқиманинг кўрсаткичи бошқа тўқималарнинг кўрсаткичларига нисбатан паст эканлиги аниқланди.

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ИССИҚЛИК АЛМАШИНИШ ЖАРАЁНЛАРИНИ ИНТЕНСИВЛАШ

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АННОТАЦИЯ

Замонавий иссиқлик алмашадиган қурилмаларга қўйиладиган талаблар ва интенсивлаш усуллари тахлили берилган. Иссиқлик алмашилиш жараёнида қўлланиладиган қурилмаларнинг характеристикаларига қўйиладиган талаблар ўрганилган.

Бундан ташқари бугунги кунда қуриладиган замонавий кўп қаватли уйларга ўрнатиладиган замон талабидаги алоҳида қозонхона (Двухконтурные котель) ларга қўшимча жихозлар ўрганилди.

Илмий тадқиқот ишлари ўрганилган ва хулосалар берилган.

Калит сўзлар: Интенсивлаш, Иссиқлик алмашилиш, Энергия сарфи, турбилентлик.

Халқ хўжалиги турли соҳаларининг жадал суръатлар билан ривожланиши иссиқлик алмашилиш қурилмаларининг кенг миқёсда қилланиши ва уларга қийиладиган талабларни ортиши билан характерланади. Шу билан бирга бу турдаги қурилмаларнинг габарит ўлчамлари ва массасини камайтириш энг долзарб муаммо билиб ҳисобланади. Ундан ташқари, айрим ҳолларда температуралар фарқини ва девор температурасини пасайтириш зарур бўлади.

Худди шундай муаммолар иссиқлик алмашилиш қурилмаларини ишлатадиган кимё, озиқ - овқат, энергетика, нефть, металлургия ва бошқа саноат корхоналари олдида турибди. Юқорида қайд этилган муаммоларни ҳал этиш йўли - бу каналларда иссиқлик алмашилиш жараёнини интенсивлашдир.

Интенсивлаш усулини танлаш бир қатор шартлар билан белгиланади. Улардан энг асосийлари:

1. Иссиқлик алмашилиш қурилмасининг габарит ўлчамлари ва массасини камайтириш;

2. Иссиқлик алмашилиш жараёнини интенсивлаш учун рухсат этилган энергетик сарфлар ва уни амалга ошириш учун бор энергия тури;

3. Иссиқлик бериш интенсивланадиган оқимнинг гидродинамик таркиби. Иссиқлик оқими зичлигининг тақсимланиш ёки иссиқлик элткичда температуралар майдони;

4. Иссиқлик алмашиниш қурилмасининг тайёрлаш технологиясига мойиллиги, ҳамда эксплуатация даврида қулайлиги ва ишончлилиги. Ундан ташқари, қурилма конструкцияси ва жараёнининг таҳлили, иссиқлик элткични узатиш учун рухсат этилган энергия сарфини аниқлаш имконини беради. Одатда, энергия сарфи деганда насоснинг қуввати назарда тутилади.

Шунинг учун, қурилма орқали иссиқлик элткични узатишда босимлар йўқотилишининг йиғиндиси ўзгармас бўлганда, унинг габарит илчамларини камайтиришни таъминлайдиган интенсивлаш усуллари яратилиши керак. Маълумки, ҳамма турбулент оқимларни интенсивлаш усулларида иссиқлик беришни жадаллаштириш учун оқим қўшимча сунъий турбулизация қилинади. Лекин, шу билан бирга гидравлик қаршилик коэффициенти ҳам ошади. Шунинг учун, интенсивлаш даражасини билиш учун интенсивлаш усулида олинган натижаларни, текис трубада олинган тажриба маълумотлар билан таққослаш мақсадга мувофиқ. Бунинг учун Nu/Nu_T нисбатдан фойдаланиш мумкин. Турбулент оқимнинг гидродинамик таркибини ва ундан иссиқлик алмашинишни ўзига хос хусусиятларини билиш, оқимнинг қайси соҳасида турбулент тебранишларни интенсивлаш зарурлигини аниқлашга ёрдам беради. Кўпгина олимларнинг маълумотларига биноан, одатда труба девори яқинидаги суюқликлар ҳаракатини жадаллаштириш кераклигини ҳеч ким инкор қилмайди.

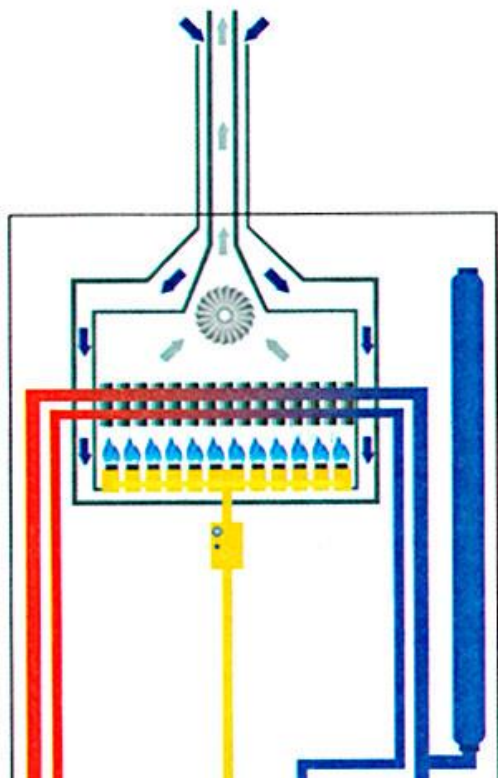
Одатда, турбулентлик интенсивлигини ошириш энергетик сарфлар исиши билан боғлиқ, яъни гидравлик қаршилик коэффициенти ортади. Шунинг учун, λ_t ни бутун оқимда эмас, балки девор яқинида ошириш мақсадга мувофиқ. Шунга алоҳида эътибор бериш керакки, яратилган интенсивлаш усули иссиқлик алмашиниш қурилмаларини яшаш технологиясини тубдан бузмаслиги керак ва катта серияда ишлаб чиқаришга мойил бўлиши зарур. Бу ерда нафақат яшаш ва йиғиш технологияси назарда тутилган, балки оддий қурилмага нисбатан нархи ҳам ҳисобга олинган билиши керак.

Ундан ташқари, яратилган интенсивлаш усули қурилма мустаҳкамлигини, ишончлилигини ва унинг эксплуатацион характеристикаларини пасайтирмаслиги керак. Труба

каналларида иссиқлик алмашилиш жараёнини интенсивлаш бўйича ҳамма ишлар таҳлили куйидаги хулосаларга олиб келди:

1. Сунъий равишда ташкил этилган уярмавий тузилишли оқим турбулентлигини ҳосил қилиш энг самарали воситадир.
2. Трубада бўртиқ-ботиқ типдаги силлиқ кўндаланг тўсиқлар ясаилиши оқибатида ҳосил бўлган уярмавий оқим турбулентлиги тўсиқлар ўлчами ва шаклига катта боғлиқдир.
3. Иссиқлик алмашилиш жараёнини интенсивлаш учун турбулизатор шакли ўткир қиррали (учбурчак, тўғри тўртбурчак ва х.) бўлмаслиги керак, чунки бу шакли тўсиқларнинг гидравлик қаршилиги катта. Демак, турбулизаторлар шакли аста-секин ортиб, кейин эса камаювчи, силлиқ шакли бўлиши гидравлик қаршилиқ кўрсаткичини кескин ортиб кетмаслигини таъминлайди. Суюқлик ва газларнинг оқими труба ичида ҳаракати даврида девор атрофидаги юпқа, чегаравий қатламни сунъий равишда турбулизацияқилиши керак. Унлан ташқари, ушбу девор атрофидаги юпқа қатламни сунъий равишда турбулизация қилиш учун дискрет жойлашган кўндаланг бўртиқ турбулизаторлар қўллаш мақсадга мувофиқ.

Ушбу мақолада тегишля илмий ишлар ва замон талабидаги алоҳида қозонхона (Двухконтурные котель) ларни ургандик ва унга қўшимча жихоз ўрнатиш бўйича таклиф ишлаб чиқдик.



Замонавий ушбу қозонхона (Двухконтурные котель) ларнинг ишлаш унумдорлиги юқори ва сарф харажатни анча қисқартириши маълум. Аммо улар доимий минимум 1-1.5 сув босими бўлишини талаб этади. Барчага маълумки турли хил авариялар ёки бошқа сабабларга кўра хонадонларга сув бериш бир муддатга узилиши мумкин. Бундай холда сувнинг босими тушади ва қозонлар иши тўхтади. Совуқ кунларда бундай холат кўпгина аҳолини қийин ташвишга қўяди. Бунинг асосий сабаби совуқ сув кировчи асосий трубадан сувнинг ортга қайтиши ҳисобланади.

Таклиф шундан иборатки совуқ сув труба орқали қозонга кириш қисмига босимни назорат қилиш қурилмаси ўрнатилса ва сув босими тушиши билан қурилма сувни ортга қайтишини автоматик тарзда тўхтатса қозон ишини давом эттираверади. Бу ҳолат Натижада унинг ўчиб қолишидан хавотирланмаслик мумкин бўлади.

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СХЕМА ПЕРЕНОРМИРОВКИ ДЛЯ СОСТОЯНИЯ ЭЛЕКТРОНА В ДВУМЕРНОМ ПРОСТРАНСТВЕ

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АННОТАЦИЯ

В рамках релятивистского уравнения Швингера-Дайсона рассмотрено возможные связанные состояния электрона в двумерном пространстве. Получено радиальное уравнение, которое является нелинейным. Предложена схема перенормировки с кулоновским потенциалом в двумерном приближении.

Ключевые слова: схема перенормировки, двумерное пространство, электрон, уравнение Швингера-Дайсона

ABSTRACT

In the framework of the Schwinger-Dyson equation the possible bound states of electron in two dimension space has been considered. The radial equation which is nonlinear one has been obtained. The renormalization scheme with Coulomb potential in the two dimension approximation has been proposed.

Keywords: renormalization scheme, two dimension space, electron, Schwinger-Dyson equation

ВВЕДЕНИЕ

Как известно, квантовый эффект Холла в настоящее время обещает прояснение взаимосвязи некоторых фундаментальных физических констант, таких как постоянная тонкой структуры, постоянная Планка и ряда других констант. В связи с чем проводятся исследования этого эффекта как в экспериментальным и теоретическим способами. Практически во всех рассматриваемых теоретических подходах состояние электрона изучается с помощью уравнения Шредингера, которое является нерелятивистским.

Следует здесь отметить, что электрон, имея массу покоя примерно 10^{-30} кг, является ультрарелятивистской частицей. Разумеется, изучение электрона в рамках

уравнения Шредингера, на наш взгляд, не совсем правильно. В настоящей работе для описания возможного связанного состояния электрона в двумерном пространстве предложено использовать уравнение Швингера-Дайсона.

МЕТОДИКА ИССЛЕДОВАНИЯ

Уравнение Швингера-Дайсона в импульсном представлении имеет вид [1]:

$$\begin{cases} E(p) \sin \varphi(p) = m_0 + \frac{1}{2} \int \frac{d^3q}{(2\pi)^3} V(|p-q|) \sin \varphi(q) \\ E(p) \cos \varphi(p) = p + \frac{1}{2} \int \frac{d^3q}{(2\pi)^3} V(|p-q|) \hat{p}\hat{q} \cos \varphi(q) \end{cases} \quad (1)$$

где $E(p)$ – одночастичная энергия и $\varphi(p)$ – фазовая функция электрона, являющимися искомыми функциями, p – импульс, m_0 – масса электрона, $V(|p-q|)$ – потенциал взаимодействия электрона с полем,

$$\hat{p} = \frac{p}{|p|};$$

$$\hat{q} = \frac{q}{|q|}.$$

Для решения уравнения (1) удобно преобразовать его в безразмерный вид подстановкой:

$$\begin{aligned} p/m_0 &\rightarrow p; \\ E(p)/m_0 &\rightarrow E(p); \\ m_0 &\rightarrow 1. \end{aligned} \quad (2)$$

После чего уравнение (1) примет вид:

$$\begin{cases} E(p) \sin \varphi(p) = 1 + \frac{1}{2} \int \frac{d^3q}{(2\pi)^3} V(|p-q|) \sin \varphi(q) \\ E(p) \cos \varphi(p) = p + \frac{1}{2} \int \frac{d^3q}{(2\pi)^3} V(|p-q|) \hat{p}\hat{q} \cos \varphi(q) \end{cases} \quad (3)$$

Считая, что по одному направлению (оси p_z) движение электрона ограничено, потенциал взаимодействия можно представить в виде

$$V(|p-q|) = \frac{4\pi\alpha}{|p-q|^2} \delta(p_z - q_z); \quad (4)$$

где α – постоянная тонкой структуры.

Далее, подставляя выражение (4) в уравнение (3) с использованием цилиндрической системы координат (q_z, q, θ)

и интегрируя по переменной q_z , получим следующую систему уравнений.

$$\begin{cases} E(p) \sin \varphi(p) = 1 + \frac{\alpha}{4\pi^2} \int_0^\infty \sin \varphi(q) q dq \int_0^{2\pi} \frac{d\theta}{p^2 + q^2 - 2pq \cos \theta}; \\ E(p) \cos \varphi(p) = p + \frac{\alpha}{4\pi^2} \int_0^\infty \cos \varphi(q) q dq \int_0^{2\pi} \frac{\cos \theta d\theta}{p^2 + q^2 - 2pq \cos \theta}, \end{cases} \quad (5)$$

Интегрирование по полярной координате θ в первой строке уравнения (5) дает

$$\int_0^{2\pi} \frac{d\theta}{p^2 + q^2 - 2pq \cos \theta} = \frac{8pq}{p^2 + q^2}. \quad (6)$$

Аналогично можно проинтегрировать и второй интеграл во второй строке этого же уравнения

$$\int_0^{2\pi} \frac{\cos \theta d\theta}{p^2 + q^2 - 2pq \cos \theta} = \frac{2(1-\pi)}{pq}. \quad (7)$$

Таким образом, с подстановкой выражений (6) и (7) уравнение (5) примет вид:

$$\begin{cases} E(p) \sin \varphi(p) = 1 + \frac{\alpha}{\pi^2} \int_0^\infty \frac{\sin \varphi(q) q dq}{p^2 + q^2}; \\ E(p) \cos \varphi(p) = p + \frac{\alpha(1-\pi)}{2\pi p} \int_0^\infty \cos \varphi(q) dq. \end{cases} \quad (8)$$

Итак, трехмерное интегральное уравнение (3) привели к одномерному (8). Теперь прежде чем приступить к решению уравнения (8) мы должны исследовать его поведение для случаев:

- 1) $p \rightarrow 0$;
- 2) $0 < p \leq p_{\max} < \infty$;
- 3) $p \rightarrow \infty$.

Начнем с первого случая ($p \rightarrow 0$). Для этого интеграл в первой строке уравнения (8) удобно представить в виде:

$$\int_0^\infty \frac{\sin \varphi(q) dq}{q} = \int_0^h \frac{\sin \varphi(q) dq}{q} + \int_h^{p_{\max}} \frac{\sin \varphi(q) dq}{q} + \int_{p_{\max}}^\infty \frac{\sin \varphi(q) dq}{q}, \quad (9)$$

где $h \ll p_{\max}$ – достаточно малый импульс. Представляет интерес предел, когда в области $0 \leq q \leq h$ $\varphi(q)$ соответствует виду для свободного электрона. При этом ее можно представить в виде:

$$\sin \varphi(q) \rightarrow \frac{1}{\sqrt{q^2 + 1}}.$$

В таком случае интегрирование первого члена в правой части выражения (9) дает:

$$\int_0^h \frac{dq}{q\sqrt{q^2+1}} = -\ln \left| \frac{1+\sqrt{q^2+1}}{q} \right| \Big|_0^h = \ln \frac{2}{0} - \ln \left| \frac{1+\sqrt{h^2+1}}{h} \right|. \quad (10)$$

Точно так же можно проинтегрировать и третий член выражения (9)

$$\int_{p_{\max}}^{\infty} \frac{dq}{q\sqrt{q^2+1}} = -\ln \left| \frac{1+\sqrt{q^2+1}}{q} \right| \Big|_{p_{\max}}^{\infty} = \ln \left| \frac{1+\sqrt{p_{\max}^2+1}}{p_{\max}} \right|. \quad (11)$$

Следует отметить, что в выражении (10) первый член является логарифмически расходящимся. Однако, его можно устранить переопределением входных параметров.

