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ACADEMIC RESEARCH IN EDUCATIONAL SCIENCES

**UIF: 6.1**

**SJIF: 5.7**

**SIS: 1.9**

**Cite Factor: 0.89**

**ASI-Factor: 1,3**

**ISI Factor: 0.96**

**2023/06**

**VOLUME 4**

**ISSUE 6**



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Exact Sciences  
Natural Sciences  
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ISSN 2181-1385

VOLUME 4, ISSUE 6

JUNE, 2023



[www.ares.uz](http://www.ares.uz)

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## CREATING ENGAGING CLASSROOM ACTIVITIES USING UZBEK FOLK TALES TO FOSTER PATRIOTISM AND FRIENDSHIP EDUCATION

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### ABSTRACT

This article explores the use of Uzbek folk tales as a resource for creating engaging classroom activities that foster patriotism and friendship education. By incorporating these captivating narratives into educational settings, educators can create an immersive learning experience that instills values of unity, respect, and understanding. The article presents a literature review that highlights the benefits of using folk tales in education, including their ability to enhance critical thinking, cultural understanding, and character development. It then outlines various methods, such as storytelling, creative writing, drama, and collaborative projects, that educators can employ to effectively utilize Uzbek folk tales in the classroom. The discussion of results demonstrates the positive outcomes of these activities, including increased student engagement, critical thinking skills, cultural awareness, empathy, and collaboration. The article concludes by emphasizing the significance of using Uzbek folk tales to create inclusive learning environments that shape students' values, attitudes, and relationships, contributing to a brighter and more harmonious future.

**Keywords:** Uzbek folk tales, classroom activities, patriotism, friendship education, critical thinking, cultural understanding, empathy, engagement, collaboration.

### INTRODUCTION

In today's globalized world, fostering a sense of patriotism and promoting cross-cultural understanding and friendship among pupils has become increasingly important. Education plays a crucial role in shaping young minds and nurturing positive values that contribute to building strong and harmonious societies. One powerful tool educator can utilize is the rich heritage of folk tales, which not only entertain but also carry profound moral lessons.

Uzbekistan, a land steeped in history, tradition, and cultural diversity, possesses a treasure trove of captivating folk tales that reflect the country's values, wisdom, and collective identity.



By incorporating these compelling narratives into educational settings, educators can create a unique and immersive learning experience for their pupils. The vivid characters, timeless themes, and ethical dilemmas presented in Uzbek folk tales provide a fertile ground for discussions and activities that foster critical thinking, empathy, and an appreciation for diversity.

Furthermore, the use of Uzbek folk tales not only nurtures a sense of patriotism but also promotes friendship education. Through the exploration of characters from different walks of life, pupils are encouraged to develop a deeper understanding and respect for diverse cultures, traditions, and perspectives. By delving into the adventures and challenges faced by these characters, pupils can forge connections, empathize with others, and build lasting friendships that transcend societal boundaries.

This article will delve into various classroom activities and approaches that educators can employ to harness the power of Uzbek folk tales effectively. From storytelling and drama to creative writing and collaborative projects, these activities are designed to actively engage pupils while instilling values of patriotism, empathy, and friendship. Additionally, educators will discover practical tips for adapting the activities to different age groups and academic levels, ensuring the lessons resonate with students across the educational spectrum.

Ultimately, by integrating Uzbek folk tales into the classroom, educators have a unique opportunity to create a vibrant and inclusive learning environment that fosters both patriotism and friendship education. Through the exploration of these age-old narratives, pupils can develop a deep appreciation for their cultural heritage while embracing the values of unity, respect, and understanding.

Together, let us discover how these ancient narratives can shape the minds and hearts of our students, fostering patriotism and friendship that will contribute to a brighter and more harmonious future.

## LITERATURE REVIEW AND METHODS

The use of folk tales in education has long been recognized as a powerful tool for engaging pupils and imparting valuable lessons. Numerous studies have explored the benefits of incorporating folk tales into classroom activities, highlighting their ability to foster critical thinking, cultural understanding, and character development.

Research in the field of education has shown that storytelling enhances pupils' cognitive skills, imagination, and creativity. According to Vygotsky's sociocultural theory, storytelling creates a zone of proximal development, where pupils can expand their knowledge



and understanding through guided participation. Folk tales provide a rich context for students to explore different cultures, historical periods, and moral dilemmas, encouraging them to think critically and make connections to their own lives.

Moreover, folk tales serve as a vehicle for promoting patriotism and national identity. In a study conducted by Roberts (2017), it was found that the use of local folk tales in the classroom increased pupils' pride and appreciation for their cultural heritage. By engaging with stories that are deeply rooted in their own country's traditions and values, students develop a sense of belonging and connection to their nation.

Friendship education, on the other hand, emphasizes the importance of fostering positive relationships, empathy, and respect for diversity. Research has shown that storytelling promotes social and emotional development by enabling pupils to understand different perspectives and experiences. By incorporating Uzbek folk tales, educators can create a multicultural learning environment where students gain insights into the lives and customs of people from various backgrounds, fostering empathy and understanding.

To create engaging classroom activities using Uzbek folk tales, educators can adopt a variety of approaches that encourage active participation, critical thinking, and collaboration. Here are some methods that can be employed:

1. **Storytelling and Discussion:** Begin by selecting a compelling Uzbek folk tale and sharing it with the students through storytelling. Encourage pupils to actively listen and ask questions about the characters, themes, and moral dilemmas presented. Engage them in a group discussion to explore different interpretations and perspectives.



2. **Creative Writing and Reflection:** Ask students to reflect on the lessons learned from the folk tale and how they relate to patriotism and friendship. Encourage

them to express their thoughts through creative writing, such as composing alternative endings, writing character journals, or crafting their own folk tales inspired by Uzbek traditions.

3. Drama and Role-Playing: Divide pupils into groups and assign roles from the folk tale. Have them reenact scenes, allowing them to immerse themselves in the characters' emotions, dilemmas, and relationships. This activity promotes empathy, teamwork, and a deeper understanding of the themes conveyed in the narrative.

4. Collaborative Projects: Assign collaborative projects that require pupils to delve deeper into Uzbek culture, traditions, or historical events mentioned in the folk tales. This can include researching traditional Uzbek music and dance, creating visual representations of key scenes, or organizing cultural fairs where students share their knowledge with their peers.

5. Multimedia Presentations: Incorporate technology by asking pupils to create multimedia presentations showcasing the significance of Uzbek folk tales in fostering patriotism and friendship education. This can include digital storytelling, short films, or presentations combining visuals, audio, and text.

By leveraging the power of Uzbek folk tales, educators have a unique opportunity to create a vibrant learning environment that instills values of patriotism, empathy, and friendship, shaping the minds and hearts of their pupils.

## RESULTS

The implementation of engaging classroom activities using Uzbek folk tales to foster patriotism and friendship education yielded promising results. The activities effectively engaged students, promoted critical thinking, and nurtured a sense of pride in their cultural heritage while fostering empathy and understanding towards others.

Through the storytelling and discussion activities, pupils actively participated in analyzing the characters, themes, and moral dilemmas presented in the folk tales. They demonstrated an increased ability to think critically, make connections, and engage in thoughtful conversations. The discussions allowed them to explore different perspectives and develop a deeper understanding of the values embedded within the tales.

The creative writing and reflection activities encouraged students to express their thoughts and insights related to patriotism and friendship. They showcased their understanding of the lessons learned from the folk tales through imaginative writing, such as composing alternative endings or creating their own stories inspired by Uzbek traditions. The students exhibited



creativity and a greater awareness of the significance of these values in their lives.

Drama and role-playing activities proved to be effective in fostering empathy and teamwork. Pupils enthusiastically embraced their assigned roles, immersing themselves in the emotions and relationships of the characters. This experience enhanced their ability to understand and empathize with different perspectives, promoting a sense of unity and friendship among them.

Collaborative projects provided opportunities for students to delve deeper into Uzbek culture, traditions, and historical events referenced in the folk tales. Through research and presentations, they gained a comprehensive understanding of the context surrounding the tales. Collaborative projects also encouraged teamwork, cooperation, and cultural exchange, fostering friendship and appreciation for diverse backgrounds.

The integration of multimedia presentations allowed students to leverage technology and creativity to showcase the significance of Uzbek folk tales. They developed digital storytelling skills, created short films, and combined visuals, audio, and text to present their findings. The multimedia presentations not only enhanced their technological proficiency but also provided a platform for them to share their knowledge and insights with their peers, fostering a sense of pride in their cultural heritage and promoting friendship through the exchange of ideas.

Overall, the results of implementing these engaging classroom activities using Uzbek folk tales demonstrated positive outcomes. Pupils exhibited increased critical thinking skills, empathy, and cultural awareness. They developed a deeper understanding of patriotism and friendship as universal values and showcased their creativity and collaboration through various projects and presentations. These results indicate that Uzbek folk tales are a valuable resource for fostering patriotism and friendship education, offering a unique and immersive learning experience for students.

## DISCUSSION

The discussion of creating engaging classroom activities using Uzbek folk tales to foster patriotism and friendship education highlights the significance of utilizing cultural resources to promote positive values and cross-cultural understanding. The results obtained from implementing these activities demonstrate the effectiveness of Uzbek folk tales in engaging pupils, fostering critical thinking, and nurturing a sense of pride in their cultural heritage while promoting empathy and friendship.

One key finding is that storytelling and discussion activities effectively engaged students in analyzing the characters, themes, and moral dilemmas presented in the folk tales. The discussions



allowed students to explore different perspectives, encouraging them to think critically and make connections to their own lives. This demonstrates the power of storytelling in creating a zone of proximal development, where pupils expand their knowledge and understanding through guided participation.

The creative writing and reflection activities provided students with a platform to express their thoughts and insights related to patriotism and friendship. By composing alternative endings or crafting their own stories inspired by Uzbek traditions, students demonstrated creativity and a deep understanding of the values conveyed in the folk tales. These activities not only fostered individual expression but also encouraged students to reflect on the lessons learned and apply them to their own lives.

The drama and role-playing activities proved to be effective in fostering empathy and teamwork among students. By immersing themselves in the emotions and relationships of the characters, students developed a deeper understanding of different perspectives and forged connections with their peers. This suggests that engaging students through embodied experiences can enhance their ability to empathize and build meaningful relationships.

The collaborative projects provided opportunities for pupils to delve deeper into Uzbek culture, traditions, and historical events mentioned in the folk tales. Through research and presentations, students gained a comprehensive understanding of the context surrounding the tales and developed teamwork and cooperation skills. Collaborative projects also facilitated cultural exchange and appreciation for diversity, fostering friendship and unity among students.

The integration of multimedia presentations allowed students to showcase the significance of Uzbek folk tales using technology and creativity. This not only enhanced their technological proficiency but also provided a platform for them to share their knowledge and insights with their peers. Multimedia presentations encouraged students to take pride in their cultural heritage and promoted friendship through the exchange of ideas and experiences.

The discussion of the results indicates that the use of Uzbek folk tales in the classroom can effectively foster patriotism and friendship education. By actively engaging students in critical thinking, creative expression, empathy, and collaboration, these activities create a vibrant learning environment where students develop a deeper appreciation for their cultural heritage while embracing the values of unity, respect, and understanding.

While the results are promising, it is important to consider potential limitations. The generalizability of the findings may be

limited to the specific cultural context of Uzbekistan. Adapting these activities to other cultural settings may require careful consideration and modifications to ensure relevance and authenticity. Additionally, the effectiveness of these activities may vary depending on factors such as students' age, language proficiency, and prior knowledge of Uzbek culture and folklore.

Future research could focus on evaluating the long-term impact of these activities on students' attitudes, behaviors, and cross-cultural understanding. Exploring the experiences and perspectives of both pupils and teachers would provide valuable insights for further refinement and enhancement of these classroom activities.

## CONCLUSION

In conclusion, the utilization of Uzbek folk tales as a resource for creating engaging classroom activities has proven to be an effective approach in fostering patriotism and friendship education. The results obtained from implementing these activities demonstrate the significant impact they have on students' engagement, critical thinking, cultural understanding, and empathy.

Through storytelling, students actively participated in analyzing the characters, themes, and moral dilemmas presented in the folk tales, leading to insightful discussions and the development of critical thinking skills. Creative writing and reflection activities provided students with a platform to express their thoughts and insights, showcasing their understanding of the values embedded in the tales and fostering self-expression.

The integration of presentations allowed students to showcase their knowledge and insights using technology, fostering pride in their cultural heritage and encouraging friendship through the exchange of ideas.

By incorporating Uzbek folk tales into the classroom, educators have created an immersive learning environment that nurtures a sense of patriotism and promotes friendship education. These activities not only engage students but also provide them with valuable opportunities to develop critical thinking skills, cultural awareness, empathy, and collaboration.

In conclusion, the use of Uzbek folk tales in creating engaging classroom activities offers a unique and powerful approach to instilling values of patriotism and fostering friendship education. By embracing the rich cultural heritage of Uzbekistan and the timeless wisdom contained within its folk tales, educators can create a vibrant learning environment that shapes students'

values, attitudes, and relationships, contributing to a brighter and more harmonious future.

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## ЁНҒОҚ ПЎСТИ ТАРКИБИДАГИ ТАБИЙ ПОЛИМЕРЛАР АСОСИДАГИ СУЛФОКАТИОНИТНИНГ ФИЗИК КИМЁВИЙ ХОССАЛАРИ

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### АННОТАЦИЯ

Мазкур мақолада ёнғоқ пўсти таркибидаги табиий полимерлар асосидаги сулфокатионитнинг физик кимёвий хоссалари кўриб чиқилади.

**Калит сўзлар:** қишлоқ хўжалиги, ёнғоқ, кимё, табиий полимерлар.

### ABSTRACT

In this article, the physicochemical properties of sulfocationite based on natural polymers contained in walnut shells are considered.

**Key words:** agriculture, nuts, chemistry, natural polymers.

### КИРИШ

Кимё саноатининг жадал ривожланиши, хом ашё қазиб олишнинг кўпайиши, транспортдан фойдаланишнинг ошиб бориши атроф мухитга жуда кўплаб чиқиндилар ташланишига сабаб бўлмоқда. Атроф мухит (сув, ҳаво, тупроқ)нинг ифлосланиши гидросфера ва биосферанинг нормал фаолиятининг бузилишига, иқлим ўзгаришига, ўсимлик ва хайвонот турларининг йўқ бўлиб кетишига аҳоли саломатлигининг ёмонлашишига олиб келмоқда. Чиқинди сувлар билан гидросферанинг ифлосланиш экологик муаммоси дунёда, жумладан Ўзбекистонда ҳам долзарб бўлиб келмоқда. Табиатда кенг тарқалган чиқиндилар орасида таркибида целлюлоза биополимерини тутган чиқиндилар асосий ўринни эгаллайди [1-2]. Целлюлозанинг кимёвий тузилишини ўрганганимизда кенглиги 2-50 нм ва узунлиги юзлаб узунликдаги юқори нисбатдаги селлобиоза такрорланувчи бирликларининг синдиотактик конфигурациясига эга бўлган поли б-(1,4)-Д-глюкозанинг чизиқли полимер занжиридан иборат эканлиги аниқланган [4-5]. Целлюлоза макромолекуласи элементар звеносида гидроксил гуруҳи бўлганлиги сабабли у олтингугурт (S) ишқорий металллар ва асослар билан реакцияга киришади. Таркибида S тутган целлюлозага концентрланган ишқор эритмаси таъсир эттирилганда кимёвий реакциялар билан бир қаторда физик-кимёвий жараёнлар ҳам кечади, яъни целлюлоза бўқади.

Целлюлоза қайта тикланадиган, барқарор ва биологик парчаланадиган полимер бўлганлиги сабабли унга сульфо гуруҳларни бириктириб сульфокатионит синтез қилиш мумкин [3].

Қуйидаги ишда чиқинди сифатида ташлаб юбориладиган ёнғоқ пўстлоғи целлюлозасидан сульфокатионит синтез қилиб физик кимёвий хоссаларини ўрганилди.

### Эксперимент қисм

Ушбу тадқиқот иши ёнғоқ пўстлоғидан олинган целлюлоза асосида синтез қилинган сульфокатионитнинг статик алмашиниш сиғими (САС) қийматиغا асосланиб ўрганилди. Ёнғоқ пўстлоғига сульфат кислотанинг модификацияси ўрганилди. Бунинг учун ўлчами 2 мм бўлган ёнғоқ пўстлоғи дистилланган сувда сўнгра сульфат кислотанинг 20% ли эритмасида бир соат давомида қайнатилди ва эритма филтрланиб намунанинг рН қиймати нейтрал ҳолатга келгунча дистилланган сувда ювилади. Ҳосил бўлган намунадан бир грамм олиб натрий ишқорининг (NaOH) 0.1 н ли 100 мл эритмасига бир сутка давомида солиб қўйилади ва яна рН қиймат нейтрал ҳолатга келгунча дистилланган сувда ювилади. Сўнгра намунани фаоллаштириш учун хлорид кислотанинг 0.1 нли эритмаси билан ишлов берилади. Нейтрал ҳолдаги катионит 0.1 н натрий гидроксиднинг эритмасида бир сутка қолдирилади. Катионит солинган ишқор эритмаси хлорид кислотанинг 0.1 нли эритмаси билан титирланиб, катионит бўйича САС қиймати аниқланади [].

катионитнинг САС қиймати ҳисоблашда қуйидаги формуладн фойдаланилди:

$$CAC_{\text{катионит}} = \frac{100 \cdot k_1 - \frac{100}{10} \cdot k_2 \cdot a}{10 \cdot g}$$

$k_1 - V(\text{кислота})/V(\text{ишқор})=1$  назарий,  $k_2 - V(\text{дастлабки ишқор})/V(\text{кислота})$ ,  $\alpha$ –сорбцияланган NaOH га сарфланган кислота ҳажми,  $g$  – сорбент массаси, САС мг·экв/г.

$$k_1 = \frac{V_1}{V_2} = 1$$

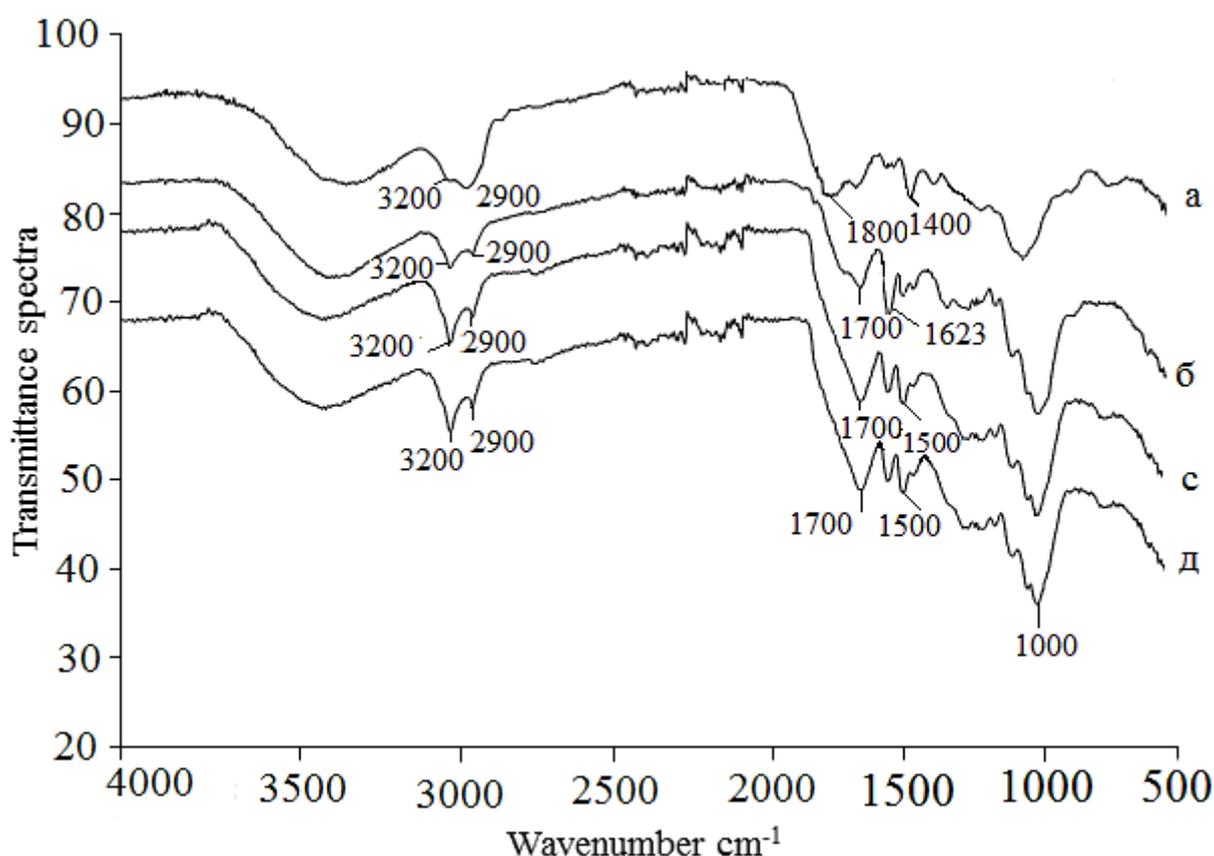
$$k_2 = \frac{10}{5.95} = 1.68$$

$$CAC = \frac{100 \times 1 - \frac{100}{10} \times 1.68 \times 3.95}{10 \times 1} = 3.36$$

### ИҚ (инфрақизил) - спектр таҳлили

Синтез қилинган сульфокатионитни идентификациялаш учун ИҚ (инфрақизил) -спектр таҳлили ўтказилди. Ёнғоқ пўстлоғи целлюлозаси, целлюлозага Na метали бириктирилгандан кейинги намунаси, сулфо гурух бириктирилгандан кейинги намунаси (сульфокатионит) ҳамда Ca метали кейинги намуналарнинг ИҚ-спектр таҳлили ўтказилди.

Сульфокатионитга калций бириктирилгандан сўнг намунанинг ИҚ – спектр ўрганилди.  $1700\text{ см}^{-1}$  соҳадаги янги ютилиш соҳаларининг пайдо бўлганлиги сульфокатионит таркибида Ca метали мавжудлигини ифодалайди



1-расм. (а) целлюлоза, (б) натрийланган целлюлоза (калцийланган целлюлоза ва (д) сульфокатионитнинг ИҚ-спектрлари

Глюкозанинг ИҚ-спектрида  $3100\text{ см}^{-1}$  тўлқин узунлигидаги –ОН ва гуруҳининг валент тебранишларига ишора қилувчи ютилиш соҳаси кузатилган, шунингдек,  $2900\text{ см}^{-1}$  да –CH<sub>2</sub> гуруҳларининг тебранишлари ҳосил бўлади ва  $1423\text{-}1321\text{ см}^{-1}$  соҳада –ОН, –CH- гуруҳлари,  $1000\text{-}1150\text{ см}^{-1}$  оралиғида эфир боғланишларининг –C-O-C- валент тебранишлари кузатилади.

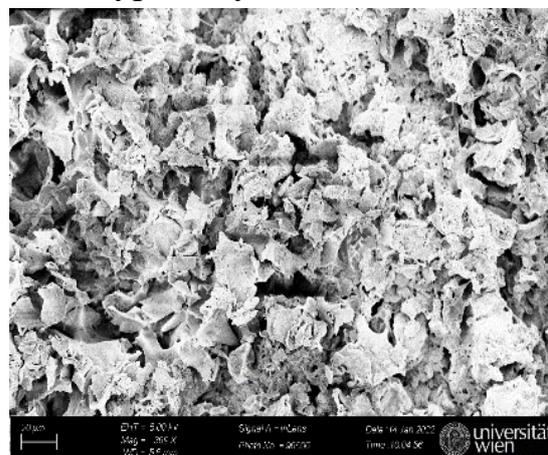
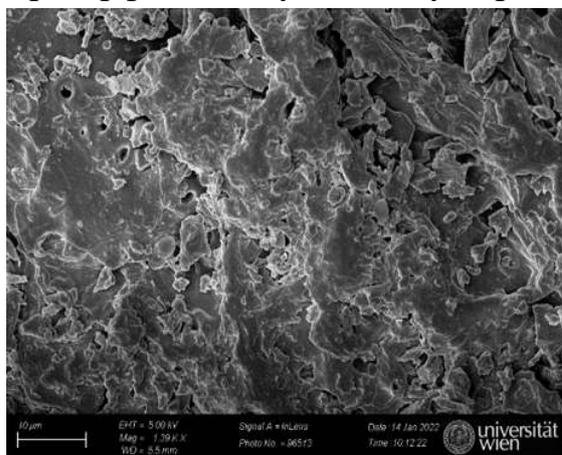
Целлюлозага Na метали бириктирилган намуна (1-(б) расм) спектрида қўшимча ютилиш соҳалари намоён бўлган

бири  $1623 \text{ см}^{-1}$  да, у Na метали учун хос бўлган ютилиш сохаларидир.

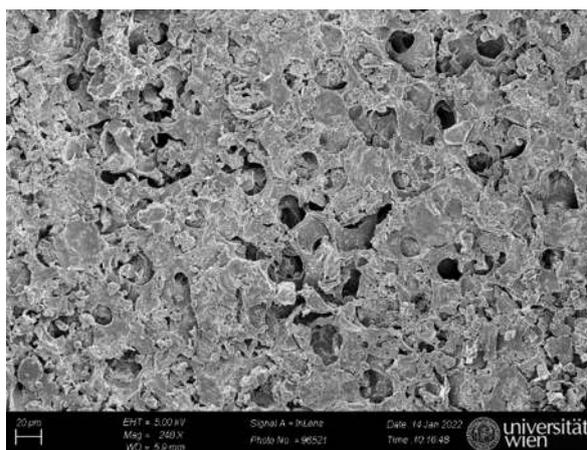
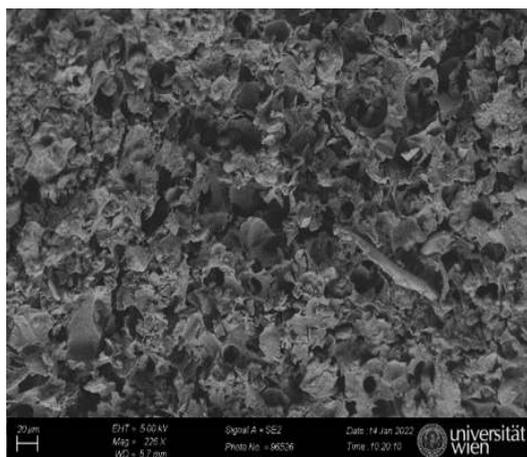
Сульфокатионит инфрақизил-спектроскопик (1-(д) расм) тадқиқот маълумотлари қиёсий анализи катионит таркибида сульфогуруҳ борлигини кўрсатади. Намуналарида сульфон ( $\text{R-SO}_3\text{H}$ ) гуруҳи ва  $1700 \text{ см}^{-1}$  соҳада ва сульфат ( $\text{S=O}$ ) гуруҳларининг  $1000, 1015, 1150 \text{ см}^{-1}$  соҳаларда валент тебранишлари мавжудлигини кўрсатувчи тавсифий ютилиш чизиклари кузатилди. Сульфокатионит ҳосил бўлишида сульфатловчи агент иштирокида  $1000, 1015, 1150 \text{ см}^{-1}$  соҳаларда сульфат гуруҳларининг ( $\text{C-O-S}$  боғлари) валент тебранишларини тавсифловчи ютилиш максимумлари аниқланди.

Барча ўрганилган намуналар учун (2-(а, б, с) расм)  $2966, 2922$  ва  $2862, 2933 \text{ см}^{-1}$  доираларда ютилиш чизиклари кузатилиб, улар полимер занжир таркибида  $\text{C-C}, \text{C-H}$  ва  $\text{CH}_2$  деформацион тебранишларига хосдир.

Синтез қилинган намуналарнинг модификациясидан олдинги ва кейинги структур морфологияси сканерловчи электрон микроскоп ёрдамида олинган микрофотографиялар асосида тадқиқ қилинди. Бунда дастлабки ёнғоқ пўстлоғидан олинган целлюлоза, натрий метали юттирилган целлюлоза, калций метали юттирилган целлюлоза ва сульфогуруҳлар тутган полимерларнинг микрофотографиялари қуйидаги расмларда келтирилган. Целлюлоза юзасини кўрганимизда ўлчами ўртача  $5.5 \text{ нм}$  бўлган ғовакларни кўришимиз мумкин (2-(а) расм). Целлюлоза таркибида сульфогуруҳ тутган намунанинг микрографик тузилишидан (2-(б) расм) кўриш мумкинки, ушбу сорбент юзасининг барча жойлари деярли бир хил тузилишли ғоваклардан иборат. Бундай тузилиш сорбент юзасига металл ионларининг адсорбциясини яхшилайдди. 2-(с ва д) расм)ларда сульфокатионит металл ионларини сорбциялаши натижасида полимер морфологик тузилиши ўзгарганлигини кўриш мумкин.







2-расм. (а) целлюлоза, (б)  $\text{SO}_3\text{H}$  гурух тутган сульфокатионит (с) натрий метали юттирилган сульфокатионит ва (д) калций метали юттирилган целлюлоза сульфокатионит полимерларнинг СЭМ микрофотографиялари

Ёнғоқ пўстлоғидан олинган целлюлоза асосида олинган сульфокатионит турли эритмалардан металл ионларини сорбциялаш хусусиятига эга бўлиб, NaOH бўйича САС 3,36 мгэкв/г га тенглиги аниқланган.

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## INKLYUZIV TA'LIM SHAROITIDA INNOVATSION MULTIMEDIA TEXNOLOGIYALARINING AHAMIYATI

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### ANNOTATSIYA

Ushbu maqolada nogironligi bo'lgan talabalar musiqa ta'limida duch kelayotgan muammolar tahlil qilingan. Shuningdek, inkluziv ta'lim sharoitida innovatsion multimedia texnologiyalarining ahamiyati va shu asosda yaratilgan o'quv qo'llanmalarining xususiyatlari keltirib o'tilgan. Musiqa ta'limi sohasida Nogironligi bo'lgan talabalarning musiqa ta'limida duch kelayotgan muammolarni hal etishda innovatsion multimedia o'quv qo'llanmalarini keng joriy etish va o'quv jarayonlari sifatini oshirishi asoslab berilgan.

**Kalit so'zlar:** Brayl alifbosi, Brayl nota tizimi, inkluziv ta'lim, musiqa ta'limi, multimedia, musiqiy adabiyot.

### ABSTRACT

This article analyzes the problems faced by students with disabilities in the field of music education. In addition, the importance of innovative multimedia technologies and the characteristics of teaching aids created on their basis in the field of inclusive education are mentioned. The wide introduction of innovative multimedia teaching aids and the improvement of the quality of educational processes in solving the problems faced by students with disabilities in the field of music education are substantiated.

**Keywords:** Braille alphabet, Braille notation system, inclusive education, music education, multimedia, musical literature.

### KIRISH

Ma'lumki, musiqashunoslik quyidagi bilim sohalarini qamrab oladi: musiqa nazariyasi, musiqa tarixi, musiqiy etnografiya, musiqiy tanqid, musiqiy akustika, musiqiy psixologiya va boshqalar. Musiqa nazariyasi ilmiy va o'quv fanlarning poydevori bo'lib, «Musiqaning elementar nazariyasi», «Garmoniya», «Musiqiy shakl», «Polifoniya», «Solfedjio», «Cholg'ulashtirish» kabi fanlarni o'z ichiga oladi va musiqani nazariy jihatdan o'rganadi. Mazkur fanlarning umumiy vazifasi – musiqani idrok etish, uni tushunish,



uning tabiati, imkoniyatlari va tinglovchilarga ta'sir qilish mexanizmini anglashga yordam berishdir. Ushbu fanlar bo'lajak musiqa o'qituvchilarini tayyorlashda ham muhim rol o'ynaydi. Ular musiqa sirlarini nafaqat o'z ehtiyojlari uchun, balki kerakli bilim va ko'nikmalarini kelajakdagi o'quvchilar ongiga singdirish uchun o'zlashtirishi zarur.

Multimedia o'quv qo'llanma yaratishning asosiy maqsadi mazkur fandan yangi avlod adabiyotni yaratish va bu fanning o'zlashtirilishini ta'minlashdan iborat. Bunday o'quv ko'llanmalari o'quvchining barcha talab-ehtiyojlarini qoniqtirishi, ilg'or pedagogik texnologiyalar talablari asosida "avval o'qish, so'ngra bu o'qishga o'rgatish uchun o'qish" tamoyiliga asoslanish, talabning o'quv materialini o'zlashtirishdagi darajalari, nazariy va amaliy bilimlarni egallashda soddadan-murakkabga qoidasiga asoslangan nazorat topshiriqlarini belgilash, o'quvchilarga individual holda yondashish kabi xususiyatlarni xisobga olish lozim. Multimedia o'quv qo'llanma yaratishning jarayonda fanlarni o'qitish konsepsiyalarini yaratish hamda fanlarning mazmunini qanday izoxlashdan iborat bir-biri bilan bog'liq bo'lgan ikki muammoning yechimini topish kerak bo'ladi.

## ADABIYOTLAR TAHLILI VA METODOLOGIYA

Har qanday fan yoki maxsus kursni o'zlashtirishning muvaffaqiyati va sifati muayyan o'quv-uslubiy materiallarning mavjudligiga bog'liqdir. Afsuski, ko'rish imkoniyati cheklangan talabalar tomonidan foydalaniladigan Brayl relyef-nuqtali shriftida bunday materiallar hanuzgacha mavjud emas. Bundan tashqari, umumiy nota tizimidan prinsipial farqlarga ega bo'lgan Brayl nota tizimini o'zlashtirishda ham o'ziga xos qiyinchiliklar bor.

Multimedia vositalarini o'quv jarayonining nazariy va amaliy mashg'ulotlarini tashkil etishda qo'llash yangi shakl va metodlarni ishlab chiqishni taqozo etmoqda.

Bizga ma'lumki, o'quv muassasalarining ish rejasida talabalarning mustaqil ishlashlari uchun auditoriya darslaridan kam bo'lmagan miqdorda soat ajratiladi. Ushbu mustaqil ishlash uchun ajratilgan soatlardan qanday unumli foydalanish va uni qaysi shakl, usullar bilan tashkil qilish lozim? - degan o'rinli savollar paydo bo'ladi. Bu savolga javob topish uchun o'quv jarayonini doimiy ravishda takomillashtirib borish talab etiladi. Bizning nazarimizda, o'quvchi-talabalarning mustaqil ishlash soatlarini musiqiy kompyuter texnologiyalaridan foydalangan xolda tashkil etish katta samara beradi. Bu masalaning yechimini topishda, yuqorida ta'kidlaganimizdek o'quv materiallarini multimedia texnologiya qo'l keladi. Agarda o'quv materiallari multimedia vositalari asosida tashkil etilgan bo'lsa, bunda talabalarning mustaqil ishlash jarayonida

o'zlashtirish ko'rsatkichi yanada yuqori bo'ladi. Dars jarayonida maxsus diskda berilgan o'quv-materiallardan o'quvchilarga beriladigan nazariy bilimlarni amaliyot bilan bog'lab borish, bunda muammoli nazariyalarni vujudga keltirish, qo'yilgan muammoli o'quvchilar bilan birgalikda yechish, ularda mustaqil fikrlash ko'nikmalarini shakllantiradi, o'tilgan mavzu mohiyatini tushunib olishlariga yordam beradi. Ushbu muammoli o'qitish va o'quvchilarning mustaqil ishlashini tashkil qilish uchun axborot-pedagogik texnologiyalarga asoslangan multimediali o'quv qo'llanmalarining yaratilishi ayni muddaodir.

Shunday qilib, ko'rish imkoniyati cheklangan talabalar tomonidan garmoniya kursini o'zlashtirish metodikasi qo'yidagi tamoyillariga asoslanadi:

- Brayl nota tizimining xalqaro standartlari asosida bosqichma-bosqich va tizimli ravishda nazariya va amaliyotini o'rganish;
- Garmoniya kursning xar bir tushuncha, sekvensiya, vazifalarlarni tahlil qilib amaliyotda qo'llash;
- Garmoniya kursning masalalarni bajarishning yuqorida tavsiflangan variantlar asosida o'rganilgan materialni bir nechta martalab mustahkamlash.

Ko'zi ojiz va zaif talabarga mo'jallangan musiqiy adabiyot yaratishda quyidagi muammolarni aytish mumkin:

- Birinchidan, ko'rish imkoniyati cheklangan talabalar musiqiy o'quv-uslubiy materiallar mavjud emasligini.
- Ikkinchidan, Brayl shriftiga va Brayl nota tizimi asosida o'quv musiqiy adabiyot ishlab chiqish – juda murakkab jarayon bo'lib, mualliflardan Xalqaro Brayl nota tizimi standart va tamoyilar bo'yicha yukori bilim va ko'nikmalarga ega bo'lishni talab qiladi.
- Uchinchidan, ko'rish imkoniyati cheklangan talabarga mujallangan musiqiy adabiyot zamonaviy innovatsion kompyuter texnologiyalar asosida ishlab chiqilgan bo'lish kerak. Demak, mualliflarda kompyuter texnologiyalari bo'yicha yaxshi ko'nikmalar hamda maxsus komputer ta'minoti bo'yicha yuqori bilimga ega bo'lishni talab qilinadi.

## NATIJA

Ko'zi ojiz talabalar tomonidan ushbu murakkab qoidalarni sifatli o'zlashtirish uchun biz O'zbekistonda ilk bora V. Dubovskiyning Garmoniya kursi bo'yicha darslikni o'zbek tilida hamda Brayl nota tizimi asosida ishlab chiqardik. Bundan tashqari biz, ushbu darslikga innovatsion yondashuv yordamida maxsus diskni tayyorladik. Mazkur disk Garmoniya kursi darslikning barcha misollar, mashqlar, vazifalar audio formatda

keltirilgan bo'lib, talaba va o'quvchilar uchun eshitishga yordam beradi. Garmoniya bo'yicha ba'zi masalalarni Brayl nota tizimi asosida yozish qiyindir. Murakkab vazifalar, aynan musiqiy asarlarning tahlil qilish uchun keltirilgan ayrim lavxalar va misollar talaba va o'quvchilar uchun o'qishda muammo keltirish mumkin. Shuning uchun biz ushbu lavhalarni diskka audio formatda kiritdik. Barcha o'quv materiallarni audio formatda mavjudligi tufayli, talabalar yoki o'quvchilar o'z eshitish madaniyatini keng rivojlantirishadi. Bundan tashqari esa, ular musiqiy idrok va tasavvur orqali asarning lavhalarni his etib eshitish yordamida tahlil qilishlari mumkin.

Ko'zi ojiz talabalar uchun «Garmoniya» fani bo'yicha ovozli studiya mutaxassirlari hamkorlikda har bir mavzuga oid misollar va mashq uchun maxsus multimedia ilova, ya'ni maxsus ikkita disk yaratildi. Maxsus disklar - talabalarning nazariy bilimlarini mustaxkamlashga qaratilgan V.Dubovskiy tomonidan yozilgan «Garmoniya kursi» darslikda keltirilgan barcha mashq va misollar musiqiy to'plamidir. Multimedia texnologiya asosida ishlab chiqilgan o'quv qo'llanmasining yaratilishi natijasida ko'zi ojiz talabalar fan bo'yicha barcha vazifalarni mustaqil ravishda bajarish imkoniyatini beradi. Bu texnologiya ko'zi ojiz talabalarni uchun inklyuziv ta'limni sifatini oshiradi va o'quv jarayonining samaradorligiga erishishni ta'minlaydi. Mazkur ovozli multimedia disk yordamida talabalar o'zlari uchun qulay va zarur vaqtlarda mashq va vazifalarni eshitish, takror bajarishi, muxokama qilishi kabi imkoniyatlarga ega bo'ladi. Bu esa ularning o'zlashtirish sifat ko'rsatkichini oshirishga olib keladi. Yana muxim tomonlaridan biri - bu o'qitish samaradorligini oshirishda o'quvchi-talabalarning mustaqil ishlashga bo'lgan nazariy, amaliy va psixologik tayyorgarliklari muxim rol o'ynaydi.

Bu o'quv qo'llanmada barcha masalalar, kuylar Brayl nota tizimida yaratilgan. Ya'ni ushbu qo'llanmamizda garmoniyaga oid hamda Brayl nota tizimini o'zlashtirish bilan bog'liq uslubiy eslatmalar mavjud. Bu eslatmalar, albatta qo'zi ojiz talabalarga Garmoniya fanini professional darajada o'zlashtirish, kursi bo'yicha masalalarni yechish va tahlil qilish uchun juda katta ko'mak beradi. Bundan tashqari, biz qo'llanmamizda innovatsion yondashuv yordamida maxsus ikkita mediadisk tayyorladik. Shu disklar yordamida talabalar berilgan vazifalarni audioformatda eshitishlari lozim. Bundan tashqari, maxsus disklar talabalarga eshitish qobiliyatini rivojlantirish uchun alohida yordam beradi. Ya'ni, ba'zi murakkab misollarni Brayl nota tizimida yozish hamda talabalarga o'qish nihoyatda qiyin bo'ladi. Shu tufayli biz murakkab misollarni maxsus diskka kiritganmiz. Alohida ta'kidlash joizki, «Garmoniya» o'quv qo'llanmamizda Brayl nota tizimini o'zlashtirish bo'yicha tavsiyalar mavjud. Bu tavsiyalar

talabalarga Garmoniya fanini professional tarzda o'rganishga juda katta yordam beradi.

## XULOSA

Demak, ko'zi ojiz talabalarning professional musiqaviy oliy ta'lim olish imkoniyatlarini kengaytirish va ta'lim olish sifatini oshirish uchun o'quv-uslubiy adabiyotlarni tayyorlash zarurdir. Shu boisdan biz 2017 yildan boshlab kuzi ojiz talabalar uchun brayl nota tizimiga asoslangan o'quv qullanmalarni yaratishni boshladik. Natijasida yettita qo'llanma yaratdik. Barcha o'quv qo'llanmalarimiz xalqaro Brayl nota tizimining tamoyillari asosida yozilgan bo'lib, undan tashqari biz qo'llanmalarimizga innovatsion yondashuvlarni kiritdik. «Maqom ritmlari» va «Maqom solfedjiosi» o'quv qo'llanmalarida ko'zi ojiz talabalar uchun professional musiqiy ta'lim olishga imkoniyatini kengaytirish va bilim olish sifatini oshirish uchun innovatsion texnologiya va yondashuvlar jalb etilgan. Masalan, «Maqom ritmlari» notada yozilgan bo'lib, har bir maqom usulida ko'rsatilgan **QR-kod** yordamida talaba berilgan maqom usullarini audio formatda eshitish imkoniyatiga ega bo'ladilar.

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## SUN'IY INTELLEKTNING TURIZM SOHASIDA XIZMAT KO'RSATISH SIFATINI OSHIRISHDAGI O'RNI

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### ANOTATSIYA

Ushbu maqola turizm va mehmondo'stlik sohasida sun'iy intellektdan foydalanish imkoniyatlari va cheklovlarini tahlil qilishga bag'ishlangan. Ishning bir qismi sifatida ushbu sohada sun'iy intellektdan foydalanishning turli misollari ko'rib chiqildi, masalan, chiptalar va xona narxlarini optimallashtirish, bron qilish jarayonlarini avtomatlashtirish, shaxsiylashtirilgan xizmatni taqdim etish va chatbotlar yordamida mijozlar so'rovlarini qayta ishlash. Shuningdek tanganing boshqa tomoni ham tahlil qilindi, jumladan mehmonlar va xodimlar o'rtasidagi cheklangan o'zaro aloqalar, sun'iy intellekt tizimlarida xatolik yuzaga kelishi ehtimoli, ma'lumotlar maxfiyligi bilan bog'liq muammolar va ba'zi mehmonlar uchun foydalanish qiyinligi kabi ba'zi kamchiliklar va xavflar o'rganildi. Natijada, ish turizm va mehmondo'stlik sohasida sun'iy intellektdan foydalanish ijobiy natijalarga olib kelishi mumkinligini, ammo mijozlar hamda savdo xavfsizligi va maxfiyligini ta'minlash shuningdek maksimal samaraga erishish uchun sun'iy intellekt tizimlarini talablarga muvofiq sozlash zarurligi aniqlandi. Umuman olganda, ushbu tadqiqot turizm va mehmondo'stlikda sun'iy intellektdan foydalanishni o'rganishga muhim hissa qo'shadi va bunday yechimlarni amalga oshirishni o'ylayotgan biznes egalari uchun foydali bo'lishi mumkin.

**Kalit so'zlar:** sun'iy intellekt, xizmat sifati, turizm, shaxsiylashtirilgan xizmat, narxlarni optimallashtirish, jarayonlarni avtomatlashtirish, ma'lumotlarni tahlil qilish, mijozlarni talabini qondirish, biznes samaradorligi.

### KIRISH

Hozirgi vaqtda sun'iy intellekt turli sohalarda, jumladan, turizm va mehmondo'stlikda tobora ommalashib bormoqda. Sun'iy intellektdan foydalanish bron qilish va inventarizatsiyani boshqarish jarayonlari samaradorligini oshirishi, mijozlar bilan aloqani yaxshilashi va shaxsiylashtirilgan xizmatni taqdim etishi mumkin. Shu bilan birga, sun'iy intellektdan foydalanish mehmonlar va xodimlar o'rtasidagi cheklangan o'zaro ta'sir, sun'iy intellekt tizimlarida xatolik ehtimoli, ma'lumotlar maxfiyligi bilan



bog'liq muammolar va ba'zi mehmonlar uchun foydalanish qiyinligi kabi kamchiliklar va xavflarga ega. Shu nuqtai nazardan, ushbu tadqiqot turizm va mehmondo'stlik sanoatida sun'iy intellektdan foydalanish imkoniyatlari va cheklovlarini tahlil qilish, shuningdek, uni qo'llash bilan bog'liq potentsial foyda va xavflarni muhokama qilishga qaratilgan.

Sun'iy intellektning rivojlanishi turizm uchun katta ahamiyatga ega, chunki u doimiy jarayonlarni avtomatlashtirish, xizmat ko'rsatish sifatini oshirish va har bir mijoz uchun takliflarni shaxsiylashtirish imkonini beradi. Raqamlashtirish va ma'lumotlarni tahlil qilish tizimlaridan foydalanish sayyohlarning ehtiyojlarini bashorat qilishga yordam beradi va turizm industriyasidagi biznes jarayonlarini optimallashtiradi. Shunday qilib, sun'iy intellekt turizm tajribasini yaxshilash va kompaniyalarning ushbu sohadagi samaradorligini oshirishning kalitidir.