Во втором случае ($0 < p \leq p_{\max} < \infty$) имеем дело с областью взаимодействия электрона с полем и ее легче исследовать численным методом.

В третьем же случае ($p \rightarrow \infty$) также интеграл в первой строке уравнения (8) удобно разбить на две части следующим образом:

$$\int_0^{\infty} \frac{\sin \varphi(q) q dq}{p^2 + q^2} = \int_0^{p_{\max}} \frac{\sin \varphi(q) q dq}{p^2 + q^2} + \int_{p_{\max}}^{\infty} \frac{\sin \varphi(q) q dq}{p^2 + q^2}. \quad (12)$$

Второй интеграл в правой части также удобно исследовать подстановкой для функции φ решения для свободного электрона. Тогда

$$\int_{p_{\max}}^{\infty} \frac{q dq}{\sqrt{q^2+1}(p^2+q^2)} = \frac{1}{\sqrt{p^2-1}} \left(\frac{\pi}{2} - \arctan \frac{\sqrt{p_{\max}^2+1}}{\sqrt{p^2-1}} \right). \quad (13)$$

Переходим к исследованию интеграла во второй строке уравнения (8), которое также удобно проводить для трех рассмотренных выше случаев.

Тогда для случаев $p \rightarrow 0$ и $p \rightarrow \infty$

$$\cos \varphi(q) \rightarrow \frac{q}{\sqrt{q^2+1}}.$$

и

$$\int_0^{\infty} \cos \varphi(q) dq = \int_0^h \frac{q}{\sqrt{q^2+1}} dq + \int_h^{p_{\max}} \cos \varphi(q) dq + \int_{p_{\max}}^{\infty} \frac{q}{\sqrt{q^2+1}} dq = h + \infty - p_{\max} + \int_h^{p_{\max}} \cos \varphi(q) dq. \quad (14)$$

ОБСУЖДЕНИЕ РЕЗУЛЬТАТОВ

Таким образом, мы исследовали возможные значения интегралов для случаев $p \rightarrow 0$ и $p \rightarrow \infty$. Теперь нам предстоит изучить решения уравнения (8) для случая $0 < p \leq p_{\max} < \infty$. Нетрудно заметить, что интегралы в этом уравнении являются

расходящимися, связанными с особенностями кулоновского потенциала, и в связи с чем решения уравнения (8) теряют какой-либо физический смысл.

Для получения решения уравнения Швингера-Дайсона с определенным физическим смыслом необходимо воспользоваться процедурой перенормировки. В литературе известны множество вариантов данной процедуры.

В данной работе мы используем схему перенормировки, в которой расходимости устраняются с добавлением в интеграл функции φ , соответствующей свободному электрону.

$$\begin{cases} E(p) \sin \varphi(p) = 1 + \frac{\alpha}{\pi^2} \int_0^\infty \frac{dq}{q\sqrt{q^2+1}} + \frac{\alpha}{\pi^2} \int_0^\infty \left(\frac{\sin \varphi(q)q}{p^2+q^2} - \frac{1}{q\sqrt{q^2+1}} \right) dq; \\ E(p) \cos \varphi(p) = p + \frac{\alpha(1-\pi)}{2\pi p} \int_0^\infty \frac{q}{\sqrt{q^2+1}} dq + \frac{\alpha(1-\pi)}{2\pi p} \int_0^\infty \left(\cos \varphi(q) - \frac{q}{\sqrt{q^2+1}} \right) dq. \end{cases} \quad (15)$$

Теперь, если учесть то, что в первых интегралах первой и второй строк этого уравнения имеются расходимости (см. выражения (10) и (14)), уравнение (15) можно переписать следующим образом:

$$\begin{cases} E(p) \sin \varphi(p) = 1 - \frac{\alpha}{\pi^2} \left(\ln \left| \frac{1+\sqrt{h^2+1}}{h} \right| + \ln \left| \frac{1+\sqrt{p_{\max}^2+1}}{p_{\max}} \right| \right) + \frac{\alpha}{\pi^2} \int_0^\infty \left(\frac{\sin \varphi(q)q}{p^2+q^2} - \frac{1}{q\sqrt{q^2+1}} \right) dq; \\ E(p) \cos \varphi(p) = p + \frac{\alpha(1-\pi)}{2\pi p} (h - p_{\max}) + \frac{\alpha(1-\pi)}{2\pi p} \int_0^\infty \left(\cos \varphi(q) - \frac{q}{\sqrt{q^2+1}} \right) dq. \end{cases} \quad (16)$$

Заметим, что уравнение (16) теперь свободно от расходимости, поскольку в нем единица в правой части первой строки (в которую входит масса электрона) и импульс в правой части второй строки переопределены.

Для решения уравнения (16) удобно привести его к уравнению для одной неизвестной. Умножая первую строку на $\cos \varphi(p)$ и вторую строку на $\sin \varphi(p)$, затем вычитая из первой строки вторую, получим уравнение для одной функции $\varphi(p)$

$$(1 + A_1 + A_2) \cos \varphi(p) - (p + B_1 + B_2) \sin \varphi(p) = 0 \quad (17)$$

и с помощью уже известной $\varphi(p)$ можно определить значения для одночастичной энергии $E(p)$

$$E(p) = (1 + A_1 + A_2) \sin \varphi(p) + (p + B_1 + B_2) \cos \varphi(p), \quad (18)$$

где

$$\begin{aligned}
 A_1 &= \frac{\alpha}{\pi^2} \left(\ln \left| \frac{1 + \sqrt{h^2 + 1}}{h} \right| + \ln \left| \frac{1 + \sqrt{p_{\max}^2 + 1}}{p_{\max}} \right| \right); \\
 A_2(p, q) &= \frac{\alpha}{\pi^2} \int_0^\infty \left(\frac{\sin \varphi(q) q}{p^2 + q^2} - \frac{1}{q \sqrt{q^2 + 1}} \right) dq; \\
 B_1(p) &= \frac{\alpha(1 - \pi)}{2\pi p} (h - p_{\max}); \\
 B_2(p, q) &= \frac{\alpha(1 - \pi)}{2\pi p} \int_0^\infty \left(\cos \varphi(q) - \frac{q}{\sqrt{q^2 + 1}} \right) dq.
 \end{aligned} \tag{19}$$

ЗАКЛЮЧЕНИЕ

Итак, на основании анализа проведенных исследований в рамках уравнения Швингера-Дайсона с кулоновским потенциалом в двумерном пространстве можно отметить основные выводы:

во-первых, получено радиальное уравнение для состояния электрона в двумерном пространстве, которое является нелинейным;

во-вторых, полученное уравнение свободно от каких-либо расходимостей и сингулярностей, которое будет описывать состояние электрона в двумерном пространстве, решением которого можно будет прояснить возможные связанные состояния электрона в двумерном электронном газе. Полученные результаты могут быть в дальнейшем применены для описания взаимосвязи фундаментальных физических констант в квантовом эффекте Холла.

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COLOUR IDIOMS IN ENGLISH AND UZBEK: THEIR MEANING AND COLOUR ASSOCIATIONS

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ABSTRACT

This research aimed to explore differences in idiomatic expressions related to color in English and Uzbek cultures. It also sought to identify the challenges faced by language learners in comprehending these idioms in both languages, given their shared meanings and distinct associations. Both languages extensively use colour idioms, with various examples provided and explained. While the meanings of some idioms are straightforward, others, more obscure, might perplex foreign learners due to different cultural associations. Cross-cultural comparisons were made to uncover universal color associations and highlight significant differences between the two cultures. The study also revealed that many colour idioms originated from historical events, enriching languages as long as their intended meanings are clear. English teachers and Uzbek learners of English are encouraged to acknowledge these cross-cultural differences, recognizing them as both a potential challenge and an opportunity for improved learning outcomes.

Keywords: Idioms, colour idioms, semantic association, culture.

INTRODUCTION

In our contemporary world it is common to use various idiomatic expressions involving colours. These expressions, stemming from both artistic and popular origins, are widely used in English and Uzbek by native speakers. As non-native English speakers, we have encountered these idioms frequently and have sought to compare their meanings and usage with our own language. This study aims to focus specifically on these colour-related idioms. Idioms, as unique forms of speech or expression, cannot be understood solely from the literal meanings of their parts. Culture significantly influences the interpretation of idioms, necessitating a solid understanding of the target language's cultural context.

Understanding idiomatic expressions, especially colour-related ones, poses a significant challenge for many individuals worldwide, particularly when dealing with two diverse languages like English and Uzbek, which differ linguistically and culturally. Guessing or finding equivalent expressions related to colour in idioms is not straightforward,



making it difficult to comprehend these phrases. Consequently, the researcher aims to explore the difficulties people face in understanding colour-related idioms in both languages mentioned earlier. Additionally, the researcher intends to compare and contrast colour idioms in Uzbek and English.

LITERATURE REVIEW

Langlotz (2006) explained that "idioms have been described as conventional multi-word units that are semantically opaque and structurally fixed". Healey (1968) similarly defined an idiom as "any group of words whose meaning cannot be deduced from the meaning of the individual words". This study aims to uncover the specific meanings associated with colours in these idioms, essentially how these colours express certain meanings. Davidson (1996) also described idioms as "a combined word or phrase whose meaning is not deducible from the meaning of the words of which it is composed". In this paper, 'colour idiom' refers to an idiom that includes one or more words related to a specific colour.

As idioms are often unclear in their meanings unless you know them, it is valuable to explore how colours in idioms relate to their intended meanings. Finding patterns here could help understand these meanings better. When there is some clarity, it's easier to guess the whole meaning from the parts. Learning about the origins of these uses and why certain colours are linked to specific meanings, as well as how this varies across languages, provides fascinating insights. Both English and Uzbek share the use of colours in idioms, but the meanings might differ slightly between these languages. Idiomatic expressions are therefore unusual compared to ordinary language because they convey a sense of feeling that is often unique to particular cultures (Dumitrascu, 2007).

Idioms can pose challenges for language learners because their meanings are not obvious unless you are familiar with them. This lack of clarity might lead to misunderstandings, as someone unfamiliar with the intended meaning might take the words literally. The flexibility of some idioms, the need to know when to use them formally or informally, and differences in usage between languages further add to the complexity. Native English speakers frequently use idioms, sometimes to simplify complex ideas or to be more creative with language.

DISCUSSION AND RESULT

Colour idioms in English

English employs a wide array of colour-related idioms, offering diverse expressions. While some, like 'green light,' are



easily understood, many others are quite challenging for English as a Foreign Language (EFL) learners due to their unclear or partially clear meanings. Appendix A presents a collection of popular colour idioms and expressions in English, highlighting the colour-related word or phrase and its main association in each entry. Idioms related to the same colour are grouped together.

Black is commonly used in English idioms, typically carrying negative connotations except for phrases like 'in the black.' Its primary association revolves around darkness, often linked to historical events. For instance, 'blackout' initially referred to darkening theaters or windows during World Wars to avoid detection by enemy aircraft during air raids. However, black still signifies something dark or tainted in phrases like 'black market' and 'blacklist.' The term 'blackboard,' once merely a classroom fixture, now also refers to commercial online learning software, showcasing how words can transition into idiomatic usage over time, similar to 'blackout.'

Red is often linked with naturally red things. For instance, in the idiom 'caught red-handed,' red symbolizes blood, hinting at the idea of a person committing murder and having blood on their hands. Red also represents emotions like embarrassment in 'red-faced' and love in general. People might get red cheeks when embarrassed, explaining the connection between embarrassment and being 'red-faced.' Many idioms have explanations rooted in reality. Some, like 'red letter day,' originated from events, like marking Saint's days in red in Christian tradition. According to Steinvall's research, 'red' is a prominent term in compound phrases, occurring more frequently than other colour terms in both literal and non-literal uses. The Oxford English Dictionary defines red as having the colour of blood or fire. Additionally, 'red' is used in non-literal meanings such as describing people with reddish skin, or associating with concepts like anarchy, revolution, and communism.

Golden often implies something valuable because of its association with gold, a precious metal. For instance, a 'golden opportunity' signifies a valuable chance, while a 'golden handshake' represents a valuable parting gift from a workplace.

Silver apart from the 'silver screen' also carries connotations of value. The phrase 'born with a silver spoon in one's mouth,' denoting being born into wealth, likely originated from the English tradition of godparents using a silver spoon during a child's christening.

White holds various complex meanings in English idioms. According to Carter (1998, p. 22), "even a very ordinary and widely used word can have a complex relationship with its 'referents' and with other words with which it exists in a structural semantic network".

Understanding 'white' in phrases like 'white elephant' implies a sense of emptiness, often linked to the elephant's large size, portraying something seemingly impressive but actually useless. In 'whitewash,' white serves to hide something, although it might not be advisable.

Table 1: Selection of colour idioms in English

Colour	Idiom	Actual meaning
Black	In the black	Successful or profitable
	Blackout	Power failure; to lose consciousness
	Black market	A market where illegal buying, selling occurs, or trading of goods, services, or commodities in violation of regulations, often involving prohibited or restricted items
	Blacklist	A list of disapproved people, targets or suspects
	Blackboard	Commercial online learning software
Red	Caught red-handed	Caught in the act of committing a crime or other wrongdoing, usually theft
	Red-faced	Embarrassed
	Red letter day	A memorable day due to some significant event
Golden	Golden opportunity	A special or perfect chance (with all the right conditions)
	Golden handshake	a valuable parting gift from a workplace
Silver	Silver screen	The cinema
	born with a silver spoon in one's mouth	Born into a wealthy family
White	White elephant	A useless possession (expensive but of no value)
	Whitewash	Hide information to protect someone

Colour idioms in Uzbek

There are more idioms with the colours black and white compared to other colours in Uzbek language. The colour white has connotations such as cleanliness, freshness, goodness, purity, peace and so on, while the colour black has bad connotations like darkness, illegal, sadness and much more. Below, we will see several idioms with different colours:

Table 2: Selection of colour idioms in Uzbek

Colour	Idiom	Actual meaning	English equivalent
Black	Ichi qora	Evil person	-
	Qora bozor	A market where illegal buying, selling occurs, or trading of goods, services, or commodities in violation of regulations, often involving prohibited or restricted items	Black market
	Oq-qorani tanimoq	To have a simple view of what is right and wrong, or good and bad	see things in black and white
White	Oq ko`ngil	Kind	-
	Oq oltin	Cotton	White gold (sugar and salt)
silver	Zangori ekran	TV/the cinema	Silver screen

Colour associations

Both languages have shared meanings associated with certain colours, particularly positive and negative connotations for white and black respectively. However, there are exceptions, like the English phrase "in the black," signifying profitability, contrasting with "in the red," indicating liability. Another example is the phrase 'white lie,' which holds the same meaning in both languages. The expression 'to see things in black and white' likely signifies 'To have a simple view of what is right and wrong, or good and bad' in both languages. This contrast ability applies universally across languages.

Both languages share similarities in the meanings associated with gray, pink, gold, and silver. For instance, gold and silver connote value, as seen in phrases like 'golden opportunity'. However, there's limited common ground for red, yellow, and blue, except that 'excessive' and 'anger' have some similarities in relation to red.

The basic reasons behind the associations of black and white are quite clear: darkness of the night corresponds to black, while the light of day relates to white. Black can also symbolize emptiness, while white often represents purity. Fire, earth, and sky naturally take on the colours red, green, and blue. Nearly all colour sayings can be linked, to some extent, to these fundamental associations. The positive and negative meanings of colours can also be explained. For instance, fire provides warmth positively but burns negatively. Expressions like 'red carpet treatment' convey positivity, while 'red herring' indicates something negative. The connection between colours and emotions in idioms reflects different mood aspects.

Similarly, being 'in the red' might figuratively imply being burned, while someone 'in the black' is probably safe, although this contradicts black's association with misfortune in other sayings. Expressions like 'out of the blue' or 'once in a blue moon' might not initially seem connected to the sky, but they are. People historically gazed at the sky (since that's where it's located physically), so anything appearing in the sky before modern inventions like airplanes would have been seen as surprising or uncommon.

CONCLUSION

In conclusion, colour idioms are remarkable expressions that convey distinct cultural sentiments. Understanding these idioms encountered is crucial to grasp their intended meanings, which can be challenging, especially for foreign speakers when dealing with more complex or culturally specific idioms. This analysis delved into various English and Uzbek idioms, examining their intended meanings and specific colour

associations. It also involved cross-cultural comparisons, emphasizing both similarities and differences, ultimately revealing universal colour associations that transcend languages. Some idioms were further explained in light of these associations. Additionally, apart from natural associations, many idioms are rooted in historical events, exemplified by the explanation of 'blackout.' These idioms contribute depth to languages, provided they are used judiciously to ensure their intended meanings are conveyed accurately.

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EXAMINING THE ROLE OF TOLO NEWS TV IN THE PROCESS OF EFFECTIVE INFORMATION IN AFGHANISTAN

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ABSTRACT

In this article, the effective information process of TOLO news TV has been investigated. This article examines TOLO News TV, one of the private media in Afghanistan, focusing on its development strategy and role. Also, this research was conducted based on the liberal media model with the field research method and conducting qualitative interviews with the CEO and reporters of TOLO news network. Currently, after the Taliban came to power, freedom of expression has been restricted and the number of newspapers has decreased. The media struggle with many limitations. The international community and some international organizations have played an important role in financing the Afghan media. This research has not been reviewed before. This research can pave the way for comprehensive research in the future. In addition, this research will be valuable and useful for future researchers who research in the field of media.

Keywords: Process, Effective Information and Role of TOLO news TV

INTRODUCTION

Although Afghanistan has a long history in the field of journalism, the path of journalism in this country is still predictable and uncertain. After the U.S. military overthrew the Taliban in November 2001, Afghans gained greater freedom to participate in public life and access media, education, technology, health care, and employment. It attracted many

researchers and tourists from all over the world. Their information about Afghanistan was often used by journalists in the early 1900s.

In the last 20 years, the number of media channels in Afghanistan and the independence of the media have also increased significantly. The media of this country has gained more independence compared to several countries. After the Taliban came to power, the activities of the media were limited. although there is no clear and codified strategy for media development in Afghanistan. But the media has been developed based on the guarantee of the constitution and the support of the international community. But for the journalism community to know how the media grows and develops, this research can help increase their knowledge a lot, and this work will be very important for journalists. Since its establishment, TOLO news TV has played an effective role in the field of information in the Afghan society. It has attracted more audiences and is considered as a pioneering media among Afghan media. Accurate information of TOLO news TV has caused its development and progress.

Research Methodology

In this research, used two approaches, content analysis and field research-interview methods were used and first-hand information was collected. Secondhand data from books, journal articles, websites, and these are examples of secondary sources. First-hand information through interviews and the use of Internet research tools to generate raw data, primary information from Afghan media professionals, including senior journalists, communication and journalism scholars, faculty members, and especially TOLO news reporters and officials News, obtained.

The researcher selected 15 TOLO news employees, especially the managing director and reporters, for interviews to collect their information and opinions about the type of development strategy and the role of TOLO news TV in informing. In order to conduct a close interview with each of the managers and reporters of TOLO news, I made frequent and consecutive calls. However, TOLO news managers and reporters were not present in this interview due to personal problems, and only 10 of them were present for the interview so that the researcher could conduct the interview online to receive basic information through WhatsApp. Also, in order to complete the number of research subscriptions, 5 media experts such as the head of the committee to support Afghan journalists and several others were interviewed online.

The type of reputation of each is available in the study participant's table. 7 main questions and 3 secondary questions were prepared for the interview and sent to the interviewees. The interviews were

conducted online through WhatsApp and the interviews were transcribed.

Research findings

Introducing TOLO news TV: TOLO news was established in 2010 and broadcasts news related to national and international issues 24 hours a day. This media has various political and news programs that bring important events to its audience as soon as possible. This media has more political discourse program than any other media in Afghanistan. It informs the farthest parts of the country. TOLO news has won people's trust with fast and impartial information. TOLO news is published in Farsi and Pashto languages and publishes news in English on websites such as websites, Facebook and Twitter. The TOLO news website below is one of the most visited news sites in Afghanistan. During a decade, it has achieved good results in the field of accurate and fast information.

Factors affecting the development and growth of TOLO news

There are several items in the title that can be named:

1. The work environment of TOLO news Network is different from any other media, meaning that every journalist and employee of this media has independence of thought and work.

2. A large part of the employees of TOLO news Network are the young and professional generation in the field of journalism, and in contrast to the work of news reporting, it is different from the obligatory work commitment.

3. The method of promoting work in this news network has been created using healthy management and free space, and in the same way, all work platforms in TOLO news will be closed due to the fact that you are free to be hired.

TOLO news management has different views; But in decisions, everyone agrees on one thing. The management method of TOLO news consists of a five-member board, which includes TOLO news Network, TOLO news Deputy, TOLO news political programs, TOLO news section, and the online manager of Talisman News, in which these five people are involved. Have complete. In each decision, each of these five individuals has one vote, which is the majority vote as an agreement if accepted (N. Asil, personal interview, January 10, 2021).

TOLO news publishes news like an independent and impartial media without money and without considering ethnic, regional, religious, linguistic and other issues, and more if I think it is advanced for business information (M. Propel, Personal Interview, February, 20, 2021).

There were two views on the establishment of TOLO news media, the economic view and the professional view of the issue. As far as knowledge of This media is available. The management



was very correct and logical in TOLO news media, in which professionals were hired with complete intellectual and work independence, which is considered a logical and effective process to produce initiative and promote media work. Also, the efforts of the people who work at TOLO news with a commitment to their work, caused TOLO news to grow and develop (M. Khaloutgar, personal interview, January 30, 2021).

Having expert and professional manpower, using the scientific principles of journalism, having financial and technical facilities, independent and positive attitude towards receiving advertisements, having a media development and management strategy has led to the development of this media in Afghanistan. (A. Mousavi, personal interview, March 29, 2018). TOLO news has good leadership, taking issues seriously and the absence of discrimination within the organization, reflecting the principles and profession of journalism in media activity, all these factors have contributed to the growth of TOLO news media and everything that TOLO news produces is accepted by the people. take (S. Siret, personal interview, March 18, 2021).

TOLO news is one of the first private television stations in Afghanistan that started working from a more professional beginning. The production of various political, cultural, social and entertainment programs has also been one of the influential factors in the development of TOLO news. as well as detailed information; At the same time, being fast and neutral is another feature of this media. Launching political, cultural, social, etc. discourses can be one of the factors influencing the development of TOLO news (F. Farmarez, personal interview, January 23, 2018).

There are many factors that have contributed to the effective growth and development of TOLO news, but according to Bawerman, as far as the information is available, three factors have played a major role: the programs have been prepared according to the viewer's wishes according to the current situation. TOLO news has tried its best to convey the news to the viewers without discrimination and accuracy, which is why it has become more trusted. Follows the important events of the day based on the principles of journalism such as speed, accuracy, balance and impartiality (Sh. Danesh, personal interview, March 6, 2021).

Dissemination of reports from the heart of the society, credibility and speed of news coverage and reporting and considering the balance in the news are important issues for the growth and development of TOLO news (A. Shahid, personal interview, February 28, 2021). What has led to the development and growth of TOLO news TV is: impartiality and independence, having a professional and creative working group and knowing the media audience and using modern technology to access events are considered to be

distinctive features of this media (F. Akbarzai, personal interview, February 23, 2021). Better management, professional work, gaining people's trust, broadcasting and covering various events, publishing accurate news are important issues that have caused the good growth and development of TOLO news TV (Kh. Nikzad, personal interview, March 13, 2010).

The good management of TOLO news from the beginning of its publication until now, along with the neutrality of TOLO news in facing issues and the rapid dissemination of news, which has also led to the development of TOLO news (M. Ansar, personal interview, 28 Bahman., 2021).

Three key factors for the success of TOLO news TV can be considered. TOLO news has a critical, free and different approach to issues, and on the other hand, the creation of the Persian language and the creation of tasteful programs attracted the attention of a large part of the Afghan people (P. Tawhidi, personal interview, March 16, 2021). TOLO news, as one of the most reputable and professional media in Afghanistan, which makes the first talk in information, due to the observance of the principles and standards of journalism, the observance of other laws has caused it to receive a good and appropriate position among the Afghan people. On the other hand, the principle of neutrality, balance and honesty, which is one of the principles of journalism, has been properly observed, which has caused it to find a place and develop among the people. When a news outlet adheres to the principles and rules and continues to respect the beliefs and values of a society, it refrains from bias, which in turn contributes to the growth and development of the media. In fact, TOLO news in Afghanistan has been able to stand in the middle with a clear policy. People have gained confidence in the transparent and professional activities of TOLO news above this media (N. Salehi, personal interview, April, 2021).

Observance of professional standards of news is a factor in the effectiveness of Tolo News

TOLO news Network is an independent and private media that has never been influenced by any political current and does not belong to any political current in the country in terms of thought and work. News priority is the news value of current issues. The preparation of news in the TOLO news network is selected based on the most important news value, which has become one of the credentials compared to any other media. There is no question of self-censorship. Every journalist and employee of this media has never been under ethnic, linguistic, and regional policies that have not included these issues in their publishing strategy, and in this regard, TOLO news has never succumbed to political bullies and jihadi leaders. In this regard, the most important

option in the publishing policy is the value of the news based on which the news is selected. This has attracted more attention from the audience (N. Asl, personal interview, January 10, 2021).

The good and tireless management of TOLO news TV reporters has led to its credibility among the Afghan media. It has been able to gain a special place in its accurate and impartial information since its establishment (M. Khaloutgar, personal interview, January 30, 2021).

Paying attention to the content performance of programs in a way that responds to the ongoing needs of all different segments of society, trying to cultivate and develop indigenous capabilities of the country, even the Pamir Valley and activate these capacities, reflect the demands of citizens, monitor and reflect activities The real government, realistic, accurate and timely information is one of the main characteristics that has given this media special credibility (A. Mousavi, personal interview, March 20, 2021).

One of the indicators of this media and the trust of TOLO news has risen among the people, regardless of the principles of journalism, such as; There has been constant care in conveying information to the public. Of course, the speed of informing has increased the level of trust and credibility of TOLO news among the people. Other indicators have been informing this media in special ways. Also, the spelling and accuracy in the work of TOLO news have caused the credibility of this media (S. Sirat, personal interview, March 18, 2021). being a pioneer in the structure of accurate news and at the same time reliable and accurate news, having reliable and numerous sources, and producing news without personal taste based on objective reality. All these indicators have led to the validation of TOLO news compared to other visual media (Sh. Danesh, personal interview, March 6, 2021).

Accuracy and speed in information, balance in reporting, broadcasting news of corruption, war, and peace are in fact indicators that have greatly increased the credibility of TOLO news TV in the Afghan society (A. Shahid, personal interview, March 28, 2021).

One of the reasons why TOLO news is superior. observance of the principle of impartiality in cases and accuracy in informing. This TV has also tried to get first-hand news and cases such as; Speed and accuracy, having reliable sources are considered important. All these cases are indicators that make the mentioned media superior to other media. Other media outlets focus on ethnic and partisan information and are supported by one institution and ultimately propagandize in favor of the same political party and institution. This TV has more or less tried to show that it has progressed impartially and

reflected the voice of the people (M. Ansar, personal interview, February 19, 2021). Publishing impartial reports and broadcasting news in accordance with international standards, considering the balance in news programs and materials, as well as publishing critical programs, caused This TV to gain more success and credibility (P. Tawhidi, personal interview, March 16, 2021).

This media is, among others, operates as an independent media outlet in Afghanistan with a neutral approach, and professional activity in accordance with journalistic principles and ethical standards is one of the hallmarks of this account. Impartial coverage of events and the support and trust of the people have made it have a good reputation (N. Salehi, personal interview, April 28, 2021).

Reliable and impartial information TOLO news Effectiveness factors

All news and all TOLO news employees, including Herat, Balkh, Kandahar, and Nangarhar provinces, work around 80 people. In the meeting that is held every morning by the TOLO news leadership board, all of them participate in the meeting and each reporter chooses two news subjects and defends the news importance of their subject, which finally provides TOLO news leadership a satisfactory day to produce a news item. Of course, the news will be returned again, not according to the tastes of TOLO news leadership; It is based on news values. Each TOLO news reporter has the intellectual and work independence to select valuable subjects. (N. Asil, personal interview, January 10, 2021).

TOLO news has adopted a strategy of neutrality, accuracy, balance, and speed in order to find its place among the people and be recognized as one of the most credible and trusted media outlets. Nearly twelve years of its existence, this media has been able to maintain its credibility with the people. During less than a decade of Carmen with TOLO news, it has been proven that media that did not act according to their tastes, ethnicity, party, and position did not last long and soon went bankrupt. But TOLO news, by following the principles of innovative and creative media, has been able to In the media community (M. Popel, Personal Interview, February 20, 2021).

TOLO news is one of the most influential media outlets in the history of Afghan media. This media has been able to shine in the last decade with its remarkable activities inaccurate and impartial information among other media (M. Khaloutgar, personal interview, January 30, 2021). Basically, one of the fundamental reasons for the development of media is reliable, correct, and fair information. Observance of this important principle in TOLO news Network, while giving this media special credibility among the people, has also led to its development (A. Mousavi, personal interview,

March 20, 2021). Certainly, accurate and impartial information of this media is considered as one of the important factors for the development of TOLO news and the cause of its accreditation. People's criticisms of the activities and shortcomings have also led to an improvement in the work of journalism in TOLO news (S. Sirat, personal interview, March 18, 2021).

Undoubtedly, accurate media information is one of the responsibilities of a committed media outlet that All news and all TOLO news employees, including Herat, Balkh, Kandahar, and Nangarhar provinces, work around 80 people. In the meeting that is held every morning by the TOLO news leadership board, all of them participate in the meeting and each reporter chooses two news subjects and defends the news importance of their subject, which finally provides TOLO news leadership a satisfactory day to produce a news item. Otherwise, their news subject will be canceled by the leadership department. Of course, the news will be returned again, not according to the tastes of TOLO news leadership; It is based on news values. Each TOLO news reporter has the intellectual and work independence to select valuable subjects. This has led to the fact that the unbiased information of TOLO news causes the credibility of Wiki as one of the factors in the development of this media and attracts a large part of the audience (N. Asil, personal interview, January10, 2021).

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Undoubtedly, one of the reasons for the development of TOLO news has been neutrality and reliable information (M. Ansar, personal interview, February 19, 2021). Due to the credible news and the neutrality of TOLO news, this media has developed. Adherence to the principles of journalism has increased the credibility of TOLO news to the people (N. Salehi, personal interview, April 28, 2021).

CONCLUSION

More than a decade of impressive activity in the field of information. The results of this research show that the most fundamental reason for the growth of Afghan media, especially TOLO News, was the demand of the people for knowledge and support for the media in Afghanistan. Most of the interviewees mentioned lack of access to information, bad security conditions, intimidation of journalists and lack of responsibility of government officials among the problems of media work. Most of the respondents believe that the guarantee of freedom of speech in the constitution, the support of the

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PSIXOLINGVISTIKA: IJTIMOIIY – GUMANITAR TADQIQOTLAR YO‘NALISHINING DUNYO MIQIYOSIDA O‘RGANILISHI

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ANOTATSIYA

Maqolada psixolingvistikani turli soha vakillari tomonidan tadqiq qilingani va ilmiy ishlaridan iqtiboslar keltirib o‘tilgan. Bu iqtiboslar ichida tilshunos, adabiyotshunos, logoped, tibbiyot hodimlari, ruxshunos va ikkinchi tilni o‘qitish masalasida pedagoglarning ham borligi sohaning keng qamrovli va ko‘p tarmoqliligini ko‘rsatadi. Maqolada (Covid - 19) ning insonlarga psixolingvistik ta’siri, alsgeymer kasalligini davolashda psixolingvistikaning o‘rni va gapirishda nuqsoni bor bolalarni davolashda psixolingvistik tadqiq ishlari va ulardan iqtiboslar keltirib o‘tilgan.

Kalit so‘zlar: Psixolingvistika, ruhiy salomatlik, Korona virus, lison va nutq, semantika, kognitiv kontsepsiya, nutq transkripsiyasi.