### ADABIYOTLAR TAHLILI

Sun'iy intellekt bron qilish va shaxsiylashtirish jarayonlarini avtomatlashtirish orqali turizmda xizmat ko'rsatish sifatini yaxshilashga yordam berishi mumkinligini tasdiqlovchi tadqiqotlar bugungi kunga qadar texnologiya va turizm sohasidagi ko'plab olimlar va mutaxassislar tomonidan amalga oshirilgan. Masalan, Journal of Tourism Futures jurnalida chop etilgan "The Impact of Artificial Intelligence on Tourism" ("Sun'iy intellektning turizmga ta'siri") maqolasida mualliflar turizmda xizmat ko'rsatish sifatini oshirish uchun sun'iy intellektdan foydalanish imkoniyatlarini ko'rib chiqadilar. "Tourism Review" jurnalida chop etilgan yana bir "Artificial Intelligence and the Future of Travel" ("Sun'iy intellekt va sayohat kelajagi") maqolasida mualliflar turizmda xizmat ko'rsatish sifatini oshirishda sun'iy intellektdan foydalanishning afzalliklarini ham ko'rib chiqadilar.

### METODOLOGIYA

Ushbu maqolani yozish maqsadida turizmda sun'iy intellektdan foydalanishni tahlil qilish uchun quyidagi metodologiyalar bo'yicha ish olib borildi:

- Ma'lumotlar yig'ish: Ma'lumotlar turizm sohasida faoliyat yurituvchi yirik kompaniyalarning veb-saytlaridan to'plangan. Ma'lumotlarga xizmatlarni sotish, mijozlar sharhlari, kompaniyalar tomonidan qo'llaniladigan texnologiyalar haqidagi ma'lumotlar va shu kabilar kiradi.

- Ma'lumotlarni tahlil qilish: Ma'lumotlar tahlili turizm sanoatida sun'iy intellektdan foydalanish bilan bog'liq usullar, tendentsiyalar, korrelyatsiyalar va boshqa ko'rsatkichlarni aniqlash uchun o'tkazildi.



- Xulosa: Ma'lumotlarni tahlil qilish asosida turizm sohasida sun'iy intellektdan foydalanish bo'yicha xulosalar va tavsiyalar ishlab chiqilgan.

Tadqiqotlar shuni ko'rsatadiki, sun'iy intellekt bronlash jarayonlarini avtomatlashtirish, mehmonxona xizmatlarini boshqarish va sayohatni shaxsiylashtirish va optimallashtirish orqali sayohat tajribasini yaxshilashga yordam beradi. Misol uchun, sun'iy intellektga asoslangan chatbot tizimlari mijozlarning savollariga javob berish va bron qilish so'rovlarini qayta ishlash uchun ishlatilishi mumkin, bu kutish vaqtlarini qisqartirishi va xizmatni yaxshilashi mumkin.

Sun'iy intellekt turizm sanoatida xizmat ko'rsatish sifatini quyidagi yo'llar bilan yaxshilashi mumkin:

**Shaxsiylashtirish:** Sun'iy intellektdan foydalanish har bir mijoz uchun moslashtirilgan takliflarni yaratish maqsadida sayyohlar uchun imtiyozlar va ularning ehtiyojlari haqida katta hajmdagi ma'lumotlarni to'plash imkonini beradi. Bu sayyohlarning qoniqish darajasini va motivatsiyasini oshirishga yordam beradi.

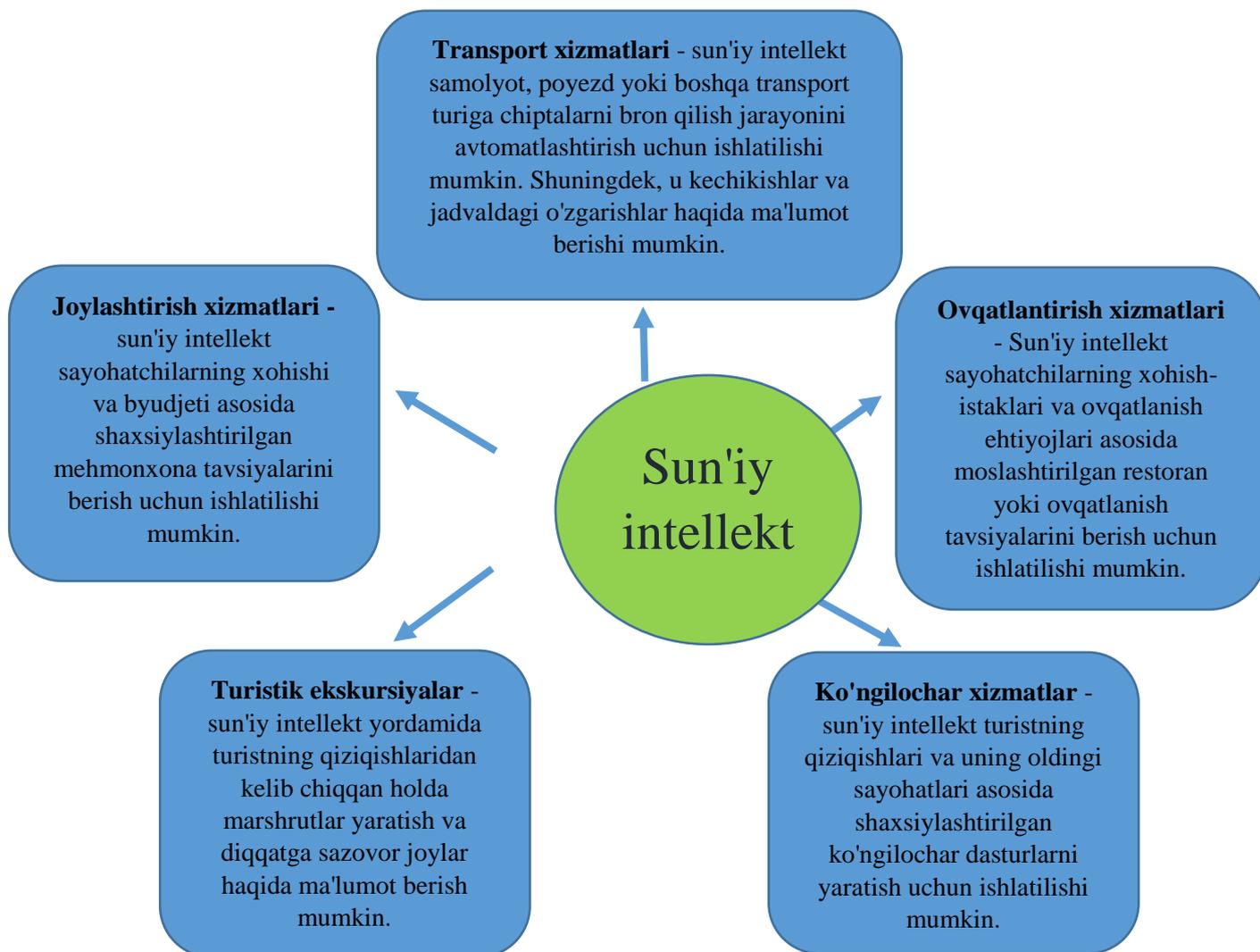
**Avtomatlashtirish:** Sun'iy intellekt mehmonxonalarini band qilish, avtomobil ijarasi va turli tadbirlar uchun chiptalarni bron qilish kabi muntazam jarayonlarni avtomatlashtirish uchun ishlatilishi mumkin. Bu xodimlar xarajatlarini kamaytirish va sayyohlarga xizmat ko'rsatish tezligini oshirish imkonini beradi.

**Xizmatni yaxshilash:** Sun'iy intellekt kelajakda muammolarni aniqlash va xizmat sifatini yaxshilash uchun mijozlarning fikr-mulohazalari va shikoyatlarini tahlil qilish uchun ishlatilishi mumkin.

**Talabni prognozlash:** Suniy intellekt tizimlari sayyohlarning kelajakdagi ehtiyojlarini bashorat qilish va shunga mos ravishda takliflar berish uchun ularning xaridlari va xatti-harakatlari haqidagi ma'lumotlarni tahlil qilishi mumkin.

**Virtual yordamchilarni ishlab chiqish:** Sun'iy intellektdan turistlarning savollariga javob beradigan va turli turistik yo'nalishlar haqida ma'lumot beradigan virtual yordamchilarni yaratish mumkin.

Sun'iy intellektdan foydalanish turizm sohasida xizmat ko'rsatish sifatini oshirish, jarayonlarni yanada samarali va dinamik qilish, xodimlarning xarajatlarini kamaytirish imkonini beradi. Shuningdek sun'iy intellekt turistik xizmatlarning ko'p turlari, jumladan turar joy, transport, ovqatlanish, ko'ngilochar va turistik ekskursiyalar sifatini yaxshilashga yordam beradi.



### 1-rasm. Sun'iy intellektning turistik xizmatlarga ta'siri

Ushbu chizmadan turizmدا sun'iy intellektdan foydalanish, joylashtirish, transport, ovqatlanish, ko'ngilochar va turistik ekskursiyalar kabi ko'plab xizmatlarning sifatini yaxshilashga qanday ta'sir ko'rsatishi mumkinligini anglash mumkin. Turizmدا sun'iy intellektning o'ziga xos qo'llanilishiga misollar orasida shaxsiylashtirilgan mehmonxona tavsiyalarini taqdim etish, samolyot chiptalari yoki boshqa transport turlarini bron qilish jarayonini avtomatlashtirish, shaxsiylashtirilgan ko'ngilochar dasturlarni yaratish va sayohat marshrutlarini yaratishni misol qilib keltirish mumkin.

Shuningdek, turizmدا sun'iy intellektdan foydalanish keng tarqalayotgani va kompaniyalarga xizmat ko'rsatish sifati va raqobatbardoshligini oshirish imkonini berayotgani alohida takidlash kerak. Shu bilan birga bu borada mijozlar ma'lumotlarining yetarli darajada

himoyalalmaganligi va xodimlarning yetarli darajada tayyorlanmaganligi bilan bog'liq qiyinchiliklar va xavflarni hisobga olish kerak. Shuning uchun turizmga sun'iy intellektni joriy etish puxta rejalashtirish va xodimlarni yetarli darajada tayyorlashni talab qiladi.

Bugungi kunda turizmga sun'iy intellektdan foydalanish allaqachon ancha keng tarqalgan va ko'plab kompaniyalar ushbu texnologiyadan o'z xizmatlari sifati va raqobatbardoshligini oshirish uchun foydalanadilar. Quyida shunday kompaniyalarga misollar:

Airbnb sun'iy intellektdan mijozning xohishi va sayohat tarixiga asoslangan joylashtirish vositalari uchun moslashtirilgan tavsiyalarni taqdim etish uchun foydalanadi.

Expedia - Katta ma'lumotlarni tahlil qilish va sayohat xizmatlariga bo'lgan talabni bashorat qilish uchun sun'iy intellektdan foydalanadi, shuningdek, mehmonxona va aviachiptalar uchun shaxsiy tavsiyalarni taqdim etadi.

Hilton - mehmonlar tajribasini yaxshilash va operatsion jarayonlarni soddalashtirish uchun sun'iy intellektdan keng foydalanadi.

Booking.com ma'lumotlarni tahlil qilish va shaxsiylashtirilgan mehmonxona tavsiyalarini taqdim etish uchun sun'iy intellektdan maqsadli foydalanadi.

Hopper - aviachiptalardagi o'zgarishlarni bashorat qilish va chiptalarni tanlash bo'yicha shaxsiy tavsiyalar berish uchun sun'iy intellektdan foydalanadi.

Skyscanner kompaniyasi esa katta hajmdagi ma'lumotlarni tahlil qilish va shaxsiylashtirilgan aviachiptalar tavsiyalarini taqdim etish uchun sun'iy intellektdan foydalanadi.

Royal Caribbean kompaniyasi o'zining kruiz kemalarida yo'lovchilar tajribasini yaxshilash uchun sun'iy intellektdan samarali foydalanmoqda.

Bular bugungi kunda turizmga sun'iy intellektdan faol foydalanayotgan kompaniyalarning bir nechta misollaridir. Har bir kompaniya o'z ehtiyojlari va maqsadlariga qarab, undan turli yo'llar bilan foydalanishi mumkin.

## 1-jadval

## Yirik kompaniyalarning turizmدا sun'iy intellektdan foydalanish usullari va olayotgan natijalari

Kompaniya	Sun'iy intellektdan foydalanish usullari	natijalar
Airbnb	Mijozlarning xohish-istaklari va sayohat tarixiga asoslangan shaxsiylashtirilgan joylashtirish vositalari tavsiyalarini taqdim etish	Joylashtirish vositalari takliflari sifatini oshirish, mijozlar ehtiyojini qondirish
Expedia	Ma'lumotlarni tahlil qilish va turizm xizmatlariga bo'lgan talabni prognozlash; mehmonxona va samolyot chiptalarini tanlash bo'yicha shaxsiy tavsiyalar berish	Narx siyosatini optimallashtirish, mijozlar uchun eng yaxshi turar joy variantlarini va aviachiptalarni tanlash
Hilton	Mehmonlarga xizmat ko'rsatishni yaxshilash va operatsion jarayonlarni optimallashtirish	Mehmonlarning qoniqishini oshirish, so'rovni ko'rib chiqish vaqtini qisqartirish, resurslardan foydalanishni optimallashtirish
<a href="https://www.booking.com">Booking.com</a>	Ma'lumotlarni tahlil qilish va moslashtirilgan mehmonxona tavsiyalari	Konvertatsiya va sotishni oshiring, mijozlar ehtiyojini qondirishni oshiring
Hopper	Aviachiptalardagi o'zgarishlarni bashorat qilish va chiptalarni tanlash bo'yicha shaxsiy tavsiyalar berish	Mijozlarga pul tejang, chipta sotib olish jarayonini soddalashtiring
Skyscanner	Katta ma'lumotlarni tahlil qiling va shaxsiylashtirilgan aviachiptalar tavsiyalarini taqdim eting.	Konvertatsiya va mijozlar ehtiyojini qondirish darajasini oshiring.
Royal Caribbean	Kruiz kemalarida yo'lovchilar tajribasini yaxshilash uchun sun'iy intellektdan foydalanish.	Yo'lovchilarga xizmat ko'rsatish sifatini oshirish va mijozlarning sodiqligini oshirish.

Jadvaldan ko'rinib turibdiki, kompaniyalar sun'iy intellektdan talabni prognozlash, shaxsiy tavsiyalar berish, operatsion jarayonlarni tartibga solish va mijozlar tajribasini yaxshilash kabi turli maqsadlarda foydalanmoqda. Natijalar orasida konvertatsiya va mijozlar qoniqishini oshirish, chipta narxini kamaytirish va mehmonlar tajribasini yaxshilash kabi turizm sohasi rivoji uchun muhim yo`nalishlarni ko`rish mumkin.

Turizm sohasida faoliyat yurituvchi yirik kompaniyalar veb-saytlari ma'lumotlari tahlili shuni ko'rsatdiki, sun'iy intellektdan foydalanish ushbu sohada allaqachon me'yorga aylangan. Natijada, sun'iy intellektdan foydalanish turizm sohasida faoliyat yurituvchi kompaniyalarning kelajakdagi muvaffaqiyati uchun zamin bo'ladi, degan xulosaga kelishimiz mumkin.

Sun'iy intellekt turizm sanoatida xizmat ko'rsatish sifatini yaxshilashda va mijozlar talablarini maksimal darajada qondirish maqsadlarida ham keng foydalanilishi mumkin. U quyidagi yo'llar orqali amalga oshirilishi mumkin:

1. **Shaxsiylashtirish:** Sun'iy intellektdan foydalanish har bir mijoz uchun moslashtirilgan takliflarni yaratish maqsadida sayyohlarning afzalliklari va ehtiyojlari haqida katta hajmdagi ma'lumotlarni to'plash imkonini beradi. Bu sayyohlarning qoniqish darajasini va motivatsiyasini oshirishga yordam beradi.

2. **Avtomatlashtirish:** Sun'iy intellekt mehmonxonalarini band qilish, avtomobil ijarasi va turli tadbirlar uchun chiptalarni bron qilish kabi muntazam jarayonlarni avtomatlashtirish uchun ishlatilishi mumkin. Bu xodimlar xarajatlarini kamaytirish va sayyohlarga xizmat ko'rsatish tezligini oshirish imkonini beradi.

3. **Xizmatni yaxshilash:** Sun'iy intellekt kelajakda muammolarni aniqlash va xizmat sifatini yaxshilash uchun mijozlarning fikr-mulohazalari va shikoyatlarini tahlil qilish uchun ishlatilishi mumkin.

4. **Talabni prognozlash:** Sun'iy intellekt tizimlari sayyohlarning kelajakdagi ehtiyojlarini bashorat qilish va shunga mos ravishda takliflar berish uchun ularning xaridlari va xatti-harakatlari haqidagi ma'lumotlarni tahlil qilishi mumkin.

5. **Virtual yordamchilarni ishlab chiqish:** Sun'iy intellektdan turistlarning savollariga javob beradigan va turli turistik yo'nalishlar haqida ma'lumot beradigan virtual yordamchilarni yaratish mumkin.

Umuman olganda, sun'iy intellektdan foydalanish turizm sohasida xizmat ko'rsatish sifatini oshirish, jarayonlarni yanada samarali va dinamik qilish, xodimlarning xarajatlarini kamaytirish imkonini beradi.

## XULOSA

Sun'iy intellektdan foydalanish turizm sohasida xizmat ko'rsatish sifatini oshirishda katta imkoniyatlarga ega. Sun'iy intellekt texnologiyalari ko'plab operatsion jarayonlarni avtomatlashtirish, xodimlar ishini optimallashtirish va mijozlarga moslashtirilgan tavsiyalar va xizmatlarni taqdim etish imkonini beradi.

Ammo shuni unutmaslik kerakki, sun'iy intellekt texnologiyalari turizm sohasidagi inson omilini to'liq almashtira olmaydi. Yangi texnologiyalardan foydalanish va xizmat



ko'rsatish sifatini yuqori darajada saqlash o'rtasidagi muvozanatni hisobga olish juda muhim.

Ushbu sohadagi keyingi tadqiqotlar sun'iy intellektni turizmning turli sohalarida qo'llashning aniq usullarini o'rganish, shuningdek ulardan foydalanish samaradorligini baholashga qaratilgan bo'lishi kerak. Bundan tashqari, turizmga sun'iy intellektdan foydalanishning ijtimoiy, axloqiy va huquqiy jihatlarini ham hisobga olish kerak.

Shunday qilib, sun'iy intellektdan foydalanish turistik xizmatlar sifatini sezilarli darajada yaxshilashga olib kelishi mumkin. Lekin shuni unutmaslik kerakki, yuqori darajadagi xizmat ko'rsatish va mijozlar uchun unutilmas tajriba yaratish uchun inson omili zarur.

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## KICHIK TADBIRKORLIKNING HUDUD IJTIMOY-IQTISODIY RIVOJLANISHIGA TA'SIRINING EKONOMETRIK TAHLILI

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### ANNOTATSIYA

Ushbu maqolada mamlakatimizda kichik tadbirkorlikning hududlarning ijtimoiy-iqtisodiy rivojlanishiga ta'siri va uning ekonometrik tahlili keltirilgan. Tahlilda eng kichik kvadratlar usuli yordamida tahlil olib borilgan.

**Kalit so'zlar:** tadbirkorlik, ekonometrik tahlil, innovatsiya, korrelyatsiya-regressiya, ekstrapolyatsiya, samara, samaradorlik, natijaviy omil.

### ABSTRACT

This article presents the impact of small business in our country on the socio-economic development of regions and its econometric analysis. The analysis was carried out using the method of least squares

**Keywords:** entrepreneurship, econometric analysis, innovation, correlation-regression, extrapolation, effectiveness, efficiency, result factor.

### KIRISH

O'zbekistonda amalga oshirilayotgan iqtisodiy islohotlarning hozirgi bosqichi kichik biznes va xususiy tadbirkorlikni rivojlantirish, unga keng iqtisodiy erkinlik berish bilan tavsiflanadi. Shu jihatdan, hozirgi kunda respublikamizda kichik biznes va tadbirkorlik faoliyatini rivojlantirishga alohida e'tibor berilmoqda. Chunki, kichik biznes va tadbirkorlik sohasini rivojlantirish masalasiga davlatimiz iqtisodiy siyosatining strategik vazifasi sifatida qaralmoqda. Kichik biznes kapital taqchilligi sharoitida ko'p mablag' talab etmaydigan xo'jalik faoliyati sifatida resurslar aylanmasining yuqori sur'atlarini ta'minlaydi, iqtisodiyotni qayta qurish, iqtisodiy nobarqarorlik va resurslar cheklanganligi sharoitida iste'mol bozorini shakllantirish va uni to'ldirish muammosini tez hamda tejamli tarzda hal etadi. Kichik korxonalar iste'mol talabining o'zgarishiga darhol moslashadi va shu yo'l bilan iste'mol bozoridagi zaruriy muvozanatni ta'minlaydi.





Kichik biznes yangi ish o‘rinlarini yaratishi bilan ishsizlik muammosini hal etishda muhim rol o‘ynaydi. Hozirgi payta ushbu soha nafaqat iqtisodiyotning o‘sish sur‘atlarini jadallashtirishda, balki mamlakatimiz uchun nihoyatda muhim bo‘lgan bandlik va aholi daromadlarini oshirish masalalarini hal etishda ham yetakchi o‘rin tutmoqda. Oxirgi yillarda respublikamizda kichik biznes va xususiy tadbirkorlik bilan shug‘ullanuvchi korxonalar soni yil sayin ortib borayotgani sohaning izchil rivojlanayotganligidan dalolat beradi.

So‘nggi yillarda respublikamiz iqtisodiyotini rivojlantirish maqsadida tadbirkorlikda ilmiy texnik faoliyat natijalaridan yanada samaraliroq foydalanish borasidagi amalga oshirilayotgan tadbirlar natijasida ijobiy natijalarga erishilmoqda. Ayniqsa, kichik tadbirkorlikning jadal sur‘atlar bilan rivojlanib borishi va raqobat muhitini kengaytirish sohasida bu holat aniq ko‘zga tashlanmoqda. Shu o‘rinda aytish kerakki, milliy iqtisodiyotni rivojlantirishning hozirgi holatida innovatsion faoliyatni rivojlantirish bo‘yicha metodologik yondashuvlarning yetarlicha ishlanmaganligi kichik tadbirkorlik sohasida innovatsion faoliyatga yo‘naltirilgan investitsiyalardan foydalanish samaradorligini baholashda bir muncha qiyinchiliklarni yuzaga keltirmoqda.

## ADABIYOTLAR TAHLILI VA METODOLOGIYA

Bozor iqtisodiyoti asoslari, jumladan xususiy mulk shakllariga asoslangan korxonalar faoliyati ilmiy tadqiqotchilar tomonidan ko‘p yillar davomida har tomonlama o‘rganilib kelingan. Kichik biznes muammolarining ayrim nazariy va amaliy yo‘nalishlari chet ellik iqtisodchi olimlar K.Dj.Kempbell, Djon Berdjies, Den Shtaynxoff, X.Shvalbe, E.A.Utkin, M.M. Maksimsov, V.Ya.Gorfinkel va boshqalarning ilmiy ishlarida yoritib berilgan. Respublikamizda kichik biznes va xususiy tadbirkorlikni rivojlantirish va kengaytirishning nazariy muammolari bilan iqtisodchi olimlar: S.S. G‘ulomov, Yo.A. Abdullaev, V.B. Berkinov, B.Yu. Xodiev va boshqalar shug‘ullanib kelmoqdalar. Jumladan, S.S. G‘ulomovning — Tadbirkorlik va kichik biznes, B.Yu Xodiev, M.S.Qosimova va boshqalarning — Kichik biznesni boshqarish, Shodibekova D. A, M.S.Qosimova va boshqalarning — Kichik biznesni boshqarish, M.R. Boltaboev va boshqalarning — Kichik biznes va tadbirkorlik kabi o‘quv qo‘llanmalarida kichik biznesning shakllanishi va rivojlanishi, kichik biznes tashkiliy formalari, rejalashtirish, litsenziyalash, boshqarish psixologiyasi, kichik biznesni moliyaviy holati va kredit bilan ta‘minlash, kichik biznesda marketingni xususiyatlari ko‘rib chiqilgan. “Tadbirkorlik va kichik biznes asoslari” fani hozirgi vaqtda iqtisodiy fanlarning asosiylaridan biri bo‘lib, uni zamon talabida



talqin qilish, o'qitish, o'zlashtirish va amaliyotga tadbiiq etish juda ham dolbzarb masaladir. Islohotlarni chuqurlashtirish, iqtisodiyotni liberalizatsiyalashtirishni asosiy negizi sifatida kichik biznesni rivojlantirishga bo'lgan e'tibor kichik biznes boshqaruvchilaridan katta bilimlarni talab qiladi. Hozirgi kunda nodavlat sektorida iqtisodiyotda band bo'lgan kishilarning to'rt dan uch qismi mehnat qilmoqda. Ularning daromadini oshirish har bir tadbirkordan ishni nimadan va qanday boshlash kerak, uni qanday tashkil etish va boshqarish kerakligi haqida ko'nikmaga ega bo'lishni taqqozo etadi. Shu jihatdan olib qaraganda ushbu maqola hozirgi modernizatsiyalash sharoitida nafaqat iqtisodiyotning o'sish sur'atlarini jadallashtirishga, balki, mamlakatimiz uchun nihoyatda muhim bo'lgan bandlik va aholi daromadlarini oshirish masalalarini hal etishga muhim hissa qo'shadi.

## NATIJALAR

Iqtisodiyotning innovatsion rivojlanishi sharoitida mehnat taqsimoti nisbatan yuqori darajada chuqurlashib borayotgan kichik korxonalarda jarayonlar samaradorligini oshirish uchun maqbul iqtisodiy va boshqaruv qarorlarini ishlab chiqish va ularni ijrosini ta'minlash alohida muhim hisoblanadi. Zamonaviy boshqaruv tizimi esa iqtisodiy jarayon va hodisalarning kelgusidagi holati hamda ko'lamini aniqlashda ishonchli usul va vositalardan foydalanishni taqqozo etadi. Kichik tadbirkorlikning hududning ijtimoiy-iqtisodiy rivojlanishiga ta'sirini ekonometrik tahlili iqtisodiy-matematik usullar vositasida murakkab ijtimoiy-iqtisodiy hodisalarning bog'liqlik kuchini tadqiq etish, ularning qonuniyatlarini aniqlash va tajriba orqali kuzatish imkonini beradi.

Tadqiqotimizda Kichik tadbirkorlikning hududning ijtimoiy-iqtisodiy rivojlanishiga ta'sirini baholash va prognozlashtirish modelini ishlab chiqish maqsadida Yo.A.Abdullayev , Ya.R.Magnus , M.Ivanova , Endryu F.Sigel kabi olimlarning ilmiy ishlarini o'rganib chiqdik. Ular ekonometrik tahlil, ya'ni korrelyatsion-regression tahlil asosida istiqbollashtirish usullari-ni ishlab chiqishgan va ularni takomillashtirish bo'yicha ishlarni amalga oshirganlar. Kichik tadbirkorlikning hududning ijtimoiy-iqtisodiy rivojlanishiga ta'siri samaradorligini oshirishni korrelyatsion-regression tahlil usullari yordamida tahlil qilish asosida omillar orasidagi bog'liqlik kuchini aniqlash hamda investitsion faoliyatni tahlil etish va baholash orqali kichik tadbirkorlik sohasida samarali iqtisodiy va boshqaruv qarorlari aniqlanadi.

Bunda model tuzilishining eng muhim bosqichi natijaviy, bashorat qilingan ko'rsatkichning tanlab olingan omillarga bog'liqligini tavsiflovchi ekonometrik ifodani tanlashdan



iboratdir. Kichik tadbirkorlikning hududning ijtimoiy-iqtisodiy rivojlanishiga ta'siri samaradorligini oshirishni istiqbollashtirish ko'lamini qanchalik aniq va mufassal bo'lsa, ushbu tizimni boshqarish va jozibadorlikni oshirish imkoniyatlari shunchalik yuqori bo'ladi. Kichik tadbirkorlikning hududning ijtimoiy-iqtisodiy rivojlanishiga ta'siri samaradorligini oshirishni tahlil etish va istiqbollashtirishda formallashtirilgan usulga taalluqli bo'lgan korrelyatsiya-regressiya, ekstrapolyatsiya, trend va boshqa matematik-statistik usullardan foydalanish maqsadga muvofiq, deb hisoblaymiz. Formallashtirilgan usulda iqtisodiy jarayonlarni istiqbollashtirish masalasiga ijobiy yondashuvlar bilan bir qatorda miqdoriy baholashning iqtisodiy ahamiyati unchalik yuqori emas, degan nuqtai nazar tarafdorlari ham mavjud. Ijtimoiy-iqtisodiy jarayonlarni tadqiq etishda ilmiy istiqbollashtirishning uch guruhini alohida ko'rsatib o'tish mumkin: taraqqiyot yo'nalishlari va tendensiyalarini tavsiflovchi istiqbollar; kelajakdagi aniq bir vaqtda sodir bo'lish ehtimoli yuqori bo'lgan hodisalarni tavsiflovchi istiqbollar; kelajakda kutilayotgan holatni tavsiflovchi istiqbollar. Kichik tadbirkorlikning hududning ijtimoiy-iqtisodiy rivojlanishiga ta'siri samaradorligini oshirishni istiqbollashtirishda faqatgina birinchi guruhga taalluqli bo'lgan modellardan foydalanish maqsadga muvofiqdir.

Hozirgi vaqtda Kichik tadbirkorlikning hududning ijtimoiy-iqtisodiy rivojlanishiga ta'siri samaradorligiga ta'sir etuvchi asosiy omillarni korrelyatsion-regression usullardan foydalanib aniqlash, ko'p omilli regression modellarni tuzish orqali uning rivojlanish istiqbolini bashorat qilish dolzarb vazifa hisoblanadi. Ushbu tadqiqot ishlarini bajarish uchun birinchi navbatda Kichik tadbirkorlik sohasida investitsion jarayonlarga ta'sir etuvchi barcha omillarni aniqlash va korrelyatsion-regression usullardan foydalanib, ulardan eng asosiylarini tanlab olishdan boshlanadi. Kichik tadbirkorlikning hududning ijtimoiy-iqtisodiy rivojlanishiga ta'siri samaradorligini oshirishning ekonometrik modelini tuzish uchun unga ta'sir etuvchi quyidagi omillar tanlab olindi (1-jadval):

1-jadval

Hududlar	Aholi jon boshiga to'g'ri keladigan yalpi ichki mahsulot (ming. c'm) – Y	YaIM da kichik tadbirkorlik ulushi (%), X
Samarqand shahar	7427,0	81,2
Kattaqo'rg'on	1629,1	79,4
Oqdaryo	1057,9	76,8
Ishtixon	1165,2	74,6
Qo'shrabot	258,9	25,9

Ushbu omillarning natijaviy omilga ta'sirini aniqlash uchun korrelyatsion-regression tahlil usullaridan foydalanish mumkin.

Bu esa juft korrelyatsiya koeffitsiyentlarini hisoblash yo‘li bilan aniqlanadi. Bu usul bizga bir-birini takrorlaydigan va natijaviy omil bilan kuchsizroq bog‘lanishda bo‘lgan omillarni tuzilayotgan ekonometrik modelga kiritmaslik imkonini beradi. So‘ngra korrelyatsion-regression usullar yordamida ko‘p omilli ekonometrik model tuziladi.

Omillar bog‘liqligining ekonometrik modelini aniqlash uchun ko‘p omilli korelyatsion-regression tahlil usulidan foydalaniladi. Ishda samaradorlik ko‘rsatkichlarini tahlil qilish uchun quyidagi ekonometrik modeldan (ko‘p omilli regressiya tenglamasidan) foydalanildi:

$$y = \beta_0 + \sum_{i=1}^m \beta_i x_i \quad - \text{chiziqli model}$$

$$y = \beta_0 + \sum_{i=1}^m \beta_i \ln x_i \quad - \text{logarifmik model}$$

$$y = \beta_0 + \sum_{i=1}^m \frac{\beta_i}{x_i} \quad - \text{giperbolik model}$$

$$y = \beta_0 \prod_{i=1}^m x_i^{\beta_i} \quad - \text{ko‘rsatkichli model}$$

bunda,  $\beta_0$  – ozod hadi;

$y$  – xizmat ko‘rsatish sohasi asosiy kapitaliga kiritilayotgan investitsiyalar hajmi

$x$  xizmat ko‘rsatish sohasi asosiy kapitaliga kiritilayotgan investitsiyalar hajmiga ta’sir etuvchi asosiy omilla;

$m$  – tanlangan omillar soni.

$Y=a +bx$  chiziqli regressiyaning  $a$  va  $b$  parametrlarini hisoblash uchun quyidagi normal tenglamalar sistemasini  $a$  va  $b$  larga nisbatan yechamiz:

$Y=a +bx$  chiziqli regressiyaning  $a$  va  $b$  parametrlarini hisoblash uchun quyidagi normal tenglamalar sistemasini  $a$  va  $b$  larga nisbatan yechamiz:

$$n \cdot a + b \cdot \sum x = \sum y$$

$$a \cdot \sum x + b \cdot \sum x^2 = \sum x \cdot y$$

Hisoblashni amalga oshirish uchun quyidagi ishchi jadvalni tuzamiz:

	Y	x	yx	x <sup>2</sup>	y <sup>2</sup>	deltaY(x)	y- deltaY(x)	A(i)
1	7,427.00	81.20	603,072.40	6,593.44	55,160,329.00	836.14	6,590.86	88.74
2	1,629.10	79.40	129,350.54	6,304.36	2,653,966.81	834.98	794.12	48.75
3	1,057.90	76.80	81,246.72	5,898.24	1,119,152.41	833.30	224.60	21.23
4	1,165.20	74.60	86,923.92	5,565.16	1,357,691.04	831.87	333.33	28.61
5	258.90	25.90	3,234.00	670.81	67,029.21	800.37	-541.47	209.14
Jami	11,538.10	337.90	903,827.58	25,032.01	60,358,168.47	4,136.67	7,401.43	396.47
o'rtacha qiymat	827.33	67.58	180,765.52	5,006.40	12,071,633.69	X	x	79.29
Sigma	-503,714.93	439.35	x	x	X	X	x	x
sigma kvadrat	253,728,729,13 7.79	193,024.56	x	x	X	X	x	x
		124,854.33	55911.18667					
	b=	0.6468313243						
	a=	783.62						

Jadval ma'lumotlaridan foydalanib, a va b parametrlarini qiymatini hisoblaymiz:

$$b = 0,65$$

$$a = 783,62$$

Parametrlarning qiymatlarini o'rniga qo'ysak ushbu regressiya tenglamasini olamiz:

$$\Delta Y_x = 783,62 + 0,65 \cdot x$$

Tuzilgan regressiya tenglamasi o'rtacha kunlik ish haqqini 1000 so'mga ortishi oziq-ovqat mahsulotlarini sotib olish uchun xarajatlar ulushi o'rtacha 650 so'mga ortishini ko'rsatadi.

Chiziqli juft korrelyatsiya koeffitsiyentini hisoblaymiz:

$$r_{xy} = b \frac{\delta_x}{\delta_y} = 0,647 \frac{439,35}{-503714,93} = -0,0006$$

Bog'lanish o'rta miyona, teskari.

Determinatsiya koeffitsiyentini hisoblaymiz:

$$r_{xy}^2 = (-0,0006)^2 = 0,00000036$$

Determinatsiya koeffitsiyentining bu qiymati natija- y ning variatsiyasi 0.000036 foiz x omil belgining variatsiyasiga bog'liqligini ko'rsatadi.

Regressiya tenglamasiga  $x$  ning haqiqiy qiymatlarini qo'yib,  $\text{deltay}_x$  ning nazariy qiymatlarini topamiz.

Endi delta A –aproximatsiyaning o'rtacha xatoligini hisoblaymiz.

$$\bar{A} = \frac{1}{n} \sum \left| \frac{y - \text{deltay}_x}{y} \right| \cdot 100\% = 4,4$$

Bu, natijaviy belgining hisoblangan qiymatlari nazariy qiymatlaridan 4,4 foizga chetlanishini ko'rsatadi.

Fisherning F-kriteriyasini hisoblaymiz:

$$F_{haq} = \frac{r_{xy}^2}{1-r_{xy}^2} \frac{n-m-1}{m}, \text{ bu yerda } n - \text{ kuzatuvlar soni, } m - \text{ erkli o'zgaruvchilar sono.}$$

$$F_{haq} = \frac{0,00000036}{0,99999964} 3 = 1.08$$

Demak, hosil qilingan ko'p omilli regressiya tenglamamiz ahamiyatli hisoblanadi.

Yuqorida ishlab chiqilgan hududlarda kichik tadbirkorlikning ijtimoiy- iqtisdiy samaradorligini ishirishga tegishli ekonometrik modellar asosida O'zbekiston Respublikasi kichik tadbirkorlik sohasini rivojlanishini prognozlash imkoni yuzaga keladi.

## MUHOKAMA

Mamlakatimizda bugungi kunda kichik biznes va xususiy tadbirkorlikni rivojlantirishga shaxsan davlatimiz rahbari tomonidan e'tibor qaratilmoqda. Tadbirkorlik vakillari bilan muntazam ravishda o'tkazilayotgan, shu jumladan 2021 yil 20 avgustida bo'lib o'tkan uchrashuv ham bu fikrning yaqqol dalili.

Jahon tajribasi shuni ko'rsatmoqdaki, kichik biznes va xususiy tadbirkorlik korxonalari barqaror iqtisodiy o'sishning asosiy omili, iqtisodiy kon'yunkturaning o'zgarishlariga tez moslasha oladigan, yangi texnika va texnologiyalarni doimiy ravishda talab qiladigan, mehnat unumdorligi yuqori bo'lgan xo'jalik sub'ektlari sifatida keng faoliyat yuritmoqda. Darhaqiqat, kichik biznes va xususiy tadbirkorlik korxonalarini izchil rivojlantirish natijasida aholini yangi ish joylari va daromad manbai bilan ta'minlash, joylarda tashabbuskorlikni rag'batlantirish orqali aholi orasida tadbirkorlik ko'nikmalarini ommalashtirish imkoniyatlari paydo bo'ladi. Kichik biznes va xususiy tadbirkorlik korxonalari milliy iqtisodiyotning samaradorligini sezilarli darajada oshiradi. Shu bois, bugungi kunda kichik biznes va xususiy tadbirkorlikni rivojlantirish asosida mamlakatda o'rta mulkdorlar sinfini shakllantirish, ichki bozorni nisbatan arzon va sifatli zaruriy tovar va xizmatlar bilan to'ldirish, yangi ishchi o'rinlarini yaratishga, shuningdek, ular tomonidan ishlab chiqarilayotgan mahsulotlarni



eksportga yo'naltirish orqali mamlakatimizning eksport salohiyatini rivojlantirishga alohida e'tibor qaratilmoqda. Shu maqsadda biz turli manbalarni o'rganish asosida rivojlangan va rivojlanish bosqichiga kirayotgan bir necha xorijiy mamlakatlarning bu boradagi tajribalarini o'rganish va tahlil etish asosida ulardan mamlakat iqtisodiyotini rivojlantirishda kichik biznes va xususiy kichik biznes va xususiy tadbirkorlikning salmog'ini oshirishga tadbiriq etishni maqsadga muvofiq deb hisoblaymiz. Shuningdek, kichik biznes va xususiy tadbirkorlikni rivojlantirish borasida Janubiy Koreya, Isroil, Malayziya va Iordaniya davlatlarida ham foydali tajribalar to'plangan. Xorijiy mamlakatlar tajribalarida, birinchidan, rivojlanayotgan mamlakatlarda muhim iqtisodiy omillardan biri, bu kichik biznes rivoji bo'lib, bu boradagi har qanday umummanfaatini ko'zlagan samarali faoliyatlar davlat ahamiyatiga ega bo'ladi va qo'llab-quvvatlanadi. Zero, kichik biznes faoliyati o'sib, yanada samarali biznesga aylanishi, mamlakat ichki bozorini tovar hamda xizmatlar turlari bilan to'ldirishi, shu tariqa eksport salohiyati rivojiga hissa qo'shilishi, aholining ish bilan bandligi muammosi echilishiga ko'maklashuvi, aholining real daromadi o'sishiga, pirovard natijada aholining turmush darajasini yuksalishiga olib keladi. Ikkinchidan, iqtisodiyotning globallashuvi sharoitida, jahon bozorida raqobat kuchayayotgan bir paytda, yirik korxonalaridan ko'ra aynan kichik biznes va xususiy tadbirkorlik korxonalarida raqobatga dosh berish, manevrlar qilish, ishlab chiqarish yo'nalishini o'zgartirish kabi iqtisodiy chora tadbirlar ko'rish oson kechadi. Ko'rinib turibdiki, xorijiy mamlakatlarda kichik biznesni har tomonlama qo'llab-quvvatlashning rivojlangan tizimi mavjud bo'lib, bu hol raqobatning kuchayishi sharoitida ijtimoiy-itisodiy muhitning barqaror taraqqiy etishini ta'minlaydi. Bu esa, davlat tomonidan qo'llab-quvvatlash mexanizmining to'laqonli rivojlanganligidan dalolat beradi.

## XULOSA

Tadbirkorlik va biznes iqtisodiy faoliyatning bir turi bo'lib, bu tushunchalar xususiy shaxslar, korxonalar, tashkilotlar tomonidan daromad olish maqsadida o'zining va shartnomadagi sheriklarining manfaatlarini ko'zlab, ishlab chiqarish, sotib olish va sotish yoki boshqa tovarlar, xizmatlarni amalga oshirish yoki pulga ayirboshlash kabi erkin xo'jalik yuritish faoliyatini yuritishni bildiradi. Kichik biznes subyektlari huquqiy maqomi, band bo'lgan xodimlar soni, mulkchilik shakli, faoliyat yo'nalishi, faoliyatning tarmoq yo'nalishlari bo'yicha bir qancha shakllari mavjud. Kichik biznes subyektlari jahon moliyaviy iqtisodiy inqirozini salbiy oqibatlarini natijasida vujudga kelgan muammolarni hal etishga muhim hissa qo'shadi.



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## ЎЗБЕКИСТОНДА ЭЛЕКТРОН ТИЖОРАТ ВА УНИНГ МУАММОЛАРИ ТАҲЛИЛИ

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### АННОТАЦИЯ

Мақолада Ўзбекистонда тижорат соҳасида электрон тижоратнинг ўрни ва аҳамияти алоҳида таҳлил этилган, соҳанинг мазмун моҳияти, ривожланиши истиқболлари, ҳуқуқий асосари, электрон тижорат хизматлар соҳаси сафатида иқтисодиётимиздаги ўрни ва Ўзбекистонда соҳасидаги муаммолар ва унинг ечими борасидаги таклифлар келтирилган.

**Калит сўзлар:** Тижорат, хизматлар соҳаси, электрон тижорат, плейс маркет, инфратузилма, рақобатбардошлик, рақамли иқтисодиёт, экспорт, валюта, маркетинг, муаммо ва бошқалар.

### ABSTRACT

The article analyzes the role and importance of e-commerce in the field of commerce in Uzbekistan, the essence of the field, its development prospects, legal basis, its place in our economy as an e-commerce service sector, and proposals regarding the problems in the field in Uzbekistan and its solutions.

**Keywords:** Trade, service industry, e-commerce, marketplace, infrastructure, competitiveness, digital economy, export, currency, marketing, problem, etc.

### КИРИШ

Жаҳонда рақамли иқтисодиётнинг ривожланиши сервис соҳасида ахборот-коммуникация технологияларига асосланган инновацион хизматларни, хусусан, электрон тижоратни кенгайиб боришига имкон яратмоқда. Аҳолини сонининг ўсиши, эҳтиёжларнинг кенгайиб бориши, сифатли ва қулай хизматларга бўлган талабнинг кўпайиб бораётганлиги электрон тижоратни жадал ривожланишига туртки бермоқда.

Жаҳонда айнан электрон тижоратни ривожлантиришга оид илмий изланишларга алоҳида эътибор қаратилмоқда. Бу



борада электрон тижорат соҳасини тартибга солиш, электрон тижорат учун энг қулай ташкилий-бошқарув тузилмасини жорий қилиш, тўлов тизими хавфсизлигини таъминлаш, электрон тижорат тизимининг ривожланиш самарадорлигини баҳолаш, мазкур соҳада инновацияларни бошқариш тизимини такомиллаштириш, чакана савдо корхоналарида электрон тижорат тизимининг шаклланиш шарт-шароитлари ва омилларини аниқлаш, Е-маркетинг каби йўналишлардаги илмий муаммоларни тадқиқ этиш муҳим аҳамият касб этмоқда.

Буюк мақсадлар сари дадил қадам ташлаб янгиланаётган Ўзбекистонда жамиятнинг барча соҳалари қаторида маданият, санъат ва халқ ҳунармандчилиги соҳаларини янада ривожлантиришга ҳам алоҳида эътибор берилмоқда. Республикамизда маънавий қадриятларга ҳурмат-эҳтиром билан муносабатда бўлиш, уларни асраб-авайлаш ва ривожлантириш, миллий ҳунармандчиликни, урф одатларимизни, бебаҳо тарихий меросимизни тиклаш давлат сиёсати даражасига кўтарилди.

Электрон тижорат Интернет тизимида техник жиҳатдан учта асосий таркибга эга – **сервер, маълумотлар базаси ва харидорга товарларни етказиб бериш тизими**. Биринчи компонент ҳисобланган юқори даражадаги сифатга эга ва тезкор сервер асосийси ҳисобланади. Маълумотлар базаси йирик объектлар учун зарур бўлиб, электрон товар ва хизматларни етказиб бериш мураккаб тизимга эга логистикани талаб қилмайди.

Бизнинг фикримизча, «**электрон тижорат** – Интернет тармоғи ва бошқа ахборот алмашиш алоқаларидан фойдаланган ҳолда, электрон воситалар кўмаги билан амалга ошириладиган товарлар ва хизматларни сотиш ҳамда сотиб олиш жараёни. Битимни амалга ошириш натижасида товарлар ва хизматларга эгалик ҳуқуқи бир шахсдан бошқасига ўтади. Электрон тижорат электрон воситалар, электрон тўловлар тизими ва логистика тизимидан фойдаланиш асосида амалга ошириладиган маркетинг тизимлари билан узвий интеграциялашади».