KIRISH

Psixolingvistikaga doir tadqiqot ishlari XIX, XX asrlardayoq dunyo ilm –fan olamida turli tajriba va sinovlar bilan qarshi olingan soha sifatida rivojlanib o‘tib kelmoqda. Psixolingvistikalar o‘z tadqiqot ishlarini bir qator davlatlar va turli jamiyatlarda muomoli masalalarni, markazga inson va uning psixologik holatini qo‘ygan ishlarni olib chiqishdi. Bunday ishlardan maqsad esa, inson va uni qurshab turgan atrof – muhitdagi voqea hodisalarni ruh bilan idrok qilgan holda nutq bilan tushuntirish va muomolarga mana shu nutq orqali yeshim topishdan iborat edi.

Xususan, inson bosh miya faoliyati va nutq a’zolarining o‘zaro bog‘liqligi, his etish va ruhiy holatning nutq orqali bayon qilinishi kabi tajribalar yetarlicha amalga oshirildi.

Bugungi kunda esa, psixolingvistlar iqtisodiy faoliyatlarda (Tan – narx, iqtisodiy yuksalish va pastlashning insonlarga psixolingvistik ta’siri), reklamalar (Reklama matnlarining sotuv jarayoniga ta’siri), yo‘l tirbandliklari, multafilmlardagi hayvon va inson nutqidagi so‘zlarning bolalarga ta’siri kabi qator ilmiy izlanishlarni olib borishmoqda.

Keyingi davrda badiiy asar tarkibida psixologizm va psixologik tasvirlarning o‘rganilishi tobora kengayib bormoqda.

Xususan, Xanna Ivaniuk, Inna Melnyk, Tamara Proshkuratova “Maqolada tadqiqot maqsadiga muvofiq bo'lajak o'qituvchilarning til ongida "ruhiy salomatlik" tushunchasining psixolingvistik va qolib tahlili natijalari tasvirlangan.

Bu maqolada bo'lajak o'qituvchi va o'quvchilarning pedagogik aloqasida kerak bo'ladigan psixolingvistik metodlar aytib o'tilgan sinov tajriba o'tqazilib tahlil natijalari bayon qilingan.

ADABIYOTLAR TAHLILI VA METODOLOGIYA

Psixolingvistikaning nazariy ma'lumotlari keyingi yillarda amaliy psixolingvistika uchun ham tayanch bo'lib kelmoqda. Xususan, keyingi yillarda markaziy nerv sistemasi va nutqiy kasalligi bor bemorlarda ham psixolingvistik tadqiqotlar olib borilmoqda. Altsgeymer demansi kognitiv funksiyalardagi ko'plab buzilishlar sifatida tavsiflanadi va tilning buzilishi ushbu kasallikda kuzatilgan muammolardan biri. Ushbu muammolarni tahlil qilish uchun erta va kech boshlangan Altsgeymer kasalligi (AD) va yosh / ta'limga mos keladigan nazorat guruhi bo'lgan turkiyalik bemorlarning hikoya nutq transkripsiyalari o'rganishdi.

Olga Lozova, Olena Litvynenko ning ishlarida esa, eshitish va ko'rishda nuqsoni bo'lgan bolalarga hikoya va qissalarni o'qitish, risoladagidek bo'lgan tengdosh do'stlarining hayotini hikoya qilib berish orqali psixolingvistik ta'sir o'tqazish va nutqini to'g'irlash borasida ilmiy ish olib borishgan.

Yuliya Makarets ning Maqolasida esa asosiy e'tibor til normasini inson nutq faoliyatining regulyatori sifatida o'rganishning psixolingvistik jihatiga qaratilgan. Vitalii Shymko ning tadqiqida butun dunyoning nazarida bo'lgan va barcha sohaga birdek ta'sir ko'rsatgan Korona virusning odamlarga ta'sirini psixolingvistik jihatdan tadqiq qilgan.

Larysa Kalmykova, Nataliya Xarchenko, Irina Volzhentseva, Heorhii Kalmykov, Inna Mysan larning tadqiqotida esa muloqot psixolingvistikasida ichki nutqni muommolarini yangilash masalasi, lison va nutq masalalari o'zaro taqqosanadi.

Natalya Myxalchuk, Natalya H Xalina Vaskivska, Svitlana Palamar, Lesia Poriadchenko larning ushbu tadqiqoti loyiha doirasida amalga oshirilgan bo'lib, bunda ingliz tilida so'zlashuvchi shahar aholisining nutqi dialoglar orqali solishtirilib, nutq tarkibida milliy qadiryatlar va ularga tegishli so'zlarning miqdori psixolingvistik tadqiq qilingan.

Olena Goroshko, Tatyana Polyakovaning maqolasida yangi axborot-kommunikatsiya texnologiyalarining, ya'ni ijtimoiy tarmoqning internet texnologiyalarining o'quv muhitidagi til

ongiga ta'sirini o'rganish natijalari keltirilgan. Ushbu atama vebxizmatning asosiy funksional vazifasi tarmoq foydalanuvchilari o'rtasidagi o'zaro aloqani ta'minlashga qaratilgan bo'lsa, Global Internetni rivojlantirishning ma'lum bir kontseptsiyasini o'z ichiga oladi.

Eda Can, Gulmira Kuruog'lu ning ishlari til, psixologiya va tibbiyot bilan o'zaro bog'liq holda bo'lib, erta va ech boshlanga alsgeymer kasalliklarini yengishda yangi til o'rganish, psixolingvistik metodlardan foydalanish orqali kasallikka yechim topish haqida.

Barcha sohalar kabi psixolingvistika sohasi ham zamonaviy talablarga javob beradigan tadqiqot ishlarini talab qiladi. Aleksandr Kholod ilmiy ishida zamonaviy psixolingvistikaning ilmiy metodlari haqida ma'lumot beradi va bilim yetishmaydigan sohalariga kvant nazariyasining tasdiqlangan tajribalari bilan to'ldiradi va bu Ikki nazariya qarashlarni birlashtirib yuboradi.

Mazirka, Irina Olegovna "Og'zaki shaxs xususiyatlarining psixolingvistik asoslari va badiiy qahramonlar dunyosining lingvistik tasviri" nomli dissertatsiyasida badiiy asarning ta'siri va uning inson nutqidagi tajalliylanishi o'rganadi. Ishda inson bolalikdan qarilik chog'larigacha o'qigan asarlari nutqiga va hayotiga ta'sir etish haqida fikrlar yuritiladi. Asar qahramonlari lingvistik tahlil qilinadi. Davr, makro va mikrosotsiatsiyaning shaxsiy kontseptual sohaning yetakchi tarkibiy qismi sifatida xarakteristik urg'u tushunchasining rivojlanishiga ta'siri va badiiy asar qahramoni dunyosining lingvistik tasviri. Kasbning kognitiv – kontseptsiyasidagi o'zgarishlar tufayli badiiy asar qahramoni dunyosining shaxsiy tuzilmalari va lingvistik tasviri tushunchalaridagi o'zgarishlarini o'rgangan.

Har bir shaxsning tili orqali uning dunyoqarashini o'rganish zamonaviy psixalogiyaning vazifasidir. Atrofdagi dunyo prizmasi orqali aks ettirilgan individual ma'nolar tizimini qurish, boshqa shaxslar - sub'yektlar - ma'naviy madaniyat tashuvchilarni idrok etish, bizga shaxsni dunyoning ma'lum bir tasvirining tashuvchisi sifatida ko'rib chiqishga imkon beradi. lingvistik shaxs sifatida individual ma'no va ma'nolarning mazmuni kabi qarashlarni o'z ilmiy ishida Rossiyalik olim Kabanovskaya, Elena Yurievna o'rganib chiqgan.

Til insonning ajralmas qismidir. Inson muloqotga kirishar ekan uning nutqidan qaysi millat vakili ekanligini bilib olamiz. Xususan, rossiyalik olim Grekova, Viktoriya Evgenievna o'zining "Tildagi his-tuyg'ularning belgilanishi: milliy va madaniy jihat" nomli dissertatsiyasida inson his – tuyg'ularini o'rganishda bir qator fanlarni sanab o'tar ekan markazga lingvistik tahlilni qo'yadi. Rus adabiyotining bir necha tillarga tarjimalari solishtirgan holda o'z fikrlarini bayon qiladi.

Bugungi kunda eng ko'p psixolingvistik tadqiqqlar matn lingvistikasi bilan bog'liq bo'lib, markazga badiiy asar matni va psixologik tadqiq usullari qo'yiladi.

Tilshunoslik tadqiqotining antropotsentrik yo'nalishi ilmiy qiziqishda nutq faoliyati va badiiy matnni o'rganishning kognitiv va psixologik jihatlarida amalga oshiriladi. Bunday tadqiqotning yo'nalishlaridan biri bu "matnning tashkil etuvchi markazi sifatida muallif ongini og'zaki ifodalash usullari" ni o'rganishdir. Galkina, Tatyana Gennadievna o'zining "Badiiy matnda muallif ongining tasvirlarini o'rganish metodologiyasining psixolingvistik asoslanishi: (V.V. Nabokov) asari asosida" nomli ilmiy ishida ong obrazini mana shu qarashlar asosida tahlil qilgan.

Reklamalar hayotimizning ajralmas qismiga aylanib ulgurdi. Kundalik hayotimizda turli joylarda, turli xil reklamalarni ko'ramiz va bu inson ongiga ma'lum darajada o'z ta'sirini ko'rsatadi. Maxnin, Pavel Nikolaevichning Reklama matnlari ta'sirining psixolingvistik jihatlarini nomli dissertatsiyasida reklama aloqasida nutq ta'sirini o'rganish va modellashirishga psixolingvistik yondashuv taqdim etilgan, kreolizatsiyalangan matnlarni o'rganish va tasniflashning mavjud yondashuvlari ko'rib chiqiladi, MCRT ni aniqlash sabablari keltirilgan va ushbu turdagi kreolizatsiyaning bir xil bo'lmagan tarkibiy qismlari o'rtasidagi o'zaro ta'sir mexanizmlari ko'rib chiqilgan.

Byzova, Yuliya Elgudjievna o'zining ilmiy ishida psixolingvistikaning ikkinchi tilni o'rganishdagi ahamiyatini ta'kidlaydi.

"Shuni ta'kidlash kerakki, hozirgi kunda chet tilini o'qitishda psixologiya va psixolingvistika ma'lumotlaridan to'liq foydalanilmayapti. Natijada, talabalar tilida ko'pincha tasviriylik yo'q, bu ma'lumot almashishda suhbatdoshga nutqining ta'sir darajasini pasaytiradi. Ma'lumki, shaxsning nutqi uning madaniy saviyasi, ichki dunyosi haqida guvohlik beradi, aqliy faolligi va xulq-atvori esa faqat shaxsning xulq-atvori va faoliyati sifatida to'g'ri yoritilishi mumkin. "Har qanday vaqtda bir shaxsning faoliyati va xatti-harakati uning voqelikning turli tomonlariga munosabati bilan belgilanadi. Psixik funksiyalarni o'rganish insonning voqelik bilan o'zaro ta'siri orqali bilvosita sodir bo'lishi kerakligini hisobga olish kerak bo'ladi" mavzuning asosiy g'oyasi psixolingvistikani fan sifatida boshqa soha vakillariga o'rgatish, ikkinchi tilni o'rganuvchilarga qo'llanma yaratish.

"Til ongining hodisasi sifatida so'zning psixologik real ma'nosi" nomli ilmiy ishida til va ong o'rtasidagi munosabatlarni solishtirgan. Dissertatsiyada lisoniy ong hodisasi sifatida so'zning psixologik real ma'nosi mavjudligi muammosini asoslab beradi, psixologik real ma'noni eksperimental aniqlash usulini taklif qiladi, psixologik real semantik mazmunini tavsiflaydi. rus tili ongidagi ijtimoiy-psixologik lug'at, lingvistik ongidagi

ijtimoiy-psixologik lug'atning yosh va gender xususiyatlarini aniqlaydi, ishlab chiqilgan metodologiyadan odamlarning turli guruhlarida ongida so'zlarning ma'nolarini shakllantirish darajasini aniqlash imkoniyatini beradi. ko'rsatiladi.

Mochalova, Larisa Nikolaevna "Nutqni rivojlanmagan maktab o'quvchilarida standartlashtirilgan texnikadan foydalangan holda matn tahlilini rivojlantirish diagnostikasi" nomli ilmiy ishida maxsus va milliy maktablardagi muommalarni olib chiqadi. "zamonaviy maktabning fanga asoslangan ehtiyoji o'rtasida qarama-qarshilik mavjud; nutqi normal va zaiflashgan maktab o'quvchilarida matn tahlil qilish ko'nikmalarini monitoring qilish va ob'ektiv baholashni texnologik qo'llab-quvvatlash va bu masalani nazariy jihatdan yetarli darajada rivojlantirish kerak. Maktab ta'limini qayta tashkil etishning hozirgi bosqichida ushbu muammoni hal qilish juda dolzarbdir" qo'shimcha fan sifatida esa psixolingvistikaning metodlarini va amaliy ahamiyatlarini sinov tariqasida ko'rsatib bergan.

Elgina, Svetlana Vladimirovna ning ilmiy ishi sinov – tajriba asosida shakllantirilib, nazariy tahlil usullaridan foydalanildi; anketa, test, assotsiatsiya tajribasi, faoliyat mahsulotlarini tahlil qilish usuli, statistik usullar orqali Nutq faoliyatida shaxsning intellektual xususiyatlarining namoyon bo'lishini o'rgangan.

H.Davlatovning ilmiy maqolasida psixolingvistik metodlar sanab o'tilgan.

Valeriy Belyanen psixolingvistik diagnostika asoslarini o'rgangan. Olim "hissiy va semantik dominantga asoslangan badiiy matnlarning psixolingvistik tipologiyasini" matniy tahlil orqali o'rganadi va matniy tahlil uchun psixolingvistik metodlarni sanab o'tgan.

Sternin I.A., Rudakova A.B "So'zning psixolingvistik ma'nosi va tavsifi" nomli monografiya mualliflari hisoblanadi. Monografiyada psixolingvistikanning asosiy tasnifini so'zning moddiy va ma'no qobig'i orqali sema, semantik maydon, leksima atamalarini bilan tushuntiradi.

Pishalnikova V.A. ning Psixolingvistikaning tarixi va nazaryasi kitobida psixolingvistikaning kelib chiqish tarixi va metodlari haqida aytib o'tadi.

Psixolingvistika sohasi keyingi yillarda O'zbekistonda ham rivojlanib, tadqiqot ishlari kengayib bormoqda.

O'zbek psixolingvistlaridan Sayibova Zuxra Yunusovna Psixolingvistika fan sifatida va uning etimologiyasi maqolasida "Psixolingvistika tilning grammatik konstruksiyalarini yaratish uchun zarur bo'lgan kognitiv qobiliyatlar va jarayonlar bilan shug'ullanadi" deya ta'kidlaydi.

Xaydarova Saida ruhiy holatning nutqqa psixolingvistik ta'sirini o'rgangan. Kuzatish va empirik metodlardan samarali foydalangan.

Eshanayeva Gulnoza “Nutq yaratilishi jarayonining psixolingvistik xususiyatlari Odil Yoqubov asarlari asosida” Nutq yaratilishi nazariyalarini umumlashtirgan holda, ularni motiv<botiniy semantik bosqich > zohiriy semantik bosqich >botiniy sintaktik bosqich >zohiriy > sintaktik bosqich > botiniy morfologik bosqich > zohiriy morfologik bosqich > botiniy fonologik bosqich va fonetik bosqich kabi turlarga bo‘lib o‘rgangan.

Shakarova Dilrabo Rustamovna matniy tahlil orqali psixolingvistik tahlil jarayonlarini tahlil qilgan. Qiyosiy – solishtirma metod orqali Erkin A’zamning “Anoyining jaydari olmasi” qissasini personjlar harakteri orqali tadqiq qilgan.

Yekaterina Turakulovna Shirinova Psixolingvistika, tilshunoslik va pedagogika sohalarining metodlarini birlashtirgan holatda tadqiqot ishlarini amalga oshirgan.

Barbara Xemfort “ Psixolingvistika va ta’lim” maqolasida “psixolingvistika – bu psixolog va tilshunoslarning til bilimlarini tovushdan ma’nogacha ifodalash, bu bilimlarni nutq ishlab chiqarish va tushunishda qayta ishlash, shuningdek, uni o’zlashtirish masalalarini yoritishga harakat qiladigan fanlararo faoliyati” deya ta’kidlaydi. Maqolada sohaning ta’limga kiritilishidagi amaliy ahamiyatlari sanab o‘tilgan va tushuntirish obyekti sifatida tilshunoslik, fonetikani asos qilib olgan.

Ingliz tilshunoslik maktabi vakillaridan biri Gregori L. Merfining “Nutqni tushunishning psixolingvistikasi” maqolasida Xomiskiyning sintaksisga oid nazaryalari bilan nutqiy obyektni, inson psixologiyasini o‘rganish mumkin degan nazaryani ilgari surgan.

XULOSA

Jahon miqiyosidagi tajribalardan nafaqat tilshunoslar balki, pedagoglar ikkinchi tilni o‘qitish masalasida xorijiy til o‘qituvchilari ham foydalanib kelmoqda.

Ushbu sohani o‘rganish orqali nafaqat matn tahlili, gapirishda nuqsoni bor bolalar nutqini rivojlantirish, (Logopedlar), psixologlar esa, (Inson ruhiyatini davolashda), shifokorlar (alesgeymer kasalligini davolashda) maktabgacha ta’lim muassasi tarbiyalanuvchilari bolalar bilan ishlashda, tarbiyachi pedagoglarga qo‘llanma va ko‘nikma yaratish, kichik, o‘rta va yuqori sinf o‘quvchilari bilan ishlashda pedagoglarga bolalarning individual o‘ziga xoslikni o‘rganishga yordam berish va maktab o‘quvchilariga so‘zning qudrati va ta’sir kuchini tushuntira olish imkoniyati yaratiladi.

Bundan tashqari bugungi kunda ijtimoiy hayotimizda tez – tez uchrab turuvchi ijtimoiy hodisa va jarayonlar (Reklamalar, yo‘l tirbandliklari, yo‘qolib boryotgan milliy qadryatlar, sud

jarayonlari (guvohlar , jabrlanuvchi va ayblanuvchi nutqi) tahlil qilinishi sohaning keng qamrovli va kerakli ekanligini ko‘rsatib beradi.

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УЗЛУКСИЗ ТАЪЛИМНИ РИВОЖЛАНТИРИШНИНГ ҲАМКОРЛИК МЕХАНИЗМЛАРИ

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АННОТАЦИЯ

Мақолада педагогик таълим кластерининг илмий-назарий асослари бўйича маълум хулосаларга келинган. Хусусан, Ўзбекистон шароитида педагогик таълим кластерининг йўналишлари сифатида таълим, фан ва таълим, ишлаб чиқариш ва таълим, таълим воситалари, таълимни бошқариш кабилар кўрсатилган, уларнинг мазмуни баён қилинди. Табиий алоқадорлик, узвийлик ва узлуксизлик, изчиллик, ворисийлик, замонавийлик, йўналтирилганлик, мақсаднинг умумийлиги, манфаатларнинг хусусийлиги, ўзаро назорат кабилар педагогик таълим кластерининг тамойиллари сифатида кўрсатилган.

Калит сўзлар: педагогик таълим кластери, глобализация, интеграция, тизим, кластер субъектлари, кластер тамойиллари, кластер субъектлари, кластер йўналишлари, кластер тамойиллари.

КООПЕРАТИВНЫЕ МЕХАНИЗМЫ РАЗВИТИЯ НЕПРЕРЫВНОГО ОБРАЗОВАНИЯ

АННОТАЦИЯ

В статье сделаны определенные выводы о научно-теоретических основах кластера педагогического образования. В частности, обозначены направления развития педагогического образовательного кластера в условиях Узбекистана: образование, наука и образование, производство и образование, образовательные средства, управление образованием и др., описывается их содержание. Естественный контакт, неразрывность и непрерывность, последовательность, наследование, современность, направленность, общность целей, взаимоконтроль определяются как принципы кластера педагогического образования.

Ключевые слова: интеграция, система, субъекты кластера, кластерные принципы, кластерные направления, кластерные принципы.



COOPERATIVE MECHANISMS FOR THE DEVELOPMENT OF CONTINUOUS EDUCATION

ABSTRACT

The article makes certain conclusions about the scientific and theoretical foundations of the cluster of pedagogical education. In particular, the directions of development of the pedagogical educational cluster in Uzbekistan are outlined: education, science and education, production and education, educational means, education management, etc., and their content is described. Natural contact, continuity, consistency, inheritance, modernity, orientation, common goals, and mutual control are defined as the principles of cluster of pedagogical education.

Keywords: integration, system, cluster subjects, cluster principles, cluster subjects, cluster directions.

КИРИШ

Фан ва техниканинг шиддат билан ривожланиши натижасида барча соҳаларга жорий қилинаётган инновацияларнинг мақсади, пировардида, мамлакатнинг иқтисодий ва ижтимоий салоҳиятини оширишга қаратилган. Соҳаларга инновацияларни жорий қилиш мавжуд иш услубларига нисбатан янгича ёндашувларни талаб қилади.

Бугунги кунда Ўзбекистон шароитида олий таълим тизимида шундай янги механизм яратилиши ҳаётий заруратга айландики, унда таълим турлари ўртасида ўзаро назорат ҳам, рақобат ҳам, манфаатларнинг қондирилиши ҳам таъминланиши зарур. Олий таълимнинг жамият барқарор ривожланишидаги юқори ижтимоий аҳамиятидан келиб чиққан ҳолда замонавий талаблар, тизимдаги муаммолар ва уларни ҳал қилишда таълим, фан ва ишлаб чиқариш тармоқлари ўртасидаги тарқоқлик бугунги кунда узлуксиз педагогик таълимни **кластер ривожланиш моделига** ўтказиш заруратини тақозо этмоқда. Бу борада Чирчиқ давлат педагогика университетида дастлабки қадамлар қўйилди. “Педагогик таълим инновацион кластери” университетнинг асосий стратегик тадқиқот йўналиши сифатида белгилаб олинди. Педагогик таълимни кластерлаштиришнинг илмий-назарий асослари ва унинг амалий механизмлари тадқиқ қилинмоқда.

АДАБИЁТЛАР ТАҲЛИЛИ ВА МЕТОДОЛОГИЯ

Иқтисодиётдаги кластер назариясининг асосчиси америкалик иқтисодчи, Гарвард бизнес мактаби профессори



М.Портер кластернинг шаклланиш механизмини ўзаро рақобатбардошлигининг ўсишига сабаб бўладиган бир-бирига бевосита боғлиқ соҳаларнинг жамланиши, деб тушунтиради [5] ва ушбу ҳамкорликнинг давлат иқтисодиётидаги ролини аниқлаб беради.

Рус олимаси Т.И.Шамова эса кластерни алоҳида соҳа (таълим, иқтисодиёт ва б.) сифатида тасаввур қилиб, рақобатбардош самарадорликка эришишдан манфаатдор бўлган соҳалар бирлашининг ташкилий шакллари кучайтириш механизми, деб тушунади [1].

Яна бир рус олимаси Л.Беспалова кластерни ихтиёрий компонентлар қаторида ўзининг тўлиқ функционал ишчанлик қобилятини сақлайдиган бир нечта тенг ҳуқуқли бўлақлардан иборат бўлган тузилма, деб ҳисоблайди [2].

НАТИЖАЛАР ВА МУҲОКАМА

Педагогик таълим кластери – муайян жуғрофий ҳудуднинг рақобатбардош педагог кадрларга бўлган эҳтиёжларини қондириш мақсадида бир-бири билан узвий алоқадаги тенг ҳуқуқли алоҳида субъектларнинг, технология ва инсон ресурсларининг интеграциялашувини кучайтирувчи механизм.

Бугунги кунда Чирчиқ давлат педагогика университетида узлуксиз таълим тизимида таълим турлари ўртасида ўзаро яхлитликни таъминлаш, манфаатли ҳамкорлик механизмларини такомиллаштиришга йўналтирилган “Педагогик таълим инновацион кластери: узлуксиз таълимни ривожлантириш Концепцияси” ишлаб чиқилди. Мазкур Концепцияда педагогик таълим инновацион кластерининг долзарблиги ва зарурати, илмий-назарий асослари, таълим кластерларини ташкил этиш тамойиллари, уларнинг тузилиши ва фаолият механизмлари, кластер модели асосида фан, таълим ва ишлаб чиқаришни интеграциялаш усул ва йўллари, таълим муассасалари ҳамкорлигини ташкил этиш асослари, таълим тизими ва сифатини бошқаришда кластер моделининг ўрни ва аҳамияти концептуал педагогик муаммо сифатида ёритилган.

Субъектларнинг бир пайтнинг ўзида бир нечта стратегик фаолият олиб бориши ва унинг фокусини кластернинг ҳам умумий, ҳам хусусий мақсадларига тўғрилаш анчайин мураккаб жараён ҳисобланади. Аммо бу мураккабликни илмий ва амалий нуқтаи назардан ҳал қилиш кластерлаштириш жараёнининг асосий шарти ҳисобланади.

Кластер доирасида бир нечта субъектларни ўзаро интеграциялаш мураккаб, кўп тармоқли илмий-амалий



жараёндир. Ўзаро боғлиқ бир нечта фаолият турларини умумий мақсад атрофида бирлаштириш аниқ ҳисоб-китобларни ва илмий ечимларни, натижаси кафолатланган лойиҳаларни талаб қилади ва шундагина кластер субъектларининг ишончини қозонади. Кластерни бюрократик ва маъмурий йўллар билан амалга ошириб бўлмайди. У субъектларнинг ихтиёрий хайрихоҳлиги асосидагина ташкиллаштирилиши ва самарали фаолият олиб бориши мумкин [1; 25].

Адабиётларда кластер таркибига кирувчи субъектлар ўзлари ишлаб чиқарувчи маҳсулотларнинг, ахборот ва билимларнинг хусусиятларига кўра қуйидагича таснифланади (1-жадвал): [3; 362-363]

1-жадвал

Кластер таркибига кирувчи субъектлар ишлаб чиқарувчи маҳсулотларнинг, ахборот ва билимларнинг хусусиятларига кўра таснифи (Е.И.Чучкалова, О.Г.Мосунова)

№	Таснифий белгилар	Кластер турлар
1	Иқтисодий фаолият доирасидаги муносабатларнинг табиати	Вертикал йўналтирилган Горизонтал йўналтирилган Аралаш
2	Концентрациялашув даражаси	Тармоқ ичида Тармоқлараро
3	Вазифалар доираси ва миқёси	Мамалакат миқёсида Минтақавий миқёсда
4	Инновацияларда иштирок этиш даражаси	Мустақил инновациялар яратувчи Инновациялардан фойдаланувчи Инновацияларда иштирок этмайдиган
5	Иштирокчилар сони	Катта Ўрта Кичик
6	Иштирокчилар таркиби	Таълим-фан Таълим-фан-бизнес Таълим-фан-бизнес-ҳукумат
7	Фаолият тури	Илмий-ўқув Ўқув-ишлаб чиқариш Илмий-ўқув-ишлаб чиқариш

Бундай тасниф кластер учун умумий характерга эга бўлиб, тармоқ кластерлари бўйича кўриб чиқилганда, уларнинг айримлари кузатилмаслиги ҳам мумкин. Шунингдек, кластер субъектларининг спецификасидан келиб чиқиб амалга оширилган ушбу тасниф бошқа таснифлар каби нисбий характерга эга бўлиб, унда муайян белгининг асосий ўринини эгаллаши инобатга олинган. Шу нуқтаи назардан ёндашганда,



педагогик таълим кластерини қуйидагича таснифлаш, бизнингча, тўғри бўлади (2-жадвал):

2-жадвал.

Педагогик таълим кластерининг умумий таснифи

№	Таснифий белгилар	Кластер турлар
1	Алоқалар шакли бўйича	Таълим ва фан кластерлари Таълим кластерлари Таълим воситалари кластерлари
2	Ўзаро ҳамкорликнинг тузилиши бўйича	Бевосита ҳамкор субъектлар кластери Билвосита ҳамкор субъектлар кластери
3	Субъектлар фаолиятининг хусусияти бўйича	Таълим ва тарбия кластерлари тарбия ва таълим кластерлари
4	Пайдо бўлиш табиати бўйича	ижтимоий аҳамиятга эга кластерлар
5	Асосий ресурслар тури бўйича	Инсон капиталига асосланган кластерлар Таълим воситаларига асосланувчи кластерлар Илмий тадқиқотга асосланувчи кластерлар Тизимда мавжуд муаммоларга асосланувчи
6	Географик таркибий қисмнинг мавжудлиги бўйича	Ҳудудий кластерлар Ҳудудлараро кластерлар Халқаро кластерлар
7	Фаолият тури бўйича	Илмий-ўқув Ўқув-ишлаб чиқариш Илмий-ўқув-ишлаб чиқариш

Кластерни муайян тизим дейиш мумкин, аммо унинг оддий тизимдан фарқли жиҳатлари мавжуд. Бу махсус, ўзига хос тизим бўлиб, элементларни қўшиш билан унинг иши яхшиланади, аммо олиб ташлаш билан ҳалокатли оқибатлар кузатилмайди [2].

Педагогик таълим кластерини шакллантириш учун бир қатор муҳим шартлар талаб этилади. Тадқиқотларимиз натижаларига асосан биз бу борада қуйидагиларни таклиф қиламиз:

✓ ҳудуднинг рақобатбардош устунликларидан фойдаланган ҳолда ўқув юртлари ўртасида ўзаро ҳамкорликни йўлга қўйиш;

✓ бутун тизимнинг узоқ муддатли инновациялари ва бошқа стратегиясини белгиловчи етакчиларни аниқлаш;



✓ *ички ва ташиқи рақобатбардошликни таъминлайдиган ўқув муассасаси ходимларининг малака даражасини ошириши имконини берадиган илмий ташилотларни белгилаш;*

✓ *ишонч ва ижодкорлик муҳити;*

✓ *битта ҳудуддаги таълим муассасаларининг умумий мақсаддан келиб чиқувчи хусусий манфаатдорликнинг мавжудлиги* кабиларни киритиш мумкин.

ХУЛОСА

Умуман олганда, педагогик таълим кластери педагогика соҳасига иқтисодий моделларни татбиқ қилиш натижасида самарадорликка эришишни назарда тутди. Педагогик таълим кластери тизимга инновацион ёндашув сифатида глобаллашув шароитида унинг рақобатбардошлигини оширишга, кадрлар салоҳиятини мустаҳкамлашга, таълим сифатини оширишга, ўзаро ахборот ва инновациялар алмашинувини жадаллаштиришга хизмат қилади. Унинг субъектлари, йўналишлари ва тамойиллари ҳодиса учун муҳим бўлган кўплаб саволларга жавоб беради ва ўзида шу жараённинг мазмунини ифодалайди. Бу уч омил педагогик таълим кластерининг асоси бўлиб, кластер фаолиятидаги самарадорлик уларнинг назарий жиҳатдан тўғри ишлаб чиқилиши ва амалий жиҳатдан тўғри йўлга қўйилишига боғлиқ.

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KORPUS LINGVISTIKASINING SHAKLLANISH VA RIVOJLANISH TARIXIDAN LAVHALAR

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ABSTRACT

This article deals with the problem of corpus linguistics and concordance, and also its origin and development. Corpus linguistics nowadays is perhaps most readily associated in the minds of linguists with searching through screen after screen of concordance lines and wordlists generated by computer software, in an attempt to make sense of phenomena in big texts or big collections of smaller texts. This method of exegesis based on detailed searches for words and phrases in multiple contexts across large amounts of text that can be traced back to the thirteenth century, when biblical scholars and their teams of minions pored over page after page of the Christian Bible and manually indexed its words, line by line, page by page. Concordancing arose out of a practical need to specify for other biblical scholars, in alphabetical arrangement, the words contained in the Bible, along with citations of where and in what passages they occurred. Technology has been the major enabling factor in the growth of corpus linguistics but has both shaped and been shaped by it. The ability to store masses of data on relatively small computer drives and servers meant that corpora could be as big as one wanted. In this regard, lexicographers led the way. Their aim has always been to collect the maximum amount of data possible, to capture even the rare events in a language.

Keywords: corpus linguistics, concordance, corpora, history, development of concordance.