Бундан ташқари, Интернетга кириш орқали очик электрон маълумотларга эга бўлган электрон тижоратдан фойдаланиш унинг барча иштирокчиларининг хавфсизлигини, махфийлигини ва ҳаққонийлигини таъминлашни талаб қилади. Қабул қилинган хавфсизликни таъминлаш механизмлари учинчи томон сертификатига асосланганлиги сабабли глобал электрон тижорат глобал **сертификатлаштириш тизимларини** талаб қилади.

**Тадқиқотнинг методологияси.** Тадқиқотнинг методологик асосини туризмни ривожлантириш соҳасидаги қонун ости ва меъёрий-ҳуқуқий ҳужжатлар, шунингдек,

мазкур фармон ва қарорларда белгиланган вазифаларни амалга ошириш юзасидан таклиф ва тавсиялар, ҳамда тегишли статистик маълумотларни йиғиш ва уларни қайта ишлашда замонавий статистик усуллар ва кузатувлар, анализ ва синтезусларидан кенг фойдаланилади.

**Муаммонинг ўрганилганлик даражаси.** Хизмат кўрсатиш ва сервис соҳаси ривожланишининг илмий-методологик жиҳатларига ўзбекистонлик олимлардан Пардаев М.Қ., Пўлатов М.Э., Мухаммедов М.М., Зайналов Д.Р., Мирзаев Қ.Ж., Тухлиев И.С., Асланова Д.Х. ва бошқаларнинг илмий ишлари бағишланган.



### 1.1-расм. Электрон тижоратнинг таркибий элементлари

Электрон тижорат кўп томонлама алоқалар билан шаклланувчи тизим элементларидан иборат бўлиб, улар куйидагиларга таснифланади: тармоқ фойдаланувчилари, очиқ маълумотлар базаси, электрон почта, FAQ тўплами (frequently asked questions - энг кўп бериладиган саволлар тўплами), электрон каталоглар, электрон алоқа, хавфсизлик, банк карталари ёки рақамли пуллар, электрон тўловлар, электрон маҳсулотлар, ишлаб чиқариш, етказиб бериш инфратузилмаси, хизмат кўрсатиш инфратузилмаси (1.1-расм).

Глобал ахборот-коммуникация технологияларини ривожлантириш натижасида электрон конъюктуранинг вужудга келганлиги ва ўз фаолиятида ушбу муҳитдан фойдаланадиган етарлича корхоналарни мавжудлиги республикамиз иқтисодиётининг ўзига хос хусусияти ҳисобланади. Бу эса замонавий тадбиркорлик соҳасида ахборот технологиялари имкониятларидан кенг фойдаланиш учун шарт-шароит яратмоқда. Шу билан бирга, тадбиркорлик фаолиятида ушбу технологиялардан фойдаланиш тадбиркорларнинг ички ва жаҳон бозоридаги муваффақияти даражасини белгилайди.

Қанчалик ахборот технологиялари ва интернет кенгайиб боргани сари шунчалик кўп тадбиркорлик корхоналари электрон тижорат соҳасига ўтиб боради. Ҳозирда фақат электрон тижоратга асосланган корхоналар ҳам очилмоқда, шу билан бирга одатий корхоналарда электрон тижоратни ташкил этиш ҳам кўпаймоқда. Натижада савдонинг бу тури анъанвий савдо билан шуғулланаётганларни ортда қолдиради. Бу бевосита тадрижий ривожланиш ҳисобланади.

Ўзбекистон иқтисодиётида электрон тижоратни ривожланиши тенденциясининг асосини кўрадиган бўлсак, чет эл давлатлари тажрибаларини умумлаштириш ва ундан мамлакат равнақи йўлида фойдаланиш ҳамда уни ривожлантириш бўйича йўриқномалар ишлаб чиқиш жамиятнинг муҳим вазифаларидан бири ҳисобланади. Ушбу соҳада изланиш олиб бориш бугунги куннинг ўта муҳим вазифалардан бири ҳисобланади.

АҚШдаги интернет провайдерлардан бири, Интерланд (Interland) томонидан ўтказилган тадқиқотга кўра, америкалик кичик бизнес тадбиркорларининг 56 фоизи уларнинг йиллик сотувларининг маълум бир қисми айнан электрон тижорат мавжудлиги учун амалга ошишига ишонишади. Компаниянинг 260 та мижози текширилди, улардан 42 %и ўн йилдан кўпроқ вақт давомида ўз тадбиркорлик фаолиятини юритади, 76 %и эса тадбиркорлик фаолиятида 3-9 йил давомида Интернетдан фойдаланган. Истеъмолчиларнинг орасида ўтказилган сўров натижалари шуни кўрсатадики, 23% сотувчилар йиллик савдонинг 1% дан 10% гача қисмини электрон тижоратдан олган деб ҳисобласа, 12% сотувчилар эса 76% дан 100% гача бўлган савдо тушуми электрон тижоратдан келади деб ҳисоблашади.

Умуман олганда, сўровда иштирок этганларнинг 78%и веб-сайтлардаги компания сайтидан фойдаланишлари мумкинлигини таъкидладилар. Хусусан, респондентларнинг ярми компаниянинг веб-сайти мижозларнинг ишончини оширади деб ҳисоблайди ва 33%и



веб-сайт уларнинг энг кучли маркетинг воситаси деб ҳисоблайди.

Дунёдаги энг катта электрон чакана тижорат корхоналари – Amazon.com, Alibaba.com ва eBay савдо майдончаларида амалга оширилмоқда, уларнинг 2018 йилга тушуми 232,89 млрд, 39,9 млрд, ва 10,8 млрд АҚШ долларини ташкил этди. 2019 йилга келиб, Амазон АҚШнинг электрон тижорат бозорининг 50 фоизини эгаллади. Хитойда 30% озиқ-овқат маҳсулоти электрон тижорат орқали сотилади, электрон тижоратнинг 80 % атрофидаги улуши Alibaba.com орқали амалга оширилмоқда.

Жаҳонда электрон тижоратнинг ўсиш тенденциясига эътибор қаратсак, электрон тижоратда чакана савдо ҳажми 2020 йилда 3932,4 млрд. АҚШ долларини ташкил этган ҳолда, бу кўрсаткич 2016 йилга нисбатан 2,1 мартага ўсган. Ушбу кўрсаткич 2024 йилга бориб, 6065,9 млрд. АҚШ долларини ташкил этиши кутилмоқда.

Европа мамлакатларида электрон тижорат ҳажмининг ўсиш тенденциясига эътиборимизни қаратсак, электрон тижорат бозори ҳажми 2017 йилда 25 млрд. АҚШ долларини, 2021 йилнинг сентябрига қадар эса 42 млрд. АҚШ долларини ташкил этмоқда. Шундан, 2021 йилнинг сентябрь ҳолатига, персонал компьютер орқали амалга ошириладиган тижорат ҳажми 27 млрд. АҚШ долларини, мобил қурилма орқали амалга ошириладиган савдо ҳажми 15 млрд. АҚШ долларини ташкил этган

Россияда электрон тижорат бозори ҳам тез ўсиб бормоқда. 2018 йилда Россия, АҚШ, Хитой ва Буюк Британиялардан сўнг, ўсиш ва электрон тижорат ҳажми бўйича дунёда тўртинчи ўринни эгаллади. East-West Digital News халқаро ахборот агентлиги маълумотларига кўра, 2018 йилда Россия электрон тижоратига қилинган умумий инвестиция миқдори 756 миллион АҚШ долларини ташкил этди. 2020-йилда барча тармоқларга қараганда энг катта ўсиш электрон тижорат сегменти томонидан кўрсатилди, бу 2019 йилга нисбатан 16 %га ортиқ деганидир.

**Таҳлил ва натижалар.** Халқаро тажрибани ўрганиш натижасида, Ўзбекистонда электрон тижоратни ривожлантириш учун амалга ошириладиган вазифаларни икки қисмга ажратиш олиш мақсадга мувофиқ деб ҳисоблаймиз.

1. Бугунги кунда Ўзбекистонда электрон тижоратни ривожлантиришга йўналтирилган вазифалар. Ушбу вазифаларга қуйидагиларни киритиш мумкин:

– логистика ва тезкор етказиб бериш тизимларини ривожлантириш

– алоқа хизматлари сифатини яхшилаш ва қамраб олиш даражасини кенгайтириш.

– тўлов тизимларини кенгайтириш. PayPal каби халқаро тўлов тизимларига қўшилиш

– онлайн дўконларда овозли қидирув функциясини жорий этиш.

2. Электрон тижоратни ривожланиши натижасида Ўзбекистонда вужудга келиши мумкин бўлган муаммоларни олдини олиш мақсадида ҳозирдан шакллантириб бориши зарур бўлган вазифаларга қуйидагиларни киргизишимиз мумкин:

– биринчи навбатда аҳолининг реал даромадларини барча минтақаларда бир хил ўсишини таъминлаш, логистика бўйича катта ҳамда кичик корхоналарни кўпроқ очилишини таъминлаш, барча минтақаларни тўлиқ алоқа хизматлари билан қамраб олиш;

– тизим устидан қонуний назорат муаммоси, электрон тижорат ривожланган мамлакатларда бу муаммо аллақачон вужудга келган.

– маҳсулот сифати муаммолари, Интернет тармоғида сотувчи ҳам, харидор ҳам аноним бўлганлиги ва маҳсулотни бевосита кўрмаслиги туфайли маҳсулотларнинг реал сифати Интернет тармоғида кўрсатилганидан фарқ қилиши мумкин.

Шу билан бирга, ҳозирги вақтда республикамиз товар бозорлари учун бозор муносабатлари маданиятининг паст даражада эканлиги, меъёрий-ҳуқуқий таъминотнинг такомиллашмаганлиги, товар бозорлари ахборот таркибининг етарли даражада ривожланмаганлиги, иқтисодиётнинг юқори даражада монополлашуви, молиявий ва кредит тизими муносабатларининг такомиллашмаганлиги билан тавсифланади.

Йиллар	У, Электрон тижорат ҳажми, млн. АҚШ долл.	Х <sub>1</sub> , Чакана савдо айланмаси, млрд. АҚШ долл.	Х <sub>2</sub> , Электрон тижоратни чакана савдо айланмасидаги улуши, %	Х <sub>3</sub> , Аҳолиси сони, млн. Киши	Х <sub>4</sub> , Интернетдан фойдаланувчилар сони, млн. Киши
2016	0,72	10,54	0,007	31,58	12,1
2017	1,41	12,23	0,012	32,12	14,7
2018	4,54	14,79	0,031	32,66	20

<b>2019</b>	28,98	17,48	0,166	33,26	19
<b>2020</b>	100,25	19,48	0,515	33,91	20,5
<b>2021</b>	125,2	21,12	0,625	34,1	23,9
<b>2022</b>	137,1	24,1	0,727	34,6	26,2

**1-жадвал. Электрон тижорат соҳасини таҳлил этишида иштирок этувчи омилар статистикаси.**

	У, Электрон тижорат ҳажми, млн. АҚШ долл.	X1, Чакана савдо айланмаси, млрд. АҚШ долл.	X2, Электрон тижоратни чакана савдо айланмасидаги улуши, %	X3, Аҳолиси сони, млн. Киши	X4, Интернетдан фойдаланувчилар сони, млн. Киши
У, Электрон тижорат ҳажми, млн. АҚШ долл.	1				
X1, Чакана савдо айланмаси, млрд. АҚШ долл.	0,936186	1			
X2, Электрон тижоратни чакана савдо айланмасидаги улуши, %	0,999151	0,944646	1		
X3, Аҳолиси сони, млн. Киши	0,934317	0,994649	0,940861	1	
X4, Интернетдан фойдаланувчилар сони, млн. Киши	0,858634	0,959817	0,865689	0,951511	1

**2-жадвал. Корреляцион жадвал. Муаллифнинг қайта ишлаган маълумоти.**

2-жадвалда келтирилган корреляция коэффицентларидан кўриш мумкинки, омиларнинг орасидаги боғланиш тўғри ва зич.

ВЫВОД ИТОГОВ							
Регрессионная статистика							
Множественный R	0,999717056						
R-квадрат	0,999434193						

Нормированный R-квадрат	0,998302578							
Стандартная ошибка	2,535967502							
Наблюдения	7							
Дисперсионный анализ								
	df	SS	MS	F	Значимость F			
Регрессия	4	22719,71731	5679,929327	883,1928902	0,001131295			
Остаток	2	12,86226235	6,431131173					
Итого	6	22732,57957						
	Коэффициенты	Стандартная ошибка	t-статистика	P-Значение	Нижние 95%	Верхние 95%	Нижние 95,0%	Верхние 95,0%
Y-пересечение	-289,8854538	267,24255	-1,0847279	0,39139266	-1439,7373	859,966442	-1439,7373	859,966442
X1, Чакана савдо айланмаси, млрд. АҚШ долл.	-4,313307648	2,50304668	-1,7232230	0,22698976	-15,083048	6,45643300	-15,083048	6,45643300
X2, Электрон тижоратни чакана савдо айланмасидаги улуши, %	213,3699531	11,2086601	19,0361693	0,00274819	165,142980	261,596925	165,142980	261,596925
X3, Аҳолиси сони, млн. Киши	10,26148906	9,10539262	1,12696832	0,37679058	-28,915853	49,4388314	-28,915853	49,4388314
X4, Интернетдан фойдаланувчилар сони, млн. Киши	0,853360839	0,84692383	1,00760044	0,41973541	-2,7906583	4,49737999	-2,7906583	4,49737999

3-жадвал. Регрессион жадвал, муаллифнинг қайта ишлаган маълумоти.

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3-жадвалга асосан регрессия тенгламаси қуйидагича аниқланади:

$$y = -289,8854538 - 4,313307648 \cdot x_1 + 213,3699531 \cdot x_2 + 10,26148906 \cdot x_3 + 0,853360839 \cdot x_4$$

Иқтисодийнинг инновацион ривожланиши шароитида электрон тижорат ривожланишининг асосий йўналишларини тадқиқ этиш жараёнида электрон тижорат тизими ривожланишини баҳолаш босқичлари ва мақсадлари, тижорат корхонасининг электрон тижорат тизими самарадорлигини баҳолаш ва электрон тижоратда инновацияларни бошқариш тизимини такомиллаштириш каби масалалар ўрганилди ҳамда бир қанча илмий-назарий ва амалий хулосаларга келинди:



Савдо тизимида замонавий техник ва ахборот воситаларига асосланган йўналиш сифатида «электрон тижорат» категориясининг ижтимоий ва иқтисодий мазмунига оид муаллифлик таърифи ишлаб чиқилди. Электрон тижорат – бу глобал Интернет тармоғи ва бошқа ахборот алоқаларидан фойдаланган ҳолда, электрон воситалар кўмаги билан амалга ошириладиган товарлар ва хизматларни сотиш ва сотиб олиш жараёнидаги тадбиркорлик фаолиятидир. Битимни амалга ошириш натижасида товарлар ва хизматларга эгалик ҳуқуқи бир шахсдан бошқасига ўтади. Бунда электрон битим реал вақт тартиби асосида амалга оширилади. Электрон тижорат электрон воситалар, электрон тўловлар тизими ва логистика тизимидан фойдаланиш асосида амалга ошириладиган маркетинг тизимлари билан узвий интеграциялашади.

Кўп томонлама алоқалар билан шаклланивчи маълумотларни электрон алмашиш, хавфизликни таъминлаш, электрон тижорат инфратузилмасини ривожлантириш ҳамда электрон каталоглар ва тўловлар тизимини жорий этиш асосида электрон тижоратнинг таркибий элементлари таснифи ишлаб чиқилди. Дунёдаги электрон тижорат бозорини учта асосий, АҚШ, Европа ва Хитой контентларга бўлиб ўрганилди ва электрон тижорат бозорларининг ривожланиш тенденциялари таҳлил қилинди. Таҳлил натижасида, контентлардаги электрон тижорат бозорининг ўзгаришларига таъсир этувчи ўзига хос хусусиятлар аниқланди. Ўзбекистонда мавжуд ҳолатдан келиб чиқиб, электрон тижоратни ривожлантиришга таъсир этувчи омиллар бшйича таклиф ва тавсиялар ишлаб чиқилди.

## ХУЛОСА ВА ТАКЛИФЛАР

Электрон тижоратни шаклланишининг генетик модели консесусидан келиб чиқиб, бизнес жараёнидаги унинг ўзига хос жихатларини ҳисобга олиб, ишлаб чиқариш ва хизмат кўрсатиш жараёни билан электрон тижорат тизимини интеграциялашишини амалга ошириш тизими ишлаб чиқилди. Дунёдаги электрон тижорат ривожланган давлатларнинг чакана товар айланишидаги электрон тижорат улуши ва уларнинг ўзгариш тенденцияси билан Ўзбекистондаги электрон тижоратнинг чакана товар айланишидаги улуши қиёсий таҳлили амалга оширилди.

Кичик тижорат корхоналарида электрон тижорат тизимининг асосий мақсад ва вазифаларини аниқлаш, таҳлил этиш, лойиҳалаштириш, синовдан ўтказиш, жорий этиш ҳамда ривожлантириш босқичларини шакллантириш асосида электрон тижорат тизими шаклланишининг концептуал модели таклиф этилди.



Электрон тижорат тизими шаклланишига сарфланган инвестициялар самарадорлиги, тизимни лойиҳалаштириш самарадорлиги ҳамда иқтисодий самарадорликни ифодаловчи кўрсаткичлар таснифини шакллантириш асосида корхоналарнинг электрон тижорат тизимлари самарадорлигини баҳолаш усули такомиллаштирилди. Электрон тижорат ривожланишига таъсир кўрсатувчи бевосита ва билвосита, бозор конъюктураси билан боғлиқ ҳамда электрон тижоратнинг ривожланишига тўсқинлик қилувчи омиллар таснифи ишлаб чиқилган. Электрон тижоратни турига қараб амалга ошириш мақсадларига асосланган ҳолда, унинг вазифаларини аниқлаш, бизнес турини танлаш, ташкилий масалаларни ҳал этиш ҳамда иқтисодий самарадорликни аниқлашга йўналтирилган электрон тижорат тизимларини қўллашнинг турли жиҳатларини баҳолаш мезонлари ишлаб чиқилди.

Интернет дўконларда аутсорсингни амалга ошириш, фаолиятни аралаш бизнес-моделга ўтказиш, ягона савдо майдончасини яратиш, дастурий таъминот тўпламини ишлаб чиқиш ҳамда виртуал дуконлар базасида ҳамкорликни ривожлантиришга йўналтирилган корхоналарнинг онлайн дўконлар логистикасига хизмат кўрсатиш стратегияси ишлаб чиқилди.

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## XALQARO DASTURLAR ASOSIDA TABIIY FANLAR BO'YICHA TA'LIM YUTUQLARINI BAHOLASHGA YONDOSHUV

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### ANNOTATSIYA

Ushbu maqolada xalqaro dasturlar asosida tabiiy fanlar bo'yicha ta'lim yutuqlarini baholash bo'yicha O'zbekiston ta'lim tizimida oli borilayotgan ishlar va uning natijalari haqida so'z brogan. Chunki bugungi kunda yangilanayotgan O'zbekiston xalqaro tadqiqotlarda ishtirok etishni maqsad qilib olganligi haqida ham aytilgan. xalqaro tadqiqotlar o'lchov materiallarini shakllantirish amaliyoti asosida umumiy ta'lim sifatini baholash metodologiyasining muhim manbai ko'rib chiqiladi

**Kalitso'zlar:** ta'lim sifatini baholash tizimi , ta'lim sifatini baholash metodologiyasi, baholash ishlari, fanda rejalashtirilgan natijalar, asosiy ko'nikmalar va moslashuvchan bilimlar, baholash uskunalari.

### ABSTRACT

This article describes the work carried out in the education system of Uzbekistan and its results on the assessment of educational achievements in natural sciences on the basis of international programs. Because today it is also said that the renewing Uzbekistan is aimed at participating in international studies. an important source of methodology for assessing the quality of general education based on the practice of forming measuring materials of international research is considered to be.

**Keywords:** educational quality assessment system, educational quality assessment methodology, evaluation work, planned results in science, basic skills and flexible knowledge, evaluation equipment.

### KIRISH

Bugungi dunyovi bilimlar va o'qitishga yondoshuvlarning yangi yo'nalishlari ham yangilanayotgan O'zbekiston ta'lim tizimiga kirib kelyapti. Shu sababli standartlashtirilgan testlardan foydalanish, odatda, o'quv yili oxirida o'quvchilarni baholash va yuqori darajadagi ta'lim dasturlari bo'yicha qo'shimcha ta'lim olish uchun nomzodlarni tanlash maqsadida o'tkaziladigan maktab imtihonlari bilan bog'liq.

So'nggi paytlarda bunday testlarning natijalari ta'lim tizimlarining samaradorligini baholash uchun tobora ko'proq foydalanilmoqda, bu esa ta'lim yutuqlarini baholash bo'yicha keng ko'lamli tadqiqotlarni o'tkazishga bo'lgan qiziqishning ortishini aks ettirdi.



Milliy yoki ko'p millatli darajada olib borilayotgan bunday tashabbuslar nafaqat akademik ko'rsatkichlarga oid muammoli jihatlariga, balki o'quv jarayoni samaradorligi uchun hal qiluvchi ahamiyatga ega bo'lgan omillarga, masalan, o'qituvchilarning malakasi, ta'lim muhitining sifati, ota-onalarni qo'llab-quvvatlash va ishtirok etish darajasi, maktab devorlarida sog'lom ijtimoiy-emotsional muhitni ta'minlash[1].

## ADABIYOTLAR TAHLILI VA METODOLOGIYA

Bundan tashqari, zamonaviy sifatni baholash tizimlarining mavjudligini ta'minlaydigan texnologik va infratuzilma echimlari o'zgarishi kerak. Ma'lumotlarni yig'ishning electron shakllari va usullari, ommaviy axborot vositalarida, shu jumladan ijtimoiy tarmoqlarda ta'lim sifatini baholashning ommaviy taqdimoti odatiy holga aylanishi kerak[2].

Maktab ta'limi bilan bog'liq holda, bu yangi tadqiqotlar mustahkamlanishi va /yoki paydo bo'lishi kerakligini anglatadi:

- xalqaro qiyosiy tadqiqotlar metodologiyasini (PISA, PIRLS, TIMSS va boshqalar) hisobga olgan holda kompetentsiya asosida qurilgan ta'lim natijalari sifati va ta'lim tizimlari faoliyati samaradorligini monitoring qilish bo'yicha tadqiqotlar[3].

- ta'lim jarayoni ishtirokchilari va ta'lim xizmatlari iste'molchilarining ta'lim sifati to'g'risidagi fikrlarini ijtimoiy o'rganish o'quv jarayonini amalga oshirish shartlari sifati to'g'risidagi ma'lumotlarni to'plash, saqlash va qayta ishlashning electron tizimlari (uskunalar, sport infratuzilmasi, tibbiy xizmat, zarur malakaga ega kadrlar, kutubxonalar, electron ta'lim infratuzilmasi, ovqatlanish tizimi va boshqalar[4].

PISA (Programme for International Student Assessment)

TIMSS (Trends in International Mathematics and Science Study)

PIRLS (Progress in International Reading Literacy Study)

ICCS (International Civic and Citizenship Study)

TALIS (Teaching and Learning International Survey)

PIAAC (The Programme for the International Assessment of Adult Competencies) [5,6].

Xalqaro tadqiqotlar natijalarini oshirish uchun o'qituvchilarni maqsadli tayyorlash va o'qitish metodikasini, o'quv jarayonidagi ustuvorliklarni o'zgartirish kerak. Buning uchun siz o'qituvchilarni tayyorlashingiz, yanada faol rivojlanayotgan ta'lim tizimini joriy qilishingiz va o'qituvchiga o'quv jarayonida yanada muvaffaqiyatli foydalanishi mumkin bo'lgan materiallarni berishingiz kerak[8,9].

Materiallar to'plamlari mavjud O'zbekistonda PIZA va PIRLS o'rganish imkoniyatlari ochib berilmoqda, keyin siz ushbu vazifalarni bosqichma-bosqich amalga oshirishga harakat qilishingiz va yuzaga keladigan muammolarni bartaraf etish ustida ishlashingiz kerak.

Natijalar 2023-yil oxirida olinadi. Menimcha, bu juda muhim qaror. Mamlakatlar xalqaro tadqiqotlarda ishtirok etishlari kerak, chunki ular ichki emas, balki xalqaro standartlar nuqtai nazaridan tashqi baho berishadi. Bu birinchi. Ikkinchidan: juda yaxshi, ijobiy natijalarga erishish haqida gapirish oson emas.

Rossiya 2000 yildan beri xalqaro tadqiqotlar bilan shug'ullanadi va PISA bo'yicha bizning natijalarimiz o'rtacha xalqaro ko'rsatkichdan past edi. Va faqat 18 yil ichida, ta'limga ko'p mablag ' sarflab, biz natijalarni iqtisodiy hamkorlikni tashkil etish bo'yicha o'rtacha ko'rsatkichga etkazdik. Bu nima bilan izohlanadi? Bizning rus maktabimiz, qaysidir ma'noda, sovet maktabi ko'proq ob'ektiv natijalarga, yosh avlodga yaxshi, chuqur va mustahkam bilimlarni etkazishga qaratilgan edi. Ijodkorlikni rivojlantirishga hojat yo'q edi, barcha talabalar ushbu materiallardan turli xil hayotiy vaziyatlarda foydalanishlarini ta'minlashga vaqt yo'q edi.

Siz ishtirok etayotgan yo'nalish juda muhim va [baholash] juda yuqori natijalarga olib kelishi dargumon. Ammo ularni to'g'ri qabul qilish uchun tadqiqotda ishtirok etgan hamkasblar bizning mamlakatlarimizda sodir bo'layotgan voqealarni yaxshi tahlil qilishlari kerak.

Bu borada Belarus Respublikasida ko'p ishlar olib borilgan, ular o'zlarining ta'lim tizimini o'zgartirmasdan, Rossiya bilan taqqoslanadigan natijalarga erishdilar. Ammo baribir o'rtacha xalqaro ko'rsatkichlardan quyida joylashgan. Buning sababi shundaki, bizda ta'lim tizimining boshqa yo'nalishi bor edi — muhandislik kadrlarini tayyorlash, yaxshi va mustahkam bilimga ega bo'lishni talab etadi. Bu juda muhim edi, lekin biz boshqa tomonni ham ta'minlay olmadik[1,2,3,4,5,6].

O'zbekistonda ta'lim tizimi qanday tashkil etilganligi, boshqa mamlakatlarda qanday o'zgarishlar ro'y berayotgani haqida tushunchaga ega bo'lgan holda, hech bo'lmaganda qanday natijalar bo'lishi va eng muhimi, odamlarni qanday tayyorlash haqida bashorat qilish mumkin.

Shuning uchun mening maslahatim — maqsadga bosqichma-bosqich borish, e'lon qilingan g'oyalar, islohotlarni joriy etish. Boshqa tomondan, jamoatchilikni, professional hamjamiyatni natijalarni batafsil muhokama qilishga, ushbu natijalar bilan nima qilishimizga va mamlakatni qanday tayyorlashga tayyorlang ushbu natijalarni normal ravishda rivojlanish uchun platforma sifatida qabul qilish.



O'zbekiston ushbu tadqiqotlarda birinchi marta ishtirok etayotganligi sababli, hali aniq natijalar yo'q va hech narsa aytish qiyin. Ammo men matematika va fan bo'yicha ular o'quvchilarning savodxonligiga qaraganda yuqori natijalarga erishishini kutaman.

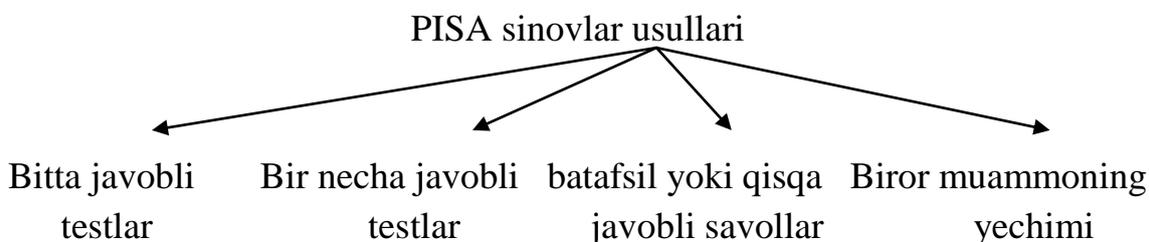
Gap shundaki, pisa vositasi sifatida o'qish juda o'zgargan va biz Rossiya natijalari 2018 yilda biroz yomonlashganini ko'rdik. Shu sababli, nafaqat o'quvchilarning sinovlarini baholashning yangi formati (kompyuter formati) joriy etildi, balki maktab o'quvchilariga mutlaqo boshqa matnlar taklif qilindi: ko'p qirrali matnlar, qarama-qarshilikni aniqlash, manbalarning nuqtai nazarini yoki sifatini aniqlash kerak bo'lgan matnlar. Matematika va tabiatshunoslikda Umid qilamizki, Qozog'iston, Ozarbayjon va Gruziyada bo'lgani kabi, birinchi bosqichlarda ham mamlakatingiz yuqori natijalarga erishadi. Biz ham yurtimiz shunday shunday natijaarga erishishiga umid qilib qolamiz.

Hayotiy hodisalarda ilmiy usulda hal qilinishi mumkin bo'lgan muammolarni aniqlash, kuzatuv va tajribalar asosida xulosalar chiqarish bilimdonligi. Bu xulosalar atrofimizdagi olamni tushinish va inson faoliyati natijasida unda sodir bo'layotgan o'zgarishlarni anglab, tushunib yetish, shunga ko'ra kerakli qarorlar qabul qila olish ko'nikmasini rivojlantirish bu bo'limning asosiy maqsadidir[7].

Bu savodxonlik asosi bizning maktablarimizda kimyo, fizika (astronomiya elementlari bilan birga), biologiya va geografiya fanlari o'qitilish jarayonida yetkazilishi ko'zda tutilgan[10,11,12].

Testlarda asosiy e'tibor o'quvchilarning mazkur yo'nalishlar bo'yicha eng asosiy tushunchalarni bilishi, ko'nikmalarni egallagani, ulardan hayotiy vaziyatlarda foydalana olishiga qaratiladi! Bu testlarda o'quvchilarning dars davomida aniq mavzular bo'yicha o'rgangan bilimlarini sinovdan o'tkazish nazarda tutilmagan! [13,14].

PISA sinovlarida to'rt xil sinov usulidan foydalaniladi:



Bundan tashqari testlar bilan bir vaqtda o'quvchilardan anketalar ham olish nazarda tutilgan.

Kimyo fani ham tabiiy fanlardan biri bo'lib va umum ta'lim

maktablarida o`qitilishini inobatga oladigan bo`lsak, o`quvchilar bilimini baholashda asosan PISA va TIMSS testlaridan foydalanish maqsadga muvoviqdir.

Bizning yurtimizda ochiq osmon tagidagi muziyla bisyor bo`lib bularga Samarqand, Buxora va Xivani misol tariqasida keltirishimiz mumkin. Shu sababli tabiatshunoslikda savol yoki test tuzishda shu yo`nalishda foydalanilsa, bir vaqtning o`zida o`quvchining bir necha fangandan bilimdonligini oshishiga erishilishi mumkin[1,16,17].

Quyida ularning ayrimlari bilan tanishib chiqamiz:

Savol: Oddiy yomg`ir biroz kislotalidir, chunki u havodan kam miqdorda karbonat angidridni yutib oladi. Oddiy yomg`irga nisbatan kislotali yomg`irlarning muhiti tajovuzkordar. Chunki unda turli kimyoviy unsurlarning miqdori ko`proq bo`proq bo`ladi[18].

Xo`sh siz nima deb o`ylaysiz havoga oltingugurt oksidi va azot oksidlari qayerdan keladi?

Savol: Sirka kislotasi eritmasiga solingan marmar tosh bo`lakchasi bilan qanday jarayon kuzatiladi. Buni qanday izohlash mumkin? [19].

Savol: Yuqoridagi tajribani distillangan suda ham qilib ko`riladi, kuzatilgan holat tushuntiriladi.

Bu tajribani o`quvchilar nima uchun o`tkazganini o`qituchi tushuntiradi[20]..

Savol: Quyidagi fikrlar qanchalik darajada sizni qiziqtiradi? Har bir qatorda faqat bitta katakka (+) belgisini qo`ying[21].

	Fikrlar	Juda ham qiziqtiradi	Qiziqtiradi	Unchalik qiziqtirmaydi	Qiziqtir-maydi
a)	Kislotali yomg`irlar hosil bo`lishida inson faoliyatining roli ?				
b)	Kislotali yomg`irlarga sabab bo`ladigan jarayon...				
s)	Kislotali yomg`irlar keltrib chiqaradigan zarar....				

TIMSS (Trends in Mathematics and Science Study)  
Matematika va tabiiy fanlarni o`qtish bo`yicha xalqaro an`analar



deb nomlangan xalqarotadqiqotlari o'quvchilarning o'quv yutuqlari sifatini baholash xalqaro assotsiatsiyasi tomonidan har 4 yilda o'tkaziladi. TIMSS matematika va tabiiy fanlar bo'yicha 4- va 8- sinf o'quvchilari o'quv yutuqlarini baholash orqali ishtirokchi mamlakatlarda bu fanlar bo'yicha yutuqlarni kuzatib borish imkonini beradi. O'quv yutuqlarini baholash uchun o'quvchilar testdan o'tkaziladi hamda o'quvchilar, o'qituvchilar va maktab ma'murlari so'rov varaqalarini to'ldirishadi, shuningdek bu bilan ta'lim natijalariga ta'sir ko'rsatadigan omillar haqida ma'lumot olinadi[22].

Bilimni aniqlashga savolli testlar:

Savol: Nima sababdan oddiy alangani biror qoplama bilan o'chirishni imkoni mavjud?

a) haroratni pasaytiradi; b) olovni pasaytiradi; s) yonib ketadigan moddalarni o'zlashtiradi; g) u kislorodning olovga kirishiga to'sqinlik qiladi.

Savol: Azamat kukundan oz miqdorda probirkaga soldi. Keyin kukun ustiga suyuqlik quydi va aralashtirdi. Kimyoviy reaksiya sodir bo'ldi. Kimyoviy reaksiya natijasida kuzatish mumkin bo'lgan 2 ta kimyoviy jaryonni izohlang.

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## NOMUTAXASSISLIK TA'LIM YO'NALISHI TALABALARINING KIMYOVIY TAFAKKURINI RIVOJLANTIRISH METODIKASI

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### ANNOTATSIYA

Ushbu maqolada nomutaxassislik ta'lim yo'nalishi talabalarining kimyoviy tafakkurini rivojlantirish doirasida ta'lim-tarbiya sifatini oshirish omillari, mavzularning tarbiyaviy vazifalari bo'yicha fikrlar mujassamlashtirilgan va ular yuzasidan tavsiyalar berilgan.

**Kalit so'zlar:** ta'lim, tarbiya, kimyoviy jarayon, ta'lim jarayoni, uslub, usullar, ijodiy tafakkur, mustaqil fikrlash, mas'uliyat.

### ABSTRACT

This article summarizes the ideas about the factors of improving the quality of education, the educational tasks of the subjects in the framework of the development of chemical thinking of students of the profile educational direction and gives recommendations on them.

**Keywords:** education, upbringing, chemical process, educational process, style, methods, creative thinking, independent thinking, responsibility.

### KIRISH

O'zbekiston Respublikasi o'z mustaqilligini qo'lga kiritib, jahonning rivojlangan davlatlari qatoridan o'zining munosib o'rnini egallashi sari dadil qadamlar bilan ilgarilab borar ekan, shubhasiz, shu mustaqillikka va uning porloq istiqbolini ta'minlovchi inson omillarining ahamiyati tobora ortib boraveradi. Shuning uchun ham, mustaqilligimizning ilk damlaridanoq, respublikamiz hukumati tomonidan mutaxassislar tayyorlash, yoshlarga tegishli ta'lim-tarbiya berish masalalariga alohida e'tibor berib kelinmoqda. Jumladan, 2019-yil 8-oktabrdagi №PF-5847-sonli Ozbekiston Respublikasi oliy ta'lim tizimini 2030-yilgacha rivojlantirish konsepsiyasini tasdiqlash to'g'risida Prezident farmoni, 2020-yil 12-avgustdagi PQ-4805-son "Kimyo va biologiya yonalishlarida uzluksiz ta'lim sifatini va ilm-fan natijadorligini oshirish chora-tadbirlari to'g'risida"gi Prezident qarorini qabul qilinishi va ularni hayotga tatbiq etish borasida amalga oshirilayotgan tadbirlar mutaxassislarning kasbiy



bilimlarini egallashdagi tayyorgarligini tubdan yaxshilashni talab etadi [1].

Talabalarning kimyoviy tafakkurining xususiyatlari mintqa sharoitida universitet va turli xil maktablar o'rtasidagi integratsiya aloqalarini kengaytirish, universitet fanini qayta ko'rib chiqish va kengaytirish orqali universitetlarning innovatsion siyosatini rivojlantirishning zarur sharti sifatida ochib berilgan. ilmiy faoliyat doirasi. Talabalarning kimyoviy tafakkurini rivojlantirishda kimyo o'qituvchisining o'rnini ko'rsatilgan.

Mamlakatimizda kimyo o'qituvchisi zimmasiga alohida mas'uliyat yuklanadi, chunki oliygoh, viloyat va natijada O'zbekistonning kelajagi uning sifatli ishlashiga bog'liq. Unga talaba shaxsini shakllantirish ishonib topshirilgan. Bu vazifaga munosib bo'lish uchun o'qituvchining o'zi so'zning oliy ma'nosidagi shaxs bo'lishi, ilmiy-texnik dunyoqarashi keng bo'lishi kerak. Bu maqola juda muhim. Kimyo fani o'qituvchisi birinchi navbatda kelajak insonining dunyoqarashini, ilmiy-texnikaviy dunyoqarashini shakllantiradi. Shuning uchun u o'z vaqtidan oldinroq bo'lishga intilishi kerak. Kimyo o'qituvchisi mintaqada talab qilinadigan kasb, shuning uchun u kimyo fanlari, kimyo muhandisligi va texnologiyalari sohasida professional bo'lishi kerak. Biroq, boshqa kimyogarlardan farqli o'laroq, unga faqat kimyoni bilish va kimyoviy bilim va ko'nikmalarga ega bo'lish etarli emas. O'qitishni sifatli o'tkazish uchun har xil yoshdagi o'z psixologiyasining rivojlanish xususiyatlarini yaxshi bilishi, o'qitishning metod va usullarini yaxshi bilishi, innovatsion texnologiyalarni bilishi, o'quv maqsadlarini tasavvur qilishi hamda ularga erishish yo'llari va vositalarini bilishi kerak. Talabalarni bilim olishga jalb qilish, ularni olg'a harakatlantirishdir. Bu esa pedagog va talabalarni (o'zaro) birgalikdagi mehnatga jalb qiladi [2].

## ADABIYOTLAR TAHLILI

Respublikamizda amalga oshirilayotgan ta'lim islohotlari jamiyatimiz kelajagi uchun mas'ul barkamol shaxslarni voyaga yetkazishni nazarda tutadi. Ushbu muammoni hal etishda kimyo ta'limining ham o'z o'rnini bor. Shuni inobatga olgan holda yangi O'zbekistonni qurish borasidagi uzluksiz say harakatlarning bir qismi sifatida mamlakatimizda kimyo sohasini rivojlantirish, ushbu yo'nalishda ta'lim sifati va ilm-fan natijadorligini oshirish bo'yicha davlat dasturining ustuvor vazifalari ijrosini ta'minlash uchun tegishli yo'l xaritalari ishlab chiqilgan bo'lib, ushbu yo'l xaritalari asosida izchil ishlar amalga oshirilib kelinmoqda. Oliy o'quv yurtlarida kimyo fanini o'qitish yildan-yilga yaxshilanib bormoqda [3]. Zero, yoshlarimizni kimyo fani bo'yicha chuqur o'qitish hududlarda yangidan-yangi ishlab chiqarish korxonalarini barpo etish, yuqori qo'shilgan qiymat yaratadigan farmatsevtika, neft, gaz, kimyo, tog'-kon,



oziq-ovqat sanoati tarmoqlarini jadal rivojlantirishga turtki beradi hamda pirovardida xalqimiz turmush sharoiti va daromadlarini oshirishga puxta zamin hozirlaydi. Ta'lim jarayoni bu - o'quv masalalarining maqsadli ketma-ket almashinuvi va ta'limning barcha elementlari ta'lim oluvchilarning ijtimoiy tajriba mazmunini o'zlashtirish faoliyati natijasida ularning xususiyatlarini shakllantirishga yo'naltirilgan o'zgarishidir .

## TADQIQOT METODOLOGIYASI

Kimyo o'qituvchisi o'quvchilarni kimyo fanining asoslari bo'yicha bilimlar bilan qurollantiradi, tafakkurini, qobiliyatini rivojlantiradi, ilmiy-texnika dunyoqarashini shakllantiradi. Zamonaviy kimyo o'qituvchisining ishi ko'plab yondashuv va usullardan foydalanadi, biz ulardan ba'zilarini qayd etamiz. Tushunchalarni ishlab chiqish g'oyalarida, o'quv jarayonining turli tomonlarini o'zaro bog'lashda, ichki qarama-qarshiliklarni aniqlashda o'zini namoyon qiladigan umumiy dialektik metod, uning yechimi asosida muammoli ta'lim quriladi. Bu usul ham metodika mazmunini takomillashtirishning asosi hisoblanadi.

## TAHLILLAR VA NATIJALAR

O'qitish mazmunini tahlil qilishda keng qo'llaniladigan tizimli-strukturaviy yondashuv tizimning tarkibiy elementlarini ajratib olishga, ular o'rtasida aloqalarni o'rnatishga, ularning funktsiyalarini aniqlashga va o'zaro integratsiyaga yordam beradi. Yangii ta'limda o'rganilayotgan ob'ekt mohiyati hayotiy misollar bilan bog'langan holda izohlanadi, ma'ruzachi organilayotgan obyektning mazmunini misol va xilma -xil ko'rgazmali qurollardan foydalanib to'liq ochib beradi. Izohli-illyustrativ ta'limda ma'ruzachi faktlarni ozi bayon qilib beradi, ularni tahlil qiladi va yangi tushunchalarning mohiyatini tushuntiradi, qoida va qonunlarni ozi ta'riflaydi. Bu ta'lim usuli bugungi kun ta'lim jarayonida an'anaviy qo'llaniladigan usuldir. Bugungi kun globallashuv jarayonida ushbu usullarning natijadorligi, sifatli kadrlar tayyorlash samaradorligiga javob bermayotganligi ayni haqiqat. Ta'lim jarayoni yosh avlodni hayotga tayyorlashning asosiy va eng samarali vositasi. Shu bilan birga, u ishlab chiqarish, texnika, boshqaruv sohasida insoniyat tajribasini oqilona o'zlashtirishda katta ahamiyatga ega. Tegishli yo'nalishda hozirgi zamon talablariga javob beradigan, dunyo mehnat bozorida raqobatbardosh kadrlar tayyorlashda, uchunchi renessans namoyondalarini shakllantirishda qomusiy olim bo'lgan al-Farobiy, ibn Sino, Beruniy kabi dunyo tan olgan allomalarimizning hayotini dasturil amal qilgan holda, yoshlarimizga berilayotgan bilimni fan va tarbiya uyg'unligida



izchil olib borishimiz maqsadga muvofiq. Ta'lim-tarbiya sifatini oshirishning asosiy omili professor-o'qituvchi va ta'lim oluvchining ta'lim jarayonidagi va tadqiqot ishlaridagi o'zaro munosabati, o'zaro aloqasidir. Professor-o'qituvchi faqat axborot uzatuvchi emas, balki tashkilotchi, rahbar, maslahatchi bo'lishi, ilmiy metodlar bilan qurollanib, ta'lim jarayoni qonuniyatlari va mexanizmlarini chuqur anglab, uni boshqarishi lozim. Tabiiy fanlar ham talabalarning aql-idrokini shakllantiradi, tafakkur doirasini kengaytiradi. Shuning uchun ularning tarbiyaviy ahamiyatini inkor etib bo'lmaydi. Kimyo fanini o'qitish jarayonida, talabalarning nafaqat kimyoviy bilimlarini oshirib qolmasdan, balki ularning ongiga, xulqiga, faoliyatiga har tomonlama ta'sir etiladi. Zero ta'lim jarayonida talaba shaxsini bilish, ularning qiziqishlari, faolligi, mehnatsevarligi va tashabbuskorligi orqali kuzatiladi. Shularni nazarda tutgan holda professor-o'qituvchilar darsning tarbiyaviy vazifalarini talaba shaxsini shakllantirish va rivojlantirishga qaratishi lozim. O'quv materialiga bog'liq ravishda tarbiyaviy vazifalarning ushbu turlariga egamiz; ilmiy dunyoqarashni shakllantirish; atrof-muhitga estetik munosabatda bo'lishni shakllantirish; irodalilikni shakllantirish, jismoniy rivojlantirish, sog'liqni saqlash va mustahkamlash, jamoatchilik munosabatlarini, guruhda va jamoada o'zini tutabilishni shakllantirish va boshqalar. Darsning tarbiyaviy vazifasini amalga oshirishda o'quv materiali talabaning ma'naviy rivojlanish vositasi bo'lishiga erishish muhimdir. Dars talabaning dunyodagi ma'naviy boylklarni anglashi va egallashiga yordam berishi lozim. Dars talabada qanchalik kuchli taassurot uyg'otsa uning tarbiyaviy samarasi shunchalik yuqori bo'ladi. Talabalarda shakllanadigan shaxsiy sifatlarning asoslari o'quv faoliyatida talabalar orasida yuzaga keladigan munosabatlar asosida tug'iladi. Shu sababli talabalarda hamjihatlik hissini, dostona o'zaro yordamni shakllantirish bilan bogliq bolgan tarbiyaviy vazifa turi muhimdir. Bir-biri bilan hamkorlikda olamni bilishga talabalarni orgatish, bu ishni har bir darsning mazmuniga aylantirish hozirgi zamon ta'limining maqsadlaridan biridir. Darsda talabalarning birgalikda ishlashlariga alohida sharoit yaratishga ahamiyat qaratish kerak. Kimyoviy reaksiyalarni amalga oshirishda, mustaqil ta'limlarni bajarishda talabalar uchun oz tengdoshlari bilan hamkorlikda ishlashlariga e'tibor qaratish, ularda mehnat madaniyati, xususan o'zaro hurmat va birdamlik ruhini shakllantirish muhim masaladir. Yangi pedagogik texnologiyalardan foydalanish dars samaradorligini oshirishda ijobiy natijalar beradi [4].