KIRISH

Xorijiy tillarga bo'lgan qiziqish, yuqori darajada bilishga bo'lgan talab tarjima sohasining birmunchayin ilgarilashiga turtki bo'ldi desak, mubolag'a bo'lmaydi. Kundan kunga taraqqiy etayotgan tarjimaning turli jabhalari, nafaqat tilga xos bilimlar, balki, IT sohasiga oid ko'nikmalarni ham chuqur o'zlashtirish kabi masalalarning dolzarbligidan dalolat beradi So'nggi yillarda tilshunoslik jabhalarida, jumladan, leksikografiya, terminologiya, kompyuter lingvistikasi, korpus lingvistikasi sohalarida bir qator tadqiqotlar olib borilayotganligiga qaramasdan, nutqiy faoliyat va unda



ifodalangan soʻz maʼnolari bilan bogʻliq masalalar toʻlalgicha oʻz yechimini topgani yoʻq. Taʼkidlash joizki, leksemalar va matnlar korpuslarini yaratish hamda ulardan foydalanishning oʻziga xos jihatlarini oʻz obʼekti sifatida belgilab olgan soha – korpus lingvistikasi bugungi kunda koʻplab lingvistik tadqiqotlarga moʻljallangan til maʼlumotlarining yirik majmualarini, ulardan foydalanishning nazariy asoslari va amaliy mexanizmlarining shakllanishi uchun zamin yaratadi.

ADABIYOTLAR TAHLILI VA METODOLOGIYA

Korpus lingvistikasi tilshunoslarning takbiri boʻyicha, “muvofiqlik asosida hosil qilingan satrlar va soʻz roʻyhatini ekrandan qidirish bilan kom'yuter dasturlari orqali katta matnlar yoki kichik matnlarning katta toʻplamdagi hodisalarni tushunishga urinish”ning eng oson usuli sifatida ularning ongida shakllangandir. Bu kabi matn izohlash usuli katta hajmga ega matnlardagi bir nechta kontekstda ifodalangan soʻzlar va iboralarni toʻliq qidirishga asoslangan boʻlib, ushbu usul yordamida XIII asrda injilshunos olimlar va ularning izdoshlari tomonidan injil sahifalari satrlarga va soʻzlarga koʻchirilgan. Shuningdek, konkordans yohud muvofiqlik asosida injildagi soʻzlarning alifbo tartibida, iqtiboslari hamda qaysi matnlarda qoʻllanilganligini koʻrsatishning amaliy ehtiyojidan kelib chiqqan holda boshqa olimlar tomonidan amalga oshirilgan.

Soʻzning etimologik talqiniga nazar tashlaydigan boʻlsak, *concordantia* lotincha *cum*, yaʼni, “*bilan*” va *cor* esa “*yurak*” maʼnolarini anglatib, injilning shunchaki matnlardan tashkil topgan kitob emas, balki ushbu mashaqqatli urinishning asl gʻoyaviy asosi uning ilohiyatga uygʻunlashgan xabar ekanligi haqidagi daʼvoni taʼkidlashdan iborat boʻlgan. *Korpus* leksemasiga keltirilgan bir qator tavsiflar mavjud boʻlib, uning asosiy vazifasini yoritib berishga qaratilgandir.

NATIJALAR

E.Finegan oʻzining qoʻllanmasida: “korpus – matn yaratilgan vaziyat va unga tegishli maʼlumotlar, jumladan, soʻzlovchi, muallif, adresat yoki auditoriya haqidagi maʼlumotlarni oʻz ichiga olgan, mashina oʻqiydigan formatga ega reprezentativlangan matnlar majmuasi,” deya eʼtirof etadi. Vikipediya elektron lugʻatida esa, “lingvistik, til yoki matnlar korpusi – annotatsiyalangan va strukturlangan, mashina oʻqiydigan formatda taqdim etilgan, muayyan lingvistik masalalarni hal etishga moʻljallangan til maʼlumotlarining filologik kompetentli massivi,”¹ deb taʼriflanadi. T.Mak-Eneri va E.Vilsonlar korpusni “til modeli sifatida foydalanish uchun aniq til mezonlari boʻyicha

¹https://ru.wikipedia.org/wiki/Корпусная_лингвистика



faoliyat yuritgan struktur tilshunoslarning tadqiqotlari ham zamin bo'la olgan. Har ikkala usul ham tadqiqotchilar uchun ma'lumotlarni to'plashda muhim ahamiyat kasb etgan. Shuningdek, doktor Samuel Jonson (Dr Samuel Johnson)ning 1755 yilda chop etilgan birinchi "Ingliz tilining izohli lug'ati" ko'p yillar, jumladan, 1560-1660 yillar mobaynida qo'llanilgan qog'ozlarga tushirilgan misollarni yig'ish asnosida qog'ozda korpus yaratishning mahsuli bo'lib xizmat qildi. Ehtimol, uch milliondan oshiq qog'oz bo'laklari korpusida mujassamlashgan so'zlarning qo'llanishini amalda ta'minlovchi lug'at, ya'ni, 1880-yillarda Oxford English Dictionary tarkibiga kiritilgan. Dunyoning mashhur lug'atlaridan birini yaratishda ushbu millionlab qog'oz parchalaridagi so'zlar tahrirlangan holda matnning mazmunga ega bir qismiga aylantirildi.

Leech (1992)ning ta'kidlashicha, 1950-yillarda amerikalik strukturalistlar, jumladan, Harris, Fries and Hilllarning tadqiqotlarida "ma'lumotlarni yig'ish" tushunchasi keng qo'llanilganligini kuzatish mumkin. Shuningdek, ilk injilshunos olimlar va yozuvchilarning so'zlarni qidirish va indekslash borasidagi olib borilgan chora-tadbirlari nafaqat tilga oid ma'lumotlarni to'plash, balki, ona tiliga xos bilimlarni tadqiq etish nuqtai nazaridan strukturalistlarning konkordans ilmi rivojidadagi peshqadamligidan dalolat beradi. Ona tilini o'zlashtirishga bo'lgan qiziqish transkripsiyalangan ma'lumotlar – 1960-yillarda yaratilgan CHILDES³ til bazasiga asoslangan bo'lsada, ushbu loyiha 1984 yildagina rasmiy tasdiqlangan.

XULOSA

Yuqorida keltirilgan tahlillarga tayangan holda, xulosa qilish mumkinki, korpus lingvistikasi uzoq taraixga ega bo'lib, didniy asarlar yaratilgan davrlarda shakklanib ulgurganligining guvohi bo'lamiz. Shuningdek, ingliz yozuvchilarining asarlari to'plamining yaratilishida ham korpusning o'rni biqiyos bo'lgan. Natijada, hozirgi kunga kelib uning anchayin mukammallashgan muqobili yaratilgan. Demak, korpus asosida boshqa sohalarni ham taraqqiy ettirish mumkin.

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ТАСАВВУФ ВА БУГУНГИ ДАВР

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АННОТАЦИЯ

Ушбу мақолада Ислом дини таркибида шаклланиб, унинг Ислом, Иймон ва Эҳсон каби қисмларидан учинчи қисмига тааллуқли бўлган ва Мусулмон Шарқида салкам 1300 йилдан буён тарихий тараққиёт босқичларини босиб ўтиб, мукамал бир диний-фалсафий таълим сифатида шаклланган Тасаввуф ва унинг бугунги даврдаги аҳамияти ҳақида фикр юритилади.

Муаллифнинг фикрича, иррационал билиш усулига асосланган, аммо, шунингдек, рационал тафаккурни ҳам инкор этмайдиган, диний ва дунёвий тафаккур, интуитив ва ақлий билимни уйғунлаштирган ушбу диний-фалсафий таълим Ер шарининг катта қисмида ўзининг салкам 1300 йиллик мавжудлиги давомида такомиллашиб бориш ва модернизациялашиш имкониятлари кенглигини исботлаб берган. Бу ҳолатни айниқса, ҳам Шарқ ва ҳам Ғарб дунёсида кенг тарқалган Мавлавия (Мавлоно Жалолиддин Румий асос солган) ва Нақшбандия (Хожа Баҳоуддин Нақшбанд асос солган) каби ирфоний тариқатлар мисолида ҳам кўриш мумкин. Шу жиҳатдан, Ер шари аҳолисининг салкам ярмига ижобий руҳий-маънавий таъсир етказган, диний ва дунёвий илмларнинг ривож, адабиёт ва санъатнинг юксалишига муносиб ҳисса қўшган тасаввуф таълимотини глобал цивилизацион ҳодиса сифатида баҳолаш лозим, деган фикрни олға суради.

Муаллифнинг таъкидлашича, руҳий инқироз ва маънавий-ахлоқий таназзулга учраган бугунги давр инсон учун Тасаввуфнинг ҳаётбахш ғоялари инсон руҳиятини муътадиллаштиришга, уни келажакка бўлган ишончини оширишга хизмат қилади. Шу нуқтаи назардан, уни фалсафий-психологик жиҳатдан жиддийроқ ўрганиш ва руҳий тарбия усулларида бири сифатида қўллаш яхши натижалар бериши мумкин, деган хулосага келади.

Калит сўзлар: Ислом, ислом дунёси, дин, Ислом дини, шариат, тасаввуф, тасаввуф фалсафаси, тасаввуф таълимоти, тасаввуф илми, глобал, глобаллашув, ғоя, модернизм, Шарқ, Ғарб, таъсир, руҳий-маънавий тарбия, позитивизм, тараққиёт, камолот.

SUFISM AND THE PRESENT PERIOD

ABSTRACT

This article discusses the significance of Sufism, which was formed as part of the Islamic religion and belongs to the third part of Islam as “Ihsan”, and has undergone 1300 years of historical development in the Muslim East.

According to the author, this religious and philosophical teaching, based on an irrational way of knowing, but not denying rational thinking, combining religious and worldly thinking, intuitive and intellectual knowledge, has proven a wide range of possibilities for improvement and modernization in most of the Earth's territory over time its existence. This situation can especially be seen in Sufi orders such as the Mawlawiya (founded by Maulana Jalaluddin Rumi) and the Naqshbandiya (founded by Khwaja Bahauddin Naqshband), which are widespread in both the eastern and western worlds.

From this point of view, he put forward the idea that the teachings of Sufism, which had a positive spiritual influence on almost half of the world's population, contributed to the development of religious and secular sciences, and the rise of literature and art, should be assessed as a global civilizational event.

According to the author, for a modern person who has experienced a spiritual crisis and spiritual and moral decline, the life-giving ideas of Sufism serve to stabilize the human spirit and increase his confidence in the future. From this point of view, it is concluded that studying it more seriously from a philosophical and psychological point of view and using it as one of the methods of spiritual education can give good results.

Keywords: Islam, Islamic world, religion, Islamic religion, Sharia, Sufism, philosophy of Sufism, teachings of Sufism, Sufi science, globality, globalization, idea, modernism, East, West, influence, spiritual education, positivism, development, maturity.

КИРИШ

Ҳеч қандай муболиға эмас: бугунги кунда Ер шарининг Япониядан ери-Америкагача бўлган худудлари оралиғида Тасаввуф таълимотига фавқулодда қизиқиш билан киришиш жараёни бошланган. Бугунги кунда бу исломий тафаккур ва ҳаёт тарзи – Тасаввуф ва унинг илмий-бадий шакли, ҳаётбахш ғояларини мусулмонлар билан биргаликда турли дин ва миллат вакиллари ҳам ўрганишга бел боғлашган. Нега? Чунки тобора маънавий қашшоқлик, ахлоқий тубанлик ва



руҳий инқирозлар гирдобига тушиб бораётган инсоният Тасаввуфнинг руҳий тарбия усулларида фойдаланишга муҳтож бўлиб бормоқда. 2021 йил 18 июн куни Навоий давлат педагогика институти томонидан ташкил этилган “Бағрикенглик ва тинчликсеварлик контекстида ислом илмий-маънавий мероси” мавзусидаги халқаро илмий онлайн конференциясида иштирок этган таниқли рус исломшунос-тасаввуфшунос олими профессор А.Д.Кныш бизнинг “Тасаввуф эскирган таълимот ва бугунги даврга мос келмайди, шундай экан, уни ўрганишнинг ҳеч қандай ҳожати йўқ”, деган фикрлар ҳам бор. Сиз бу ҳақда нима дейсиз: Тасаввуфни ўрганиш керакми ё керак эмасми?” деган саволимизга “Шак-шубҳасиз, бу ҳеч қачон эскирмайдиган таълимот. Айниқса, бугунги давр инсони учун у жудаям керак”, дея жавоб берган эди.

Тасаввуф таълимотининг Мусулмон Шарқи халқлари маънавиятини шакллантиришдаги ўрни ё аҳамияти ҳақида сўз юритганда қуйидаги жиҳатларга алоҳида эътибор қаратишга тўғри келади: Тасаввуф таълимоти Мусулмон Шарқида рационал фалсафа турлари – Қадимги Юнон фалсафаси (Шарқ аристотелизми ва неоплатонизм) ва ислом теологияси – Калом фалсафаси (Мўътазилия, Ашъария, Мотуридия, Ботиния)дан сўнг фалсафий тафаккур оламида мутлақ иррационал ҳисобланган учинчи йўналиш – *Ирфон фалсафаси*ни бошлаб берди ва ҳатто тўртинчи йўналиш – Ишроқ фалсафасининг шаклланишида ҳам (Шайх Шаҳобиддин Сухравардий таълимоти мисолида) фаол қатнашди. Шунингдек, маълум даражада рационал фалсафага ҳам таъсир кўрсатди (масалан, Ибн Синонинг “Ҳай ибни Яқзон”, “Рисола фил-ишқ”, “Рисолаи машриқия” каби асарлари мисолида).

Тасаввуф ўзига хос бўлган *динишунослик* тизимини ишлаб чиқди. Бунинг учун Қуръон, Ҳадис ва Тасаввуф илмлари пешволарининг қарашларидан унумли фойдаланди. Тасаввуф таълимоти шунингдек, яна бир қатор фан соҳаларига ҳам фаол тарзда кириб борган. Жумладан, *ислом тарихи* (тасаввуф тарихига оид юзлаб асарлар – табақотлар, тазкиралар, маноқибликлар, мақомотлар мисолида. Жумладан, Суллаймоннинг “Табақот ус-сўфия” номли табақоти, Атторнинг “Тазкират ул-авлиё”, Афлокийнинг “Маноқиб ул-орифин”, Жомийнинг “Нафаҳот ул-унс”, Навоийнинг “Насойим ул-муҳаббат” номли тазкиралари), *Қуръони карим тафсири* (ирфоний тафсирилар, жумладан, Мустамлий Бухорийнинг “Тафсири”и (бизгача етиб келмаган), Жомийнинг “Тафсир”-и (бизгача етиб келмаган), Хожа Абдуллоҳ Ансорийнинг ирфоний тафсири мисолида), *Ҳадис илми* (Тасаввуф таълимотига мос тушадиган ҳадисшунослик), *адабиётшунослик* (бадий характерга эга бўлган тасаввуфий асарлар, хусусан, ирфоний



шеъриятдаги рамзу мажозларни очиб берадиган шарҳнавислик мисолида. Масалан, “Шарҳи Шайх Маҳмуд Шабустарийнинг (678/1289 – 720/1321) “Гулшани роз” маснавийсига Шох Неъматуллоҳ Валий томонидан “Равзаи атҳор”, Шамсиддин Муҳаммад Лоҳижий томонидан “Мафотех ул-эъжоз фи шарҳи “Гулшани роз” номли назмий шарҳлар битилган), *тилунослик* (тасаввуфий сўзлар, истилоҳлар ва ибораларни изоҳлаб берадиган луғатшунослик мисолида), *педагогика* (устозлар (муршидлар)нинг шогирдлар (муридлар) учун ёзган қўлланмалари мисолида. Жумладан, Калободийнинг “Китоб ат-таъарруф ли мазҳаб ат-тасаввуф” асари), *этика* (муршид ва мурид ахлоқи, хонақоҳ ахлоқ одоби, устозлар, ота-она, ёши катта кишиларга ҳурмат ва эҳтиром, оила одоби, таълим олиш одоби, юриш-туриш одоби, муоамала маданиятига оид асарлар мисолида) каби фанларнинг такомиллашуви учун ҳам хизмат қилган. Масалан, Мустамлий Бухорийнинг “Шарҳ ат-таъарруф ли мазҳаб ит-тасаввуф” асарининг 3-рубъида (4 жилдликнинг 3-китоби) касб ҳунар ўрганиш, тавба, сабр, шукр, ихлос, тавозуъ ва ризо каби ахлоқий фазилатлар ҳақида ҳам ҳаётий, ҳам диний (тасаввуфий) нуқтаи назардан фикр юритилади. Жумладан, асарнинг “Касб-ҳунар таърифида” деб номланган 23-бобида кучли мантикқа асосланган қуйидаги фикр келтирилади: “Аммо шайх раҳматуллоҳ (Абу Бакр Калободий – Ж.Х.) шундай дейди: “Менинг назаримда касб-ҳунар билан шуғулланиш банданинг Ҳақдан юз ўгиришига сабаб бўлмаслиги лозим. Яъни (киши касб-ҳунар билан шуғулланмоқчи бўлган киши аввал) ўз нафсининг ҳолатига қараши лозим.

Киши касб-ҳунар билан шуғулланмаган тақдирда унинг нафси Ҳақдан юз ўгирадиган ва махлуқларга юзланадиган бўлса, унга касб-ҳунар билан шуғулланиш худди намоз ўқиш каби фарз ҳисобланади”. [12]

Шунингдек, ўрта асрлардаги *эстетика* (сўфий диди, масалан, Шайх Нажмиддин Кубронинг ранглар хусусияти ва уларнинг сўфийнинг руҳий-маънавий ҳаётидаги ўрнига оид “Латойиф” назарияси), *психология* (муршид ва мурид психологияси, солиқ (тарикат йўловчиси) психологияси, ориф психологиясини тушунтириб берадиган асарлар мисолида. Масалан, маноқиблар ва мақомотларнинг аксарияти шунингдек, психология фанига оиддир.

Тасаввуф таълимотидаги “Ҳолот” ва “Мақомот” каби солиқ (сўфий)нинг йўл давомидаги руҳий ҳолатлари, ички кечинмалари, руҳият жилвалари (Шайх Атторнинг “Мантиқ ут-тайр”, Алишер Навоийнинг “Лисон ут-тайр” каби дostonларидаги етти водий сафари) ҳам ўзига хос психология ҳисобланади), *социология* (сўфийнинг



жамият, ижтимоий ҳаётдаги ўрни масалан, сўфийларнинг оила масаласига муносабатлари, хонақоҳ социологияси, таркидунёчилик (аскетизм; жамиятдан қочиш) ва жамият билан бирга бўлиш тамойили (масалан, Нақшбандия тариқатидаги “Дил ба Ёру даст ба кор”, “Хилват дар анжуман” – зоҳирда жамият билан бирга бўлиш, аммо ботинда Ҳақни эсдан чиқармаслик тамойили мисолида), *этнология, этнография ва аксиология* (хонақоҳнинг ўзига хос қонун-қоидалари, расм-русумлари ва маросимчилиги тасвирланган асарлар), *сиёсатшунослик* (масалан, Тасаввуф намояндалари Имом Муҳаммад Ғаззолийнинг “Насиҳат ул-мулук” (Подшоҳларга насиҳат), Хожа Самандар Термизийнинг “Дастур ул-мулук” (Подшоҳлар учун қўлланма) номли асарлари мисолида) фанлари ҳам Тасаввуф таълимотидан сезиларли даражада озиқланган.

Тасаввуф аслида Мусулмон Шарқининг ғайриараб халқлари томонидан яратилган диний-фалсафий таълимот бўлганлиги сабабли унинг кўзгусида асосан минтақанинг форсийзабон ва туркийзабон халқлари дунёқараши ва маънавий олами ўз аксини топган. Бунга Тасаввуфнинг илк намояндалари – Иброҳим Адҳам, Шақиқ ибн Иброҳим ва Ҳотам ибн Унвон ва бошқаларнинг ажамий халқларга мансуб бўлганликлари ва Тасаввуфнинг кейинги тараққиёт босқичларида муҳим ўрин тутган бир қанча тариқатлар ёки силсилалар, жумладан, Ҳақимия, Форсия, Адҳамия, Чиштия, Сўҳравардия, Мавлавия, Қодирия, Кубравия, Хожагон, Яссавия, Нақшбандия, Бектошия, Нурбахшия, Заҳабия, Сафавия, Неъматуллоҳия, Ифтишошиянинг асосчилари хуросонлик ва мовароуннаҳрлик шайхлар эканлиги қатъий далил бўла олади.

Сўфиёна турмуш тарзи, Тасаввуф маросимчилигида халқнинг кундалик ҳаёти, унинг аҳволу руҳияси ўз ифодасини топган. Аслида Тасаввуфнинг баъзи бир хонақоҳ маросимлари оддий халқ маросимларига тақлид қилиш асосида вужудга келган. Афсуски, Тасаввуф бадий адабиётининг яратилиши ва шаклланишида халқ оғзаки ижодиёти унсурлари мавжудлигига қарамай, бу масала Тасаввуф тарихига доир тадқиқотларда ҳалигача жиддий тарзда тадқиқ этилмаган.

Мансур Ҳалложнинг фожиали қисмати Тасаввуф аҳлини эҳтиёткорлик ва ҳушёрликка даъват этгандай бўлди. Сўфийлар Шайх Абўсаид Абулхайр ўртага ташлаган “Тасаввуфнинг биринчи қадами дафтари қаламдан воз кечмоқ ва илмни эсдан чиқармоқдир”, деган шиорига қарамай давр тақозоси билан ўзларини ҳимоя қилиш мақсадида Қуръони карим оятлари ва Ҳадиси шарифга асосланган Тасаввуф адабиётини яратишга киришдилар. Натижада, XI-асрдан бошлаб, Тасаввуфнинг



фалсафий дунёқараши Шарқ бадий адабиётига кўча бошлади. Абулмажд Санойи Ғазнавий шеърлари билан бошланган бу жараён кейинги 900 йил давомида бутун жаҳон адабиётига таъсир етказишга қодир бўлган Тасаввуф бадий адабиёти яратилди. Хусусан, назмнинг маснавий, ғазал ва рубоий каби жанрлари тасаввуфий ғояларнинг хизматида бўлди. Ана шу жараёнда халқ оғзаки ижодининг эпик жанрлари тасаввуфий-бадий адабиётнинг эпик жанрларини, халқ лирикаси эса тасаввуфий-бадий шеърятнинг лирик жанрларини шакллантиришда муҳим омил сифатида хизмат қилди. Буни халқона оҳангдаги рубоиларини тасаввуфий ғоялар билан уйғунлаштирган Бобо Тоҳир Урён ижоди мисолида ҳам кузатиш мумкин.

Тасаввуф бадий адабиётининг эпик жанрларига мансуб бўлган Шайх Атторнинг “Мантик ут-тайр”, Мавлоно Жалолиддин Румийнинг “Маснавийи маънавий”, Мавлоно Абдурахмон Жомийнинг “Ҳафт авранг”, Алишер Навоийнинг “Хамса”, “Лисон ут-тайр” каби асарларида Шарқ халқлари асотирлари, афсона ва ривоятларидан олинган эпизодлар, қаҳрамонлар, персонаж ва образлар Тасаввуф ғояларини бадий тарзда тушунтириш учун хизмат қилди. Шайх Атторнинг “Мантик ут-тайр” ва Навоийнинг “Лисон ут-тайр” тамсилий дostonларидаги Семурғ (аслида “Симурғ” – “Ўттиз куш) тимсоли эроний халқларнинг Симурғ (“Авесто” ва паҳлавий манбаларда “Синмурв” ва “Синамурук” шаклларида учрайди) номли афсонавий куш ҳақидаги асотири асосида яратилган.

Форсийзабон сўфий-шоирлар – Бобо Тоҳир Урён ва Мавлоно Жалолиддин Румий, туркийзабон сўфий-шоирлар – Хожа Аҳмад Яссавий ва Бобораҳим Машраб ижодиётида халқона тамсил ва тасвирлар, халқ оғзаки ижодиётига хос бўлган тафаккур ва мусиқа уйғунлигини мушоҳада этиш мумкин. Уларнинг сўфиёна ғазал ва рубоийларида халқ мақоллари, ибора ва таъбирларидан энг мужаз ва гўзал шаклларда фойдаланилган. Шарқ мумтоз шеърятининг орифона-ошиқона лирикасидаги самимийлик, соддалик ва равонлик ҳам аслида халқ оғзаки ижодиётидан сарчашма олади.

Тасаввуф таълимоти Шарқ халқлари санъатининг турли соҳаларига ҳам сезиларли даражада таъсир етказган. Жумладан, мумтоз мусиқа саналадиган “Шашмақом”ни ушбу таълимот талқинларисиз англаб этиш амри маҳол.

Ўзбекистондаги тарихий обидалар архитектураси, нақш-нигорлари, тасвирлари, ранглари ҳам Тасаввуф фалсафасига бориб тақалади. Демак, Тасаввуф миллий меъморчилик ва тасвирий санъатга ҳам кириб борган экан. Камолиддин Беҳзод миниатюралари,

Бойсункур Мирзо кутубхонасида китобат қилинган хаттотлик намуналари ҳам Тасаввуф таълимоти билан уйғундир.

Минтақа халқлари Ислom дини ғояларини Тасаввуф талқинлари, юқорида зикр этилган Мусулмон Шарқи улуғ алломаларининг маънавий мероси орқали ўзига сингдирган, олам ва одам моҳиятига Тасаввуф кўзгуси билан назар ташлаган. Зеро, Тасаввуф Калом илми билан бир қаторда Ислom динининг асл моҳиятини тушунтириш усулларида бири бўлиб келган.

Юқорида айтиб ўтилганидек, бугунги Ўзбекистон заминида Тасаввуфнинг 5 та машҳур тариқати яратилган ва амал қилган: Ҳакимия, Хожагон, Яссавия, Кубравия, Нақшбандия. Шунингдек, Қодирия, Маломатия, Қаландария каби тариқатлар ҳам кенг тарқалган.

Бу юртда Ҳаким ат-Термизий, Абу Бакр Варроқ Термизий, Саййид Бурҳониддин Муҳаққиқ Термизий, Абу Туроб Нахшабий, Абу Бакр Калободий, Мустамлий Бухорий, Хожа Абдулҳолик Ғиждувоний, Хожа Баҳоуддин Нақшбанд, Азизиддин Насафий, Хожа Аҳмад Яссавий, Шайх Нажмиддин Кубро, Хожа Муҳаммад Порсо Бухорий, Хожа Убайдуллоҳ Аҳрор Валий, Хожа Аҳмад Махдум Даҳбедий, Сўфи Аллоҳёр, Бобораҳим Машраб каби ўнлаб улуғ мутасаввифлар яшаб, ижод қилган.

Тасаввуф Аҳли суннат ва жамоъатнинг фикҳий ва ақидавий мазҳаблари, айниқса, Ҳанафия, Шофеия, Моликия мазҳаблари, Ашъария ва Мотуридия калом мактаблари доирасида шаклланган таълимот сифатида ушбу фикҳий-ақидавий мазҳабларга эргашган мусулмонларнинг диний дунёқарашини шакллантириш ва юксалтиришда хизмат қилиб келган.

Бир томондан кўп маданиятли, бир томондан эса глобаллашув жараёнида ягона иқтисодий макон ва ягона маданиятга қараб кетаётган даврда, Тасаввуф таълимоти ислom дунёсида сокинлашиб, яққаланиб қолган. Ислomшунос тадқиқотчилар тасаввуфнинг инқирозига икки омилни асосий сабаб қилиб кўрсатишади: тасаввуф аҳлининг Ислom жамиятига бўлган ишончининг йўқолиши; шариат аҳлининг ҳақиқий Ислom таълимотидан узоқлашиб, шариат буюрган ибодатларни адо этишда нуқсонларга йўл қўйиши. Шунингдек, номусулмон жамиятли Ғарбнинг тараққиёти мусулмон давлардан кўплаб жиҳатларда устунлик қилишмоқда. Ушбу кўп маданиятли ва глобаллашув замонида, кўплаб мусулмонларнинг дунёқарашини прагматик тус ола бошлади.

Прагматик дунёқараш капитализм ривожини фонидида инсониятга ниҳоятда катта босим ўтказмоқда. Ғарб мамлакатларида “Фаровонлик жамияти” ўтган асрнинг саксонинчи йилларига қадар ўрнатилган бўлсада, инсониятнинг бахт-саодатга эришуви

ҳақидаги секуляризм тарафдорлари ва прагматик сиёсатчилар илгари сурган ғоялари ўзини оқламаганини бугунги кунда ривожланган мамлакатлардаги суицидлар, турли жиноятлар ва ахлоқий бузқликлар кўрсаткичлари ўсиб бораётгани бунга яққол далилдир. Демократик жамиятларнинг асосий шиори бўлмиш “инсон ҳуқуқлари ва хоҳишлари олий қадрият”лиги натижасида ҳозирги кунда Ғарб мамлакатлари ўз қонунчилигига бир қанча инсонийликка зид бўлган ахлоқсизликларни ўз мамлакатларида легитимлаштиришга мажбур бўлмоқда. Шветсарияда инсон яшашни истамаса уни ўз талаби асосида осон йўл билан ҳаётига нуқта қўювчи Сарко номли 3-д мосламалар (Insider.3 d-printed suicide pods are now legal in Switzerland) давлат томонидан рухсат берилган. Ғарб мамлакатлари, жумладан Нидерландия, Германия, Белгия, Люксембург, Канада, Колумбия каби иқтисодиёти барқарор ривожланган мамлакатларда кузатилиши (Nicola Davis “Euthanasia and assisted dying rates are soaring”. Guardian) демак, иқтисодий ривожланиш ва фаровон ҳаёт ҳар доим ҳам инсонга бахт олиб келмайди деган хулоса чиқаришга олиб келади. Бир сўз билан айтганда, капитализм инсониятга фойдадан ташқари катта зарар ҳам келтирмоқда.

XIX асрда яшаб ижод қилган рус файласуфи ва жамиятшуноси М.Бакунин инсон хоҳиш ва майлларининг эркинликликлари мавжуд ахлоқий кодекслар доирасида бўлса позитив анархизм, агар бунинг тескариси бўлиб унга ҳукумат ва жамият томонидан мақулланса негатив анархизмга сабаб бўлади, дея таъкидлаган. Бакуниннинг неагтив анархизм қарор топганлигини Ғарбда инсоний фитрат ва табиатга бутунлай зид бўлган бир жинсли никоҳ, ўз жинсини ўзгартириш ҳуқуқи, ўз жонига қасд қилишда ҳукуматнинг амалий ёрдами каби инсон эшитса сесканадиган тушунчалар бугун инсониятни иқтисодий ривожланиш қатори ушбу муаммоларни ҳам келажак авлод учун зудлик билан ҳал қилиш кераклигини кун тартибига қўймоқда. Ушбу рўй бераётган воқеалар фонидида христиан оламида одамларнинг черковга бўлган ишончи кескин тушиб кетиб, айримлари динсизликни, катта қисми эса ислом динини ихтиёр қилаётгани айни ҳақиқат. Статистик маълумотларга қараганда, 2016 йилга қадар Ғарбий Европа аҳолиси исломни қабул қилиш кўрсаткичи сезиларли 11% ни ташкил қилган бўлса, ушбу кўрсаткич 2050-йилга қадар 16% дан кам бўлмаган ҳолатда етиб бориши башорат қилинган. Ушбу кўрсаткич миграция омилидан ҳоли эканлиги фактдир. Ушбу кўрсаткич иқтисодий фаровонлиги юқори Скандинавия давлатлари, Франция, Германия, Нидерландия, Белгия, Буюк Британия, Австрия, Шветсария каби давларда 12% дан юқори кўрсаткичдалиги



фикримиз исботидир. Европа мамлакатлари нафақат исломни қабул қилиб ислом шариати буюрган амалларни адо этишга ўтмоқда балки, иқтисодиёти ва сиёсатига ҳам исломий ҳқумларни жорий этаётгани ҳақиқатдир. Ислом молияси атамаси бугунги кунда дунё бўйлаб иқтисодиётга кенг қилинаётган дастур ҳисобланади.