## XULOSALAR

Talaba yoshlarni ma'naviy shakllantirishga erishishga alohida e'tibor berish samarali natijalarga olib keladi, bu borada:



har bir mashgulotda oquv fani xarakteridan kelib chiqqan holda ta'limiy-tarbiyaviy rivojlantiruvchanlik xususiyatlarini kompleks hal etishga erishish, ta'lim-tarbiya birligini taminlash orqali o'quvchilarning yosh va shaxsiy xususiyatlarini hisobga olish; ta'lim-tarbiya mazmuni shakl, usul va vositalariga milliy ma'naviy ruh berish va bu o'rinda har bir fanda o'rganiladigan mavzuning imkoniyatlaridan samarali foydalanish; ta'lim va tarbiyaning noan'anaviy shakl, usul va vositalarini o'z ornida amaliyotga joriy etish; fanlararo, mavzulararo, yaniy kimyoning barcha fanlar bilan aloqasidan tashqari, o'z nomiga ega bo'lgan fanlarning tarmoqlari ham mavjud bo'lib, ular kimyoning boshqa sohalar bilan bog'lanishidir [5]. Kimyo fanining mohiyat, uningboshqa fanlar bilan bog'liqligi [6].

Ta'lim va tarbiya barcha tarixiy davrlarda butun insoniyat taraqqiyotiga xos muhim muammo bolgan. Uning umuminsoniy jihatlari bilan birga oziga xos milliy tomonlari ham bordir. Ta'lim hamda tarbiya ishlari borasidagi hozirgi dolzarb vazifalar mazmuni jihatidan nihoyatda kengdir. Bu boradagi barcha muammolarni bir maqola doirasida batafsil yoritib berishning imkoni yo'q albatta. Yuqoridagi qayd etib o'tilgan fikrlarni inobatga oladigan bo'sak: kimyo fanidan ijodiy tafakkurni hamda ma'naviy dunyoqarashni shakllantrish jarayonida shunday usulni tanlash lozimki, u mavjud bo'lgan barcha ilmiy-uslubiy yondoshuvlarning hamma afzallik tomonlarini ozida mujassamlashtirib, ta'lim va tarbiya maqsadiga yuqori darajada javob bersin.

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## ЗАМОНАВИЙ МЕТОДЛАР ЁРДАМИДА ТАБИАТ ХИЛМА-ХИЛГИНИ ЎЗГАРИШИНИ ТАДҚИҚ ЭТИШ ВА УЛАРНИ КАРТАЛАШТИРИШ

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### АННОТАЦИЯ

Мақолада замонавий методлар ёрдамида табиат хилма-хилгини ўзгаришини тадқиқ этиш ва уларни карталаштириш усуллари таҳлил қилинган. Географик ахборот тизимлари ёрдамида табиий хилма-хилликни баҳолаш, уни мониторингини амалга ошириш, муҳофаза қилиш ва тиклаш жараёнлари тезкор амалга оширишга имкониятлари асослаб берилган.

**Калит сўзлар:** табиат хилма-хиллиги, МЭТХ, биологик хилма-хиллик, ландшафт хилма-хиллиги, биота, таксономик, генетик, экотизим.

### ABSTRACT

The article analyzes ways to study changes in natural diversity and map them using modern methods. With the help of geoinformation systems, the possibilities for the rapid implementation of the processes of assessment, monitoring, protection and restoration of natural diversity are substantiated.

**Keywords:** natural diversity, protected areas, biological diversity, landscape diversity, biota, taxonomic, genetic, ecosystem.

### КИРИШ

Ҳалқаро миқёсидаги тажрибаларда табиатидаги экологик мувозанатни сақлаб туришнинг энг самарали механизмлардан бири сифатида–минтақанинг табиат (ландшафт, биологик, геологик ва бошқ.) хилма-хиллигини қамраб оладиган муҳофаза этиладиган табиий ҳудуд(МЭТХ)ларнинг тизимини барпо этиш белгиланган. Табиий хилма-хилликни сақлаб қолиш учун унинг ҳозирги ҳолатини ва динамикасини ҳамда ундан фойдаланиш жараёнини тавсифловчи маълумотларни инвентаризация қилиш, тузиш ва баҳолаш талаб этилади. Ушбу мақсадлар учун энг истикболли ёндашувлардан бири – географик ахборот тизимларидан (ГАТ) фойдаланиш ҳисобланади.

Географик ахборот тизимлари ёрдамида табиий хилма-хилликни баҳолаш, уни мониторингини амалга ошириш, муҳофаза қилиш ва тиклаш жараёнлари тезкор амалга оширишга имкон беради. Ҳозирги вақтда юзага келаётган экологик муаммолар



нуқтаи назаридан, географик ахборот тизимларидан фойдаланиш ва табиий хилма-хилликни баҳолаш атроф-муҳитни муҳофаза қилиш йўлидаги зарур шартлардир. Шу боис, табиатдаги ҳар бир муҳофаза объекти табиатни сақлаш ва тиклаш учун ташкил этилаётган ёки мавжуд муҳофаза этилаётган табиий ҳудуд(МЭТХ)ларни «макондаги ва замондаги ўзига хослик» мезонларига мос келиши керак [2, 4, 5].

## АДАБИЁТЛАР ТАҲЛИЛИ ВА МЕТОДОЛОГИЯСИ

Геоахборот тизимлари XX асрнинг 60-йилларидан бошлаб ривожлана бошлаган, лекин бу тизимнинг кенг ривожланиши 90-йилларга тўғри келади. ГИС технологияларидан фойдаланиш, шунингдек, табиат хилма-хиллигини макон ва замонда “реал” баҳолашга имконини беради. Табиат хилма-хиллигини баҳолаш ишлари Ж.А.Г.Жочен, (2000), Ж.Изсак (2000), Й.Г.Пузаченко (2002), М.Хокинс, С.Столтон, Н.Дадли (2004), В.Г.Кревер, М.С.Стишов, И.А.Онуфреня (2009), А.А.Блакберн (2009), М.С.Стишов (2012), П.Й.Санников (2014), С.М.Токарчук (2014) Ш.М.Шарипов (2022) каби тадқиқотчилар томонидан амалга оширилган.

Табиат хилма-хиллигини сақлаб қолиш ва экологик мувозанатни қўллаб қуватлаш мавжуд МЭТХлар тизимининг асосий вазифалари ҳисобланади. Шунинг учун, табиат хилма-хиллигини аниқлаш, уларни аҳамияти ва самарадорлигини баҳолаш ҳамда ягона мезон асосида гуруҳлаштириш долзарб масалалардан бири ҳисобланади.

Оддий қилиб айтганда, ГИСга табиат ва жамият объектлари ва ҳодисалари ҳақидаги топографик, геодезик, ер, сув ресурслари ва бошқа картографик ахборотни йиғиш, уларга ишлов бериш, ЭҲМ хотирасида сақлаш, янгилаш, таҳлил қилиш, яна қайта ишлашни таъминловчи автоматлаштирилган аппаратлашган дастурли комплекс, деб таъриф берса бўлади. Барча ГИСларда маълумотларни йиғиш, қайта ишлаш, хотирада сақлаш, янгилаш, таҳлил қилиш ва маълумотларни компьютерда ёки етарли даражада тасвир хусусиятини қайта ишлай оладиган махсус дастурда техник воситалар орқали ушбу жараёнларни бажариш усуллари эътиборга олинган. Демак, ГИС — турли усуллар билан тўпланган табиий тармоқлар ҳақидаги кенг мазмунли маълумотлар базасига таянган мукамал ривожланган тизим ҳисобланади.

## НАТИЖАЛАР ВА МУХОКАМА.

Ҳозирги пайтда фойдаланиш соҳаларининг кенглиги жихатидан ГИСнинг тенги йўқ — у табиатни муҳофаза



қилиш, навигация, транспорт, қурилиш, геология, ҳарбий ишлар, иқтисодиёт ва бошқа соҳаларда кенг қўлланилмоқда. Географик ахборот тизимлари ер тузишда, турли тизим кадастрларида, картографияда ва геодезияда кенг қўлланилмоқда, чунки катта ҳажмдаги статистик, фазовий, матнли, графикли ва бошқа кўринишдаги маълумотларни қайта ишлаш ва уларни тасвирлашни ГИС тизимсиз мумкин эмас. Табиат хилма-хиллигини ГИС-технологияси асосида баҳолашни қуйдаги босқичларга ажратиш мумкин:

1. Тайёргарлик ишлари. Электрон тахеометрлар ва GPS асбобларидан, тасвирларни қайта ишлаш воситаларидан, изланишлар рақамли маълумотларидан, авторлик оригиналлардан, мавжуд фонд карталари ва бошқалардан дастлабки маълумотларни тўплаш. Картографик ва фонд материалларини, растрли тасвирларни бир хил масштабга келтириш, сўнгра уларни компьютер хотирасига жойлаш.

2. Яратилаётган картанинг мавзули қатламларини, уларга тегишли жадвалларни ишлаб чиқиш ва уларни таҳлил қилиш. Маълумотлар базасини яратиш. Объектлар таснифи мавжуд жадваллар (атрибутлар) ва матн маълумотларни ЭҲМ хотирасига киритиш. Шартли белгилар тизимини ишлаб чиқиш.

3. Картанинг мавзули қатламларини мувофиқлаш, картографик тасвирни ҳосил қилиш ва уларни таҳрир қилиш. Картанинг компоновкасини ишлаб чиқиш ва уни нашрга тайёрлаш. Картани нашр қилиш.

Тадқиқот олиб борилаётган объект ёки ҳудудларнинг маълумотлар базасини яратиш, уларга оид маълумотларни тўплаш, уларни бошқариш, янгилаб бориш ва тарқатиш жараёнлари асосан Microsoft SQL Server дастури орқали амалга оширилди. Мазкур маълумотлар базасини яратиш қуйдаги этапларни ташкил қилади:

- табиий объект ва ҳудудларнинг географик ўрнини билдирадиган геофазовий маълумотлар координаталарини киритиш (координата ва бошқалар);

- табиий объект ва ҳудудларнинг хусусиятларини билдирадиган сонли ва сифатли кўрсаткичларни киритиш (атрибут маълумотлар);

- ушбу юқоридаги икки хил маълумотлар (геофазовий ва атрибутлар) орасидаги ўзаро муносабатларни ўрнатиш;

- табиий объект ва ҳудудларнинг координаталари билан ифодаловчи картографик маълумотлар компьютер хотирасига киритилиб, кейин улар қайта ишланади.

Табиий объект ва худудларнинг маълумотлар базасини яратишда кўплаб дастур турларидан фойдаланилади. Ушбу дастурларда ўзгаришларни аниқлаш ва уларни ўзаро таққослаш қулай бўлганлиги сабабли мазкур экотуризм маълумотлар базаси асосан Microsoft Access ва Microsoft SQL Server дастурларидан кенг фойдаланилди. Маълумотлар базасини яратишда давлат статистика қўмитаси маълумотлари, stat.uz интернет маълумотларни ҳамда Фарғона вилояти ер ресурслари қўмитаси маълумотларидан кенг фойдаланилди. Мазкур маълумотларни тизмлашда жадваллар усулига алоҳида аҳамият қаратилди. Жадваллар олдиндан ишлаб чиқилган ва улар бир-бири билан боғлиқ тузилмага хос шакллантирилди. Бу дастурларни ишлаб чиқаришда асосан Visual Basic тилидан фойдаланиб, Microsoft SQL маълумотлар базаси яратилди.

Microsoft SQL Server архитектурасида серверли қисм кўзда тутилган бўлиб, маълумотларни чиқариб ташлаш, чеклаш, мижозлар томонидан маълумотлардан фойдаланиш, шунингдек, хавфсизликни таъминлаш имконини беради. Масалан, Microsoft SQL Server сўровларни мижоз компютерларидан олади, уларни сервер компютерда бажаради, кейин фақат сўралган маълумотларни қайтаради. Шундай қилиб, 10 мингта ёзувларни ўз ичига оладиган жадваллардан битта ёзувни чиқариб ташлаш учун серверга команда узатилади, серверли дастурий таъминот ушбу командани бажаради ва мижозга фақат қидириладиган ёзув қайтарилади.

Янги технологиялар асосида карта ва улардаги маълумотлардан самаралироқ фойдаланиб, анъанавий қоғозли планлар, карта ва атласларга электрон ва Веб-картографик асарлар қўшимча тарзда қўшилиб туристик соҳага мавзули картографик маҳсулотларни кенгайтириш имконини бермоқда.

Компютер технологиялари тараққиётининг замонавий даражаси график муҳаррирлар, геоахборот тизимлари ва мултимедия технологиялари ёрдамида туристик картографик асарлардан фойдаланиш, ўзгартириш ва тезкор хулоса чиқариш имконини бермоқда. Тадқиқот давомида тахлилий ишлар нтижаси шуни кўрсатдики, кўпгина тадқиқотчилар томонидан яратилган маълумотлар базаси асосан ГАТ дастурлари учун мўлжалланганлиги аниқланди. Мазкур яратилган экотуризм маълумотлар базасидан эса турли график ҳамда ГАТ дастурларида карталарни тузишда фойдаланилади.

Табиат хилма-хиллигини акс эттирувчи карта ва аталасларини яратишда иллюстратив график тахриловчи дастурлар туристик мавзули картографик асарларни сифатли даражада яратилиши анъанавий картага олиш принциплари ва компютер

гарфикаси дизайни турли воситалари имкониятларига асосланади. Ҳозирда дастур таъминоти бозорида иллюстратив графика пакетининг икки гуруҳи тақдим этилган:

- вектор графикаси дастурлари (Corel DRAW, Adobe Illustrator, Macromedia FreeHand);

- ахборот билан ишлайдиган растр графикаси муҳаррирлар (Corel DRAW, Adobe Illustrator, Macromedia FreeHand).

Ўтказилган тадқиқотлар натижасида, вектор графика дастурлари картографик тасвирлар билан шифр босқичидан тортиб, электрон ёки қоғоз вариантдаги тайёр шакли билан ишлаш имконини беради. График муҳаррирларнинг иккинчи гуруҳи манзарали ландшафт фотореал тасвирлари, биологик хилма-хиллик фоксини акс эттирувчи тасвирлар, экотуризм ва экскурсия, туристик инфратузилма объектлари ҳақидаги маълумотларни қайта ишлаш ва акс эттиришда тавсия этилади.

Табиатни муҳофаза қилишга доир картографик асарлар яратишда функционал имкониятлари бўйича фарқланадиган вектор графикасининг турли дастурларини қўллаш мумкин, Масалан, FreeHand вектор муҳаррири-юқори сифатли иллюстратив графика иши учун универсал график муҳаррирдир. Картографик ишлаб чиқаришда дастур картографик асарларни жиҳозлаш учун қўлланилади. Пакетнинг ўзига хос хусусияти шундаки, у кўп варақли дизайн ва жуда катта ҳажмли иллюстрациялар билан ишлай олади, йирик форматли картографик асарларни яратиш ва жиҳозлашда муҳим аҳамият касб этади.

Macromedia FreeHand пакетида карталарни жиҳозлашда қуйидагилар кўп қўлланилади: турли вектор ва растр форматларда файллар импорти ва экспорти; объектлар билан мантиқий муносабатлар (объектлар кесишган вилоятларни бўлиш, бир объектдан бошқасини қирқиб олиш, объектларни бўлаклаш ва бошқа.); график элементар фигураларни ўчириш (нуқта, чизик, полигон) ва шартли белгилар яратиш учун уларни гуруҳлаштириш; чизикли объектлар билан, шу жумладан, фигурали чизиклар яратиш билан боғлиқ вазифалар; картограф томонидан аниқланадиган стандарт палитра ёки ранглар мажмуасидан фойдаланиб ранг билан жиҳозлаш; тасвирнинг алоҳида қатламлари билан ишлаш, ўзаро гуруҳ объектларини алмаштириш; катта форматли картографик асарни нашр қилиши учун бир нечта стандарт варақларга ажратиш лозим. Бунда маълумотлар ўз навбатида қатламларда ифодаланади.

Юқорида санаб ўтилган имконият ва камчиликларни ҳисобга олган ҳолда, ушбу дастур маҳсулоти нашр

оригиналини жиҳозлаш босқичида картографик компютер графикаси масаласини сифатли ва самарали ҳал қилишда, иллюстрация билан нашргача ишлаш ва полиграфик нашрга карталарни тайёрлашда фойдаланиш тавсия этилади. ГАТнинг асосий вазифаси алоҳида аппарат-дастур мажмуаси сифатида координатсион маълумотларни тўплаш, қайта ишлаш, акс эттириш ва тарқатишни, электрон карталар, атласлар ва бошқа картографик асарларни яратиш ва фойдаланишни таъминлайди. Табиат хилма-хиллигини баҳолаш мақсадлари учун тизимли картага олишда ГАТ-технологияларни қўллаш қуйидагиларни таъминлайди:

- рақамли карталар ва маълумотлар базаси асосида мавзули картага олишни ривожлантириш, натижада карта тузиш ишларини автоматлаштиришнинг юқори даражасига эришиш;

- минтақадаги биологик ва ландшафт хилма-хиллигини, табиий ресурсларни ҳамда объектларни картографик таъминлашда замонавий ҳолатни акс эттириш ва таҳлил қилишга тизимли ёндошиш;

- мавзули картографик асарларни яратиш ва фойдаланиш жараёнини бирлаштириш имконини берадиган картографик маълумотларни интерфаоллиги ва интерактивлиги;

- картографик, матнли, иллюстратив, товушли ахборот турларини бирга олиб бориш, 3D моделларни яратиш имконияти.

Табиат хилма-хиллигини картографик тадқиқ қилишда қўлланиладиган ГАТ дастурларидан яна бири MapInfo дастуридир. MapInfo турли мавзули карталарни яратиш, бошқариш ва таҳлил қилишда қўлланилади, уларда оддий ПК фойдаланувчиси нуқтаи назаридан маълумотлар базасида мавжуд материалларни баҳолаш, таҳлил қилиш ва қайта ишлаш натижалари қайд этилади. Унинг имкониятлари жуда кенг, ўзининг асосида нафақат картографик асарлар, балки MapBasic махсус дастур тили туфайли мазмунан йўналтирилган геоахборот тизимларни яратиш имконини беради. Унинг ёрдамида Visual Basic S++ муҳитида яратилган модулларни дастурга улаш, интерфейсни қўшиш, маълумот тизимини ишлаб чиқиш, бошқа дастурлар билан муносабат ўрнатиш, яъни яқуний фойдаланувчи геоахборот тизимини тўлиқ яратиш имкони мавжуд. Ушбу дастур маҳсулотларида электрон карталар билан ишлашда қуйидаги имкониятлар юзага келади (1.1-расм).



1-расм. Маълумотлар базаси асосида электрон карталар билан ишлаш

Табиатни муҳофаза қилиш мақсадлари учун геоахборот тизими фаолиятининг зарурий шarti ахборотли маълумотлар базасининг мавжудлигидир. Маълумотлар ахборот базасининг тўлиқлиги даражаси ГАТда яратилган у ёки бу лойихадан фойдаланишга катта таъсир кўрсатади. Табиатни муҳофаза қилиш мақсадлари учун минтақавий тизимли картага олишда маълумотлар базаси қуйидаги ахборотга эга бўлиши лозим:

–табiiй объект ва ҳудудларни истиқболдаги картага олиш ишларини бажаришда карта мазмун моҳиятини ташкил қиладиган вектор ёки растр шаклдаги картография ресурслари ва картографик асарлар, муайян ҳудуд ёки унинг қисмларининг рақамли топографик ва туристик карталари, йирик ва ўрта масштабдаги аҳоли яшаш пунктлари ва ҳудудлар планлари;

-картада ёки планда муайян объектга боғланган ҳудудий маълумотлар ва атрибутив маълумотлар базасини ташкил этадиган семантик ахборотга биологик ва ландшафт хилма-хиллиги (БЛХ) объектлари ҳақидаги жадвалли маълумотлар, объект учун зарурий маълумотларга эса унинг тури, шакли, номи, манзили киради. Объект гуруҳларига кўра кўшимча маълумот уларнинг ҳар бири учун хос бўлган шаклга эга бўлиши керак. Масалан, ландшафт хилма-хиллиги учун кўшимча маълумотга ландшафт хиллари, тури, мураккаблик категорияси ёки даражаси, географик объектларни ҳолати киради;



–\*bpm, \*jpeg gastr форматларда БЛХ объектларининг график тасвири, табиий ландшафтлари, намуналари ва бошқалар;

-объектларнинг график тасвирига ҳавола қилинган БЛХ объектлари, уларнинг таърифи берилган матн фрагментлари.

## ХУЛОСА

ГАТда яратилган электрон карталар билан ишлашда муайян кўникмалар талаб қилинади. Мултимедияли технологиялар барча ахборотни ўзида жамлайдиган картографик асарлар оммабоплигини мултимедияли технологиялар таъминлайди. Табиатни муҳофаза қилиш мақсадлари учун картографик ахборот-маълумот тизими фойдаланувчиси улар билан энг қулай услубда- тасаввур бўйича танишиш имконига эга бўлган ҳолда гипералоқалар ёрдамида турли маълумотларни ташкил этишнинг имкони мавжуд (вектор, растр, атрибутив маълумотлар базаси, матнли, аудио, видео, аниматсия).

Табиатни муҳофаза қилиш мақсадлари учун картографик ахборот-маълумот тизимига геоахборот тизимида ишлаб чиқилган ва боғланган элементлар, фойдаланувчининг дастур қобиғини ўз ичига олади. У бошқа дастурий воситаларсиз тизимни бошқариш, яъни туристик йўналишли картографик маълумотни акс эттириш ва ГАТда оммалашган масштаб танлаш воситалари, мазмун қатлам билан ишлаш, масофани ўлчаш, карталарда объектлар ва улар ҳақида маълумотни излаш, қўшимча фойдаланувчи учун зарур объектларни киритиш ёрдамида у билан ишлаш имконини беради.

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## ЃЎЗА НАВЛАРИДА ТОЛА УЗУНЛИГИ ВА ТОЛА ЧИЌИМИ БЎЙИЧА БИРЛАМЧИ МАЃЛУМОТЛАР ВА УЛАРНИНГ СТАТИТИК КЎРСАТКИЧЛАРИ

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### АННОТАЦИЯ

Мазкур мақолада ғўза навларининг тола узунлиги ва тола чиқими бўйича бирламчи маълумотлар ва уларнинг статистик кўрсаткичлари таҳлил қилинган. Тажриба объекти сифатида ғўзанинг *G. hirsutum* L. турига мансуб: Ан-Боёвут, Бухоро-102, Гулистон, Султон, С-6524 ва Юксалиш навлари танланган. Ѓўза навларининг селекцион қийматини аниқлашда статистиканинг корреляцион, вариацион ва факторли таҳлил усулларида фойдаланилган.

**Калит сўзлар:** *G. hirsutum* L., тола узунлиги, тола чиқими, миқдор ва сифат белги, ғўза.

### ABSTRACT

This article analyzes primary data on fiber length and fiber yield of cotton varieties and their statistical indicators. "An-Boyovut", "Bukhara-102", "Guliston", "Sultan", "S-6524", "Yuksalish" varieties of cotton belonging to the *G. hirsutum* L. type were selected as the object of the experiment. Statistical methods of correlational, variational and factorial analysis were used to determine the selection value of cotton varieties.

**Keywords:** *G. hirsutum* L., fiber length, fiber yield, quantitative and qualitative parameters, cotton.

## КИРИШ

Дунё аҳолиси сонининг ортиши билан озиқ–овқат маҳсулотларига бўлган эҳтиёж ошиб бормоқда, бу эса ўз навбатида қишлоқ хўжалигининг сув ресурсларига бўлган талабининг ортишига олиб келмоқда. ФАО нинг маълумотларига кўра, 2050 йилга бориб ер юзида аҳоли сони 6 миллиардан 8 миллиардгача кўпайиши ҳамда қурғоқчилик ва шўрхоқлик дунёнинг кўплаб минтақаларидаги 50% дан ортиқ ернинг сифатини кескин ёмонлашувига олиб келиши кутилмоқда. Ўзбекистон Республикасининг пахтачилик соҳасида янада юқори натижаларга эришиши кўп томондан маҳсулотининг миқдори ва сифат кўрсаткичлари ва сув танқислигига чидамлиги экилаётган навларниқидан устун бўлган янги навлар яратилиши ва жорий этилишига боғлиқдир.

Пахта етиштиришдан асосий мақсад юқори сифатли тола олиш яъни ғўза навлари юқори тола чиқимга эга бўлиши муҳим аҳамият касб этади.

Тола узунлиги ва унинг миқдори ғўза навларининг муҳим кўрсаткичларидан ҳисобланади. Тола узунлиги унинг сифатини белгилаб бериб, ғўза толаси биринчи – бешинчи типларга бўлинади. Халқаро классификатор (ВИР,1990) бўйича ғўза толасининг узунлиги 26 мм дан калта бўлса жуда калта, 26-30 мм калта, 31-35 -ўрта, 26-40 мм узун ва 40 мм юқори бўлса жуда узун тола деб эътироф этилган. Маълумки, ўрта толали *Gossypium hirsutum* L. турига қарашли ғўза навларидан 4 ва 5 типга мансуб бўлган тола олинади.

## АДАБИЁТЛАР ТАҲЛИЛИ ВА МЕТОДОЛОГИЯ

Мамлакатимизда ғўза ўсимлигидан 200 дан ортиқ маҳсулот олинади ва саноатнинг турли соҳаларида ишлатилади. Ғўза ўсимлигининг асосий маҳсулоти бўлган толадан инсонлар учун кундалик зарурият ҳисобланган, экологик соф, табиий маҳсулотлар–кийим кечак тайёрланади [1,2].

Пахта толасини узунлиги ғўзанинг қимматли белгилардан бўлиб, тўқимачилик саноати учун сифат кўрсаткичи бўлиб хизмат қилади. Чатиштириш учун олинган шакллардан она шакли муҳим аҳамиятга эга эканлиги қайд этилган [3].

Ўзбекистон пахта толасини сертификатлаш маркази “Сифат” ташкилотининг маълумотларига қараганда охириги йиллари толанинг бир хиллиги (текислиги) 0,26 фоизга, оқлиги 0,32 фоизга ошган [4].

Тола чиқими мураккаб белги бўлиб, бир нечта таркибий элементлардан ташкил топган ва улар билан узвий боғлиқ. Хусусан, тола чиқими – чигитнинг йириклиги ҳамда



оғирлиги билан бир қаторда, ундаги толалар сони ва оғирлигига, яъни тола индексига боғлиқ. Тола индекси эса ўз навбатида чигитнинг юзасида жойлашган толалар сони ва унинг оғирлиги билан ифодаланган [5].

Юқоридаги маълумотлардан келиб чиққан ҳолда ўз тажрибаларимизни Сирдарё вилояти ҳудудида кенг майдонларга экиб келинаётган ғўзанинг *G. hirsutum L.* турига мансуб ўрта толали 6 та; Ан-Боёвут, Бухоро-102, Гулистон, Султон, С-6524, Юксалиш навларида олиб бордик.

Дала тажрибаларида фенологик кузатувлар ва ҳисоблаш ишларини олиб боришда Ўзбекистон пахтачилик институти томонидан ишлаб чиқилган методик қўлланмадан фойдаланилди [6].

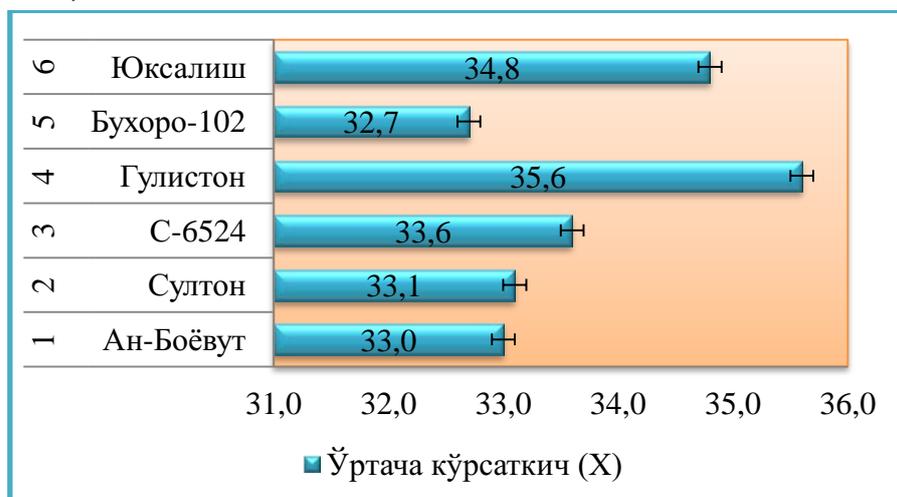
Лаборатория шароитида ғўза навларидан терилган намуналар таҳлил қилинди. Унда тола узунлиги, тола чикими ва бошқа кўрсаткичлар аниқланди. Ғўзанинг белгилари микдорий кўрсаткичлари статистик таҳлил ишлари SPSS-17 махсус дастури ёрдамида амалга оширилди [7,8].

Дала тажрибаси ПСУЕАИТИ Сирдарё илмий тажриба станциясига қарашли тажриба ишлаб чиқариш базасида ўтказилди.

## НАТИЖАЛАР

Тажриба даласидан териб келинган намуналардан тола узунлиги ва тола чикими аниқланди.

Тола узунлиги бўйича олинган натижалар 1-диограммада келтирилган. Дιοграммадаги маълумотлардан Гулистон навида тола узунлиги ўртача 35,6 мм га тенг бўлган бўлса, Бухоро-102 навида ушбу кўрсаткич 32,7 мм, С-6524 навида 33,6, Султон навида 33,1 мм Ан-Боёвут-2 навида 33,0 мм ва Юксалиш навида 34,8 мм ни ташкил этди.



1-диограмма. Ғўза навлари бўйича тола узунлиги (мм).

Ушбу маълумотлардан ўрганилган ғўза навлари тола узунлиги бўйича ўрта толали ғўза навларига хос бўлган яъни 4 ва 5 типга мансуб эканлигини кўриш мумкин.

Юқоридаги маълумотлардан, ғўзанинг Гулистон нави ўрганилган навларнинг ўртача кўрсаткич бўйича 1,8 мм толаси узун эканлиги қайд этилди. Айнан шундай натижа Юксалиш навида қайд этилиб устунлик 1 мм ни ташкил этди. Ан-Боёвут – навининг толаси бошқа навларга нисбатан калта бўлиб ўртача кўрсаткичдан 0,8 мм калта эканлиги қайд этилди.

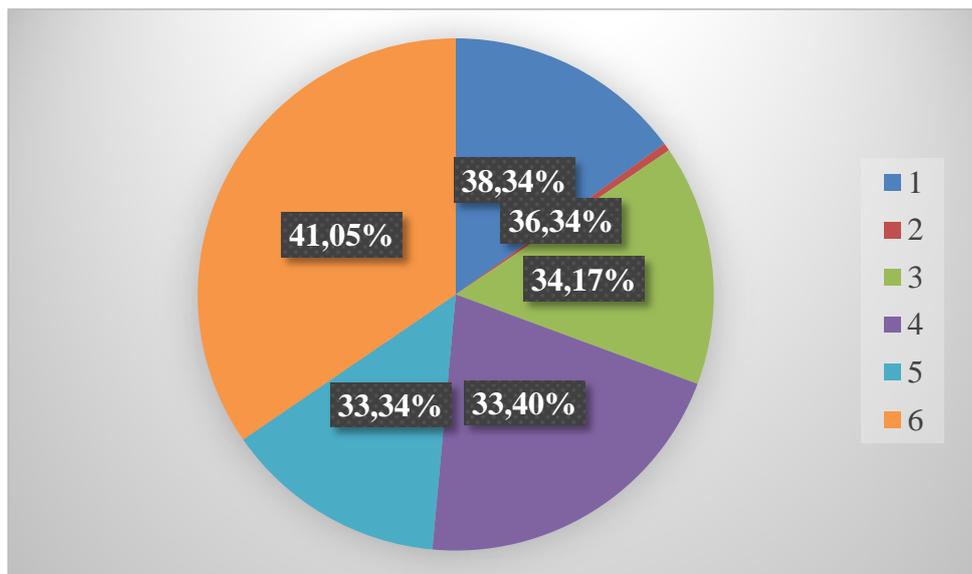
Тола чиқими унинг миқдорини аниқлаб берувчи муҳим кўрсаткичлардан ҳисобланади. Тола чиқимини ошириш ҳозирги кунда ғўза селекцияси ва генетикасининг ўта муҳим вазифалардан ҳисобланди. Халқаро классификаторга асосан тола чиқими 32 % дан кам бўлса жуда паст, 32-34 % тенг бўлса паст, 35-37 % тенг бўлса ўрта, 38-40% тенг бўлса юқори ва 40% дан катта бўлса ўта юқори деб қабул қилинган. Ушбу маълумотларга асосланиб ғўзанинг Гулистон (38,34%) юқори ва Юксалиш (41,05%) нави эса жуда юқори тола чиқимига эга бўлган навлардан деб ҳисоблаш мумкин. Бухолро -102 нави тола чиқими бўйича ўрта ва С-6524, Ан-Боёвут-2 ва Султон навларининг кўрсаткичлари эса паст эканлиги қайд этилди (1-жадвал).

1-жадвал.

Ғўза навларида тола чиқими (%).

Статистик кўрсаткичлар	Ғўза навлари					
	Гулистон	Бухоро-102	С-6524	Султон	Ан-Боёвут-2	Юксалиш
Ўртача	38,34±0,13	36,34±0,83	34,17±0,12	33,40±0,07	34,34±0,21	41,05±0,20
Минимум	35,90	35,50	33,00	32,20	31,20	38,60
Максимум	39,90	37,50	35,60	35,20	36,60	42,50

Тола чиқими бўйича ўрганилган ғўза навларининг ўртача кўрсаткичларини таккослаш натижалари 2-диограммада келтирилган.



2-Диограмма. Ғўза навларининг тола чиқими бўйича ўртача кўрсаткичдан фарқи.

Изоҳ: 1-Гулистон; 2-Бухоро-102; 3- С-6524; 4-Султон;

5- Ан-Боёвут2; 6- Юксалиш.

Диограммадаги маълумотлардан ғўзанинг Юксалиш нави навлар ўртасида энг юқори кўрсаткич қайд этди. Ушбу нав бошқа навларнинг ўртача кўрсаткичларига нисбатан 4,7 % га кўп тола берганлиги қайд этилиб бу 35 % устунлик қилганлигини англатади. Гулистон нави навлар ўртасидаги ўртача кўрсаткичга нисбатан 2,07 % кўп тола бериб бу 15 % га устунлик қилганлигини кўрсатмоқда. Султон нави ўрта кўрсаткичга нисбатан 2,87% га кам тола берганлиги қайд этилди.

## ХУЛОСА

Тола узунлиги навлар кесимида 33,0-35,6 мм тенг бўлди. Бунда Гулистон навида – 35,6 мм ва Юксалиш – 34,8 мм тенг бўлди. Тола чиқими навлар кесимида 33,40 % дан 41,05 % ни ташкил этди. Юксалиш навида 41,05 % ва Гулистон навида 38,34 % ни ташкил этди.

Юқоридаги маълумотларга асосланган ҳолда шунини таъкидлаш жоизки тола узунлиги ва тола чиқими бўйича ўрганилган ғўза навларида Гулистон ва Юксалиш навлари ижобий натижани қайд этишди. Мазкур навлардан сифатли тола етиштириш мумкин. Шу билан бирга ушбу навлар селекция ва генетик тадқиқотилар учун бошланғич манба бўлиб хизмат қилади.

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## EKOLOGIK TA'LIM BUGUNGI KUNNING DOLZARB MUAMMOSI

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### ANNOTATSIYA

Ushbu maqolada yoshlarda ekologik madaniyatni shakllantirishda ekologik ta'lim-tarbiyaning o'rnini yoritilib o'tilgan. Ekologik ta'lim va tarbiyalash tizimini maktabgacha ta'lim muassasalarida, umumiy ta'lim maktablarida, keyingi ta'lim bosqichlarida ham davom ettirish zarurligi, tabiatni asrash va ekologiya masalasi davlat siyosati darajasigacha olib chiqilganligi, ta'lim muassasalarida yoshlarga ekologik ta'lim-tarbiya berib borilishi aytib o'tilgan.

**Kalit so'zlar:** Ekologik madaniyat, atrof-muhit musaffoligini saqlash, tabiiy resurslar, ekologik tarbiya, ekologik ong, "yashil makon" umummilliy dasturi, ekologik vaziyat, mahallada ekologik muhit, tabiatga nisbatan munosabat, "inson-tabiat-jamiyat", "yashil bog'lar", "yashil jamoatchilik parklari".

### ABSTRACT

This article highlights the role of ecological education in the formation of ecological culture among young people. It is necessary to continue the system of ecological education and upbringing in preschool educational institutions, general education schools, and at the next stages of education, the issue of nature conservation and ecology has been brought to the level of state policy, ecological education for young people in educational institutions education is mentioned.

**Keywords:** Ecological culture, preservation of environmental purity, natural resources, ecological education, ecological consciousness, national program "green space", ecological situation, ecological environment in the neighborhood, attitude towards nature, "man-nature-society", "green parks", "green public parks".

### KIRISH

Bugungi kunda dunyoda tabiatda ro'y berayotgan ekologik muammolar oqibatlarini bartaraf etishda ekologik ta'lim va madaniyatning o'rnini nihoyatda muhimligini ko'rsatmoqda. Jumladan, ekologik madaniyat bu shaxsning atrof-muhitga ma'suliyatli munosabatiga oid bilim, ko'nikma, qadriyat, ma'naviy va ahloqiy me'yorlar hamda ularni amalda ongli ravishda samarali qo'llay bilish faoliyatining yuksak



ko'rsatkichlari majmui ekanligini yosh avlodga singdirish orqali ularda tabiatga bo'lgan munosabatni rivojlantirishni taqazo etadi.

## ADABIYOTLAR TAHLILI VA METODLAR

Yoshlarda ekologik tarbiyani shakllantirish bo'yicha qancha olimlar tomonidan tadqiq etilgan bo'lib, maqolada ushbu tadqiqotchilarning fikrlarini o'zaro solishtirish orqali qiyosiy tahlil qilgan holda o'rganilgan. Shuningdek, maqolada qiyosiy tahlil metodidan tashqari, tarixiylik, izchillik, xolislik kabi ko'plab metodlardan ham foydalangan holda mavzu mohiyatini ochishga harakat qilingan.

Yurtimizda tabiatni asrash maqsadlarida aholining ekologik madaniyatini shakllantirishning huquqiy asoslarini takomillashtirish yuzasidan bir qator amaliy ishlar qilinmoqda. Xususan Prezidentimiz Shavkat Mirziyoevning 30.12.2021y. №PF-46-sonli "Respublikada ko'kalamzorlashtirishlarini jadallashtirish, daraxtlar muhofazasini yanada samarali tashkil etish chora-tadbirlari to'g'risida"gi Farmoniga binoan "Daraxt, butalar va yashil hududlarni muhofaza qilish hamda ularning maydonlarini kengaytirish, ushbu sohada mas'ul tashkilotlar faoliyatini yanada samarali tashkil etish" bo'yicha tegishli ko'rsatmalarning berilishi bu boradagi davlat miqyosida alohida e'tibor berilayotganligidan dalolat beradi.

Shuningdek, butun dunyoda ilmiy jamoatchilikning oldida turgan dolzarb masalalardan biri – bu ekologik barqarorlik va xavfsizlikni ta'minlash bilan bog'liq tadqiqotlarni yanada keng ko'lamda olib borishdan iborat. Zero, bugungi kunda barqaror ekologik vaziyatni, atrof-muhit musaffoligini saqlash va tabiiy resurslardan oqilona foydalanishning muhim sub'ektiv omili bo'lgan ekologik ongni shakllantirish, fuqarolarning tabiatga bo'lgan munosabatlarini o'zgartirish maqsadida "mahalliy budjetlarning qo'shimcha manbalari va qonunchilikda taqiqlanmagan boshqa manbalar hisobidan aholiga bepul ko'chat tarqatish uchun mahalla fuqarolar yig'inlariga ko'chatlar yetkazib beradi hamda "yashil bog'lar" va "yashil jamoat parklari"ga daraxt ekish maqsadida kelgan fuqarolarni ko'chat ekish uchun zarur jihozlar bilan ta'minlaydi" [1:4-5] aniq takliflar asosida jamiyatning eng quyi tizimidan boshlab tabiatni asrash bo'yicha ishlar amalga oshirilmoqda. Bunda mahalla fuqarolarining ayniqsa, yoshlarning ekologik ongi va madaniyatini yuksaltirish bilan bog'liq masalalarni tadqiq qilish orqali ularning atrof muhit sofligini ta'minlashdagi mas'uliyatini yanada oshirib borish bugungi kunning asosiy vazifasiga aylandi.

Tarixiy taraqqiyotdan ma'lumki, inson tabiatning bir bo'lagi sifatida mavjud tabiiy ne'matlardan o'z ehtiyojini doimiy ravishda qondirib kelgan. Ammo bugungi kunda bu ehtiyojlarning



oshib borishi va isrofgarchilikka yo‘l qo‘yilishi ko‘plab muammolarni keltirib chiqardi. Ayniqsa, tabiat muvozanatining buzilishida antropogen ta‘sirning oshib borayotganini alohida ta‘kidlash joiz. Zero, insoniyat taraqqiyotining bugungi bosqichida ilm-fan, texnika shu darajada rivojlandiki, bu yadro energiyasi, quyosh energiyasi, kimyo sanoatining rivojlangani, ishlab chiqarishning avtomatlashtirilgani, axborot texnologiyalarining rivojlantirilgani va fan-texnikaning boshqa yanada murakkab sohalarining o‘zlashtirilgani bilan xarakterlanadi. Shu bilan birga tabiatning yer osti va yer usti boyliklaridan sof iqtisodiy manfaatlar yo‘lida foydalanish “tabiat-jamiyat-inson” tizimidagi munosabatlarning kun sayin buzilishiga, bu esa o‘z navbatida, aql bovar qilmas yangi ekologik muammolarning yuzaga kelishiga olib kelmoqda. Bu muammolarni bartaraf etish bugungi kunda insoniyatning oldidagi eng dolzarb vazifalardan biri bo‘lib qolmoqda.

Bu borada O‘zbekiston Respublika Prezidenti Sh.M.Mirziyoevning 2022-yil 21-dekabrda Oliy Majlis va O‘zbekiston xalqiga yo‘llagan Murojaatnomasida: “Tabiatimizni asrab-avaylash, suv, havo va atrof-muhitni toza tutish kelgusi yilda har bir mahalla aholisining madaniyati va amaliy harakatiga aylanishi kerak. Bu borada mavjud vaziyatni ijobiy tomonga o‘zgartirish uchun ekologiya va atrof-muhitni asrash bo‘yicha sa‘y-harakatlarimizni, xususan, «**Yashil makon**» **umummilliy loyihasi** doirasidagi ishlarimizni kuchaytiramiz.” [1:90], deb ta‘kidlagan edi. Darhaqiqat, bugun barcha xalq, millat va elatlarning vazifasi – bu atrof-muhitga ziyon yetkazmagan holda tabiat boyliklaridan oqilona foydalanish va uni muhofaza qilishdan iborat.

Ma‘lumki, “Yashil makon” umummilliy loyihasini amalga oshirish, mazkur loyiha doirasida yiliga 200 million tup daraxt va buta ko‘chatlarini ekish belgilangan edi. Bunday keng ko‘lamli tashabbusning amalga oshirilishi natijasida shaharlarimizdagi yashil maydonlar hududi hozirgi 8 foizdan 30 foizga oshirilishi rejalashtirilgan. Umuman bu loyiha bo‘yicha kelgusi besh yilda 1 milliard tup daraxt ko‘chat ekilishi maqsad qilingan. Bu kabi yirik loyihalarni amalga oshirishda yoshlarning o‘rni va ularga tabiatni asrash bo‘yicha berilayotgan ekologik ta‘limning o‘rni muhimdir. [1],

Yoshlarga beriladigan ekologik ta‘lim tarbiyaning asl maqsadi yoshlar ongini ma‘naviy jihatdan boyitish, ularda ekologik madaniyatni shakllantirish, vatanimiz uchun chinakkam sodiq insonlar bo‘lib kamol topishlariga zamin yaratishda ko‘maklashishimiz, shuningdek, havoning musaffoligi, suvning sifati, tuproqning tozaligi kelajak sog‘lom avlod uchun kafolat ekanligini, ular ongiga sindirishdan iborat. Yoshlarimiz ongiga ekologik ta‘lim tarbiyani singdirishda nafaqat ona tabiat haqidagi nazariy bilimlar,

balki amaliy mahorat ham katta rol o'ynaydi. Ekologik tadbirlar ona tabiatga bo'lgan mehr va mas'uliyatni shakllantirib, ularga turli xildagi sayohatlar, ekologik muammolar doirasidagi kechalar misol bo'lishi mumkin. Tabiatni muhofaza qilish bo'yicha ta'lim berish-bu tabiatni muhofaza qilish masalalarini nazariy va amaliy jihatdan o'zlashtirishga yo'naltirilgan o'qitish tizimidir. Umumiy va maxsus ekologiya asoslarini bilish har bir zamonaviy kishi uchun zarur bo'lgan madaniyat elementi hisoblanadi. Ekologik savodxonlikka erishish yo'lida insonlarning ekologik bilim darajasini oshirish hamda mamlakat va hududlar bo'yicha atrof-muhitni ifloslantiruvchi manbaalar to'g'risida ma'lumotlar berish muhim ahamiyatga ega. Chunki bunday ma'lumotlarga ega bo'lish, umumiy ekologik holatni ko'z oldiga keltirish, tabiatga va insonlar salomatligiga salbiy ta'sir ko'rsatuvchi omillarni cheklash va yo'qotish bo'yicha amaliy faoliyatida ishtirok etish uchun zarur.

Ekologik ta'limda dunyoqarashni ekologiyalashtirish ham muhim yo'nalishlardandir. Bunga erishishning muhim vositasi insonlarning o'z ustida ishlashlari, tabiat sirlarini o'rganishda va ekologik bilimlarni doimo oshirib borishiga bo'lgan intilishlaridir. Dunyoqarashni ekologiyalashtirish, ekologiyaga doir fanlarni to'la o'zlashtirish bilan birga, iqtisodiy, siyosiy, texnikaviy, huquqiy va boshqa sohalarning ekologik munosabatlarini bilish orqali amalga oshiriladi.

Biz buni to'g'ri anglagan holda yurtimizda yangi avlod, yangi tafakkur sohiblarini tarbiyalashdek mas'uliyatli vazifani ado etishda birinchi galda ma'naviy qadriyatlarimizda ilgari surilgan g'oyalarga tayanishimiz kerak. Bu g'oyalar yoshlarning tabiatga va hayvonot dunyosiga bo'lgan ijobiy munosabatini shakllantirishda, umuman "tabiat-jamiyat-inson" tizimi munosabatlarini uyg'unlashtirishda beqiyos ahamiyatga ega.

Yuqorida ta'kidlaganimizdek, islom dini xalqimizning tabiatga munosabatini to'g'ri shakllanishida muhim ahamiyat kasb etadi. U ona Vatanimizning tabiatini asrab-avaylashga bo'lgan mehr-muhabbatni kuchaytiradi va uni asrash orqali o'sib kelayotgan avlod uchun zarur hayotiy shart-sharoitlarni yaratishga xizmat qiladi.

## XULOSA

Aytish mumkinki, "tabiat-jamiyat-inson" tizimi munosabatlarini muvozanatga keltirishda, tabiat in'om etgan ne'matlardan oqilona foydalanish, tabiatni asrab-avaylashga oid g'oyalardan unumli foydalanish maqsadga muvofiqdir. Zero, ma'naviy qadriyatlarimiz asosida farzandlarimizning ongiga atrof-muhitni ozoda tutish, havoning ifloslanishiga yo'l qo'ymaslik, mamlakatimiz tabiatini, hayvonot va o'simlik dunyosini asrash kabi tushunchalarni singdirib borishimiz kerak. "Tabiatimizni asrab-

avaylash, suv, havo va atrof-muhitni toza tutish kelgusi yilda har bir mahalla aholisining madaniyati va amaliy harakatiga aylanishi kerak. Bu borada mavjud vaziyatni ijobiy tomonga o'zgartirish uchun ekologiya va atrof-muhitni asrash bo'yicha sa'y-harakatlarimizni, xususan, «Yashil makon» umummilliy loyihasi doirasidagi ishlarimizni kuchaytiramiz.» [2:100] – deb takidlab o'tdi davlatimiz rahbari Murojaatnomasida.

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## ПРОФЕССИОНАЛЬНО ЗНАЧИМЫЕ ЛИДЕРСКИЕ КАЧЕСТВА: СУЩНОСТЬ, ПОНЯТИЕ, ОСОБЕННОСТИ РАЗВИТИЯ

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### АННОТАЦИЯ

В данной статье представлена информация о содержании лидерства в межличностных отношениях и формировании лидерских качеств в коллективных отношениях. Обсуждается также система межличностных отношений.

**Ключевые слова:** лидер, команда, работа в команде, классная команда, межличностный.

### ВВЕДЕНИЕ

Исходя из этого принципа, характерного для менталитета нашего народа, т. е. мышления и принятия решений в коллективе, большое значение имеет формирование лидерских качеств и развитие управленческих навыков у учащихся младших классов. Слово «лидер» используется для обозначения человека, который влияет на членов группы и ведет к цели. Лидер – это член социальной группы, способный положительно влиять на мысли и поведение окружающих его людей, обладающий высокой личной позицией и способностью выполнять целевые задачи. Лидерство – это состояние опоры на способность, сформированную у человека путем анализа структуры группы, системы взаимоотношений в ней и проявления способности в зависимости от возможности [1-3].

### МАТЕРИАЛЫ И МЕТОДЫ

Слово «лидер» используется для обозначения группы, человека, который влияет на ее членов и ведет к цели. Лидерство – это состояние человека, определяемое организацией структуры группы, системы отношений в ней. Но есть и ряд других аспектов, представляющих качества лидера, которые мы не можем анализировать только в рамках системы взаимоотношений. В этой интерпретации одним из основных аспектов, характеризующих лидера, является способность человека действовать в соответствии с ситуацией. Инициативность,



стройность и умение преодолевать трудности в любой проблемной ситуации – характерные качества лидера. В сложной ситуации решения проблемы лидер отличается своим превосходством над другими.

## РЕЗУЛЬТАТЫ И ОБСУЖДЕНИЕ

Реализация вышеуказанных задач обеспечивает эффективное функционирование коллективных отношений в развитии лидерских качеств. Педагогу также важно учитывать следующие факторы при выполнении таких заданий [4]:

- личный пример педагога;
- создание здоровой социальной среды в коллективе;
- индивидуальный подход к каждому ученику.

Что делает человека эффективным лидером? Этот вопрос давно интересовал ученых. Один из самых популярных и простых ответов исходит из теории «Великих людей». Ее сторонников можно найти среди историков, политологов, психологов и социологов. Великая теория личности утверждает, что человек с определенным набором личностных качеств станет хорошим лидером независимо от ситуации. Абсолютным воплощением теории великих людей является концепция харизматического лидера, перед которым преклоняются другие (от греч. *charisma* — дар, благодать Божия, милость богов).

Если эта теория верна, то должны быть ключевые черты личности, которые делают человека великим лидером и выдающимся руководителем. Что это: высокий интеллект, харизма, такт, смелость? Или их комбинация? Кто лучше: экстраверт или интроверт? Как сказал Никколо Макиавелли в своем знаменитом трактате «Государь» в 1513 году, должен ли правитель быть абсолютно жестоким? Или нравственные люди — лучшие лидеры? Или правильно ответил великий Лао-цзы, живший две тысячи лет назад: «Страной правит справедливость, а войну ведет хитрость»? Или важна не личность руководителя, а социальные характеристики среды, в которой он формировался: состав семьи, образование, предыдущие профессии?

Здесь мы исследуем некоторые аспекты взаимосвязи между индивидуальными чертами личности и лидерством [5].

1. Лидеры обычно обладают чуть более высоким интеллектом, чем их команда. Но людей с высоким интеллектом в команде может быть достаточно. Ни в коем случае кандидат в лидеры не должен выделяться на фоне среднего интеллектуального



уровня своих последователей. «Слишком умный» лидер неизбежно будет отвергнут толпой.

2. Мотивация властей. Многими лидерами движет сильное стремление к власти. У них сильная концентрация на своей личности, они тратят на престиж, честолюбие, чрезмерную энергию. Такие лидеры обычно социально гибки. Властолюбие и умение интриговать помогут им долго оставаться на плаву. Но у них есть проблема с эффективностью. Например, Бориса Ельцина обычно считают лидером с сильным стремлением к власти. Ему удалось править Россией почти 10 лет. Однако вопрос о том, был ли он эффективным лидером для страны, остается открытым.

3. Изучение исторических данных показывает, что среди 600 известных монархов самые известные были либо высоконравственными, либо крайне аморальными личностями. Отсюда можно предположить, что есть два пути к славе: либо быть образцом нравственности и добродетели.

## ЗАКЛЮЧЕНИЕ

В заключение можно сказать, что самые успешные лидеры работают с разными инструментами управления.

- они мастера использования разных стилей. Если необходимо поднять командный дух, разрешить конфликты в коллективе, они «включают» дружеский стиль, ведут дружескую беседу со своими подчиненными и ходят с ними после работы на футбол.

Но в опасных кризисных ситуациях, когда необходимы четкие приказы и решительные действия, товарищеский стиль автоматически отключается — и вот мы имеем авторитарного командира, которому нельзя не подчиниться.

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## ATYPICAL APPEARANCE OF GASTROESOPHAGEAL REFLUX DISEASE, THE DEGREE OF BRONCHOOBSTRUCTIVE SYNDROME DEPENDING ON THE TYPE OF REFLUX

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### ABSTRACT

This article explores the atypical appearance of gastroesophageal reflux disease (GERD) and its association with bronchoobstructive syndrome (BOS), particularly in the broncho-pulmonary form. The study focuses on the clinical symptoms, diagnosis, and prevalence of GERD, as well as its connection to bronchial asthma. The research analyzes the immixture of the bronchoobstructive syndrome with the refluxate and its implications for diagnosis and treatment. The findings suggest that GERD can manifest with extra-oesophageal complaints and manifestations, including bronchial asthma. The study highlights the importance of considering the broncho-pulmonary form of GERD in patients with respiratory symptoms.

**Keywords:** gastroesophageal reflux disease, bronchoobstructive syndrome, broncho-pulmonary form, extra-oesophageal complaints, bronchial asthma.

The urgency of the problem. Gastro-esophageal reflux disease (GERD), with its main symptoms of heartburn and regurgitation, is one of the most common conditions affecting the esophagus; however, it has been appreciated that symptomology in GERD patients is more complex and also extends to extra-oesophageal complaints and manifestations [1,3,6,7]. The diagnosing disease, almost is not difficult, because typical clinical symptoms of the GERD are observed frequently in the clinical practice, for example heartburn, burp, regurgitating and others. However, typical forms of the disease are diagnosed much difficulty [1,7,8]. Because clinical view of them looks like the diseases of the neighbor organs. The broncho-pulmonary form of the GERD from atypical views is much observed. For instance, according to medical literatures one of atypical forms of the GERD reflux – asthma from 30 % until 90 % happens together with bronchial asthma (BA) [2,4,5,7].

According to our primary researchings among the atypical forms of the GERD, precisely, broncho-pulmonary type is progressive because we aimed during the research to define the immixture of register grade of the bronchoobstructive syndrome (BOS) with hue of the refluxate.

## MATERIALS AND METHODS

The clinical, laboratory and instrumental facts of analysis results of 86 seconded patients, which are diseased with GERD and alternatively diseased with 1-2 steps of BOS were taken for the research. From the patients 51 women and 35 men ages between 18 and 57 (medium  $35 + 0,7$ ). Estimating benchmarks to the exploration: they are those people who have complaints about heartburn and regurgitation, older from 18 age and agreed in writing form for the clinical and instrumental analyzing. Releasing benchmarks from the exploration: consumption  $H_2$  blockers, proton pump inhibitors, prokinetics before 10 days addressing, attack level of the ulcer stomach and duodenum, achalasia of cardia, cirrhosis of the liver in various etiology, chronic pancreatitis in the twinge level, cholecystitis, choledocholithiasis disease, infection *Helicobacter pylori*, in the anamnesis operations were thereupon bile, pancreatic and duodenum diseases, pregnant and in the lactation period in the anamnesis which drugs were necessary underlined adverse effects or useless drugs and injuring with chronic deficit of ren.

For the diagnosing used from rentgenological, endoscopic and in necessary times ultrasonography and computer tomography examinations. Types of the refluxate ambience were determined, which were invited by authors in vivo and in vitro haller in the early morning first quality, then quantity with ph-metric method.

Before doing this method patients were invited to reject juices, coffee and antacid drugs. We used classification that was offered in 2009 during the diagnosis. (4) Taken patients are separated into 2 groups cally representative according to age, sex, quantity currency of anamnesis, degree of the Kettle index and others.

For this distrubation taken to basis that only yardstick index type of the ambience refluxate (A.R). In the 1 group 48 patient's ambiances were acidic (Acidic.  $A=2.6\pm 0.3$ ) and in 28 patients were alkaline ( $Al.A=8.7\pm 0.4$ ) Ph-metric research were carried out by fashion BFRL-S20 ph-meter.

In the process diagnosis from rentgenological, endoscopic, for analyzing function of the external respiration (peakflowmetry and spirography), common analysis of the blood and dejecta, necessary times ultrasonography, computer tomography was used. In the preliminary level of the examination through polls-asking determined that is happening with the GERD degree occur of the BOS.

In the next levels of the exploration learned which were injured with GERD and at the same time types of the BOS patient's clinic-diagnosing results. (table) Practically healthy 16 people haven't any complaints and objective symptoms of the somatic pathology. Taken facts are recycled used

from Student's T-yardstick and diversity of  $P < 0.05$  results are acknowledged as reliable.

## RESULTS AND DISCUSSION

The pathology of respiration organs BOS and GERD frequency of occurring together showed the followings. When BA and GERD are diagnosed together in patients Ac.A=56,2% and Al.A=43,7% ambience refluxates were difined (Difference of statistician symbols  $p < 0,05$ ).

Obviously, index of occurring together GERD and BOS according to ambience of refluxate, whichpatients have acidic ambience (Ac.A) is high. In the GERD occurring degree of the BOS dependence to ambience refluxate in the 2 group patients clinical and endoscopic aspects were learned specially. The features of clinical and endoscopic symptoms for characterize largely and extensively, primarily, those are essence of the disease that basic symptoms were defined.

**Table 1.**

**The occurring degree the dependence to the ambience of refluxate in the GERD of the BOS symptoms.**

Symptoms:	Occurrence degree dependence to the ambience of the refluxate	
	Acidic N=48	Alkaline N=38
1.Heartburn +BOS (Attack asphyxia +chronic cough)	27 (56,5%)	17 (44%)
2.Burp +BOS	17 (35,4%)	8 (21%)
3.Bitter in the mouth+BOS	3 (6,2%)	16(43%)
4.Dysphagia +BOS	18 (37%)	15 (39%)
5.Regurgitation + BOS	27 (56%)	16 (43%)
6.Chronic cough	12 (25%)	4 (11%)
7.Attack asphyxia	18 (37,5%)	8 (21%)

**Note.**  $p < 0,05$ \*  $p < 0,001$ \*\* reliable difference between acidic and alkaline.

Ph-metric results of examination shows that, who are injured with GERD patient's mucus of esophagus and ph-metric index is healthy patients have seriously differences. In the 1 group patients A.R ph-metric indexes are  $2,6 \pm 0,3$ , they differed reliable from index of control group. ( $6,9 \pm 0,8$ ) ( $p < 0,001$ ).

In the 2 group patients this index  $8,7 \pm 0,4$ , they differed from index control ( $p < 0,05$ ) and 1 group ( $p < 0,001$ )

So, developing clinical symptoms and occurring degree of the BOS in the GERD in evaluation dependence calls to the A.R, patients who has Ac.A occurring together BOS is high.

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## BOSHLANG'ICH SINFLARDA GUMANITAR FANLARNI INTEGRATSION O'QITISH TEXNOLOGIYASI OMILLARI

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### ANNOTATSIYA

Maqolada boshlang'ich sinflarda gumanitar fanlarni integratsion o'qitish texnologiyasi omillari haqida so'z yuritilgan bo'lib, yangi o'quv adabiyotlar omili, yangi metodlar omili hamda xalqaro ta'lim dasturlari keng yoritib berilgan.

**Kalit so'zlar:** ta'lim, gumanitar, boshlang'ich, integratsiya, adabiyot, xalqaro, metod, bilim, ko'nikma, malaka.

### ABSTRACT

The article reflects on the factors of the technology of integrated teaching of humanitarian disciplines in primary school, the factor of new educational literature, the factor of new methods, international educational programs are widely explained.

**Keywords:** education, humanitarian, primary, integration, literature, international, method, knowledge, skill, skill.

### KIRISH

Mamlaktimizda boshlang'ich ta'lim maktabgacha va ta'limning keyingi bosqichini o'zaro bog'lovchi bo'g'in hisoblanadi. Shu sababli keyingi paytlarda boshlang'ich ta'limning vazifalarini yanada aniqlashtirish va uni takomillashtirish ishlari amalga oshirilmoqda [1]. 2017 yilga qadar boshlang'ich ta'limning asosiy vazifalaridan biri o'quvchilarga alifboni o'rgatishdan iborat edi va bu vazifa to'liq maktabgacha ta'lim bosqichiga o'tkazildi. Shu jihatdan boshlang'ich ta'lim umumiy o'rta ta'limning birinchi va asosiy bosqichi hisoblanadi. Aynan boshlang'ich ta'limda o'quvchilarni ta'limning keyingi bosqichlariga tayyorlash vazifasi amalga oshiriladi. Bularning barchasi boshlang'ich sinflarda gumanitar fanlarni integratsion o'qitish texnologiyasi omillarini aniqlab olish zaruriyatini ko'rsatadi.

## ADABIYOTLAR TAHLILI VA METODOLOGIYA

Boshlang'ich sinflarda gumanitar fanlarni integratsion o'qitish texnologiyasining eng muhim omillari quyidagilardan iborat:

- 1) yangi o'quv adabiyotlarining yaratilayotganligi;
- 2) o'qitishning yangi metodlari ishlab chiqilayotganligi;
- 3) boshlang'ich ta'limga xalqaro ta'lim dasturlarining joriy etilayotganligi [2].

**1. Yangi o'quv adabiyotlari omili.** Mazkur omil muhim ahamiyatga ega bo'lib, unda boshlang'ich sinflarda "Ona tili va o'qish savodxonligi", "Tasviriy san'at", "Musiqqa madaniyati" va "Jismoniy tarbiya" gumanitar fanlarini integratsion o'qitish uchun tayanch vazifasini bajaradi. Shu jihatdan yangi o'quv adabiyotlarining yaratilayotganligi va ularda mavzularning o'zaro bog'liqligiga e'tibor berayotganligi muhim hisoblanadi. Shuningdek, yangi o'quv adabiyotlari yangicha asosdagi metodikaga, ya'ni o'quvchilarni faoliyatga tayyorlash uslubiga asosan yaratilmoqda. Shu sababli yangi o'quv adabiyotlari boshlang'ich sinflarda integratsion o'qitishning muhim omillaridan biri hisoblanadi.

Boshlang'ich sinflarda gumanitar fanlarni integratsion o'qitish texnologiyasida yangi o'quv adabiyotlari omili muhim ahamiyatga ega. Chunki O'zbekiston Respublikasi Prezidentining 2022 yil 11 maydagi PF-134-son "2022-2026 yillarda xalq ta'limini rivojlantirish bo'yicha Milliy dasturni tasdiqlash to'g'risida"gi Farmoniga binoan boshlang'ich sinf o'quv adabiyotlari yangi metodikaga asosan tayoyrlanib amaliyotga kiritildi. Bu yangi metodikaning asosini mavzularning o'zaro mantiqiy bog'liqligi, o'quv fanlarining metodik jihatdan uyg'unligi va darsliklar matnlarining amaliyotga yo'naltirilganligi tashkil etadi. Shu sababli mazkur metodikaga asosan boshlang'ich sinflarda gumanitar fanlarni integratsion o'qitish texnologiyasi bo'yicha yangi o'quv adabiyotlari omiliga tayanish maqsadga muvofiq bo'ladi. Mazkur masala nazariy va metodik jihatdan muhim ahamiyatga egadi. Buning uchun oliy pedagogik ta'lim jarayonida ana shu metodikani chuqur o'zlashtirish va unga asosan boshlang'ich sinflarda gumanitar fanlarni integratsion o'qitish maqsadga muvofiq bo'ladi.

**2. Yangi metodlar omili.** Boshlang'ich ta'limda o'qitishning yangi metodlarini muntazam ishlab chiqish jarayoni ham kechmoqda. Bunda asosiy e'tibor o'quvchilar bilan individual ishlash, amaliy to'garaklar imkoniyatlaridan foydalanish va o'quvchilarning mustaqil ishlashi uchun keng imkoniyatlar berishga qaratilmoqda. Shu sababli bu metodika boshlang'ich sinflarda gumanitar fanlarni integratsion o'qitishning muhim omillaridan hisoblanadi. Misol uchun, o'quvchilar bilan individual ishlash ularga gumanitar fanlarni



chuqurlashtirib o'qitish imkonini beradi va bunda qo'shimcha ma'lumotlarni berish muhim hisoblanadi [3].

Boshlang'ich sinflarda gumanitar fanlarni integratsion o'qitish texnologiyasida yangi metodlar omili muhim o'rin tutadi. Bunday yangi metodikani aniqlash uchun tajribali boshlang'ich sinf o'qituvchilarining kasbiy faoliyatini o'rganish, boshlang'ich ta'lim metodikasi bo'yicha yaratilayotgan yangi tadqiqotlardan xabardor bo'lish va yangidan qabul qilinayotgan ta'limga oid me'yoriy-huquqiy hujjatlar mazmunini o'zlashtirib borish maqsadga muvofiq bo'ladi. Buning uchun oliy pedagogik ta'lim jarayonida haftalik pedagogik amaliyot imkoniyatlaridan yoki to'garaklar mexanizmlaridan foydalanish, ular vositasida bo'lajak boshlang'ich sinf o'qituvchilarining ko'nikmalarini tarkib toptirish muhim ahamiyatga ega. Bunda talabalarning faol bo'lishi taqoza etiladi.

**3. Xalqaro ta'lim dasturlari omili.** Boshlang'ich sinflarda gumanitar fanlarni integratsion o'qitishda xalqaro ta'lim dasturlari qoidalaridan ham foydalanish muhim omillardan hisoblanadi. Bu borada TIMSS va PISA xalqaro ta'lim dasturlari o'quv fanlarini o'zaro bog'liqlikda o'qitish bo'yicha muhim metodik tavsiyalarga ega. TIMSS xalqaro ta'lim dasturi Matematika o'quv fanini o'qitishda mazkur fanga kiruvchi geometriya, trigonometriya va algebra fanlarining mavzularini uyg'unlashtirilgan tarzda qabul qilishga asosiy e'tiborni qaratadi. Shu sababli keyingi paytlarda boshlang'ich sinflar uchun Matematika darsligi yangidan tayyorlanib, unda ta'kidlangan fanlarning mavzulari bo'yicha dastlabki tushunchalar berish nazarda tutildi. PISA xalqaro ta'lim dasturi o'quvchilarning matnni o'qib tushunish ko'nikmasini shakllantirishda mustaqil ta'lim imkoniyatlaridan keng foydalanishni tavsiya etadi. Shu ma'noda mazkur dasturdan foydalangan holda boshlang'ich sinf gumanitar fanlarni integratsion o'qitish texnologiyasini ishlab chiqish muhim ahamiyatga ega [4].

E'tibor berilsa, boshlang'ich sinflarda gumanitar fanlarni integratsion o'qitishning muhim ilmiy omillari mavjud. Mazkur omillardan oqilona foydalanish kutilgan samarani beradi.

Boshlang'ich sinflarda gumanitar fanlarni integratsion o'qitishning yangi o'quv adabiyotlari, yangi metodlar va xalqaro ta'lim dasturlari omillarini oliy pedagogik ta'lim jarayonida bo'lajak boshlang'ich sinf o'qituvchilari tomonidan chuqur o'zlashtirilishi taqoza etiladi. Chunki aynan bu omillar boshlang'ich sinflarda gumanitar fanlarni o'qitish jarayonini chuqurlashtiradi va uning amaliy samaradorlik ko'rsatkichlarini yuksaltiradi.

Kezi kelganda ta'kidlash lozimki, boshlang'ich sinflarda gumanitar fanlarni o'qitish bo'yicha milliy va xorijiy

tajribalarning o'ziga xos xususiyatlari mavjud. Chunki aynan gumanitar fanlar boshlang'ich sinf o'quvchilarining shaaxs sifatida shakllanishida muhim o'rin tutadi. Bu boradagi milliy tajribamizga ko'ra, gumanitar fanlarni o'qitish milliy qadriyatlar mezoniga asoslanadi va xorijiy tajribalarda gumanitar fanlarni o'qitish esa umuminsoniy qadriyatlar mezoniga tayanadi.

Boshlang'ich sinflarda gumanitar fanlarni integratsion o'qitish texnologiyasining ana shu omillari amaliy jihatdan bo'lajak boshlang'ich sinf o'qituvchilari uchun keng imkoniyatlarni beradi. Bu omillarni o'zlashtirish va o'zlashtirganlarni tajriba-sinovlardan o'tkazish maqsadga muvofiq bo'ladi.

Umuman boshlang'ich sinflarda gumanitar fanlarni integratsion o'qitish texnologiyasi omillarini o'zlashtirish uchun talabalarning faolligi, shaxsiy tashabbuskorligi va amaliy harakatchanligi katta ahamiyatga ega. Shu sababli bu masalada oliy pedagogik ta'lim jarayonida bo'lajak boshlang'ich sinf o'qituvchilariga tushunchalar berish maqsadga muvofiq bo'ladi.

Kezi kelganda ta'kidlash joizki, bugungi kunda umumiy o'rta ta'lim maktablari muhim imkoniyatlarga ega. Bunday imkoniyatlarning asosiylari quyidagi omillar bilan belgilanadi:

- a) maktablarning zamonaviy jihozlanganligi;
- b) professional boshlang'ich sinf o'qituvchilarining mavjudligi;
- v) boshlang'ich sinf o'quvchilarining bilim olishga qiziqishi talab darajasida ekanligi.

Maktablarning zamonaviy jihozlanganligi omili boshlang'ich sinflarda gumanitar fanlarni integratsion shaklda o'qitish uchun keng imkoniyatlarni beradi. Misol uchun, maktablardagi zamonaviy kompyuter vositalari asosida o'quv fanlarini o'zaro bog'liqlikda o'qitish amaliy jihatdan samarali hisoblanadi va bunda o'quvchilarning faolligiga erishish muhim ahamiyatga ega.

Professional boshlang'ich sinf o'qituvchilari omilidan ham foydalanish maqsadga muvofiq bo'ladi. Chunki bu omil boshlang'ich sinflarda gumanitar fanlarni integratsion o'qitishning eng muhim asoslaridan biri bo'lib, undan oqilona foydalanish taqoza etiladi [5].

Boshlang'ich sinf o'quvchilarining bilim olishga bo'lgan qiziqishi bu boradagi amaliy omillardan biridir. Chunki o'quvchilarning qiziqish darajasi o'quv fanlarini o'zlashtirishda katta ahamiyatga ega. Mazkur omil ham boshlang'ich sinflarda gumanitar fanlarni integratsion o'qitish shakllarini tanlashda muhim o'rin tutadi.

## XULOSA

Shunday qilib boshlang'ich sinflarda gumanitar fanlarni integratsion o'qitish texnologiyasi omillari nazariy va amaliy xususiyatlarga egaligi bilan muhim ahamiyatga ega. Bu masalalar oliy pedagogik ta'lim jarayonida o'zlashtirilishi maqsadga muvofiq bo'ladi.

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## IMPROVING READING SKILLS THROUGH EFFECTIVE READING STRATEGIES

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### ABSTRACT

According to research, teaching reading methods is a crucial part of helping students enhances their comprehension. Many educators, however, lack a strong foundation for introducing these reading comprehension techniques. Teachers must therefore be prepared on how to create efficient understanding strategies and how to instruct. Giving their students these techniques, therefore, the goal of this study is to examine the most efficient reading techniques in order to enhance students' reading abilities in language classes. The study is an application of action research to a group of 14 students taking an integrated skills course at the intermediate level. The main question of the study is 'Would reading strategies help my students' reading comprehension studies? The result of the study indicate that the students had an improvement to a great extend have been tutored about the reading strategies.

**Keywords:** Reading strategies, predicting; visualizing; inferring; making connections; questioning; action research.

### INTRODUCTION

Reading is a skill that may be employed both in and out of the classroom. Reading is a fundamental life skill, according to Anderson, Hiebert, Scott, and Wilkinson. It is essential to a child's academic and overall success in life. Lacking proficiency in reading, chances for personal Success at work and fulfillment will inevitably be lost (1985). Reading is one of the most difficult subjects in the educational system, despite its significance. This issue is made even more urgent by the technology society's constant desire for high literacy levels (Snow, Burns, & Griffin, 1998). If students want to get the most out of the materials they are assigned, they have to learn to read critically or analytically. The idea here is that when we read something, the purpose is to try to understand what the intention is. When dealing with reading, we encounter two layers of reality: one that we can see and one that we cannot see. Therefore, the purpose of reading is to make the invisible layer, the underlying meaning, visible and clear ). [1] Teele asserts that the goal of all readers should be to understand what they read (2004, p. 92). According to research, proficient readers actively engage with the text and are conscious of the strategies they employ to comprehend what they read. Through the teaching of reading skills,

teachers can aid students in improving comprehension. According to studies, the following techniques can help readers better understand what they are reading: predicting, finding connections, picturing, inferring, questioning, and summarizing (Block & Israel, 2005). The utilization of think-aloud exercises, group practice, partner practice, and autonomous application of the strategy are all crucial components of effective strategy instruction (Duke & Pearson, 2005).

Excellent readers have a reason for reading because excellent readers should create goals for their reading in order to become better readers. Predicting is a technique for increasing comprehension because it aids the reader in establishing reading goals. It has been discovered through research that proficient readers create thoughts and predictions as they read (Block & Israel, 2005). More student involvement is made possible by this method, which raises attention and helps students comprehend the content (Oczkus, 2003). The learner's knowledge will be improved by comparing the outcome in the real text with the prediction procedure. Without this aspect of the prediction process, it becomes meaningless to improving student's comprehension. Some of the approaches for teaching predicting are teacher modeling, predicting throughout the text; with partners, with a graphic organizer, or using post-it notes throughout the text. Using the title, table of contents, pictures, and key words is one prediction strategy. Another key prediction strategy is to have students predict at specific points through the text, evaluate the prediction, and revise predictions if necessary (Teale, 2004).

Visualization is a different method used by skilled readers to understand a text (Adler, 2001). In order to visualize, the reader must create an image of what they have read. As a representation of the reader's interpretation of the text, this image is retained in the reader's memory (National Reading Panel, 2000). Teachers might encourage students to picture the locations, people, and events of a tale before asking them to sketch or write about the picture that appears in their thoughts after visualizing the text. [7]

Another reading method is to create connections between ideas. By drawing connections, students can draw on existing knowledge and relate the text's ideas to their own experiences. When a reader makes connections between the concepts in a text and their own experiences, beliefs, and events taking place in the outside world, reading becomes meaningful. Text-to-Text, Text-to-Self, and Text-to- connect. Students can connect their own experiences to the text by writing, charting, or drawing. Teachers may inquire of pupils whether they have ever gone through anything like the things described in the literature. Students can use visual organizers, writing prompts, charts, drawings, and other methods to build text-to-text links. These text-to-text links may be based on the relationships between

characters in the story or the connections between other stories' plot aspects. Students can use graphic organizers, charts, notes, or drawings to build links between the text and the real world. Text-to-world links can be made by contrasting fictional characters from a novel with contemporary individuals or by contrasting the text's subject matter with contemporary issues (Teele, 2004). G would assist them better understand the concepts in the text by asking them to look for connections.

Summarization calls for the reader to prioritize what they are reading and to summarize the material in their own terms (Adler, 2001). The pupils will be able to separate the primary concepts from the supporting ideas while summarizing. Making the distinction between connected and unrelated pieces of information is another step in the summarizing process that will aid students' ability to increase their text comprehension. Summarizing is a technique that enables pupils to arrange their thoughts even in lengthy reading sections, which are typically intimidating to them..

## METHODS

The most essential skill for academic achievement and learning to read well is reading comprehension. A research conducted in the United States found a strong correlation between reading proficiency and how much a person may accomplish in both their personal and professional lives (Block & Israel, 2005). This is the rationale for my decision to do this action research. Action research, according to Brown and Dowling (2001), is a phrase used to describe programs in which practitioners aim to alter. An action research is often conducted in a classroom. According to Corey (1953), the importance of action research lies more in the transformation of daily practice than in its generalization to a larger audience. Action research is a reflective method that addresses the issues that are important to the educators personally and enables them to effect change. Finding answers to actual issues that arise in schools and looking for strategies to increase student achievement are the key goals of action research. Educators may make well-informed judgments that can result in the intended results by using the action research method to assess requirements, document the phases of inquiry, analyze evidence, and make conclusions. Planning, acting, observing, and reflecting are the only steps of an action research, according to McNiff (1988: 22). According to research, students' understanding increases when they consider the method they are employing and how it contributes to the text's overall meaning. 3.1. The research's methodology and data gathering tools Finding out the pupils' degree of reading awareness and enhancing their reading methods were the goals of this study effort. Six techniques were employed by the teacher researcher: anticipating, creating connections, picturing, inferring, questioning, and summarizing.

## RESULTS & CONCLUSION

The findings of the reading awareness measure and my own observations indicated that my students' understanding of reading strategies was lacking at the start of the research. The children lacked reading strategy knowledge and experience, but following a thorough investigation, their performance improved. As the researcher, I was first concerned about how to use the methods in the classroom. Both my students and I found this research adventure to be quite fulfilling. The action research findings gave me the assurance I needed to incorporate the ideas into my curriculum. The kids' reading comprehension has increased, and they have a greater knowledge of the techniques. The action research was beneficial, and now that I know more about reading comprehension methods and that my students' reading comprehension has improved, I want to keep incorporating them into my curriculum. Future studies on the updated reading techniques are likely to use a bigger random sample. The researcher can make notes using a variety of tools, such as a check list, to record each student's progress on a weekly basis based on involvement and the tactics they employ most frequently.

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## TRENER-O‘QITUVCHILAR PEDAGOGIK KOMPETENTLIGI VA MAHORATINI SHAKLLANISHIGA TA’SIR ETUVCHI OMILLARNING NAZARIY ASOSLARI

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### ANNOTATSIYA

Mazkur maqolada sport maktablarining trener-o‘qituvchilari pedagogik kompetentligini shakllanishiga va mahoratini oshishiga sabab bo‘luvchi pedagogik-psixologik omillar tahlil qilingan.

**Kalit so‘zlar:** sport maktabi, trener-o‘qituvchi, pedagogik kompetentlik, pedagogik mahorat.

### THEORETICAL FOUNDATIONS OF FACTORS INFLUENCING THE FORMATION OF PEDAGOGICAL COMPETENCY AND SKILL OF TRAINERS-TEACHERS

#### ABSTRACT

This article analyzes the pedagogical and psychological factors that determine the formation of pedagogical competency and the improvement of the skills of trainers-teachers of sports schools.

**Keywords:** sports school, coach-teacher, pedagogical competency, pedagogical skill.

#### KIRISH

Bolalar va yoshlarning maktabdan tashqari sport ta’limi tizimini tubdan takomillashtirish orqali iqtidorli sportchilarni aniqlash, tanlash va saralash (seleksiya)ning yangi mexanizmlarini joriy qilish, sportchilarning Olimpiya va Paralimpiya, Osiyo va Paraosiy o‘yinlarida, boshqa nufuzli xalqaro musobaqalarda ishtirok etishi hamda yuqori natijalarga erishishini ta’minlash, bu borada trener va sport mutaxassislari mehnatini adolatli asosda rag‘batlantirish maqsadida O‘zbekiston Respublikasi Prezidentining 2022-yil 6-iyundagi PQ–268-son “Davlat sport-ta’lim muassasalari faoliyatini mutlaqo yangi tizim asosida tashkil qilish chora-tadbirlari to‘g‘risida” qarori [1] qabul qilinganining o‘ziyoq, muammoni ilmiy jihatdan tizimli o‘rganish zaruratini





keltirib shiqarmoqda.

## ADABIYOTLAR TAHLILI VA METODOLOGIYA

Ma'lumki, bugungi kunda rivojlangan jamiyat va davlat taraqqiyoti uchun ijtimoiy moslashuvchan, yuqori darajada egiluvchan, faol, ijodkor, zamonaviy o'qitishning universal usullarini egallagan malakali mutaxassislar o'ta zarur. Ilm-fanda nazariy asoslar deganda tadqiq etilayotgan har bir jarayon va (yoki) voqea-hodisalar mazmuni, qonuniyatlari, amal qilishi (rivojlanishi) davri omillari va shart-sharoitlari, shuningdek, o'quv-mashq jarayonlarini tashkil etish mexanizmlari, tamoyillari, metodlari, shakl va vositalari mohiyatini ochib beruvchi, o'z isbotiga ega ilmiy qoidalar hamda tartib-taomillar tushuniladi. Trener-o'qituvchining pedagogik kompetentligi va mahorati bilan bog'liq masalalar asosan ikkita: "kompetentlik" va "mahorat" tushunchalari kontekstida aks etgan bo'ladi.

Pedagogik tadqiqotlarda, "kompetentlik (ingl. "competence" – "qobiliyat") – faoliyatda nazariy bilimlardan samarali foydalanish, yuqori darajadagi kasbiy malaka, mahorat va iqtidorni namoyon eta olish", deb ta'rif berilgan.

Mahorat tushunchasi esa (arab. "mohirlik", "ustalik", "epchillik") – 1) biror ish, kasb uchun zarur yoki shu sohada orttirilgan ustalik, san'at, mohirlik; 2) bir ish yoki faoliyatni yuksak darajada, hech bir qiyinchiliksiz, o'ta mohirlik bilan bajarish; 3) muayyan ish, xatti-harakat yoki kasbiy faoliyatning ustalik, mohirlik bilan, san'atkorona tashkil etilishiga imkon beradigan bilim, ko'nikma va malakalar majmui sifatida tariflangan.

Shuningdek, psixologik tadqiqotlarda esa "kompetentlik "noan'aviy vaziyatlar, kutilmagan holatlarda mutaxassisning o'zini qanday tutishi, muloqotga kirishishi, raqiblar bilan o'zaro munosabatlarda nostandart yo'ldan borishi noaniq vazifalarni bajarishda, ziddiyatlarga to'la ma'lumotlardan foydalanishida, izchil rivojlanib boruvchi va murakkab jarayonlarda harakatlanish rejasiga "egallik" qilishni anglatadi", deya ilmiy yondashilgan.

Pedagogik kompetentlik shakllanishiga ta'sir etuvchi omillar guruhini ta'sir darajasini aniqlash, turli fanlar kesimida pedagogning kasbiy kompetentlik sifatlarini tashxislash masalalari kontekstida o'rganilgan. Bu borada V.N. Batishev, V.V. Davidov, Yu.B. Drobotenko, M.E. Inkov, O.I. Mezenseva, O.E. Permyakov, T.S. Pudochkina, A.I. Subetto, N.V. Chekalyevalar izlanishlarini alohida e'tirof etish mumkin.

Shuningdek, mavjud ilmiy manbalar va uslubiy ishlanmalarda aks etgan ma'lumotlarni tizimli o'rganish asosida nazariy tahlilni amalga oshirish, sport maktablarida faoliyat olib

borayotgan trener-o'qituvchilarni pedagogik kompetentligi va mahoratini takomillashtirishga bo'lgan amaliy yondashuvlar hamda "hujjatlar tahlili" usuli metodologik asos bo'lib xizmat qiladi.

## NATIJALAR

D.D. Oribboyeva ko'ra, "kompetentlik" va "qobiliyat" tushunchari bir-biridan quyidagi:

- har qanday muayyan vaziyatda turli xil jihatlarni hisobga olgan holda bilimlarni o'z o'rnida va tezkorlik bilan to'g'ri qo'llay bilish;

- qarorlarni qabul qila olishga qodirlik va tayyorlik, shu bilan birga, mazkur vaziyat uchun eng maqbul qaror variantlarini tanlay olish;

-ijtimoiy harakatlarni tashkil etish va buning uchun barcha imkoniyatlarni ishga sola bilish;

- faoliyat doirasida boshqa odamlar bilan o'zaro munosabatlarda aniq maqsadlarni ko'zlagan holda kommunikativ ko'nikmalarida maqsadga muvofiq va eng maqbul aloqani o'rnata olish;

- muayyan ma'naviy qadriyatlar, dunyoqarash, umummadaniy va axloqiy sifatlar hamda faoliyatga intilish hissiga ega bo'lish;

- o'zining ijodiy imkoniyatlarini rivojlantirish, faoliyatning yangi usullarini egallashga intilish kabi belgilar bilan ajralib turadi [2].

A.K. Markova tadqiqotlarida, pedagogik kompetentlikning tarkibiy asoslari qayd etib o'tilgan. Unga ko'ra, "... pedagogning kasbiy kompetensiyasi pedagogik (o'quv va tarbiya) jarayonni samarali, muvaffaqiyatli tashkil etilishini ta'minlaydi. Kasbiy kompetensiyaga ega bo'lish uchun pedagog o'z-o'zini izchil rivojlantirib borishga e'tiborni qaratishi zarur" [3]. Bizningcha ham sport maktablarining trener-o'qituvchilari o'zini o'zi rivojlantirish jarayonida "individual rivojlanish dasturi"dan foydalanishlari qo'l keladi. Sababi, mazkur dasturda trener-o'qituvchida mavjud bo'lgan pedagogik kompetentlik va rivojlantirilishi zarur bo'lgan sifatlar (xususiyatlar)i, bilimi, ko'nikmasi, malakasi professional standartga xos lavozim majburiyatlarining mohiyati aks etgan bo'ladi.

K.M. Gulyamov fikricha, tadqiqotchilar ko'pincha kompetentlik atamasidan o'z faoliyatining sifatini baholashda, kompetensiyadan esa mutaxassisning kasbiy tayyorgarlik darajalari chegaralarini aniqlash maqsadida foydalanadilar [4].

D.O. Himmataliyev kasbiy faoliyatga tayyorgarlikni diagnostika qilishning harakat tarkibini ishlab chiqishda mazkur jarayonning o'ziga xosligini hisobga olgan holda loyihalash va kommunikativ elementlarini birlashtiradi va baholash-analitik (tahlil)

kompetentligini ajratib oladi. Shunga muvofiq, muallif kasbiy faoliyatning loyihalash, tashkillashtirish, kommunikativlik, baholash va analitik (tahliliy) hamda gnostik kabi komponentlarini ishlab chiqdi [5].

G.E.Karlibayeva ilmiy-tadqiqot ishlarida metodik tayyorgarlikning tashkiliy-pedagogik jarayonlari tuzilmasi komponentlari (rejalashtirish, rivojlantirish, tatbiq etish)ni predmetli-metodik va kasbiy-psixologik tayyorgarlik darajasiga amaliy va mantiqiy mushohada elementlarini integratsiyalash (topshiriq, nazorat, tahlil) asosida takomillashtirgan [6].

Mutaxassislarining ta'kidlashlaricha, o'qituvchini kasbiy rivojlantirishi va yangi nuqtai nazarni shakllantirishiga ta'sir etuvchi omillar sifatida quyidagilarni: uzluksiz ta'lim konsepsiyasi va amaliyotining rivojlanishi; axborotlashgan jamiyat sharoitida o'qituvchining bilimlarni o'zlashtirish va berishdagi yangi roli; bilimlar haqidagi yangi tasavvurlar alohida keltirish mumkin [7].

M.J. Shodiyevaga ko'ra, "o'qituvchini uzluksiz kasbiy rivojlantirish jarayonining samaradorligi ijtimoiy-iqtisodiy va kasbiy-texnologik omillarga asoslanishi aniqlandi.

#### I. Ijtimoiy-iqtisodiy omillar:

- jamiyatning o'qituvchilar uchun ijtimoiy talabi;
- ijtimoiy-iqtisodiy shart-sharoitlar;
- katta yoshli odamning o'qish uchun sarflaydigan vaqtdan uning foydasiga qanday foydalanish lozimligini hisobga olish;
- o'qituvchilarni kasbiy rivojlantirishda natijalarga muammolarni hal qilish orqali emas, balki imkoniyatlardan foydalanish orqali erishish (to'g'ri yo'llarini (kam vaqt va kam xarajat) izlab topish va butun diqqat-e'tiborni ularning resurslariga va harakatlariga jamlash).

#### II. Kasbiy-texnologik omillar:

- insonning subyektiv faoliyati barqaror ustunlik qiladigan ehtiyojlar, motivlar, qiziqishlar, yo'nalish va boshqalar tizimi; umumiy o'rta ta'lim muassasalarida o'qitish darajasi;
- o'qituvchilarni kasbiy rivojlantirish jarayonini mehnat bozori ehtiyojlari va sifat talablariga muvofiqlashtirish (yoki yaqinlashtirish);
- insonning yosh va fiziologik xususiyatlari, ijtimoiy holati, kasbiy faoliyatning mohiyati, uning o'zini o'zi rivojlantirishga bo'lgan ehtiyoji va o'zini o'zi anglashi.

### MUHOKAMA

Shunday qilib, pedagogik kompetentlik – bu kompetensiyalarni amalga oshirishni ta'minlaydigan kasbiy va

shaxsiy fazilatlar yig'indisidir. Bunda pedagogik kompetentlikning tarkibi quyidagi: kognitiv (kasbiy-pedagogik eruditsiya) va psixologik (hissiy-emotsional madaniyat, o'quvchilar bilan muloqot qilish, motivlarni shakllantirish va o'quvchilarning qobiliyatlarini rivojlantirish sohasida) kompetensiyalar orqali ifodalansa-da, konstruktiv va (yoki) tashkiliy (boshqaruv) kompetentliklarining roli deyarli yoritilmay qolmoqda.

Fikrimizcha, konstruktiv kompetentlik – bu o'quv-mashq mashg'ulotlari, darsdan tashqari tadbirlar, turli darajali topshiriq va (yoki) vazifalar, o'quvchi-sportchilarning mustaqil ishlari, muloqot va boshqalarni loyihalash qobiliyatini o'z ichiga oladi. Bunda bo'lajak pedagogik faoliyatni (o'quv-mashq va o'quv-yig'inlarni) rejalashtirish va modellashtirish (o'zi va o'quvchilarini, tarkibni tanlash va tuzish, o'quv/tarbiyaviy faoliyatni tashkil etish vositalari, usullari, shakllari, faoliyat bosqichlarini ajratish va vazifalarni belgilash) alohida ahamiyat kasb etadi. Shuningdek, sport maktabi trener-o'qituvchisining tashkiliy (boshqaruv) kompetentligi o'z ichiga o'quv-mashq jarayonini, o'quvchi-sportchilarning sport faoliyatini va trener-o'qituvchining xatti-harakatlarini tashkil etish va muvofiqlashtirish qobiliyatining mazmun-mohiyatini qamrab oladi. Masalan, ushbu kompetentlik o'quv-mashq jarayonida o'quv materialini to'g'ri taqdim etish o'quvchi-sportchilar oldiga aniq vazifalar qo'yish, ularni bajarish mazmunini ochib berish, jismoniy mashqlarni ko'rsatish va tushuntirish, ularni amalga oshirishda o'quvchi-sportchilarga yordam berishda yaqqol namoyon bo'ladi. Bunda o'quvchi-sportchilarni boshqarish deganda, ularning diqqatini to'g'ri yo'naltirish, saflanish va qayta saflanishni aniq amalga oshirish, harakat faoliyatiga tayyorlash, alohida maqsadlardagi mashqlarni o'z o'rnida qo'llash, jismoniy yuklamani to'g'ri taqsimlash nazarda tutiladi.