Дунё бўйлаб, хусусан, Европада шариатдан кейинги босқич – тариқат, яъни, тасаввуф (ботиний фикҳ)га [6] бўлган қизиқиш аввалгига қараганда сезиларли даражада ортган. Чор Россияси мустамлакаси ўзлигимиз акс этган ўтмишимиз, қадриятларимиз ва тасаввуф илмига ўз хиссаларини қўшган буюк аждодларимизни унутаётган вақтимизда ҳам дунё бўйлаб кўплаб тадқиқотчилар уларни ўрганиб, улар илгари сурган ҳақиқатларни англаб етиб, ўз халқига таништирганларида Мусулмон Шарқи ҳали уйқуда эди.

Ислом фалсафаси ва тасаввуф ҳақида тадқиқотлар олиб бораётган бир қанча шарқшунос олимлар тасаввуфнинг инсон руҳияти ҳар қачонгидан ҳам тарбияга, тасаллига муҳтожлигини таъкидлаб, тасаввуфни бевосита психология илмига ҳам боғлиқ эканлигини эътироф этишмоқда. Илм-фан ва техника тараққиёти инсониятга кўплаб қулайликлар берибгина қолмай, кўплаб психологик муаммоларга ҳам сабаб бўлмоқда. Барча илмий ютуқлар ва тараққиётнинг фундаментал асоси бўлмиш инсон руҳияти учун фойдали бўлган ахлоқий кодекслар мажмуаси ҳисобланмиш дин унутилиб, моддий сари интилиш бугунги замон одами фитратига ўрнашиб, унинг олий мақсадига айланмоқда. Моддий манфаат учун кўплаб жиноятлар, мамлакатлараро эътибор берадиган бўлсак, урушлар, ядро қуролининг яратилиши, табиий ресурслар учун кураш кучайиши, турли геосиёсий ўйинлар, назарияларнинг барчаси инсониятни йўқ қилиш эвазига гегемон бўлишни мақсад қилиб олган маълум бир гуруҳлар туфайли инсониятнинг тинчи бузилган. Шундай вазиятда тасаввуфни ўрганиш ҳар қачонгидан ҳам муҳим вазифага айланиб қолмоқда. Аммо тасаввуф мураккаб ва чигалликларга эга бўлиб, исломнинг руҳий, ақлий, ахлоқий, ботиний фалсафасини ўзида мужассам этган. Унинг асосида ўз-ўзини ислоҳ қилиш, тарбиялаш, ривожлантириш ва ўзгаларга яхшилик қилиш орқали ажр умид қилиш ётади. [7]

Европа олимлари тасаввуфни ислом динининг алоҳида бир қисми сифатида талқин қилиб, “Sufism” (Германия ва Францияда ҳам шундай) атамасининг сўнгги “исм”(изм) қисми унинг алоҳида бир ғояга эга тарихий мактаб эканлигининг исботидир.[1,52] Мутафаккирлар “Тасаввуф исломнинг фундаментал ажралмас қисми бўлиб, Имон, Ислом, Эҳсон номли устунларининг Эҳсон қисмига



тўғри келади. Имондан дин (калам), Исломдан шариат, Эҳсондан эса тасаввуф вужудга келди”,[7,112] деган фикрни тасдиқлайдилар.

Инсон онги ва феъл-атвори бевосита ўзида кўплаб фактлар ва кадриятларни жам қилади. Улардан бири бўлмиш факт асосан илм-фандан, кадриятлар эса диний ва диний бўлмаган фалсафалар, хусусан, гуманизм ва экзистенциализмдан қувват олади.[11,5-22]

Руҳият диний фалсафанинг ажралмас қисми бўлиб, кадриятларни белгилаб бергани учун инсониятнинг руҳий камолот бағишлайди. Шунинг билан 1884-йилда Бутунжаҳон Соғлиқни Сақлаш Ташкилотининг 37-Халқаро Ассамблеясида руҳий саломатликни ижтимоий ва маданий жиҳатдан инсон саломатлигининг асосий қисмларидан бири эканлиги белгиланган.[2,47-51]

Инсон руҳиятини ўрганиш Фарбий Европанинг тиббиёт мактаблари илмий машғулоти рўйхатига киритилган.[3] Руҳий саломатлик нуқтаи назаридан, руҳият ушбу соҳада бошқа ўринларда “қалб”, “кўнгил” атамалари билан ҳам қўлланилади. Тадқиқотлар шуни кўрсатадики, инсон саломатлигига ёндашувнинг ушбу кўриниши бик қанча позитив, баъзи ҳолларда негатив натижаларни фанга тақдим қилган. Ушбу тадқиқотлар шуни кўрсатадики, мазкур ёндашув инсон саломатлигига фойда келтириш кўрсаткичи зарар келтириши ёки ҳеч қандай фойда келтирмаслигидан анча юқоридир.[8] Тасаввуф нафақат мусулмон оламида, балки номусулмон оламида ҳам кенг ёйилган, Шарқдан Фарбга томон ёйилиб бораётган ўзига хос маънавий шакли бўлиб, уни маънавий, руҳий фойдаси нуқтаи назаридан тадқиқ қилиш керак.[9]

Дарҳақиқат, “бугунги давр инсони, ривожланиш ва юксалишларга қарамасдан, маънавий қашшоқлик ва руҳий инқироздан азият чекмоқда. Ўзининг асл табиатидан тобора бегоналашиб бораётган инсоният Албер Камюнинг ўз онасини кўмаётган чоғда бамайлихотир сигарет чекаётган ва қаҳва ичишни хоҳлаётган (“Бегона” асари) Мерсосига ўхшаб бормоқда. Тасаввуфга ўхшаган маънавий ва фалсафий таълимотлар айнан ана шундай инқирозлар учун ўзига хос вакцинадир. Инсоният руҳий тушкунликка тушган, маънавий-ахлоқий инқирозга юз тутган бир шароитда Тасаввуфнинг ўз-ўзини назорат қилиш ва бошқариш, ўз хатти ҳаракатлари, хато ва камчиликларини таҳлил қилиб бориш, ўзидаги ёмон хислатлар билан курашиб, улардан қутилиш, ўзини маънавий-руҳий жиҳатдан такомиллаштириш ва юксалтириш, инсонпарварлик ва ҳаётсеварлик ғоялари билан кучли иммунитет ҳосил қилиб, келажакка ишониб яшаш ва интилиш каби ахлоқий-руҳий тарбия усуллари бугунги кунда янада муҳим аҳамият касб этиб бормоқда”.[4,24-25]



Тасаввуф илми ислом динининг асл моҳиятини очиб берадиган калитдир. Унинг Ислом моҳиятини чуқурроқ англаш ва идрок этишга қаратилган инсон тафаккури ва ҳис-туйғуларини ҳаракатга келтирадиган усуллари турли халқлар ва миллатларнинг тафаккур тарзи ва эстетик дидига мос тушганлиги туфайли охириги минг йил давомида Ислом дини жуғрофияси янада кенгайди. Бошқача таъбир билан айтганда, айнан Тасаввуф таълимотининг Мавлавия, Қодирия ва Нақшбандия каби айрим тариқатлари туфайли Ислом тафаккури дунё бўйлаб тарқалиб кетди.

Тасаввуф илми шунингдек, ислом динининг асосий манбаи булган Қуръони Карим ва Ҳадиснинг асл моҳиятини очиб берувчи таълимот ҳисобланади. Ваҳийлик тажрибалари билан феноменологик асосга эга бўлган сўфий тажрибаларини ўрганиш диний билим манбаларини илмий тадқиқ қилиш имконини беради.[5] Шу туфайли дунё бўйлаб кундан кунга клиник тажрибалардан тадқиқотларгача, нормал ва ғайритабиий идрок ҳодисаларини ва унинг оқибатларини ўрганиш руҳий саломатлик билан боғлиқ фанларнинг ажралмас қисмини ташкил қилади ва руҳий саломатлик фанлари тадқиқотчиларига суфийлик илми ва тажрибаларини ўрганиш учун қулай шароит яратиб беради.[8]

Тасаввуф инсонпарварлик ғоялари билан суғорилган ҳаётбахш бир таълимот сифатида бутун тарихи давомида ҳеч қачон радикал ва экстремистик оқимлар билан келишолмаган, ҳар қандай зулм, адолатсизлик, ноҳақлик, мутаассиблик, айирмачилик, ирқчилик, миллатчилик, зўравонлик, тажовузкорлик, қон тўкиш ва уруш-жанжалларга қарши бўлиб келган. Шунинг учун ҳам бутун Ислом тарихида зухур этган турли экстремистик кайфиятидаги оқимлар Тасаввуф таълимотига душманлик кўзи билан қараб келган ва бундай оқимларнинг тасаввуфга бўлган салбий муносабатини бугунги даврда ҳам кузатиш мумкин.

Тасаввуф аждодларимиздан қолган табаррук маънавий меросдир. Уни авайлаб-асрашимиз, жиддий ўрганишимиз ва келажак авлодга етказишимиз лозим. Шундагина улуғ аждодларимиз номи ва мероси билан фахрланишга лойиқ бўла оламиз. Ислом дини ва Тасаввуф таълимоти моҳиятини германиялик, америкалик ёки россиялик шарқшунослардан ўрганиш замони аллақачон ўтиб кетди. Зеро ҳеч ким бизни ўзимизчалик яхши билолмайди ва англай олмайди. Тасаввуф эса маънавий борлиғимиз рамзларидан биридир. Бу илмни Ҳаким ат-Термизи-ю Нажмиддин Кубро, Хожа Абдулҳолиқ Гиждувони-ю Хожа Аҳмад Яссавий, Хожа Баҳоуддин Нақшбанд-у Хожа Аҳроп Валий, Мавлоно



Абдурахмон Жомий-у Ҳазрат Алишер Навоий, Имом Раббони-ю Мирзо Абдулқодир Бедил каби улуғ мутафаккирларимиз олам аҳлига тушунтириб бера олган эканлар, биз ҳам ўз навбатимизда уни бани башарга етказишга масъулмиз.

Тасаввуфни эскирган, бугунги давр инсони учун керак бўлмайдиган илм, деб ўйлайдиганлар ҳали кўп. Бундай олиб қараганда, фан ва технологиялар юксак даражада ривожланиб бораётган бир даврда бундай билимлар ҳақиқатан ҳам керак эмасдай, эскириб қолгандай туюлади. Аммо аслида бундай эмаслигини ҳаёт ва воқеяликнинг ўзи кўрсатиб турибди. Негаки, бугунги давр инсони, ривожланиш ва юксалишларга қарамасдан, маънавий қашшоқлик ва руҳий инқироздан азият чекмоқда. Ўзининг асл табиатидан тобора бегоналашиб бораётган инсоният Албер Камюнинг ўз онасини кўмаётган чоғда бамайлихотир сигарет чекаётган ва қаҳва ичишни хоҳлаётган (“Бегона” асари) Мерсосига ўхшаб бормоқда. Тасаввуфга ўхшаган маънавий ва фалсафий таълимотлар айнан ана шундай инқирозлар учун ўзига хос вакцинадир. Тасаввуф шундай бир тафаккур тарзики, у замонлар ўтиши билан эскирмайди. Чунки у инсон табиати билан, инсон руҳияти ва унинг ботин олами билан чамбарчас боғланган. Чунки, у инсонни эртанги кунга ишонтириб, унга руҳий куч ва мадад бағишлай оладиган фалсафадир. Шу нуқтаи назардан, Тасаввуф турли замон ва маконларда мавжуд бўла оладиган таълимотдир.

Тасаввуф маънавий мероси бутун Ер юзи мусулмон халқларининг муштарак маънавий мероси саналади. Қолаверса, бу маънавий мерос бутун инсониятга тегишли. Бугунги глобаллашув даврида кичик миллий маданиятларнинг қудратли давлатлар ва йирик маданиятларнинг кучли таъсири остида қолиб кетаётган пайтда, салкам 1300 йилдан буён жаҳон цивилизациясининг ривожига улкан ҳисса бўлиб қўшилган Тасаввуф таълимотини илмий жиҳатдан ўрганиш алоҳида аҳамият касб этади. Тасаввуф – бу исломий тафаккур ва ҳаёт тарзининг бир шакли сифатида минтақа халқларининг тарихий ва маънавий борлиғи, фалсафий ва бадий тафаккур тарзини ўзида мужассам этиб келган.

Тасаввуф таълимоти ва унинг намояндаларининг жаҳон цивилизацияси тараққиётига қўшган ҳиссаси ҳақидаги фактлар ва фикрларни узоқ давом эттириш мумкин, аммо шу қисқача тавсиф билан кифояланган ҳолда шундай хулосага келиш мумкинки, тасаввуф ҳақиқатан ҳам бутунжаҳон цивилизация ҳодиса сифатида ўрганиш ва ўргатишга лойиқ илм экан.

Бу ҳаётбахш ва инсонпарвар таълимотни Мўътазилия оқими тарафдорлари мутаассиб ва саводсиз деб, салафийлар



бидъатчи деб, ваҳҳобийлар ва ҳизб ут-таҳрирчилар эса кофир деб билишган ва доимий равишда унга нисбатан душманона муносабатда бўлишган.

2019 йилда Лондонда нашр этилган “Глобал суфизм” номли фундаментал тадқиқотда муаллифлар тасаввуф таълимотини бугунги давр инсони учун ўта муҳим маънавий омил сифатида баҳолашган. Мазкур тадқиқотда тасаввуфнинг ҳам жамият ҳаёти, ҳам инсоннинг руҳий олами учун зарурлиги, ушбу таълимотнинг тажрибаларини амалиётда қўллаш ижобий натижалар бериши мумкинлиги таъкидланади. Айниқса, муаллифларнинг тасаввуф таълимотининг Европа ва Америка қитъалари маданияти ва санъатига кўрсатган таъсири, жумладан, жаз мусиқасининг келиб чиқишини тасаввуф таълимоти билан боғлаши Фарб тадқиқотчиларида бу борада бутунлай янгича қарашларнинг шаклланишидан дарак беради.[10]

Шарқ маънавий меросининг ажралмас қисми ҳисобланган тасаввуф алломаларининг маънавий мероси ЮНЕСКО ташкилотининг ҳам доимий диққат марказида бўлиб келган. Жумладан, ЮНЕСКО томонидан 2005 йил буюк шоир ва мутасаввиф, Мавлавия тариқатининг асосчиси Мавлоно Жалолиддин Румий хотирасига бағишлаб “Мавлавия самоъ маросими” йили, 2007 йил эса “Халқаро Мавлоно Румий йили” деб эълон қилинган эди.

ХУЛОСА

Айни пайтда соғлом ақл билан тафаккур қилиб, бир ҳақиқатни тан олиш фурсати етиб келди: Тасаввуф XXI асрга келиб, глобал маънавий-руҳий ҳодиса сифатида ўзлигини намоён эта бошлади. Зеро, “бугунги кунда Ер шарининг Япониядан Америкагача бўлган ҳудудлари оралиғида Тасаввуф таълимотини фавқулодда қизиқиш билан ўрганиш жараёни бошланган. Бугунги кунда бу исломий тафаккур ва ҳаёт тарзи – Тасаввуф ва унинг фалсафаси, бадиий адабиёти, ҳаётбахш ғояларини мусулмонлар билан биргаликда турли дин ва миллат вакиллари ҳам ўрганишга бел боғлашган. Нега? Чунки тобора маънавий қашшоқлик, ахлоқий тубанлик ва руҳий инқирозлар гирдобига тушиб бораётган инсоният Тасаввуфнинг руҳий тарбия усулларидан фойдаланишга муҳтож бўлиб бормоқда”.[4,15]

Хулоса қилиб айтганда, инсоният тарихий тажрибаси Тасаввуф таълимотини эскирган матоҳ сифатида баҳолаш катта хато эканлигини кўрсатди. Зотан, иррационал билиш усулига асосланган, аммо, шунингдек, рационал тафаккурни ҳам инкор этмайдиган, диний ва дунёвий тафаккурни уйғунлаштирган ушбу диний-фалсафий таълимот Ер шарининг катта қисмида ўзининг салкам 1300



йиллик мавжудлиги давомида такомиллашиб бориш ва модернизациялашиш имкониятлари кенглигини исботлаб берган. Бу ҳолатни айниқса, ҳам Шарқ ва ҳам Ғарб дунёсида кенг тарқалган Мавлавия (Мавлоно Жалолиддин Румий асос солган) ва Нақшбандия (Хожа Баҳоуддин Нақшбанд асос солган) каби ирфоний тариқатлар мисолида ҳам кўриш мумкин.

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