## XULOSA

Umuman olganda, keng qamrovli nazariy tahlillarga qaraydigan bo'lsak, *birinchidan*, pedagogik faoliyatni amalga oshirishning muvaffaqiyati – bu sport maktablari trener-o'qituvchisining zarur kasbiy kompetensiyalarni qay darajada egallaganligiga bog'liq sanaladi. *Ikkinchidan*, kasbiy faoliyat sohalariga asoslanib, sport maktablari trener-o'qituvchisining maxsus pedagogik kompetentligining o'ziga xosligini – kognitiv, sog'lomlashtiruvchi, kommunikativ, predmetli-instrumental, kreativ kompetensiyalari mazmunining ochib berilishida – kompetensiyaviy yondashuv alohida ahamiyat kasb etadi.

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## TRITIKALE VA QURG'OQCHILIK

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### ANNOTATSIYA

Havoning isib ketishi va uning natijasida qurg'oqchilikning paydo bo'lishi global muammodir. Yurtimizga ham bu iqlim o'zgarishi o'z ta'sirini ko'rsatmay qolmayapti. Hozirgi kunda shu qurg'oqchilikka chidamli navlarni saralash va ulardan yuqori hosil olish daolzarb masaladir. O'simliklarning o'sib rivojlanishiga suvning yetishmasligi ulardagi moddalar almashinuviga, fotosintezning pasayishiga, suv bug'lanishining oshib ketishiga (transpiratsiya) olib keladi.

Inson omili natijasida yaratilgan tritikale o'simligining qurg'oqchilikka chidamliligini o'rganish, yurtimizning janubiy hududlari uchun ancha qulaylik tug'dirib, ularda yetishtirilayotgan qoramollar uchun yem-xashak tanqisligini oldini olingan bo'lardi. Tritikale ekini bug'doy va javdar duragayi bo'lgani uchun bu o'simlik bug'doy va javdarga nisbatan ancha moslashuvchan ekin turi bo'lib, donining tarkibida oqsil miqdori 11-12% , pichaning tarkibida 10-11% bo'ladi. Somoni hayvonlar uchun ozuqa, doni non, yem tayyorlashda foydalaniladi. Non mahsuloti tayyorlashda sifati bug'doy mahsulotidan pastdir. Sharoitga qarab 5-8 t/ga, ko'kati 40-55 t/ga ni tashkil etadi. Lekin bunday yuqori hosil olish uchun albatta dala maydoni begona o'tlardan tozalangan, turli kasalliklarga qarshi fungisidlar sepilishi va mineral moddalar (o'g'itlar) o'z vaqtida solinishi zarur.

**Kalit so'zlar:** qurg'oqchilik, atmosfera qurg'oqchiligi, tuproq qurg'oqchiligi, fiziologik qurg'oqchilik, tritikale, zang kasalligi, fungisidlar.

## TRITICALE AND DRY FARMING

### ABSTRACT

Global warming and resulting droughts are a global problem. This climate change does not fail to affect our country. Currently, the selection of these drought-resistant varieties and obtaining a high yield from them is an important issue. The lack of water for the growth and development of plants leads to the metabolism of substances in them, a decrease



in photosynthesis, and an increase in water evaporation (transpiration).

Studying the drought resistance of the triticale plant, which was created as a result of the human factor, would have made it much easier for the southern regions of our country, and the shortage of fodder for the cattle raised there would have been prevented. As the triticale crop is a hybrid of wheat and rye, this plant is a more flexible type of crop compared to wheat and rye, the protein content of the grain is 11-12%, and the content of the bran is 10-11%. Straw is used to prepare animal feed, grain, bread, fodder. The quality of bread products is lower than that of wheat products. Depending on the conditions, it is 5-8 t/ha, greens 40-55 t/ha. But in order to get such a high yield, it is necessary to clear the field of weeds, to spray fungicides against various diseases, and to apply mineral substances (fertilizers) in time.

**Keywords:** drought, atmospheric drought, soil drought, physiological drought, triticale, rust disease, fungicides.

## KIRISH

Iqlim o'zgarishi so'nggi yillarda global muammodir. Iqlimning tobora isib borayotgani suv havzalariga ham ta'sir ko'rsatmoqda. Haroratning ortishi oqibatida suv havzalaridagi ochiq suvlarning bug'lanishi hozirgi 5 % dan 10-12% gacha ortib ketishi mumkin. Tabiiyki buning natijasida ko'proq suvlar bug'lanishiga olib keladi. Oldinlari havo haroratining isib ketishi, ya'ni 40 °C dan yuqori harorat ilgari yoz faslida 15 kun kuzatilgan bo'lsa, endi 30-40 kuzatilishi mumkin. Xususan O'zbekiston hududida 1991-2021- yillikda sovuq havo kirib kelishi hissasi bundan oldingi iqlimiy davr 1961-1991-yillarga nisbatan 3 barobarga kamaygan. Oldingi davrda bu ko'rsat-kich 22-24 % bo'lsa, hozirda bu ko'rsatkich 8 % ga tushib qolgan. Oqibatda qish faslida kam yog'ishi, sovuq havo oqimlarining kam kirib kelishi va o'rtacha havo harorati isib borishi kuzatilmoqda [7]. Bu esa qurg'oqchilikka sabab bo'ldi. Bu nafaqat insoniyatga balki o'simliklarning ham fiziologik holatiga salbiy ta'sir ko'rsatib ularning o'sib rivojlanishi, hosildorligining kamayishiga olib keladi. Bu esa hozirgi zamon olimlari-dan issiqqa, qurg'oqchilikka chidamli bo'lgan o'simliklarning yangi navlarini tanlash, yaratishni taqazo etadi. O'simliklarda suvning yetishmasligi ularning fotosinteziga, nafas olish, ildiz orqali mineral elementlarning o'zlashtirilishi, o'simliklar tanasida moddalar transportiga ta'sir etadi.

## ADABIYOTLAR TAHLILI VA METODOLOGIYA

Qurg'oqchilik uch xil bo'lib, ular atmosfera qurg'oqchiligi tuproq qur'g'oqchi- ligi va fiziologik qurg'oqchilikdir.

Tuproq qurg'oqchiligida asosan yozning o'rtalari va oxirida kuzatiladi. Bu vaqtlarda havoning issiq va quruq kelishi natijasida tuproqdagi suv yer yuzasidagi va o'simliklarda tez bug'lanib, tuproqning qurib qolishi kuzatiladi. Natijada tuproq qur-g'oqchiligi kuzatiladi.

Atmosfera qurg'oqchiligi- haroratning juda yuqori bo'lib, havoning nisbiy namligi kam (10-20%) bo'lishi bilan tavsiflanadi. Bu vaqtda o'simlikda transpiratsiya jarayoni juda jadal bo'ladi. Natijada o'simlikka suvning kelishi bilan unda suvning bug'lanib chiqishi o'rtasidagi moslanish buziladi va o'simlik so'liy boshlaydi. Issiq va quruq shamol (garmsel) esganda vujudga keladi. Atmosfera qurg'oqchiligi o'simliklar uchun yanada xavflidir. Garmsel vaqtida tuproqda suvning bo'lishiga qaramay o'simlikda suv ko'p sarflanib, qurg'oqchilikka chidamsiz o'simliklar nobud bo'ladi.

Fiziologik qurg'oqchilik-tuproqda o'simliklarni ta'minlash uchun yetarli miqdorda suv bo'lsa ham uni ayrim sabablarga ko'ra o'simliklar o'zlashtira olmasligi bilan tavsiflanadi. Bularga tuproqda tuzning to'planishi (sho'r tuproqlar), tuproq haroratining juda past bo'lishi, kuchli nordon reaksiyaga ega bo'lgan (ph=3-5) boshqalarni ko'rsatish mumkin.

Qurg'oqchilik ta'siriga nisbatan chidamli navlarni tanlash va ulardan foydalanish ham kata ahamiyatga ega. Bunday navlar fermentlarning sintetik qobiliyati yuqori bo'lgan suv miqdori ko'p, hujayra shirasi konsentratsiyasi yuqori, mustahkam pigmentlar tizimi, suvni saqlash qobiliyati kuchli va organik moddalarni to'plash qobiliyati yuqoriligi bilan farq qiladi. Bu ko'rsatkichlar qurg'oqchilikka chidamlilik-ning fiziologik va biokimyoviy tabiatini tavsiflaydi [2].

Shunday ekan hozirgi kunda keng tarqalib borayotgan yem-xashak ekini tritika-kening qurg'oqchilikka chidamliligini o'rganish asosiy dolzarb masaladir. Chunki aso-san qoramolchilik, yilqichilik va parrandachilikda ularni yetarli darajada oziq-ovqat bilan ta'minlash aholini sut, go'sht, tuxum va boshqa mahsulatlarga bo'lgan talabini qondirishda muhim omildir. Tritikale ekini yangi yosh ekin turi bo'lib, hozirgi kunda ekin maydonlari asta sekin kengaymoqa.

Tritikale o'simligi XIX asrning oxirlarida Germaniyada chatishtirish natijasida yaratildi. Hozirgi ekilyotgan tritikale o'simligi 1918-yilda Saratov tajriba qo'rg'onida G.K.Meyster



tomonidan yaratilgan. Tritikale bug'doy va javdarning duragayi bo'lgani uchun *triti* so'zi bug'doyning *Triticum* va javdarning *Secale* so'zlaridan olingan. Tritikale boshoqli don ekinlarining serhosil turiga kiradi, biologik xususiyatlariga ko'ra yetishtirish asosan oson ekin hisoblanadi. Oddiy agrotexnika natijasida 4-5 t, ilg'or texnikada 7-8 t dan 40-50 ko'k poya beradigan ekindir. Vegetatsiya davri 240-250 kun, kuzgi bug'doydan 8-10 kun keyin pishib yetiladi. Urug'lari bug'doy, javdar urug'lariga o'xshab 1-2 °C da una boshlaydi. Urug'ning unib chiqishi uchun qulay harorat 12-14°C eng pastki harorat 2-4°C, eng yuqori harorat 35°C, maysalash va tuplash paytida 18-20°C sovuqqa bardosh beradi. Havо harorati 40-45°C temperaturada yaxshi o'sib rivojlanadi. O'zidan changlanuvchi ekin, ammo chetdan ham changlanadi, tritikale javdarga o'xshab tuproqqa talabchan emas, oziq modda (N<sub>2</sub>, P, K va boshqa elementlar) bilan kam ta'minlangan, sho'rlangan, qumloq botqoqlashgan tuproqlarda ham yaxshi hosil bera oladi [5].

FAO ma'lumotlariga ko'ra bugungi kunda 3 mln gektar maydonga tritikale yetishtiriladi [4]. Ko'pchilik davlatlarda tritikaleni yetishtirishga bo'lgan talab yil sayin oshib bormoqda. Bunga sabab uning yuqori hosildorlikka ega va stress omillarga chidamli don ekini bo'lgani hisoblanadi.

## NATIJARLAR VA MUHOKAMA

Tritikale donining tarkibida suv-14 %, oqsil-12,8%, uglevodlar-68,6%, yog'-1,5%, klechatka-3,1%, va kul-2,0% ni tashkil qiladi. Endosperm tarkibida eruvchan oqsillar-26-28%, tuzda eruvchi 7-8%, spirtida eruvchi 25-26% va sirka kislotada eruvchi oqsillar 18-20 % saqlanadi, shuning uchun tritikalening biologik qimmatini bug'doydan baland. Tritikalening doni non pishirishda, konditerlik sanoatida, pivo pishirishda tayyorlikda va chorva mollariga ozuqa sifatida foydalaniladi [1].

Tritikalening ildiz tizimi yaxshi rivojlangan bo'lib qumli yengil tuproqlarda bug'doy, arpa va suliga nisbatan yaxshiroq rivojlanadi. Optimal sharoitda tritikalening mahsuldorligi bug'doy, arpa va ba'zan sulidan ham yuqori bo'ladi [3].

Albatta o'simliklardan yuqori hosil olish uchun ularni qaysi kasalliklar bilan ko'proq kasallanishini bilish va o'sha hududda ko'proq qaysi begona o'tlar o'sishini o'rganish zarurdir. Shularni bilgan holda ularga qarshi kurash choralarini ko'rish ham mo'l hosilning kafolatidir. Tritikale o'simligi ham bug'doy va javdarga o'xshab qorakuya, zang, unshudring, ildiz chirish va bundan tashqari turli zararli hashoratlar bilan (shira

va boshqalar) ham kasallanadi. Bular orasida zang kasalligi eng keng tarqalgan bo'lib, u o'simlikni rivojlanishi jumladan, yashil tusini saqlagan barg yuzasi kamayadi, ildizlari zaiflashadi, ozuqa moddalar va suvni o'zlashtirilishi susayadi, bo'yi past va nozik bo'lib, yotib qolishga moyilligi ortadi, gullar va boshqochalar soni kamayadi, doni puch bo'lib qoladi va yalpi hosil kamayadi. Ularga qarshi kurash choralarini va samarali usullari qo'llash maqsadga muvofiqdir. Eng yaxshi choralardan biri avvalo kasalliklarga chidamli navlarni ekish hamda kasalliklarning tarqalishini oldini hisoblanadi. Kasalliklarga qarshi kurash tadbirlari amalga o'tkazilmasa, g'alla hosilini 50-60% gachasi nobud bo'ladi. Zang kasalliklarga qarshi kurashishda bir qator fungusidlar sinovdan o'tkazilib, shulardan yuqori samara beradiganlari Reykon 28% sus.k. 0,5 l/ga, splesh 30% em.k. 0,2-0,3 l/ga, Top-Krop 40% k.e. 0,2-0,3 l/ga, Super Konozol 33% em.k., 0,3-0,35 l/ga kabi fungusidlarni me'yorlarda qo'llash kasalliklarni keng tarqalishiga barham beradi va yo'qotilishi mumkin bo'lgan hosil saqlab qolinadi [6].

## XULOSA

1. Ob-havoning haddan tashqari isib ketishi qurg'oqchilikka sabab bo'ladi.
2. Havо haroratining isib ketishi ( $40 < \dots$ ) oldinlari yoz faslida 15 kun bo'lgan bo'lsa, endi 30-40 kun kuzatilmoqda.
3. Bug'doy va javdarning duragayi tritikale o'simligining qurg'oqchilikka chidamliligini o'rganish hayvonlarni yetarli yem-xashak bilan ta'minlanishiga olib keladi.
4. Tritikale o'ziga xos ekin turi bo'lib, bug'doy va javdarga qaraganda yuqori hosil berishi, kasalliklarga chidamli ekanligi bilan ajralib turadi.
5. Tritikaledan mo'l hosil olish uchun dalani o'z vaqtida begona o'tlardan tozalash, mineral o'g'itlarni o'z vaqtida berish va kasalliklarga qarshi kurash choralarini bilish zarurdir.

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## LEGAL ANALYSIS IN THE SETTLEMENT OF SHM FORGERY CRIMES THAT RESULT IN LOSSES TO OTHER PARTIES IS ASSOCIATED WITH (STUDY OF DECISION NUMBER 252/PID. B/2015/ PN. PMS) IN INDONESIA

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### ABSTRACT

The purpose of the study is to know and analyze criminal law studies on forgery of letter evidence, analyze the judge's legal considerations in solving SHM forgery crimes associated with the study of Decision Number 252 / Pid.B / 2015 / PN. PMS and analyzing the legal consequences of the crime of forgery of SHM letters are associated with the study of Decision Number 252 / Pid.B / 2015 / PN. PMS This type of research is normative juridical. The nature of the research used is analytical descriptive research. This study used library data collection techniques (library Research). Data collection tools are carried out by document study. The data analysis used in this thesis research is qualitative data analysis. The act of falsification is a type of violation of truth and trustworthiness, with the aim of gaining advantage for oneself or others. That the form of the stamp or code stamp in front of the certificate cover, namely the Certificate of Property Rights Number 1525 Bantan Village in the name of YUNIARTI, SH has the code 02.02 is not true, which is true at the office of the National Land Agency of Pematangsiantar City with the code 02.03; Considering, that in accordance with the above considerations Yuniarti, SH as the wife of the defendant who has used a letter in the form of a certificate that has been forged as a credit guarantee to PT Perkreditan Diori. The legal consequences received as a result of forgery are Declaring Defendant RAMLAN legally and conclusively guilty of the crime of "Assisting in Forgery of Authentic Deeds"; Sentenced the Defendant to imprisonment for 5 (five) months; Stipulate that the period of detention that the defendant has served is deducted entirely from the sentence imposed; Order that the Defendant be detained; Charge the Defendant to pay the cost of the case in the amount of Rp 1,000.- (one thousand rupiah).

**Keywords : Crime, Forgery, Certificate of Property Rights, Land,**

### INTRODUCTION

Currently, there are many criminal acts of forgery of letters or documents with various forms and developments that point to the higher intellectual level of the increasingly complex crime of forgery. The crime of forgery is a crime in which there is a system of untruth or falsehood of an object in which something appears from the outside as if it is true, when in fact it is contrary to the truth. Individuals who participate or participate in forging letters or documents must be held criminally responsible in accordance with their respective roles. Criminal liability

is a form of determining whether a suspect or defendant is held accountable for a criminal act that has occurred. In other words, criminal liability is a form of determining whether a person is acquitted or convicted. The fulfillment of criminal acts, then criminal responsibility is also fulfilled, it's just that people who have committed criminal acts are not necessarily convicted (Rusianto, 2016).

As for the issue of criminal liability, it essentially discusses the issue of whether or not criminal offenders can be convicted. The principle is the principle of guilt *green straf zonder schuld* (no crime without guilt). Elements of criminal liability or a person can be held criminally liable if: If the crime committed is unlawful, Above a certain age and capable of responsibility, Intentionally or omission, There is no justification reason or no forgiving reason.

The four elements above must be met, meaning that if one of the above elements is not fulfilled even though the person commits a criminal act, it still cannot be held accountable or will not be criminalized. The definition of criminal acts does not include the definition of criminal liability. Criminal acts refer to the prohibition or threat of acts with a criminal threat. When it comes to criminal liability, it must inevitably be preceded by an explanation of the criminal act (Ali, 2022). Forgery is a form of crime regulated in Chapter XII Book II of the Criminal Code, where the book states that what includes forgery is only in the form of writings, including forgery of signatures regulated in articles 263 of the Criminal Code to Article 276 of the Criminal Code (Lamintang & Lamintang, 2009).

Land is a gift from God Almighty and as an important natural resource for mankind on earth. Man's relationship with the land is not just a place to live, it is also a resource for human survival. Land has a very important value for human life, so management is needed regarding the utilization, use, processing of land. The importance of the meaning of land for human life is because humans are completely inseparable from the land (Soimin, 1993). This criminal law already regulates what actions cannot be made, including the prohibition of forging signatures or letters. The act of making a fake letter is the act of making a letter that did not exist before or did not exist, some or all of whose contents were fake. While the act of forgery, is all forms of any action directed at an existing letter, by deleting, changing or replacing one of the contents of the letter so that it is different from the original letter. This letter is called a forged letter (Adami, 2002).

Letters are interpreted both handwritten and printed writing, including using a writing machine. It doesn't matter what letters, numbers are used by hand, with prints or other tools including telegrams. Hamzah says Forgery of letters must turn out:

1) Intended for proof of a fact whether according to a law or a letter from an administrative authority issued based on his authority or also with that letter a right, an agreement or debt relief can arise;

2) Made fake;

3) Manufacture has the intention to use it as genuine and not to fake it or to instruct other people to use it;

4) With that in mind it may incur a loss. (Hamzah, 2009)

(Adrian Sutedi, 2023) Explain that land rights certificates have a function, namely as a strong proof tool. The title certificate over the land gives confidence for the bank/creditor to lend money to the owner, for the government the land title certificate proves that the land concerned has been registered with the land office.

Thus, the title certificate to the land is proof that the land has been registered will have more to do with the essence of its interests and benefits that can be rented, traded, cooperated, made dependent. Such interests must be able to be given legal protection against cases that arise in land interests, these interests cause many legal problems, such as forging other people's certificates for certain purposes, which ultimately harms others. The act of forging (*vervalschen, vervalen*) a letter is the act of altering in any way by a person who is not entitled to a letter that causes part or all of the contents of the letter to be different from the original letter or the original letter (Chazawi & Ardi Ferdian, 2014).

Regarding the issue of certificate forgery, in this proposal a decision was discussed as the basis for the study, namely decision Number 252 / Pid.B / 2015 / PN. PMS where in the sitting of the case it is explained that the defendant RAMLAN, together with YUNIARTI, SH (separate file) on Wednesday February 26, 2014 or at least at another time in the year two thousand fourteen (2014) located at the Office of PT. Bank Perkreditan Rakyat Diori Ganda Sinaksak Branch on Jalan Medan-Pematangsiantar Km. 10,5 No. 24 Simalungun Regency or at least in a place that is still included in the jurisdiction of the Simalungun District Court. However, because the residence of most of those summoned is closer to the Pematangsiantar District Court, based on the provisions of Article 84 Paragraph (2) of the Criminal Procedure Code, the Pematangsiantar District Court has the authority to try him, who commits, who orders to do, and who participates in doing deeds using authentic deeds whose contents are not true or that are forged as if true and not falsified.

In this regard, the author is interested in conducting research in order to compile a thesis writing on the normative analysis of the criminal act of issuing fake Property Rights certificates (SHM) that result in losses to other parties (study of Decision Number 252 / Pid.B / 2015 / PN. PMS).

## RESEARCH METHODS

This type of research is normative juridical, namely by examining laws and regulations, legal theories and jurisprudence related to the problems discussed (Soemitro, 1990). The approach method in this study was used to analyze the criminal act of forging Property Rights certificates. Based on the formulation of the problem and research objectives, the nature of the research used is analytical descriptive research. This research conducts analysis only to the level of description, which is analyzing and presenting facts systematically so that it can be easier to understand and conclude (Soehartono, 1999). Descriptive in the sense that in this study the author intends to describe and report in detail, systematically and

thoroughly regarding everything related to the criminal act of forgery of property rights certificates .

To obtain data or information that supports the research objectives, the author uses primary data collection methods obtained directly from the field by conducting questions and answers to informants. The informants used are Prosecutors and Judges, the selection of Prosecutors, Judges and Notaries. Researchers also use secondary data, obtained from official documents, books related to the object of research in the form of reports, theses, theses, dissertations, and laws and regulations.

This research uses library research techniques, namely by collecting secondary data which includes primary legal material, secondary legal material and tertiary legal material. The legal materials used in this research were obtained from searches through literature study activities, namely collecting various legal materials, both in the form of laws and regulations, professional codes of ethics, literature, scientific papers, previous research results, documents, opinions of legal practitioners, magazines, and various relevant books related to criminal forgery legal issues involving Notaries / PPAT and Land Agencies.

Data collection tools are carried out by document study. This document study (documentary study) is intended to obtain data, in the form of primary legal material, secondary legal material, and tertiary legal material, by taking into account several characteristics, namely having relevance to the research to be carried out, the accuracy of the data and actuality. Interview guidelines are used in this thesis in obtaining factual and real information as a description of opinions that develop in the community by prioritizing informants in accordance with problem areas such as Notary / PPAT or PPAT and other institutions that are considered closely related to the problem discussed.

Data analysis used in this thesis research is qualitative data analysis, namely "data analysis that does not use numbers but is based on laws and regulations, respondents' views to be able to answer the problems of this study (Soekanto, 2007). All data obtained are then grouped into similar data for analytical purposes, and translated logically systematically for further conclusions using deductive methods. The conclusion is a specific answer to the problem studied, so it is expected to provide solutions to the problems in this research (Silalahi, 2010).

## RESULTS AND DISCUSSION

### **Proof of SHM Forgery (case study of Decision Number 252/Pid.B/2015/ PN. PMS**

For the sake of legal certainty, a rule or norm that is believed and enforced unofficially by a group of people has no enforceability because through norm formalism alone a rule has valid reach and enforceability (Fachmi, 2011). As a formal criminal law, the Criminal Procedure Code has determined how to maintain the material criminal law (KUHP) including the investigation mechanism. This means that the procedures for investigating criminal acts have no

difference between one crime and another unless otherwise stipulated by law. However, slightly different from the crime of forgery of letters, including forgery of land title certificate deeds, the Criminal Procedure Code has regulated in such a way as is regulated in Chapter V Part Five (Examination of Letters) starting from Article 47 to Article 49, some of which are regulated in Chapter XIV Part Two (Investigation) consisting of Article 131 and Article 132.

Therefore, the way of decomposition carried out by the author focuses on the main matters related to the criminal act of forging property rights certificate deeds. The authority to conduct an examination of false letters or false writings is the investigating officer as stated in Article 132 paragraph (1) of the Code of Criminal Procedure as follows: "In the event that a complaint is received that a letter or writing is false or forged or suspected to be false by the investigator, then for the purposes of the investigation, the investigator may be asked for information about it from an expert".

The article specifies the right and authority of the investigator to examine false letters or writings, that is, when the investigator receives a complaint from someone about the existence of false or falsified letters or writings, the investigator's right to examine the complaint is issued.

The expert opinion requested by the investigator is set forth in "written form" stipulated in Article 133 of the Code of Criminal Procedure. How to ask an expert for information in "writing". In the request letter, the investigator stated clearly what the investigator wanted the investigator to the expert. Article 65 paragraph (2) of the Investigation Management Case. However, if the forged letter or false writing complained of is in the hands of another person, and for subsequent examination the investigator requires confiscation of the letter, for that he must take the usual procedure as stipulated in Article 129 of the Code of Criminal Procedure, after first obtaining a "letter of permission" from the local Chief Justice of the State.

(Harahap, 2017) Explain in the event that there is a strong suspicion of the existence of a forged or forged letter, then in the framework of the investigation action:

- a. Investigators requested a "letter of permission" from the local Chief Justice of the District Court. Here enough permits, not special permits..
- b. With the power of the permission of the Chief Justice of the District Court, the investigator:
  - 1) Can go to the public depository official where the forged original letter is kept.
  - 2) In addition to being able to visit, the investigator may also "request" the public depository officer to send the "original letter" he keeps to the investigator.
  - 3) etc

After making an arrest, the investigator/assistant investigator must make a minutes of arrest at least containing: (Article 40 paragraph (1) of the Investigation Management Report).



For land title certificates forged by perpetrators of forgery crimes, investigators will confiscate them for investigation purposes. According to Article 1 number 16 of the Code of Criminal Procedure, confiscation is a series of actions of investigators to take over and or keep under their control movable or immovable objects, tangible or intangible for evidentiary purposes in investigation, prosecution and trial. In making a seizure, only the investigator can do it (Article 38 paragraph (1) of the Code of Criminal Procedure) or auxiliary investigators (Article 60 Perkap Management of Investigations) and on the orders of the investigator the investigator can also make seizures (Article 5 paragraph (1) point b number 1 of the Code of Criminal Procedure). The object of the seizure action carried out by the investigator is (Article 39 paragraphs (1) and (2) of the Code of Criminal Procedure).

### **Legal Considerations of Judges in Giving Verdicts Against Perpetrators of Vote Forgery That Result in Losses (Case Study Decision Number 252/Pid.B/2015/ PN. PMS)**

Criminal law policy cannot be separated from the criminal law system. Every organized society has a legal system consisting of criminal law regulations and sanctions, a criminal law procedure and a criminal enforcement mechanism. Thus, criminal law policy is related to the (criminal) law enforcement process as a whole. Therefore, criminal law policy is directed at the concretization/operationalization/functionalization of material criminal law (substantial), formal criminal law (criminal procedure law) and criminal implementation law (Barda Nawawi Arief, 2018). From the legal facts that have been revealed at the trial, the panel of judges will then consider whether the defendant's actions meet the elements of the article as charged by the public prosecutor to the defendant.

That in this case the accused has been charged by the Public Prosecutor with an indictment in the form of Alternative Subsidiaritas, the First Primair Indictment violates Article 264 paragraph (2) of the Criminal Code jo Article 55 paragraph (1) 1st of the Criminal Code, Subsidiar violates Article 264 paragraph (2) of the Criminal Code jo Article 56 2nd of the Criminal Code or both Primair violate Article 263 paragraph (2) of the Criminal Code jo Article 55 paragraph (1) 1st of the Criminal Code, Subsidiar violated Article 263 paragraph (2) of the Criminal Code and Article 56 paragraph (2) of the Criminal Code, provided that the Tribunal can choose charges in accordance with the facts at trial.

Since one of the elements of the First Primair Alternative Charge of the Public Prosecutor is not proven, it acquits the accused from the First Primair Charge and further consideration will be considered the next charge, namely the Subsidiar First Alternative Charge, which violates Article 264 paragraph (2) of the Criminal Code jo Article 56 2nd of the Criminal Code whose elements are as follows:

- 1) Whose goods;
- 2) Knowingly providing an opportunity, means or information to commit an act;

3) Use authentic deeds whose contents are not true or that are forged as if true and not forged, If the forgery of the letter may cause harm;

Ad.1. Whose goods;

There is an element whosoever has been considered in the First Primair Alternative indictment above, then mutatis mutandis this element has been proved and taken into consideration in the element of the First Subsidair indictment;

Ad.2. Knowingly providing an opportunity, means or information to do the deed;

This element is alternative, which means that if one element has been fulfilled, then this whole element is considered to have been proven as well. in accordance with the testimony of witness Hendrik Lumban Tobing, witness Ginda Martua Siringo-ringo and witness Evalina Pangaribu stated that Yuniarti, SH is the wife of Defendant Ramlan applied for a loan of money to Bank Perkreditan Rakyat Diori Ganda Sinaksak Branch 2 (two) times, namely in 2012 with a loan of Rp. 10,000,000 (ten million rupiah) and the second time in 2014 amounting to Rp. 10,000,000,- (ten million rupiah) based on Credit Agreement No. 28 / SPK / BPR-DCG / SB / 2014 dated February 26, 2014 with a loan maturity until May 26, 2015.

At the trial, Defendant Ramlan denied it where the Defendant did not get an explanation from PT. Bank Perkreditan Rakyat Diori Ganda Sinaksak Branch which became collateral for the loan in the name of Yuniarti (wife of the Defendant). On the objection of the Defendant, the Tribunal considered as follows: that the act of the Defendant who has justified the signing of the contents of the agreement is a form of negligence, namely not being careful to do an act whereby to determine a person who is said to be "careful" can use the criteria or measures of mind and strength and knowledge of a person, and in this case Defendant Ramlan is an educated person in his work, a Civil Servant and educated a Bachelor of Law (SH), so that the defendant who is knowledgeable a Bachelor of Law and understands at least knows about the law, which the Defendant should before taking action to sign the contents of the agreement between PT Bank Perkreditan Diori and Defendant Ramlan's wife, Yuniarti, read and examine the purpose and purpose of the contents of the agreement so that the actions taken by the Defendant in signing the contents of the agreement without seeing and reading first can be categorized as a person who provides an opportunity or means or helps to commit acts that are contrary to the law and in a quo case the defendant has given Yuniarti (the defendant's wife) the opportunity to borrow money to PT Bank Perkreditan Diori Sinaksak Branch using a forged certificate, thus this element has been proven and fulfilled.

Ad. 3 Use authentic deeds whose contents are not true or that are forged as if true and not forged, If the forgery of the letter can cause harm.

Furthermore, Yuniarti, SH used a forged land certificate as if it were genuine and made collateral for a loan of money to the People's Credit Bank Diori Ganda Sinaksak Branch twice, namely in 2012 and 2014 each amounting to Rp. 10,000,000,- (ten million rupiah) where the

defendant co-signed the credit agreement so that the loan money could be disbursed;

Certificate of Ownership Number 1525 in the name of Ramlan which has been forged Yuniarti, SH is an Authentic Deed made by the official authorized for it, namely the National Land Agency Pematang Sinatar and based on witness testimony Erwin Alexander Manurung, ST who is an expert from the Pematangsiantar National Land Agency stated that the certificate of Ownership Number 1525 in the name of Yuniarti, SH is not a certificate or letter issued by the Pematang Siantar national Land Agency based on:

1. Paper Form :

That the paper from Certificate of Property No. 1525 of Bantan Village on behalf of YUNIARTI, SH is not a product of the National Land Agency in this case the office of the National Land Agency of Pematangsiantar City.

2. Form Stamp or Code Stamp:

That the form of stamp or stamp code in front of the certificate cover, namely Certificate of Property Rights Number 1525 Bantan Village in the name of YUNIARTI, SH has the code 02.02 is incorrect, which is correct at the office of the National Land Agency Pematang Siantar City with the code 02.03.

3. From the Certificate of Property Rights Number 1525 of Bantan Village in the name of YUNIARTI, SH which is compared with the land book at the Office of the National Land Agency of Pematangsiantar City that the first owner is in the name of RAMLAN, and it turns out that the Certificate of Ownership Number 1525 of Bantan Village is in the name of YUNIARTI, SH and this is not true. In accordance with the above considerations Yuniarti, SH as the wife of the defendant who has used a letter in the form of a certificate that has been forged into a credit guarantee to PT Perkreditan Diori where to be able to provide a loan for the Defendant as Yuniarti's husband, SH also helps use the certificate by signing the contents of the credit agreement without seeing and paying attention to the object of the guarantee.

As a result of the actions of the Defendant who had helped Yuniarti's actions, SH as the defendant's wife used the Title Certificate that had been forged into a credit guarantee which is now known to belong to Abdi Manahara Damanik, SH, so that the Defendant's actions had harmed the victim witness Abdi Manahara Damanik. Thus this element has been proven and fulfilled that based on the description of the above considerations, the Panel of Judges has obtained a conviction of the guilt of the accused, and during the trial process of this case, the Panel of Judges did not obtain any matters or circumstances that can be used as justification or excuse reasons for the defendant's actions that can exclude or abolish the conviction of the defendant.

Therefore, the accused must be found guilty and must also be sentenced to a criminal offense commensurate with his guilt based on the provisions contained in Article 264 paragraph (2) of the Criminal Code jo Article 56 2 of the Criminal Code in the First Alternative Indictment Subsidair which is classified as a criminal offense "assisting in the forgery of an Authentic Deed.

Since the defendant was found guilty and sentenced, and the previous defendant did not file an application for exemption from payment of the costs of the case and there was no certificate stating the defendant's incompetence, the defendant must be burdened to pay the costs of the case.

During the judicial process, the defendant has been subjected to municipal detention, where the act of detention has been lawfully committed under the provisions of the law, the Tribunal is of the opinion that sufficient grounds to detain the defendant, it is necessary to order that the accused be held in the custody of the State Detention Center.

### **Application of Law to Perpetrators of Letter Forgery (Case Study of Decision Number 252/Pid.B/2015/ PN. PMS)**

To prove the indictment, the Public Prosecution has submitted evidence at the trial, namely witnesses who have given testimony under oath / promise in accordance with their religion, which is basically as follows :

Witness 1. ABDI MANAHARA DAMANIK, SH,

- That on Friday, November 28, 2014 at approximately 13.00 WIB at the Office of the National Land Agency of Pematangsiantar City, witnesses learned of forgery of letters in the form of Title Certificate Number 1525 Bantan Village on behalf of Yuniarti, SH on a plot of land and buildings located on Jalan Seram / Jalan Flores, Bantan Village, West Siantar District, Pematangsiantar City, is Yuniarti, SH as the Defendant's Wife..

- That the witness knows from the statement of PT. Bank Perkreditan Rakyat Diori Ganda Sinaksak Branch told the witness that the Certificate of Ownership Number 1525 of Bantan Village in the name of Yuniarti, SH on a plot of land and building located on Jalan Seram / Jalan Flores Bantan Village, West Siantar District, Pematangsiantar City had been used as collateral for a loan in the name of Yuniarti, SH.

- That witness Yuniarti, SH deliberately used the Certificate as collateral for the defendant's loan to PT. Bank Perkreditan Rakyat Diori Ganda Sinaksak Branch which is located at Jalan Medan-Pematangsiantar Km. 10.5, Tapan Dolok District, Simalungun Regency.

- That based on the statement of the National Land Agency of Pematang Siantar City to witnesses, as for the falsified part in the Certificate of Property Number 1525 in the name of Yuniarti, SH. BPN Pematangsiantar does not issue or issue a Certificate of Property Number 1525 in the name of Yuniarti, SH, but in the name of the witness, namely Abdi Manahara Damanik, SH;

- That the witness obtained the Certificate of Property Number 1525 based on the winner of Auction I (first) Execution of Dependent Rights organized by PT. Bank Mega Syariah Pematangsiantar Area with the intermediary of the State Wealth and Auction Service Office (KPKNL) Pematang Siantar Branch.

- That witness Yuniarti, SH used the Certificate as collateral for a loan of Rp. 10,000,000 (ten million rupiah) to PT. Bank

Perkreditan Rakyat Diori Ganda Sinaksak Branch which is located at Jl. Medan-Pematangsiantar Km. 10,5 Tapian Dolok District, Simalungun Regency.

Witness 2. HENDRIK L. LUMBAN TOBING:

- That the witness works as a leader in the office of PT. Bank Perkreditan Rakyat Diori Ganda Sinaksak Branch which is located at Jalan Medan-Pematangsiantar Km. 10.5, Tapian Dolok District, Simalungun Regency.

- That Yuniarti, SH is listed as a debtor who has a loan to PT. Bank Perkreditan Rakyat Diori Ganda Sinaksak Branch with collateral in the form of 1 (one) Certificate of Ownership Number 1525 in the name of Yuniarti. SH

- That the Loan Application Letter dated February 25, 2014 signed on behalf of Yuniarti, SH to PT. Bank Perkreditan Rakyat Diori Ganda Sinaksak Branch that the number of loan applications submitted on behalf of Yuniarti., SH is Rp. 10.000.000,- (ten million rupiah).

- That defendant Ramlan participated in signing a Credit Agreement (SPK) between PT. People's Credit Bank Diori Ganda Sinaksak Branch with the defendant Yuniarti, SH at that time where Ramlan was the guarantor witness for the Debtor Credit on behalf of Yuniarti, SH and what was meant by the guarantor witness was the witness who was partly responsible for the smooth payment of installments until it was paid off.

Witness 3. ROBIN SIAGIAN :

- That the witness works as a Collection Superviso at PT. Bank Mega Syariah Area Pematang Siantar which is located at Jalan Sutomo No. 154/258 Pematang Siantar City.

- That the witness learned about the forgery of the letter on Wednesday, December 10, 2014 at approximately 13.00 WIB at the Office of PT. Bank Mega Syariah Pematang Siantar Area after the victim Abdi Manohara Damanik, SH came to see witnesses and informed about the forgery of the letter while the perpetrator who allegedly forged the letter was Yuniarti, SH.

- That the Certificate of Ownership Number 1525 of Bantan Village in the name of Abdi Manahara Damanik, SH on the object of a plot of land and building located on Jalan Seram / Jalan Flores II Bantan Village, West Siantar District, Pematangsiantar City was once collateral for a loan to PT. Bank Mega Syariah Area Pematang Siantar which is located at Jl. Sutomo No. 154/258 Pematang Siantar City.

- That previously the Certificate of Property Rights Number 1525 Ex. Bantan in the name of Abdi Manahara Damanik, SH as collateral to PT. Bank Mega Syariah Pematang Siantar Area was registered in Ramlan's name and then on April 13, 2012 by Ramlan sold it to ARSAD based on sale and purchase deed number 238/2013 dated April 13, 2012 made by Masta Damanik, SH as PPAT Pematang Siantar City official.

- That PT. Bank Mega Syariah Pematang Siantar Area conducted an Auction for the execution of collateral rights against collateral and the winner was the victim witness Abdi Manahara Damanik.

Adjudicate :

- 1) Declaring Defendant RAMLAN not legally and conclusively guilty of committing a criminal offence pursuant to the First Primair Indictment;
- 2) Acquitting the Defendant of the First Primair Indictment;
- 3) Declaring Defendant RAMLAN legally and conclusively guilty of the crime of "Assisting in the Forgery of Authentic Deeds";
- 4) Sentence the Defendant to imprisonment for 5 (five) months;
- 5) Stipulate that the period of detention that the defendant has served is deducted entirely from the sentence imposed;
- 6) Order that the Defendant be detained;
- 7) Charge the Defendant to pay the cost of the case in the amount of Rp 1,000.- (one thousand rupiah).

### **Legal Effects of Falsification Study Decision Number 252/Pid.B/2015/ PN. PMS**

Based on the results of the decision determined by the judge in considering the following information: Considering, that the Certificate of Ownership Number 1525 in Ramlan's name which has been forged Yuniarti, SH is an Authentic Deed made by the official authorized for it, namely the National Land Agency Pematang Sinatar and based on the testimony of witness Erwin Alexander Manurung, ST who is an expert from the Pematangsiantar National Land Agency stated that the certificate of Ownership Number 1525 on behalf of Yuniarti, SH is not a certificate or letter issued by the Pematang Siantar national Land Agency based on :

1) Paper Form:

That the paper from the Certificate of Property No. 1525 of Bantan Village in the name of YUNIARTI, SH is not a product of the National Land Agency in this case the office of the National Land Agency of Pematangsiantar City

2) Form of Stamp or Code Stamp:

That the form of the stamp or code stamp in front of the certificate cover, namely the Certificate of Property Rights Number 1525 Bantan Village in the name of YUNIARTI, SH has the code 02.02 is not true, which is true at the office of the National Land Agency of Pematangsiantar City with the code 02.03;

3) From the Certificate of Ownership Number 1525 of Bantan Village in the name of YUNIARTI, SH which is compared with the land book in the Office of the National Land Agency of Pematangsiantar City that the first owner is in the name of RAMLAN, and it turns out that the Certificate of Ownership Number 1525 of Bantan Village is in the name of YUNIARTI, SH and this is not true.

In accordance with the above considerations Yuniarti, SH as the wife of the defendant who has used a letter in the form of a certificate that has been forged into a credit guarantee to PT Perkreditan Diori where to be able to grant the loan Defendant as Yuniarti's husband, SH also helped

use the certificate by signing the contents of the credit agreement without seeing and paying attention to the object of the guarantee. As a result of the actions of the Defendant who had helped Yuniarti's actions, SH as the defendant's wife used the Title Certificate that had been forged into credit collateral which is now known to belong to Abdi Manahara Damanik, SH, so that the Defendant's actions had harmed the victim witness Abdi Manahara Damanik.

The panel of judges has obtained a conviction of the guilt of the defendant, and during the trial process of this case, the panel of judges has not found any things or circumstances that can be used as justification or excuse reasons for the defendant's actions that can exclude or eliminate the conviction of the defendant, therefore the defendant must be found guilty and must also be sentenced to criminal punishment commensurate with his guilt based on the provisions contained in Article 264 paragraph (2) of the Criminal Code jo Article 56 2nd of the Criminal Code in the First Alternative Indictment Subsidair which is classified as a crime of "assisting to commit forgery of an Authentic Deed".

Since the defendant was found guilty and sentenced, during the judicial process, to have been placed under city detention, where the act of detention had been lawfully committed under the provisions of the law, the Tribunal was of the opinion that sufficient grounds to detain the defendant were necessary to order that the accused be held in the custody of the State Detention Center.

## CONCLUSION

Based on the results of the study, it is concluded that the act of counterfeiting is a type of violation of truth and trustworthiness, with the aim of obtaining benefits for oneself or others. An orderly association of life in an orderly developed society cannot take place without the assurance of the correctness of some evidence of letters and other documents. Yuniarti, SH as the wife of the defendant who had used a letter in the form of a certificate that had been forged into a credit guarantee to PT Perkreditan Diori where to be able to grant the loan The defendant as Yuniarti's husband, SH also helped use the certificate by signing the contents of the credit agreement without seeing and paying attention to the object of the guarantee. The legal consequences received from forgery are Declaring Defendant RAMLAN not legally and conclusively proven guilty of committing a criminal act in accordance with the First Primair Indictment, Acquitting the Defendant from the First Primair Indictment, Declaring the defendant RAMLAN legally and conclusively guilty of committing the crime of "Assisting in Committing Forgery of Authentic Deed". Sentence the Defendant to imprisonment for 5 (five) months, stipulate that the detention period that the defendant has served is deducted entirely from the sentence imposed, Order that the Defendant be detained, charge the Defendant to pay the cost of the case in the amount of Rp 1,000.- (one thousand rupiah).

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- Pasal 133 ayat (1) KUHP
- Pasal 264 ayat (2) KUHP jo Pasal 55 ayat (1) ke-1 KUHP,
- Pasal 264 ayat (2) KUHP jo Pasal 56 ke-2 KUHP
- Pasal 263 ayat (2) KUHP jo Pasal 55 ayat (1) ke-1 KUHP,
- Pasal 263 ayat (2) KUHP jo Pasal 56 ayat (2) KUHP,
- Pasal 264 ayat (2) KUHP jo Pasal 56 ke-2 KUHP



## MASOFAVIY TA'LIMDA QO'LLANILADIGAN MOBIL QURILMALAR

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### ANNOTATSIYA

Masofaviy ta'lim, talabalar va o'qituvchilarning bir-birlari bilan masofaviy o'zaro ta'siri bo'lib, bunday masofaviy ta'lim o'quv jarayoniga xos bo'lgan deyarli barcha tarkibiy qismlarni (uslublar, maqsadlar, tashkiliy shakllar, mazmun va ko'pincha o'qitish vositalarini) aks ettiradi va o'quv jarayonining interaktivligini ta'minlaydigan telekommunikatsiya texnologiyalarining maxsus vositalari orqali amalga oshiriladi.

**Kalit so'zlar.** Masofaviy ta'lim, mobil ta'lim, mobil qurilma, gadjet, mobil ilova.

### KIRISH

Ma'lumki, O'zbekiston Respublikasining ta'lim to'g'risidagi qonining 16-moddasida masofaviy ta'lim axbrot-kommunikatsiya texnologiyalari hamda Internet jahon axborot tarmog'idan foydalangan holda masofadan turib olishga qaratilgan.

Masofaviy ta'limni sifatli amalga oshirish uchun shaxsiy yoki noutbuk kompyuteri hamda sifatli Internet aloqasi bo'lishi nazarda tutiladi. Lekin ma'lum sabablarga ko'ra buning har doim ham iloji bo'lavermaydi.

Shunga ko'ra masofaviy ta'limni Mobil ta'lim (M-Learning) yordamida amalga oshirish muhim ahamiyat kasb etadi.

### ADABIYOTLAR TAHLILI VA METODOLOGIYA.

Doskajanov Ch.T., Danenova U.N., Kokkoz M.M. larning 2018 yildagi "Experimental ta'lim" xalqaro jurnalining 2 sonida e'lon qilingan "Роль мобильных приложений в системе образования" [1] maqolasi masofaviy ta'limda mobil ilovalarni qo'llash imkoniyatlari yoritib berilgan.

[2] adabiyot "Matematika, fizika, informatika, kimyo va biologiya fanlaridan I ilmiy-ijodiy konferentsiya materiallari" to'plamida e'lon qilingan "Dars jarayoni samaradorligini oshirishda axborot texnologiyalaridan foydalanish usullari" nomli maqola tezisi bo'lib, unda ananaviy va masofaviy

dars mashg'ulotlarida multimediya texnologiyalaridan foydalanish imkoniyatlari keltirilgan.

Shuningdek [3] adabiyot "Dars jarayonida internet resurslaridan foydalanish" bo'yicha ko'rsatma va takliflar keltirilgan.

Ushbu ilmiy ishda masofali ta'limni mobil ta'lim asosida tashkil etish bo'yicha bir nechta takliflar keltirilgan. Ularni amalga oshirishdan kelib chiqishi mumkin bo'lgan samaradorlik va kamchiliklari sanab o'tilgan.

### **NATIJA VA MUHOKAMA.**

Mobil ta'lim – bu joylashgan o'rindan yoki o'quvchilarning joylashuvining o'zgarishidan cheklanmay mobil qurilmalar orqali elektron o'qishdir.

Shunday qilib, masofaviy o'qitish jarayonini tashkil etish uchun zamon va makondan qat'iy nazar mobil ta'lim mobil texnologiyani alohida, hamda boshqa axborot va aloqa texnologiyalari bilan birgalikda qo'llashni nazarda tutadi.

Kompyuterlar dunyosida mobil qurilma atamasi bir joydan ikkinchi joyga osongina ko'chirilishi mumkin bo'lgan har qanday elektron qurilmani anglatadi. Vaqt o'tishi bilan ushbu turkumga mobil telefonlar, noutbuklar, smartfonlar, aqlli soatlar va boshqa portativ qurilmalar kirdi.

Bugungi kunda mobil qurilma odatda Internetga simsiz ulanishi mumkin bo'lgan ilovalarni ishga tushiradigan har qanday portativ kompyuterni anglatadi. Biroq, bugungi kunning yanada qat'iy standartlariga ko'ra, bu toifa yangi ixtirolar bilan kengayishda davom etmoqda. Har qanday hisoblash bilan bog'liq sanoatda bo'lgani kabi, bizning mobil qurilmalarimiz hajmi va vaznini kamaytirish bilan birga yanada ilg'or xususiyatlarni taklif qilishda davom etmoqda.

Mobil qurilmalarga quyidagilar kiradi:

- mobil telefonlar;
- smartfonlar;
- kommunikatorlar (Personal Digital Assistant);
- portativ radiolar;
- fotokameralar;
- planshetlar;
- aqlli soatlar;
- musiqa pleyerlari;
- elektron kitoblar.

Mobil qurilmalarni avtonom quvvat manbai (akkumulyatorli yoki oddiy zaryadlanmaydigan batareyalar),

o'Ichamlari va vazni kichikligi, tugmalar ko'rinishidagi boshqaruv elementlari, tach-ekranlar (sensorli ekranlar), radiokanal (bluetooth, WiFi va boshqalar) orqali masofadan boshqarish pulti mavjudligi bilan birlashtiradi.

Mobil qurilmalardan foydalanish quyidagi imkoniyatlarni yaratib beradi:

- yangi muloqot va hamkorlik vositalarini taqdim etish sinfdagi o'qishni sinfdan tashqaridagi o'qish bilan, uyga qaytishda yo'l davomidagi o'qish va darslar oralig'idagi o'qish bilan bog'lash imkonini beradi;

- uyda ta'lim olayotgan o'quvchilar uchun ma'lumot almashish, savollar berish va yangi ko'nikmalarni mashq qilish imkoniyatini berish;

- o'quvchilar bilim ishlab chiqaruvchilarga aylanadi: sharhlar, muhokamalar yoki elektron yozuvlar almashinuvi o'qituvchining shubhasiz vakolat sifatidagi an'anaviy rolini hamkor yoki murabbiyning zamonaviyroq rolga o'zgartiradi; talabalar o'rtasidagi bunday muhokama natijalari muhim pedagogik manba bo'lib, haqiqiy ta'limga o'tishni ta'minlaydi;

- yozib olish va qayd etish ish muhitida osonlashtiriladi, bu ta'limda ishtirok etishning isboti yoki rasmiy va norasmiy ta'limni uyg'unlashtirish usuli sifatida ko'riladi.

Mobil ilova - bu ma'lum bir platformada o'rnatilgan dastur bo'lib, u turli xil harakatlarni amalga oshirish imkonini beradi.

Ta'lim muassasalari uchun mobil ilovalardan foydalanish quyidagilarga imkon beradi:

- talabalarning bilim darajasi ustidan yagona nazoratni amalga oshirish;
- sinov va nazorat ishlarilarni o'tkazishni soddalashtirish;
- ta'lim jarayonining barcha ishtirokchilari o'rtasida axborot almashinuvini tezlashtirish, o'qituvchilar va talabalar o'rtasidagi o'zaro munosabatlar jarayonini soddalashtirish;

- o'quv jarayonini faollashtirish va modernizatsiya qilish;
- taqsimlangan ta'lim resursini tashkil etish;
- o'quv jarayoni ishtirokchilarining joylashgan joyidan qat'iy nazar o'quvchilarning birgalikdagi faoliyatini ta'minlash;

- mobil qurilmadan o'quv, uslubiy va ma'lumotnomalarning shaxsiy media kutubxonasi sifatida foydalanish;

- o'quv va ilmiy maqsadlarda mobil qurilmani ta'lim muassasasi tarmog'idagi uskunalar va qurilmalarga ulash;

- ta'lim va tadqiqot maqsadlarida atrof-muhit haqidagi ma'lumotlarni to'plash uchun mobil ilovalar va unga o'rnatilgan datchiklardan foydalanish.

Ayrim foydali mobil ilovalar bilan tanishamiz.

**MalMath** - har bir harakatning bosqichma-bosqich tavsifi va berilgan formulalarning grafik tasviri bilan oddiy va ancha murakkab muammolarni hal qilish uchun Androidda yaratilgan kuchli matematik dastur.

**Math Helper** (Matematika bo'yicha yordamchi) - bu Android ilovasi bo'lib, u imtihonlar topshirishda, sessiyalarda, uy vazifalarini yozishda matematika, algebra, geometriya, matritsalar bilan ishlashda, tenglamalar sistemasi va vektorlar tizimlari bilan ishlashda ajralmas yordamchi dastur.

**GeoGebra** - bu Windows, iPhone, iPad va Androidni qo'llab-quvvatlaydigan ajoyib ko'p funksiyali kross-platformali matematik ilova bo'lib, u qandaydir tarzda o'rganish yoki turli matematik operatsiyalarni bajarish zarurati bilan ishlaydigan har bir kishi uchun yaxshi yordamchi bo'ladi.

**Maxima** - bu Windows OT boshqaruvida simvolli va raqamli ifodalar bilan ishlash uchun bepul kompyuterli algebra tizimi.

Mobil qurilmalar yordamida yechiladigan asosiy masalalar:

- mahalliy tarmoqlar va Internetning o'quv va ma'lumot manbalariga tezkor kirishni ta'minlash;
- real vaqt rejimida o'qituvchi va talabalar o'rtasidagi o'zaro munosabatlarni tashkil etish;
- ma'ruza materialini namoyish qilish jarayonida, ma'lum bir joyga, ayrim hollarda darslarni o'tkazish vaqtiga bog'lanmasdan o'rganish imkoniyatini ta'minlash;
- kompyuterlar bilan jihozlanmagan o'quv xonalarida dasturiy ta'minotdan foydalangan holda ishlarni bajarish imkoniyatini ta'minlash.

Mobil qurilmalar yordamida yechib bo'lmaydigan xolatlar:

- ba'zi o'qitilayotganlarda zarur funksiyalar to'plamiga ega texnik vositalarning etishmasligi;
- o'quv jarayoniga mobil qurilmalarni joriy etishga o'qituvchilarning uslubiy tayyorgarligi pastligi;
- o'quv faoliyatining turli yo'nalishlari bo'yicha talabalar uchun tayyor mobil o'quv resurslari va dasturlari hajmining yetarli emasligi;
- mobil qurilmalar talabalar va maktab o'quvchilarini o'quv jarayonida ko'ngilochar xarakterdagi faoliyatga (o'yinlar, aloqa, video va audio resurslarni ko'rish) undashi.
- ekranning kichik o'lcham va past o'tkazuvchanligi.

Bugungi kunga kelib, faqat oxirgi ikki xolatni bartaraf etish qiyin deb tasniflash mumkin.

## XULOSA VA TAKLIFLAR

Xulosa qilib aytish mumkinki, mobil ilovalar asosida ta'lim muassasalarida o'quv jarayonini tashki qilish o'quv materiallarini fanning so'ngi yutuqlari asosida tezkor tarzda yangilab borish bilan bog'liq bir qator qulayliklar yaratadi.

Ta'limni mobil ilovalar asosida o'qitish ko'proq ta'limning individuallashtirishiga olib keladi. Buning natijasida talaba o'zini mustaqil izlanishi natijasida induvudual ishlash qobiliyati rivojlanadi, o'zlashtirish ko'rsatkichlari rivojlanadi. Mobil ilovalar tarkibiga kiritilgan nazorat ishlari talabani o'zlashtirish jarayonini monitoringini olib borishi bilan amaliy ahamiyat kasb etadi.

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## БЕНЗОЛИЛ ХЛОРИДНИ БАЪЗИ УЧЛАМЧИ АМИНЛАР БИЛАН ҲОСИЛ ҚИЛГАН ТУЗЛАРИНИ АЦИЛЛАШ РЕАКЦИЯЛАРИДА ҚЎЛЛАШ

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### АННОТАЦИЯ

Бензоилхлориднинг пиридин ва учламчи аминлар- N,N-диметиланилин, N,N-диэтиланилин, триэтиламин ва трибензиламинларнинг бензоиламмоний хлорид тузлари синтез қилинди. Туз олиш реакцияларининг боришига эритувчи табиати ва аминнинг асослилиги кучининг таъсирини ўрганилди ва уларнинг тузилиши, шунингдек физик-кимёвий хоссалари ўрганилди. Олинган тўртламчи тузлар асосида метанол ҳамда этанол спиртлар билан этерификация реакциялари амалга оширилди.

**Калит сўзлар:** бензоилхлорид, пиридин, N,N-диметиланилин, N,N-диэтиланилин, триэтиламин, трибензиламин, ациллаш.

### ABSTRACT

The chloride salts of benzoylammonium pyridine benzoyl chloride and tertiary amines N,N-dimethylaniline, N,N-diethylaniline, triethylamine and tribenzylamines have been synthesized. The effect of the nature of the solvent and the degree of basicity of the amine on the course of salt formation reactions has been studied, their structure has been studied, as well as their physicochemical properties. Reactions with methanolic and ethanolic alcohols were carried out on the basis of the obtained quaternary salts.

**Keywords:** benzoyl chloride, pyridine, N,N-dimethylaniline, N,N-diethylaniline, triethylamine, tribenzylamine, acylation.

### КИРИШ

Ҳозирги кунда илм-фаннинг шиддат билан ривожланиши асносида, барча фанларнинг мақсад ва унинг мазмуни бутунлай янгиланиш рўй бермоқда. Ушбу ривожланиш органик кимёдаги янгиликларда ўз аксини топиб бормоқда. Бугунги кунда шу кунгача баъзи органик бирикмаларни синтез қилиб бўлмайдиган деб таъкидлаб келинган органик бирикмаларни синтез қилиш имкониятлари топилган. Шу қаторда узоқ вақт талаб этадиган реакциялар ёки маҳсулот унуми кам бўлган реакцияларда қисқа вақтда юқори унум билан маҳсулот олиш имконини берадиган

реакцияларнинг муқобил шароитлари топилган. Органик бирикмаларни синтез қилишда самарали катализаторнинг қўлланилиши бу синтезларнинг янада соддалашишига, органик бирикмаларни олишнинг қулай усуллари ишлаб чиқишга, махсулот унумининг ортишига, реакциянинг тезлашишига олиб келади. Шундай усуллардан бири, спиртларни учламчиаминлар иштирокида кислота хлорангидридлари билан ациллаш бўлиб, ўзида гидроксил гурухи тутган турли хил табиий бирикмаларнинг мураккаб эфирларини синтез қилиш, ундаги қонуниятларни аниқлаш, реакцияни олиб боришнинг оптимал шароитлари ва йўналишларини аниқлашга хизмат қилади. Бу реакциялар ёрдамида органик бирикмаларнинг янги ҳосилаларини юқори унум билан синтез қилиш мумкин. Ушбу йўналишда Х.К.Тожимухамедов, Ў.Ч.Ахмедов, М.Р.Юлдашева ва шогиртлари томонидан кўп йиллардан буён турли органик бирикмалар синфларини систематик равишда алкиллаш ва ациллаш реакциялари ўрганилиб келинмоқда [1-3]. Спиртларни учламчи аминлар иштирокида бензоилхлорид билан ациллаш реакцияларини ўрганишга бағишланган иш мураккаб эфирларни олишда самарали катализаторлар қўллашга бўлган ҳаракатдир. Спиртларни учламчи аминлар иштирокида бензоилхлорид билан ациллаш реакцияларини ўрганишга бағишланган ишлар мавжуд [4]. Муаллифлар Богодков, Головина, Черкасовлар спиртларни бензоилхлорид билан учламчи аминлар иштирокида бензоиллаш реакциясининг боришига олинган учламчи аминлар ва спирт тузилиши ва эритувчи табиатининг таъсирини ўрганишган. Аммо бу реакцияларда спирт, учламчи амин ва бензоилхлорид бир пайтнинг ўзида қолбага солинган ва реакциялар олиб борилган. Реакциялар оралиқ учламчи аминнинг бензоилхлорид билан тегишли тўртламчи аммоний типидagi тузлари ҳосил бўлиши ҳисобига содир бўлиши таъкидлаб ўтилган. Бироқ, оралиқ туз, яъни тегишли учламчи аминнинг бензоилхлорид билан ҳосил қилган тузи ажратиб олинмаган, бу тузларнинг физик-кимёвий хусусиятлари ва тузилиши ўрганилмаган. Бу эса спиртларни бензоилхлорид билан учламчи аминлар иштирокида ациллаш реакцияларининг механизмини ўрганиш заруратини кўрсатади. Реакциялар натижасида юқори унум билан олиниши мумкин бўлган мураккаб эфирларнинг турли соҳаларда кенг ишлатилиши мумкинлиги ва учламчи аминларнинг бензоилхлорид билан ҳосил қилган тузлари ёрдамида ациллаш реакцияси жуда тез ва юқори унум билан боришини ҳисобга олган ҳолда спиртларни учламчи аминларнинг бензоилхлорид билан ҳосил қилган тузлари билан ациллашнинг препаратив усулини ишлаб чиқиш мумкин бўлади.

## НАТИЖАЛАР

Илмий тадқиқотлар натижасида, дастлабки тажрибалар триалкилбензоиламмоний хлорид тузини синтез қилиш билан бошланди. Бунда ҳосил бўлган тузларнинг унуми бир қанча омилларга боғлиқ. Масалан, бензоилтриэтиламмоний хлорид тузи билан реакциясини ҳароратга боғлиқлигини кўриб чиқсак. Дастлаб, реакцияни хона температурасида (ацетон ёки бензол эритувчи сифатида) олиб борилганда моддаларни аралаштириш билан идиш қизиб, оқ тутун ҳосил бўлди ва тузнинг унуми 50-55% дан ошмади. Шу реакцияни 0°C да олиб борилганда реакция унуми кескин ортди.

жадвал -1

**Триэтиламиннинг бензоилхлорид билан турли ҳароратдаги реакция натижалари**  
(реагентларнинг моль нисбатлари: триэтиламин: бензоилхлорид 1:1)

№	Реакция ҳарорати, °C	Маҳсулот унуми, %
1	25	50
2	20	66
3	15	78
4	0	90-91

Олиб борилган тажриба натижалари асосида шуни айтиш мумкинки, ҳарорат пасайиши билан, қўшимча реакциялар камайиб, юқори унум билан бензоилтриэтиламмоний хлорид тузини олиш имконини беради.

2-Жадвалда бензоилхлориднинг тегишли учламчи аминлар билан реакцияларининг муқобил шароитлари келтирилган.

жадвал -2

**Бензоилхлориднинг учламчи аминлар билан реакцияларининг муқобил шароитлари**  
(реагентларнинг моль нисбатлари БХ : учлами амин 1:1)

Олинган модданинг номи	Ҳарорат, °C	Эритувчи	Реакция давомийлиги	Маҳсулот унум, %
<sup>1</sup> Бензоилтриэтиламмоний хлорид	0	Ацетон	1 сутка	92
<sup>2</sup> Бензоилпиридиний хлорид	0	Ацетон	1 сутка	82
<sup>3</sup> Бензоилдиэтилфениламмоний хлорид	20	Ацетон	2 сутка	75
<sup>4</sup> Бензоилдиметилфениламмоний хлорид	15	Ацетон	2 сутка	70
<sup>5</sup> Бензоилтрибензиламмоний хлорид	20-25	Ацетон	1 сутка	67

<sup>1</sup>БТЭАХ, <sup>2</sup>БПХ, <sup>3</sup>БДЭФАХ, <sup>4</sup>БДМФАХ, <sup>5</sup>БТБАХ

Реакцияларда ишлатилган эритувчилар табиатининг маҳсулот унумига ва реакциянинг боришига қандай даражада таъсир этганлигини таққослаш мақсадида бензоилхлориднинг учламчи аминлар билан реакцияларида ишлатилган эритувчиларнинг адабиётда маълум бўлган қутблилик қийматлари солиштириб кўрилди



[5]. Солиштириш натижасига кўра нуклеофиль реакцияларда эритувчи сифатида танланган ацетон кутибланувчанлиги юқори бўлганлиги учун реакциянинг унумини кескин оширди. Бензол эса кутбсиз молекула бўлганлиги учун реакция унуми ошмади.

Бензоилхлориднинг учламчи аминлар билан реакцияларида аминларнинг асослиги кучи маҳсулот табиатига таъсирини ўрганиш мақсадида биз реакциялари ўрганилган кислоталарнинг  $pK_a$  қийматларини таққослаб кўрилди [6]. Учламчи аминларнинг  $pK_a$  қиймати ошиши билан тўртламчи тузлар ҳосил қилиш ҳоссаси ортади.

Қуйидаги 3-жадвалда реакция маҳсулотларнинг табиати келтирилган. Тўртламчи тузларнинг тозалик даражаси ЮҚХ асосида текширилди (3-жадвал).

жадвал-3

**Бензоиламмоний хлорид тузларнинг  $R_f$  қийматлари ва элюентлар, физик константалари ва агрегат ҳолати**

Текширилган моддалар	$R_f$ қийматлари				Суюқлиниш харорати °C	Модда агрегат ҳолати
	I	II	III	IV		
БТЭАХ	0,2	0,07	0,04	0,11	248-250	Оқ кристал
БДЭФАХ	0,15	0,06	0,03	0,07	114-115	Оқ кристал
БДМФАХ	0,09	0,07	0,02	0,04	95,5-96	Оч яшил кристал
БПХ	0,42	0,12	0,17	0,06	75-76	Оч кўк кристал
БТБАХ	0,07	0,08	0,05	0,02	188-190	Оқ кристал
	хлороформ-бензол(1:1)	хлороформ-этанол(1:1)	ацетон-гексан-бензол(1:1:1)	хлороформ-толуол(1:1)		

Юпка қатлам хроматография (ЮҚХ) (Precoated TLC sheets ALUGAM® Xtra SIL G/UV<sub>254</sub>), очилтиргич-УФ лампа (камера).

Тегишли тўртламчиаммоний хлорид тузларининг тузилиши ИҚ-спектроскопия усули асосида ўрганилди 1-5 расмлар. Олинган бензоиламмоний хлорид тузларининг ИҚ-спектри таҳлил натижалари 5-жадвалда келтирилган.

жадвал-4

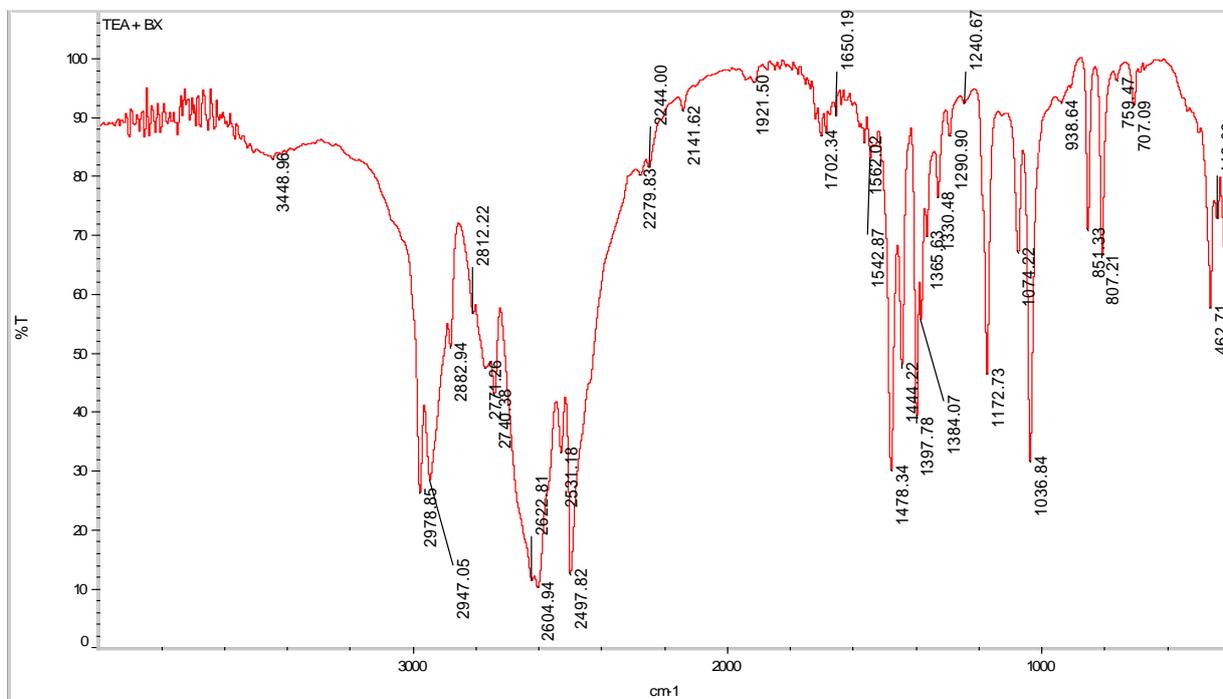
**Бензоилхлориднинг учламчи аминлар билан ҳосил қилган тузларнинг \*ИҚ-спектридаги ўзига хос ютилиш соҳалари,  $cm^{-1}$**

Моддалар		$\nu$ (C=O) (N-CO)	Ароматик ҳалқадаги боғнинг валент тебранишлари (C=C)	ass CH <sub>3</sub>	Алмашинган бензол ҳалқасининг деформацион тебранишлари	С $\Gamma$
БТЭАХ	2604-2497	1702	1562	-	$\delta_{CH}=707$	759
БПХ	2562-2597	1686	1581	-	$\delta_{CH}=707$	666
БДЭФАХ	2494-2597	1720	1596	-	$\delta_{CH}=704$	716
БДМФАХ	2497-2604	1703	1601	1478	$\delta_{CH}=707$	666
БТБАХ	2361-2468	1786	1600	1451	$\delta_{CH}=697$	743

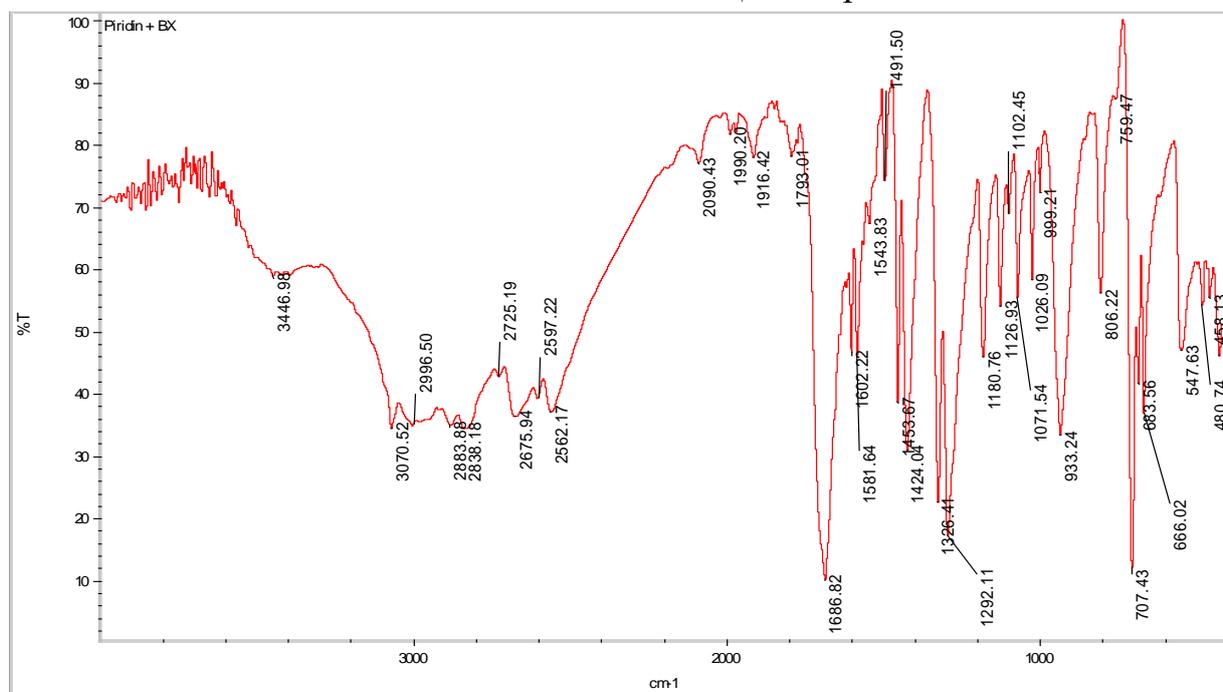
\*ИҚ-спектр: IRTracer-100 инфракизил Fur'e-спектрометри (SHIMADZU CORP, Япония, 2017)-(спектрал диапазон 4000÷400  $cm^{-1}$  тўлқин сониди); ўлчовлари- 4  $cm^{-1}$ , сигнал-шовқин-сезгирлик даражаси - 60,000:1; сканерлаш тезлиги - сониясига 20 спектр).



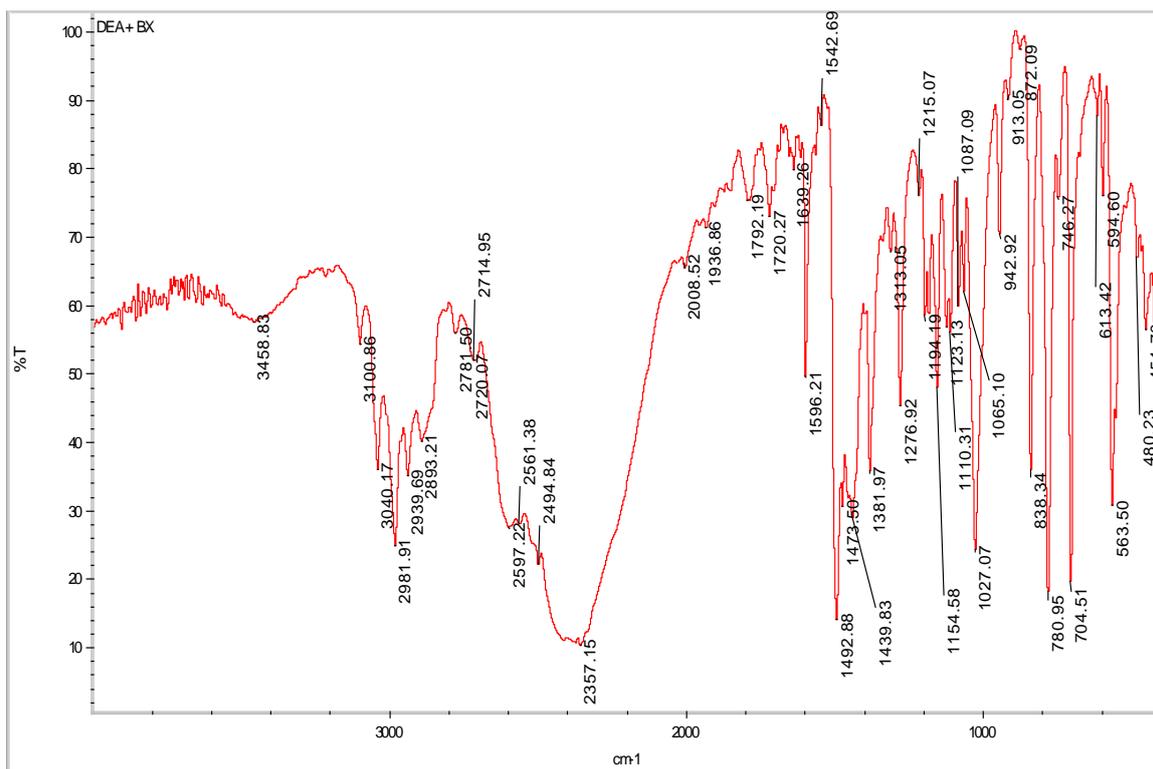
Бензоиламмоний тузларининг ИҚ-спектрида тўртламчи туз ҳосил бўлганлигини тасдиқловчи  $\equiv\text{N}^+$ - азот атомига  $2400\text{-}2600\text{ cm}^{-1}$  да валент тебранишлари,  $1686\text{-}1786\text{ cm}^{-1}$  да амин азот атомига бензоил гуруҳнинг бирикканлигини тасдиқловчи  $\equiv\text{N}^+\text{-CO-}$  боғига хос валент тебранишлари кузатилади.



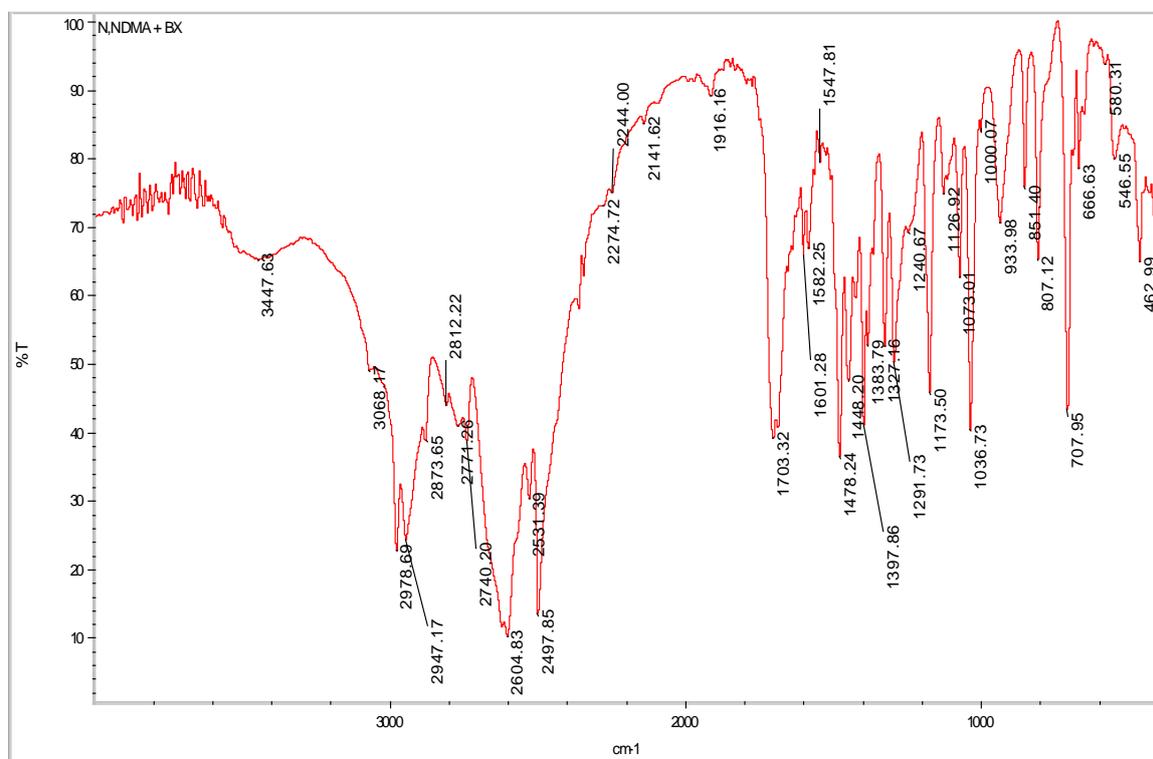
Расм 1. БТЭАХнинг ИҚ-спектри



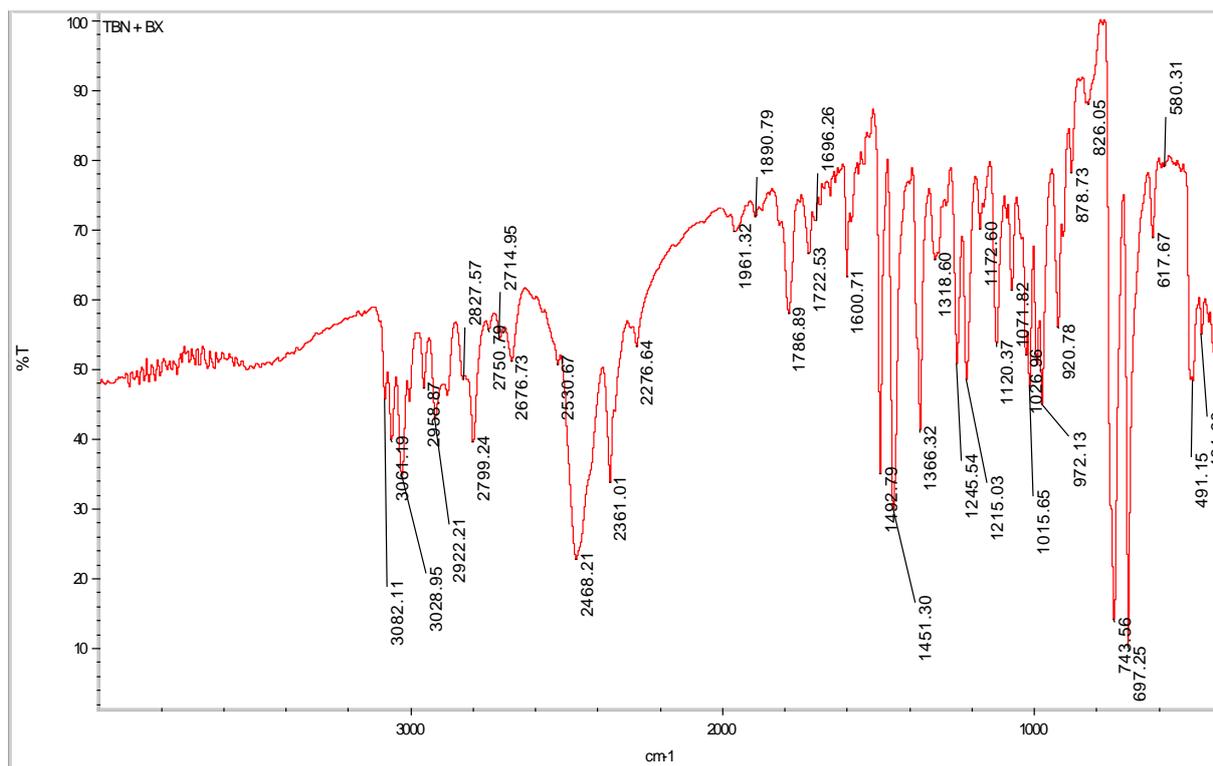
Расм 2. БПХнинг ИҚ-спектри



Расм 3. БДЭФАХнинг ИҚ-спектри



Расм 4. БДМФАнинг ИҚ-спектри



Расм 5. БТБАХнинг ИҚ-спектри

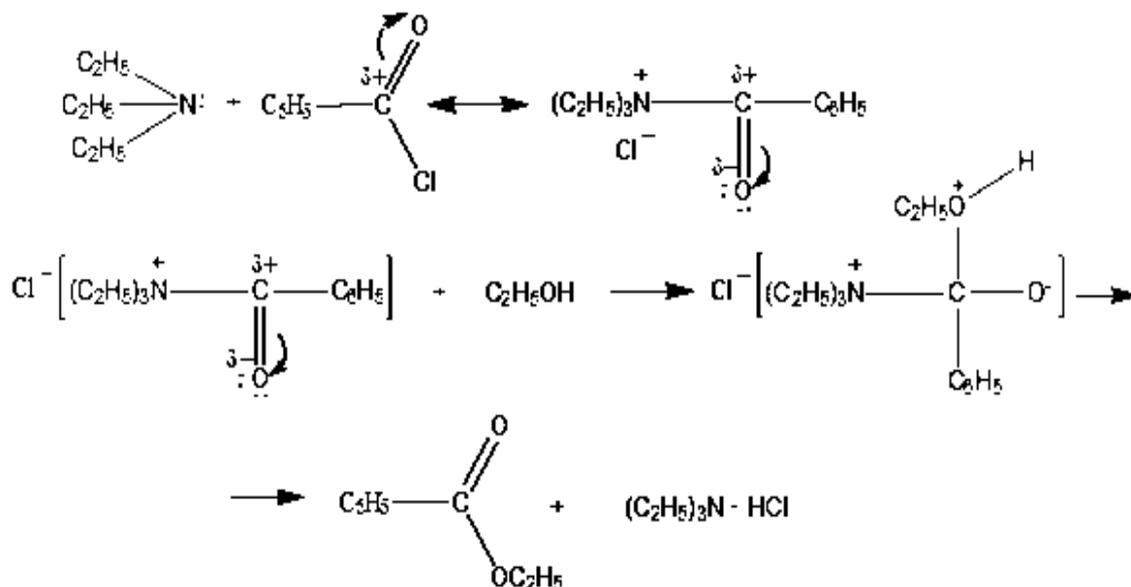
Кейинги тажрибалар олинган тўртламчи тузларни метил ва этил спиртлар билан ациллаш реакцияларини олиб боришда реакция аралашмани қайнатиш йўли билан амалга оширилди. Реакция натижалари 5-жадвалларда келтирилган. Олинган тегишли метил ва этил бензоатларни реакция аралашмадан вакуум асосида хайдаш асосида ажратиб олинди.

жадвал 5

**Бензоилхлориднинг турли учламчи аминлар билан ҳосил қилган тузларини метил ва этил спиртлари билан ациллаш реакциясининг натижалари**

Тўртламчи тузнинг номи	Реакциянинг давомийлиги, соат	Эфир унуми, %	Реакциянинг давомийлиги, соат	Эфир унуми, %
	Реагентларнинг моль нисбатлари тўртламчи туз:метил спирт 1:6		Реагентларнинг моль нисбатлари тўртламчи туз:этил спирт 1:6	
БТЭАХ	4	77	4	80
БПХ	4	58	2,5	68
БДЭФАХ	4	54	4	66
БДМФАХ	4	51	4	59
БТБАХ	5	49	5	53

Спиртларни бензоилхлорид билан триэтиламин иштирокида бензоиллаш реакцияси нуклеофиль алмашиниш механизмида кетади:



Демак, спиртларни бензоилхлорид билан учламчи аминлар иштирокида бензоиллаш реакцияларининг боришига реакцияга олинган учламчи амининг тузилиши, асослилиги, спирт тузилиши, эритувчининг табиати, реакциянинг ҳарорати ва вақти таъсир қилади.

## МУХОКАМА

Бензоилхлорид билан спиртларни учламчи аминлар иштирокида ациллаш реакцияларида қўлланиладиган оралиқ маҳсулот бўлган бензоиламмоний тузлари, бензоил хлоридни учламчи аминлар билан ацетон эритувчисидан юқори унум билан синтез қилиб олинди. Уларнинг тузилиши ва баъзи физик-кимёвий хоссалари ўрганилди. Олинган тузлар асосидан метанол ва этанол мисолида спиртларни ациллаш реакциясининг лаборатория усули ишлаб чиқилди ва ЎзМУ органик кимё кафедрасида ўқув жараёнига тадбиқ этилди. Реакцияларнинг асослилиги юқори бўлган учламчи аминлар билан юқори унум билан тузларни ҳосил қилиши, метанол ва этанол билан реакциясида аксинча асослилиги нисбатан паст бўлган учламчи аминларнинг бензоилхлорид билан ҳосил қилган тузлари билан спиртларни ациллаш реакцияси нисбатан паст унум билан бориши аниқланди. Амалиётда олинган натижалар назарий маълумотларга мос келиши кўрсатилди.

## ХУЛОСА

Бензоилхлориднинг триэтиламин, пиридин, N,N-диметиланилин, N,N-диэтиланилин, трибензиламин билан тегишли бензоиламмоний тузларин олинди. Бензоилхлориднинг асослилиги нисбатан юқори бўлган триэтиламин юқори унум

билан туз ҳосил қилиши ва туз ҳосил қилиш реакциялари ацетонда яхши бориши кўрсатилди. Олинган бензоиламмоний тузларининг тузилиши ИҚ-спектрида тегишли  $\equiv\text{N}^+$ - ва  $\equiv\text{N}^+\text{-CO-}$  боғларга хос ютилиш соҳаларининг қайд этилиши орқали тасдиқланди. Синтез қилинган бензоиламмоний тузлари орасида триэтиламин билан ҳосил қилган туз билан этанолни ациллаш реакциясининг юқори унуми билан бориши аниқланди ва бу тузлар ёрдамида ациллаш реакциясининг муқобил шароитлари кўрсатилди. Олинган бензоиламмоний тузлари ёрдамида спиртларни ациллаш реакциясининг лаборатория усули ишлаб чиқилди ва ўқув жараёнига тадбиқ этилди.

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## SIGNIFICANCE OF NUMBER THEORY TO DEVELOP SECURITY OF CAESAR CIPHER METHOD

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### Abstract

Cryptography is a discipline of converting the basic text communication into non readable form. the wide progress of technology increases the necessity of electronic data protection than ever before. Cryptography performance a significant role in data safety techniques. Cryptography has raised as a clarification which performances a dynamic function in data safety arrangement against malevolent attacks. Number Theory plays significant role in the encryption process. Caesar cipher is an earliest and basic cryptographic method of transforming initial text communication in to non-readable to keep the text from opponents. Caesar cipher is an arm of substitution method so we shall underwrite this technique in the range of traditional cryptography through delivering of an escalating and traditional form for Caesar cipher by means of information of mathematics and Computer science to growth the stability of the encryption. I Considered Caesar ciphers as agents and improved form of Traditional method with numerous characters key, that encrypted plaintext is approximately difficult to decrypt. my purposes is to present the utilization of Number Theory in Caesar Cipher Cryptography. We drive quick conversation around the knowledge of encryption in Caesar ciphering and several connected tools in Number Theory.

**Keywords:** Number Theory, Cryptography, Plaintext, Cipher text, Caesar Cipher

### 1. Introduction:

In today's technical and scientific nature, it is difficult to visualize without web or internet This up-to-date era is overcome by paperless communications in workplaces by means of usage of E-mail, E-cash trades, etc. on the other hand we study Number theory so we have to observe that each Number Theory's tool performances a significant



function in cryptography to encrypt and decrypt a communication text. Due to this there is an excessive necessity of exchanging of information over online channels. In different commerce and business-related areas, there may be private communication such as banking trades, credit information, governmental communication and personal text messages is transmitted in excess of web using E-mails, social network etc... To keep this category of private data from not permitted persons, there is a huge necessity of safety techniques to progress a system that guarantees to keep the data from the aggressor. One of the schemes to keep online secret information from unlicensed revelation is to transform the online information to non-readable. Cryptology is at center of running such warranty. The expression of Cryptology has been for more than 2000 years. This word had taken from two Greek expressions: kryptos, which means "secret or hidden" and logos, which means "description". Cryptology includes double contra services – privacy and resolution. The function of Privacy is named cryptography. The target of cryptography is to present a communication test unintelligible to the unapproved person. Cryptography is some time named "code making." The outcomes quantity of cryptology is named cryptanalysis. Cryptanalysis is often called "code breaking".

Cryptography is the knowledge of developing latest strong and useful encryption and decryption schemes. It distributes with the methods for transmission of communication text with a stable and secure manner. The fundamental purpose of cryptography is to permit the planned receivers of a communication to have the text correctly whereas avoiding eavesdroppers from comprehension the communication. Cryptography guarantees that the communication being referred at one end be secret and must be obtained just by the proposed receptionist at the other end. Cryptography transforms the primary communication in to non- readable design, then refers the communication through an exposed canal. The persons who is not allowed to know the communication have attempt to disruption the non-readable communication however it is difficult to do so. The allowed body has the ability to transform the not readable communication to understandable one. We have dual methods for transforming information into non readable document.

#### a. **Transposition technique**

#### b. **Substitution technique**

The cryptography is separated into two basic types dependent on the category of safety keys handled to encrypt/decrypt the text message. These double classes are: Asymmetric and Symmetric encryption methods.

i) **Symmetric Encryption:** In symmetric key cryptography similar hidden key is applied for encryption and decryption. The



encryption algorithm provide a key and then guide it to receptor portion somewhere decryption takes position. It is significantly valuable and faster than asymmetrical key cryptography.

- ii) Asymmetric Encryption: Asymmetric key cryptography which some time called as shared key cryptography. It plays with double keys: i.e public key and private key. Public key is consumed for encryption. And only the user knows about private key and is used for decryption. These both keys are connected to each other by any mathematical channel.
- iii) Cryptography Terminology
  - a) Plain Text: the primary text Communication or the real secret Text which somebody wants to forward to another person. We will denote by P.
  - b) Cipher Text: It is the production of encryption algorithm. Cipher text Communication couldn't be recognized by invader as in not readable layout. We will denote by C.
  - c) Encryption Algorithm: The process which transform a plaintext into cipher text with usage of a key
  - d) Key: This is likewise assumed as enter to encryption algorithm It might be numeric or alpha numeric text or might be a particular sign.
  - e) Decryption Algorithm: It is a contrary technique of encryption algorithm. Which the primary communication is recovered from the cipher text. Encryption algorithm occurs at the writer end and Decryption algorithm occurs at the recipient end.

### 1-1. Caesar Cipher (Substitution technique):

The Caesar cipher is very classical division of ancient cryptography its titled after the Roman Emperor Julius Caesar, who conforming to Suetonius consumed shift cipher through a steady left shift of 3 to encrypt essential armed text communication in combat. Therefore, it is likewise called as shift cipher, Caesar's cipher or Caesar shift. Substitution method plays an important rule to develop the encrypted text.

For the explanation we will consider the example

Plain text: ZYXWVUTSRQPONMLKJIHGFEDCBA

Cipher text: WVUTSRQPONMLKJIHGFEDCBAZYX

While encrypting, a separate consider every character of the text communication in the "plain text" and inscribes the matching letter in the "cipher text". Deciphering is precisely a reverse Process, by shifting of three positions.

This might be similarly illustrated by consuming Numerical arithmetic by converting the letters into numbers, we will explain on the time. Currently, if we want to encrypt a letter (x),it is

equation is  $E(x) = (x + n) \bmod 26$ , and the decryption is presented by :  $D(x) = (x - n) \bmod 26$ . The substitution of letters is similar for whole text message which is encrypted.

The main downsides of Caesar cipher is it can simply be cracked, even in cipher-text only situation. Several techniques have been discovered which break the cipher text by consuming regularity analysis and pattern texts. This is achievable since here we have just restricted number of conceivable transferals. (26 in English).

The circulation of letters in a archetypal model of English linguistic text message has different and expected form. A Caesar shift “replaces “this circulation, and it is achievable to establish the shift by testing the resulting frequency graph. This is the simplest method to breakdown Caesar cipher.

If we think through a text communication which is encrypted through a key of 1260356. The encryption method is Caesar cipher. Now suppose an aggressor obtains an encrypted cipher text but doesn't identify the key. Therefore, to create a plaintext he attempts several cryptanalysis methods on the cipher text. Assume, he applies frequency analysis method to breakdown it then its frequency circulation graph attained by analyzing the cipher text will be much different than actual.

Underneath the plain text letter, the substitution alphabet for Caesar cipher is given by

A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U
D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X
							V	W	X	Y	Z									
							Y	Z	A	B	C									

For instance: NUMBER THEORY IS EASY is converted in to QXPEHU WKHRUB LV HDVVB by the benefit of congruence theory Caesar cipher could be simply explained. Any plaintext is first presented arithmetically by altering the character of the text into digit by means of particular communication for instance.

A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U
0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
							V	W	X	Y	Z									
							21	22	23	24	25									

Now for every Plaintext, we will alternate the cipher text C, so we get the congruence

$C \equiv P + 3 \pmod{26}$ , We shift with three positions, so we have  $C = E(3, P) = (P + 3) \bmod 26$

In above equation C is the cipher text letter, E is the encryption of 3 which is the key and P is the sing of plaintext letter

Generally, with Caesar Cipher algorithm we can shift from 1 to 25 positions, it can be some digit between 1 to 25, so we name that digit K, therefore we have

$$C = E(K, P) = (P + K) \bmod 26$$

At the present we will effort for the alteration of encrypted information into its initial shape which is named Decryption. It decipheres the encrypted data therefore that an authoritative operator can just decrypt the information so decryption necessitates a top-secret key or password, to get back the plaintext we have the following equality

$$P = D(K, C) = (C - K) \bmod 26$$

We see the planned algorithm and its operation is explained with the assist of instance. The algorithm is used to encrypt as well as decrypt the plaintext

For example: HELLO WORLD YO.

We are to concern the Caesar cipher text to the plaintext, we will consider the key as  $K = 3$ , for encryption we have

$$C = E(3, P) = (P + 3) \bmod 26.$$

We see that first letter in plaintext is H, whose representative number in the above table is 7. So, we have

$$C = E(3, 7) = (7 + 3) \bmod 26$$

$$C = 10 \bmod 26$$

As we see that  $26 > 10$ , according the rule of congruence the remainder is 10, that is  $C=10$ , which 10 is the representative number of K, so the cipher text for H is K.

Similarly, for E, which is the second letter of "HELLO" we get

$$C = (4 + 3) \bmod 26$$

$$\Rightarrow C = H$$

Similarly, when we want to encrypt an arbitrary number let us say  $y$ , so  $y$  represented number of 24, so we have

$$C = E(3, 24) = (24 + 3) \bmod 26$$

$$C = 27 \bmod 26$$

$$C = 1$$

So, the cipher letter for the letter  $y$  would be B.

So, for the final cipher text of the above plaintext is

Plain text: HELLO WORLD YO

Cipher text: KHAAR ZRUOG BR

Now for the decryption process we have  $P = D(K, C) = (C - K) \bmod 26$

Our key is  $K = 3$ , so let decrypt, first for the letter K we have

$$p = D(3, 10) = (10 - 3) \bmod 26$$

$$P = H$$

For the second letter H we have



$$P = D(3,7) = (7 - 3) \bmod 26$$

$$P = 4 = E$$

So, after decryption of all the letters we get our plaintext back

### 1-2. Playfair Cipher:

Playfair cipher is a special form of classical cipher, it deals with a square of matrix of 5X5 alphabetical letters organized in a proper method. We can choose a key and put it in the matrix. The waiting letters of English alphabet are then one by one located in the matrix of Playfair cipher, the plain text is cracked in to couples and if a couple has identical script then they are disjointed by presenting a putty letter such as „x“, in addition, if couples are dissimilar alphabetical letters and inhabit in the identical line of matrix at that time every letter is restored by the letter forward of it. If the couple of letters are in similar column of matrix then every letter is restored by the letter under it, while the couple of letters are not in similar column nor in similar row afterward, they substituted by the letter in their row that inhabits at the connection of combined letters. Inverse process is concerned to get the answer.

For example,

Plain text: enemyattackstonight (we use z to pad empty location). And consider the key:31452

Step 1: arrange the considered text column by column.

1	2	3	4	5
e	n	e	m	y
a	t	t	a	c
k	s	t	o	n
i	g	h	t	z

Step 2: Reschedule the columns

3	1	4	5	2
e	e	m	y	n
t	a	a	c	t
t	k	o	n	s
h	i	t	z	g

Step 3: Consider the matrix column by column, we get the Cipher text: ettheakimaotycnznstsg

The main downside of simple columnar transposition cipher is that to decipher it, the receptionist must consider the column segments by sharing the segment of cipher text by the key segment. Then he can write the cipher text out in columns again and then re-order the columns by restructuring the key term to get the plain text.

### 1-3. Vigenere Cipher:

When we match this cipher beside Caesar provides particular rank of safety with the overview of a keyword; this keyword is

recapped to covering the size of the plain text that is to be encrypted we will consider the example

KEY: f a u z a n f a u z a n

P.T: c r y p t o g r a p h y

Cipher: H R S O T B L R U O H L

In the example, “fauzan” is our keyword, “cryptography” is plaintext, and its encrypted form is “HRSOTBLRUOHL”. which is done by Vigenere table which includes characters in method of rows and columns left most column designates keywords and top most row designates plaintext and at the intersection of dual alphabetic letters resides our replacement and behind separately altering each letter we obtain an encrypted text message.

#### 1-4. Proposed Modified Caesar algorithm

In this approximate, in place of instable the typescripts linearly, they are shifted arbitrarily by handling the replacement and combination box methods which are applied in recent encryption methods such as blowfish, DES, etc. Subsequently, replacement box is to be generated by applying the method of affine ciphers (i.e. Cipher text = (Plaintext \* key1) + (Key2). The typescripts are then substituted by its corresponding rates connect to the replacement box. In Addition, challenge the cipher message to conceal the characteristics of the language by with combination methods (i.e. by chance altering the places of characters in the cipher text). Combination of cipher text is completed by consuming dual columnar substitution on the cipher text. The planned algorithm could encrypt the area of typescripts which the Caesar cipher could not encrypt, i.e. ASCII and Extended ASCII characters.

#### 2. Discussion:

This part explains connected investigated work done to make effective Caesar cipher Encryption Algorithm.

1. Goyal has recommended an alteration to the classical Caesar cipher wherever he holds the key length stable as single. However, replacement he tests the index of character set, if the index is even then he improves the key rate by a single more, if the index is odd then he reduces the key rate by single unite
2. Singh et al. has projected a method to join Caesar cipher along with Rail fence substitution method to remove essential weak points of Caesar cipher in addition to generate a cipher text message it is difficult to breakdown.
3. Omolara et al has propositioned an improved connection of Caesar cipher and Vigenere cipher to enhance the dissemination and destruction properties of cipher text by including methods as of up-to-date ciphers similar to xoring key to the initial

letter of plain text, xoring initial letter of the plain text to next (second) letter and so on.

4. Disina has propositioned a technique of encryption that belong to the location of the bit in the text communication. The writer will transfer the bits in the communication by instable the typescripts in the odd place to the leftward and typescripts in the even place to the right-hand side.
5. Purnama has projected an improved Caesar cipher technique wherever she practices a technique of encryption that the cipher text created is readable therefore creating it fewer doubtful to the cryptanalyst that the text message has been encrypted.

### 3. Acknowledgment:

Safety is one of the significant standpoints in calculating. In information transmission, safety should be minded as one of the techniques applied to confirm safe information transmission. Information transmission is shifting data from a position to another position, or waitperson. To have a protected information transmission, this could be utilized, and one of them is encryption of information, formulate it to be shifted in encrypted manner and decrypted after the information need to be consumed.

As the significance and the importance of replaced information throughout the Internet or other channels are growing, the investigate for the greatest answer to approach the essential safety in opposition to the information burglars' strikes along with arranging these facilities below timely way is one of the best effective issues in the safety linked societies

### 4. CONCLUSION:

In this manuscript we comprehend that each number theory instrument performance a significant function in cryptography to conceal text communication for the safety of information, the congruencies have played important task in Caesar ciphering key cryptography. We derive that the cipher manuscript generated by this technique can be sing correctly, this of definite factions wouldn't be doubtful of text communication which is encoded. Alongside the resultant cipher manuscript be able to state, this technique can select the cipher text that can be state and basically as necessary, this technique had the key word that is on the script turnaround outcome (root) which be able to exert by the handler as necessary, since the outcomes of this reformation are a specific replacement, then the technique is similarly simply answered by cryptanalyst beside the cipher text solution not doubtful by cryptanalyst of convinced factions.



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## PRELIMINARY EVALUATION OF THE CURRENT GENERATION, BREEDING AND MILK PRELIMINARY OF DAIRY COWS IN BAGHLAN PROVINCE, AFGHANISTAN

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### ABSTRACT

**Background:** Dairy cattle is a major part of agriculture in Baghlan province. Farmers breed dairy cows as per classic methods without any science-based intervention which results in inefficient and ineffective dairy productions. The present study aiming to investigate the present status, progress, and the future of such classic husbandry practices.

**Materials and Methods:** This study undertaken at Baghlan province, 54 villages of two animal-enriched districts including Baghlan-e-Markazi and Pol-e-Khumri. The research method was qualitative in which, relevant questionnaire was designed and distributed to randomly to 390 farmers with tolerance of 5% error. Data were recorded on percent of females participating in dairy cows nurture, the experience of farmers with dairy cows nurture, breeding method of dairy cows in the targeted area, type and percent of artificial inseminations, breeding of local cows, speed of breeding process, access of farmers to milk production resources and factors that in turn motivate or threaten the dairy cows nurture. SPSS (version 26) software was used for descriptive analysis of the gathered data.

**Findings:** Results showed that the engagement of women in dairy cattle breeding is very low. In case of artificial insemination, sperm of Holstein and Brown Swiss generations is used for breeding local cows, and the access of dairy cattle breeders to the factors of production is relatively good compared to a few years ago. Based on the results of the study, it is recommended that for breeding of native cows, the sperms of Holstein Freeze and Brown Swiss strains are highly invaluable as results in good, adapted and effective breeds in Baghlan province.

**Keywords:** Breeding nurture, dairy cows, breeding, production resources and Generation reform.

## INTRODUCTION

Cattle breeding are one of the most important occupations of farmers and non-farmers in Afghanistan (Zia, 2011). Nurture dairy cows in Afghanistan is more traditional and, the level of milk production in local breeds is very low (Holland Committee, 2016). Nourishment, dairy cows are one of the people's food sources and provides employment opportunities for most rural people (Department of Animal Health, 2018). In dairy, Cows Nurture relatively constant income that can be guaranteed (Muradi, 2014). As the world's population grows, arable land available for food production will decrease to 0.5 hectares per capita, which will lead to the growth of the world's dairy industry (Haji, 2004). There are more than 800 different breeds of dairy cows in the world and rare breeds of Holstein, Jersey, Ayrshire, Guernsey Brown Swiss, Shorthorn milk, and Dion's very famous (thorn @ Clemson, edu). Also, a breed of local Afghan cattle is Kandahari, Kunari, Sistani, and local hybrids (with less production). And addition is the indigenous generation most Holstein Freeze, Brown Swiss, and Jersey breeds are strain in the country (Rahimi, 2016). And another country, milk production averages 10,000 liters per dairy cow per year (Norman et all, 2010). The number is of cows in Baghlan province has increased from 161,500 to 168,650 tons during the years 2014-2019 (Department of Agriculture of Baghlan province). As mentioned earlier, milk production in Afghanistan's local cows is much lower than in foreign breeds. On or contrary, outraces do not quickly agree with the country's environmental conditions with high milk production. Native and obtaining crossbred cows (Department of Animal Health, 2018). It is noteworthy that this problem also exists in Baghlan province, and in addition, the number of improved cattle and dairy cows in Baghlan is not known as yet aright, so the process of breeding dairy cows is slow. Hybrid breeds (the proportion of purebreds are highly resistant to adverse environmental conditions, and breeding dairy cows is not the duty of every Farmer (Tannin, 2008). And the world, breeding of dairy cows is done with Pure breeding and Crossbreeding systems, but in Afghanistan, a hybrid breeding system is often used (CARD-F Institute, 2018). Its use of crossbreeding in dairy cows has advantages such as the snuggle of different genetic traits and having economic potential in a new breed (Sorensen et all, 2008). In addition to breeding dairy cows, in the development of the dairy cattle breeding industry, farmers have access to milk production resources such as Concentrate, Roughage, artificial insemination services, spices, and animal vaccines, and a suitable breeding place (Tannin, 2008). Barriers to increasing cow's milk production include inadequate nutrition, deficiency, or even lack of



concentrate or dietary supplements. Dairy cows can use agricultural by-products (Charkhi, 2016). Our use of unusable, agricultural residues (such as wheat straw, tree leaves, etc.) in animal nutrition is a successful system to reduce feed costs (Taghavi *et al.*, 2020). Also, the presence of these products in animal nutrition balances the price of rations and improves animal production. (Britt et al., 2018). By-products for milk production also reduce the pressure on arable land (Haji, 2004). In addition to food, vaccination is one of the most useful, accessible ways to control infectious diseases in the dairy industry and all farm animals. Vaccines with, in addition to animal Health, reduce economic costs in the dairy cattle industry (Department of Animal Health, 2018). In addition, to the mentioned issues, the questions that are very important in this research are: Which breeds of dairy cows are bred in Baghlan province more, is the breeding of local cows done more than a few years ago or not? What is the purpose of farmers' access to milk production resources? What are the factors that develop the dairy cattle breeding industry in this province? Finally, the significant purpose of this study is to collect information about the development of the dairy cattle breeding industry in Baghlan province compared to a few years ago.

## MATERIALS AND METHODS

This survey was conducted in 2020 in the Baghlan Markazi and Pol-e-Khumri districts of Baghlan province within Three months (June, July, and August) and covers the Overall 56 villages in the two-county. In collecting data, farmers were randomly selected and, the staff of the Department of Agriculture was Randomly Selected, and a questionnaire was Distributed to them. In Baghlan province, the number of farmers is high, so to determine the number of samples from  $Z = 1.96$  with a 50% increase in growth in the livestock industry in recent years compared to a few years ago in Baghlan province and tolerating 5% error for 390 farmers before the questionnaire. Important parameters that were collected were: percentage of female participation in dairy Cows Nurture, the experience of dairy farmers in dairy Cows Nurture, breeding dairy cows in the research area, types of artificial insemination, breeding of local cows in the research area, process Speed of breeding, farmers' access to milk production resources and factors that develop and threaten the dairy Cows Nurture industry in the research area. The first data were analyzed in Excel software and later used by SPSS software version 26.

## RESULTS

### 1. Share of women in the dairy Cows nurture the sector

From the Figure 1, it can conclude that the share of women in the dairy nurture cows industry in Baghlan was not significant. Also, issues related to milking the milk processing to dairy products at home are the responsibility of women and for women in terms of dairy cows nurture and milk processing.

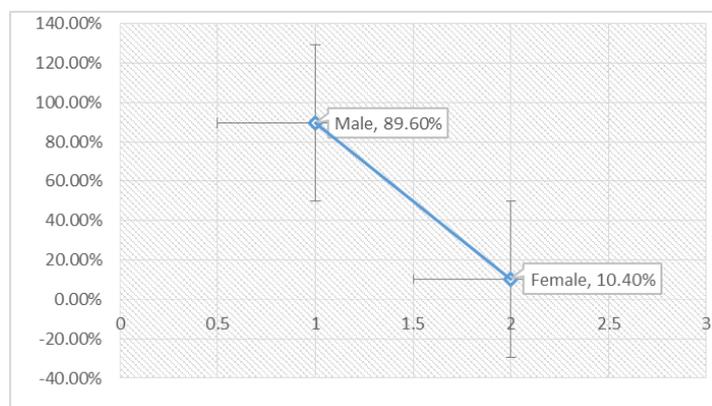


Figure 1: The share of Male (Men's) and Female (women's) in the dairy Cows industry in the research area

## 2. Livestock farmers' experience in the dairy Cows nurture industry

Findings show that in Baghlan province, the bulk of farmers have more than sixteen years of good experience in animal husbandry and, is the percentage of farmers who have less experience is much lower than those who have better Experience (Figure No. 2).

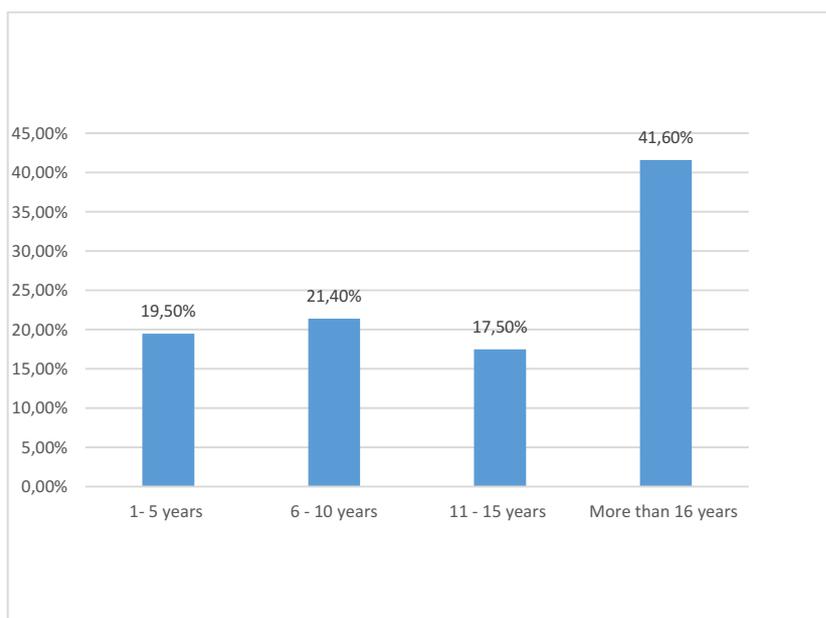


Figure 2: Livestock farmers' experience in raising dairy cows in the research area

### 3. Nurture breeds of dairy cows in Baghlan

Results showed that in research area, most farmers breed hybrid cows, and People are less interested in breeding purebreds because purebreds have low yields and xternal breeds are sensitive to environmental conditions (Figure 3).

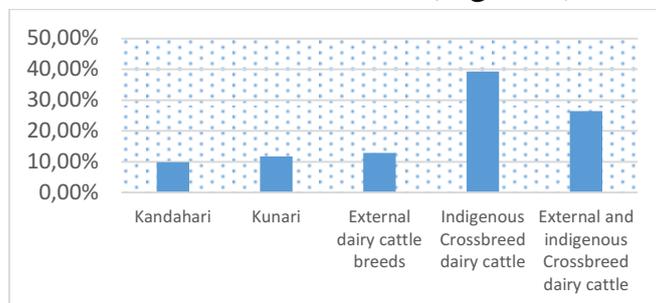


Figure 3: Percentage of breeding cows in the research area

### 4. How to Generation reform dairy cows in Baghlan province

#### A- Generation reform

Results showed that in Baghlan province, majority of farmers' own replaced the offspring of endogenous or local cows with hybrid or improved cows (breeding). And the breeding process of dairy cows in this province during 2014-2017 is (Figure 4).

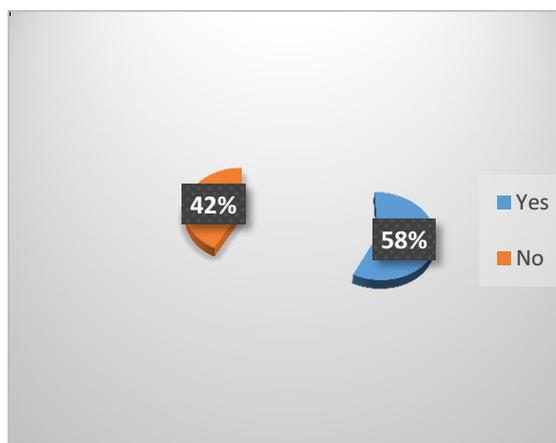


Chart 4: Percentage of ranchman (farmers) in Baghlan province who have bred dairy cows

### 5. Speed of Generation reform process of dairy cows in Baghlan province

Results showed that in Baghlan, the speed of the breeding process of dairy cows has improved compared to the past few years if more than 54% of respondents rated the speed of breeding as excellent and well. And the percentage of those who said that the breeding rate of dairy cows was poor was less than 21% (Figure 4).

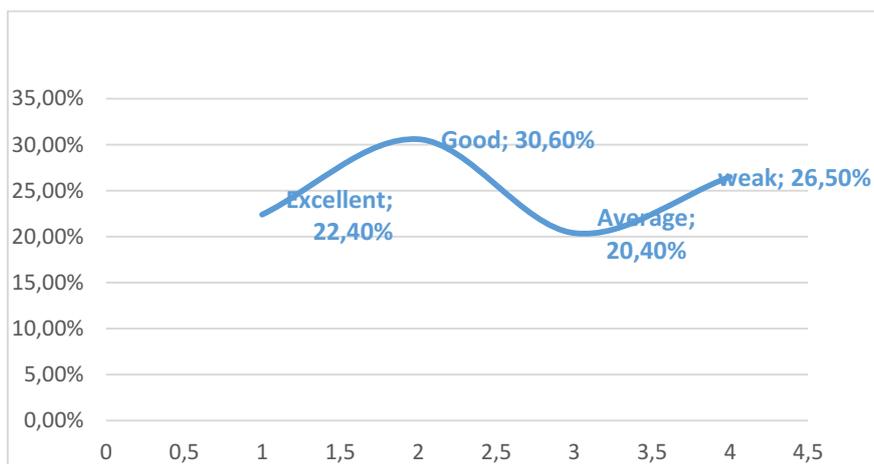
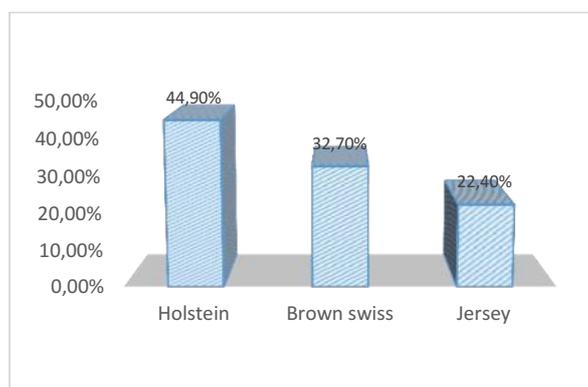


Figure 4: Percentage of the speed of the dairy generation process in the research area

### 6. Most famous Generations used to breed Indigenous cows

Results showed that in Baghlan, due to the breeding of local cows, the Holstein breed is used more, and may be due to the climatic conditions of the province, which are favorable for breeding Holstein breeds, the second most farmer’s generation Kandahari breed. This generation large among the indigenous races of the country and used to generation reform more than the Holstein and Brown Swiss breeds (Figure 6).



### 7. Farmers' access to milk production factors in Baghlan province

The results show that farmers' access to concentrate is will and medium reported. But farmers 'access to roughage is a high and good report, to be noted that farmers' access to artificial insemination services, vaccines, and animal medicines is high and well-reported (Figure 6).

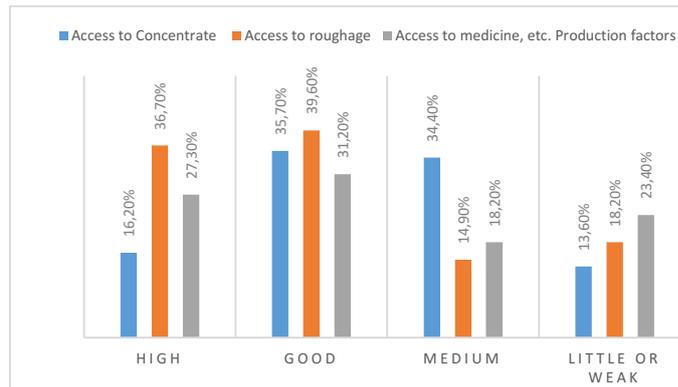


Figure 6: shows farmers' access to milk production resources in the research area

## DISCUSSION

Our results showed that the share and participation of women in dairy cows' nurture was too low. Most female activities regarding cows nurture restricted only to homes. Dairy products are not paid any special fees (money) at the family level. A 2013 study in the Rajkot district of Gujarat state found that women accounted for more than 50% of dairy cows and dairy sales (Kathiriya et al, 2013). Nurture Cows has given women jobs and, by earning income, their position at the family level will be elevated (Muradi, 2014). It reported that in the Qom province of Iran, in each rural family, about five people (both male and female) are directly and indirectly engaged in the dairy cows industry (Haji, 2004).

Our findings showed that in Baghlan province, the male farmers have more than 16 years of experience in animal husbandry. The findings of this study are consistent with the results of Charkhi (2016). According to the FAO, having enough experience in raising cows is one of the most important ways to increase dairy products. Also, in raising cows to better producers, products, various factors such as sufficient expertise and experience are good important (Domina or Iranian livestock network).

Our results showed that most farmers breed hybrid cows, and people are less interested in breeding purebreds because purebreds have low yields and external breeds are sensitive to environmental conditions (Figure 3). These results are in harmony with Charkhi findings (2016) in Logar province, the process of breeding services of Indigenous cows with external cows is Do out by different institutions, so it is more common in External crossbred (Charkhi, 2016). Results also showed that milk production and consumption of milk production factors in hybrid generations are suitable compared to pure generations. This part of the findings is consistent with Rahimi's (2016) report

if milk production in External crossbred breeds has reported on average 7500 kg in a lactation period (Rahimi, 2016). Milk production of Afghanistan's best indigenous breed averaged 7 kg in 24 hours (Zia, 2011). In hybrids, agreement with the environment is better than the External generation and, their production is better than the indigenous race (Generation) (Farhang far, 2015). In addition, hybrids are resistant to pathogens, while External breeds, especially Holstein, are very susceptible to pathogens (Charkhi, 2016). Another noteworthy point, that emerged from this research findings was that in the area covered by the study, the average number of dairy cows in each family was 3,2 According. To Naimi's finding, in (2017), the average number of cows in each livestock family in the covered area in Baghlan province. It was, reported to be 2, 44 (Naimi, 2017). The number of cows in each family in Logar is 5.7 cows (Charkhi, 2016).

Results showed that in Baghlan province, are bulk of farmers' own replaced the offspring of endogenous or local cows with hybrid or improved cows (breeding). And the breeding process of dairy cows in this province during 2014-2017 is. Similar results were reported Rahimi (2016). To improve the genetic and economic characteristics in hybridization or breeding, the selection must make carefully (Hassani et al., 2012). Without the adaptation of artificial insemination, the process of breeding dairy cows is not possible. Such results show that in Baghlan, farmers use both methods (natural and artificial methods) to inseminate their dairy cows. Meanwhile, farmers have the high cost of an artificial insemination unit and a lack of veterinarians. Experts complain. Breeding without the use of artificial insemination will be very slow (Valergakis et all. 2007). Also, the increase of livestock products is not possible without breeding (Yamchi, 2004). One of the easiest ways to increase livestock production is breeding (Rahimi, 2016). In addition, the cost of artificially inseminating dairy cows will be lower (Valergakis *et all.* 2007).

Our analysis of the data showed that in Baghlan, due to the breeding of local cows, the Holstein breed is used more, and may be due to adaptation to the climatic conditions of the province, which are favorable for breeding of Holstein breeds, the second most farmer's generation Kandahari breed. This generation large among the indigenous races of the country and used to generation reform more than the Holstein and Brown Swiss breeds. The genetic combination of Holstein and Brown Swiss with Kandahari will improve milk production in their hybrids. Replacing the entire genetic composition of a dairy breed in a dairy farm is no longer economical. And replacing a certain proportion of the genetic combination of an external generation will be effective in breeding and improving milk production (Rahimi, 2016). Is breeding of Holstein, Brown Swiss





and, Jersey generations has prevalent in Afghanistan since 1998 (Tannin, 2008)? To breed and crossbreed Indigenous cows have been used since 1975 (Rahimi, 2016).

Our findings were that the farmers' access to concentrate is will and medium reported. But farmers 'access to roughage is a high and good report, to be noted that farmers' access to artificial insemination services, vaccines, and animal medicines is high and well-reported. Regarding the access of farmers in Baghlan, to be noted that the results of this study are similar to the results of the Charkhi (2016) in Logar province, while Logar and Baghlan, farmers' access to concentrates is medium, In Afghanistan, cattle breeders use grains such as wheat, barley, corn, in the diet of dairy cows(Rahimi, 2016).The results also showed that the access of cattle breeders in Baghlan is Higher reported, which is reported differently from, the results of (2016), which is due to the large, agricultural area of Baghlan compared to Logar, By increasing the amount of forage in the diet, the amount of rumination, saliva production, and ruminal buffering capacity improves(Hajmahmoodi et al., 2018). Regarding the access of farmers to artificial insemination services, spices, and animal vaccines, it is inferred that the farmers are satisfied with their access and the result of this section is consistent with the results of Charkhi (2016) in Logar province, but farmers have to find these resources. They have to pay a lot of money, which is not in line with the charkhi Survey (2016), because in Logar province, institutions, especially the FAO, help livestock farmers to get vaccines and artificial insemination for free.The results show that the most opportunity for raising cattle in Baghlan is the objectivity of a large agricultural area where the bulk of farmers. Have better access to roughage. Every farmer is obliged to meet the nutritional needs of dairy cows to achieve more production (Amalou, 1994).The results also showed that in Baghlan, farmers are have allocated suitable areas for raising dairy cows, and in terms of location, there was no problem with dairy cows. Due to the high price of land and lack of land in Logar, there is less area than Baghlan due to high land prices and lack of land. The preparation suitable breeding ground plays a source role in the quantity and quality of animal products (Charkhi, 2016).And the main threat to the dairy industry in Baghlan in the war and security.

## CONCLUSIONS AND RECOMMENDATIONS

This study showed that women's share was small than men in dairy industry, but industry needs to be improved by contemporary breeding techniques to meet people demands. In addition, the speed of development of dairy cattle breeding in Baghlan has improved because the vast area of agricultural and rangeland lands and population growth rate in this

province is higher than neighboring provinces. But the major problem that prevented the growth of this industry was not proper, cooperation of officials Livestock and war in the area.

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## BOSHLANG'ICH TA'LIMDA MATEMATIKANI O'QITISH

**Dilbar Hasanovna Sharipova**

Buxoro shahar 35-umumiy o'rta ta'lim maktabi o'qituvchisi

### ANNOTATSIYA

O'quvchilarning kontseptual tushunchalarini rivojlantirish jarayonida eng muhim narsa o'qitishdir. O'qituvchi sinfda o'quv dizayneri sifatida o'quvchilarni samarali o'rganish orqali kontseptual tushunishni rivojlantirishga yo'naltirishi va yo'naltirish imkoniyatiga ega bo'lishi kerak. Ushbu maqola boshlang'ich maktablarda kontseptual tushunishni o'rgatish masalalarini muhokama qilishga qaratilgan. Ushbu maqolada boshlang'ich sinf o'quvchilarini matematika o'qitish metodlari, ularni qanday amalga oshirish, o'quvchilarga puxta bilim berishga, o'quvchilarning dunyoqarashini shakllantirish yo'llarini o'rgatish, matematika o'qitish jarayonida insonni mehnatni sevishga, o'zining qadr-qimmatini bir-biriga hurmati kabi fazilatlarni tarbiyalashni ko'rsatib berish to'g'risida fikr yuritilgan.

**Kalit so'zlar:** kontseptual, matematika, boshlang'ich matematika metodikasi, metodika predmeti, maqsadi, vazifalari, o'qitish vositalari, taqqoslash, didaktik maqsadlar, malaka va ko'nikmalar, dars turlari, yangi maqsadlar, didaktik materiallar.

### ABSTRACT

Teaching is the most important thing in the process of developing students' conceptual understanding. The teacher as a learning designer in the classroom has a role that must be able to direct and guide students to develop conceptual understanding through effective learning. This article aims to discuss the teaching of conceptual understanding in primary schools. In this article, the methods of teaching mathematics to elementary school students, how to implement them, to provide students with thorough knowledge, to teach the ways of forming the worldview of students, to teach people to love work in the process of teaching mathematics, It is thought to show the cultivation of qualities such as self-worth and respect for each other.

**Keywords:** conceptual, mathematics, methods of elementary mathematics, subject, purpose, tasks, teaching aids, comparison, didactic goals, qualifications and skills, lesson types, new goals, didactic materials

## KIRISH

Kontseptual tushunish matematikani o'rganishda asosiy standartlardan biridir. So'ngi yillarda mamlakatimizda maktabda matematika o'qitish, ayniqsa, boshlang'ich ta'lim tizimida o'z ko'lami va ahamiyati jihatidan nihoyatda katta bo'lgan o'zgarishlarni amalga oshirdi.

1997 yilda «Ta'lim to'g'risida qonun» qabul qilindi. Bu qonunda ijtimoiy va iqtisodiy o'zgarishlar davrida maktabning roli yanada o'sganligi, maktabning bosh vazifasi – o'quvchilarga fan asoslaridan puxta bilim berish ularda iqtisodiy - matematik savodxonligini shakllantirish, hayotga va ongli kasb tanlashga tayyorlash haqida, hamda o'quv reja va dasturlarni ta'lim mazmunini hozirgi zamon yutuqlari va talablari darajasiga keltirish to'g'risida fikrlar keltiriladi. Masalan, 1997-yil 27-avgustdagi "Ta'lim to'g'risida"gi qonunning 12-moddasi 1-4-sinflarni o'qitishga bag'ishlangan. O'zbekiston Respublikasida "Kadrlar tayyorlash Milliy dasturi"ning 3.3.1-bandi uzluksiz ta'limni rivojlantirishda 1-4- sinflarda o'qitishni tashkil qilishning rejalari ko'rsatilgan.

Maktab ta'limi oldiga tamomila yangi maqsadlarning qo'yilishi matematika o'qitish mazmunining tubdan o'zgarishiga olib kelmoqda. Matematika boshlang'ich kursi mazmunida ham, darslik va qo'llanmalardan foydalanish metodikasida ham rivojlanish bo'lishini talab qiladi.

Matematika so'zi grekcha "mathema" so'zidan olingan bo'lib, uning ma'nosi "fanlarni bilish" demakdir. Matematika fanining o'rganadigan obykti fazoviy shakllar va ular orasidagi miqdoriy munosabatlardan iboratdir. Maktab matematika kursining maqsadi o'quvchilarga ularning psixologik xususiyatlarini hisobga olgan holda matematik bilimlar tizimini berishdan iboratdir. Bu matematik bilimlar tizimi ma'lum usullari (metodika) orqali o'quvchilarga yetkaziladi.

## ADABIYOTLAR TAHLILI VA METODOLOGIYA

Metodika grekcha so'z bo'lib, "metod" degani "yo'l" ma'nosini anglatadi. Matematika metodikasi pedagogika fanlari tizimiga kiruvchi pedagogika fanining tarmog'i bo'lib, jamiyat tomonidan qo'yilgan o'qitish qonuniyatlarini matematika rivojining ma'lum bosqichida tatbiq qiladi. O'qitishda yangi maqsadlarning qo'yilishi matematika o'qitish mazmunining tubdan o'zgarishiga olib keladi. Boshlang'ich sinf o'quvchilariga matematikadan samarali ta'lim berilishi uchun o'qituvchi boshlang'ich sinflarda matematika o'qitish metodikasini egallab,

chuqur o'zlashtirmog'i zarur. Matematika boshlang'ich ta'lim metodikasining predmeti quyidagilardan iborat:

1. Matematika o'qitishdan ko'zda tutilgan maqsadni asoslash (nima uchun matematika o'qitiladi, o'rgatiladi).

2. Matematika o'qitish mazmunini ilmiy ishlab chiqish (nimani o'rgatish) bir tizimga keltirilgan bilimlar darajasini o'quvchilarning yosh xususiyatlariga mos keladigan qilib qanday taqsimlansa, fan asoslarini o'rganishda izchillik ta'minlanadi, o'quv ishlariga o'quv mashg'ulotlari beradigan yuklama bartaraf qilinadi, ta'limning mazmuni o'quvchilarning aniq bilim bilish imkoniyatlariga mos keladi.

3. O'qitish metodlarini ilmiy ishlab chiqish (qanday o'qitish kerak, ya'ni, o'quvchilar hozirgi kunda zarur bo'lgan iqtisodiy bilimlarni, malaka, ko'nikmalarni va aqliy faoliyat qobiliyatlarini egallab olishlari uchun o'quv ishlari metodikasi qanday bo'lishi kerak?)

4. O'qitish vositalari - darsliklar, didaktik materiallar, ko'rgazmali qo'llanmalar va o'quv texnika vositalaridan foydalanish (nima yordamida o'qitish).

5. Ta'limni tashkil qilishni ilmiy ishlab chiqish (darsni va ta'limning darsdan tashqari shakllarini qanday tashkil etish).

O'qitishning maqsadi, mazmuni, metodlari, vositalari va shakllari metodik jihatlarining asosiy tarkiblarida murakkab, uni o'ziga xos grafik bilan tasvirlash mumkin.

Matematika o'qitish boshqa fanlar, eng avvalo, matematika fani - o'zining tayanch fani bilan uzviy bog'liq. Hozirgi zamon matematikasi natural son tushunchasini asoslashda to'plamlar nazariyasiga tayanadi. Boshlang'ich sinflar uchun mo'ljallangan matematika darsligining birinchi sinfi uchun berilgan quyidagi topshiriqlarga duch kelamiz: "Rasmda nechta yuk mashinasi bo'lib, bir qatorda shuncha katakni bo'ya, rasmda nechta avtobus bo'lsa, 2-qatorda shuncha katakni bo'ya". Bunday topshiriqlarni bajarish bolalarni ko'rsatilgan to'plamlar elementlari orasida o'zaro bir qiymatli moslik o'rnatishga undaydi, bu esa natural son tushunchasini shakllantirishda muhim ahamiyatga ega.

Matematikani o'rganish o'quvchilarning o'z ona tillarida nutq madaniyatini to'g'ri shakllantirish, o'z fikrini aniq, ravshan va lo'nda qilib bayon eta bilish malakalarini o'zlashtirishlariga yordam beradi. Bunday bilimlar berish orqali esa o'quvchilarning fazoviy tasavvur qilish xususiyatlari shakllanadi hamda mantiqiy tafakkur qilishlari yanada rivojlanadi. 1-sinf o'quvchilarining bilimlarini aniqlash, sinf o'quvchilarining bilimlarini tenglashtirish, ya'ni past bilimga ega bo'lgan o'quvchilarning

bilimlarini yaxshi biladigan o'quvchilarga yetkazib olish vazifasi turadi. O'qituvchi quyidagi tartibda o'quvchilarni bilimini maxsus daftarga hisobga olib boradi"

1. Nechagacha sanashni biladi?
2. Nechagacha sonlarni qo'shishni biladi?
3. Nechagacha sonlarni ayirishni biladi?
4.  $>$ ,  $<$ ,  $=$  belgilarini ishlata oladimi?
5. Noma'lumlar bilan berilgan qo'shish va ayirishda bu noma'limlarni topa oladimi?
6. Qaysi shakllarning nomlarini biladi va chiza oladi?
7. Nechagacha sonlarni yoza oladi?
8. O'ngga, chapga, kam, ko'p, "ta", "marta", teng kabilarni farqlay oladimi?
9. Pul, narx, soat, minut, uzunlik, og'irlik o'lchov birliklari bilan muomala qila oladimi?

Bolalarni o'qitishga tayyorlashda asosiy ish metodi tahlil, sintez, taqqoslash, umumlashtirish, tabaqalashtirish kabi aqliy operatsiyalarni bajarish malakalarini shakllantirishga qaratilgan bo'lishi kerak. Bunda o'quvchilarning og'zaki va yozma nutqlarini rivojlantirishga katta yordam beradi, matematik bilimlarini o'zlashtirishga qiziqishi kuchaya boradi.

Matematika darslarida asosiy didaktik maqsadlar:

Har bir alohida darsning maqsadi darslar tizimining maqsadini aniqlab, uning yordamida o'qitilayotgan mavzuning mazmunini o'quvchilarga ochib beradi. Bu holda yangi tushunchalar bilan o'quvchilarni tanishtirish bo'lsa, ikkinchi holda tanishtirilgan tushunchani kengaytirish va chuqurlashtirish, uchinchisida, biror malaka va ko'nikmalarni hosil qilish, to'rtinchisida, bilim, malaka va ko'nikmalarni tekshirish va h.k bajariladi. O'tilganlarni takrorlash oldin o'tilgan darslarni yangi tizimga solish, shu bilan bilimlarni tekshirishni o'z ichiga oladi.

## MUHOKAMA

Maktab tajribasi darsning ma'lum tizimini yaratdiki, ko'pchilik o'quvchilar bu tizimga rioya qilib, ma'lum yaxshi natijalarga erishmoqda. Odatda darsning boshida uy vazifasi tekshiriladi yoki o'tgan mavzu takrorlanadi, so'ngra o'tgan mavzu yuzasidan savol-javob o'tkaziladi. Shundan keyin yangi material bayon etiladi va uni mustahkamlash uchun o'quvchilarga misol va masalalar yechdiriladi yoki nazorat savollari beriladi. Dars oxirida uyga vazifa to'g'risida ko'rsatmalar beriladi.

Ba'zan, bu maqsadlardan bittasiga bag'ishlanishi mumkin. Ana shu bitta maqsadni darsning asosiy didaktik maqsadi deyiladi va boshqalar unga bo'ysunadi.

Matematikadan dars turlari va darsning borishi:

Boshlang'ich sinflarda matematikadan quyidagi dars turlarini ko'rsatish mumkin:

a) o'quvchilarni yangi tushunchalar bilan tanishtirish, yangi bilim va ko'nikmalarni hosil qilish darslari (bu darslarda hisoblash, grafik yoki masala yechish bilimlari hosil qilinadi);

b) turli xil mashqlar yordamida yangi bilim, malaka, ko'nikmalarni mustahkamlash darslari;

c) keyingi bosqichda xatolarning oldini olish maqsadida mustaqil bilim, malaka va ko'nikmalarni tekshirish darslari.

Har bir darsda turli xildagi didaktik maqsadlar amalga oshirilishi mumkin: uy vazifasini tekshirish, darsning va mazmuning maqsadini bayon qilish, oldin o'tilganlarni takrorlash bilan o'quvchilarni yangi materialni o'zlashtirishga tayyorlash, og'zaki hisoblash uchun maxsus mashqlar, yangi materialni o'rganish (darsning asosiy bo'limi), bolalarning oldin o'zlashtirilgan bilim va ko'nikmalarini mustahkamlash, o'rganilgan bilimlarni hisoblash, mashq, bilim va malakalarni qo'llash (darsning asosiy bo'limi), o'quvchilarni mustaqil ishlatish va uni tekshirish, oldin o'zlashtirilgan materialni takrorlash, uyga vazifa berish va xulosalash. Yangi o'quv materialini o'zlashtirishga o'quvchilarning faol tayyorlash maqsadida oldin o'zlashtirilgan materiallar takrorlanadi, takrorlash xarakteridagi materiallar ko'pincha og'zaki hisoblash orqali bajariladi. Shuningdek, yangi materialni o'zlashtirishga qaratilgan misol va masalalarni mustaqil yechish ham mumkin.

Misol va masalalar yechishda foydalaniladigan ko'rgazmalar yoziladi. Shunday qilib o'qituvchi quyidagi vazifalarni bajarishi lozim:

1. O'quv dasturi va o'qituvchi rejasida darsning o'rnini aniqlash.
2. Darsning asosiy didaktik maqsadini aniqlash.
3. Dars mazmunini aniqlash.
4. Dars bosqichlarini tuzib chiqish.
5. Dars rejasini tuzish.
6. Dars matnini yozish.
7. Dars o'tish metodlarini aniqlash.
8. Har bir bosqichga sarflanadigan vaqtni aniqlash.
9. Darsda va uyda beriladigan misol va masalalarni bajarish.





10. Ko'rgazmali qurollarni tayyorlash va h.k.

Matematika darsining reja yoki matni o'qituvchiga o'quvchilar bilan bajaradigan ish turining umumiy yo'nalishi va ketma-ketligi, misollar, algebraik ifoda namunalarini ko'rsatib turadi.

Boshlang'ich matematika kursining eng muhim xususiyati uning amaliy yo'nalganligidir. Agar yuqori sinflarda matematika dasturining ba'zi masalalari nazariy xarakterda bo'lsa, boshlang'ich sinflarda har bir yangi tushuncha, xossa, qonun amaliy faoliyat uchun kiritiladi. Masalan 4-sinfda o'quvchilarning to'g'ri to'rtburchak tushunchasini o'zlashtirishlari ular endilikda to'g'ri to'rtburchak ta'rifini bilishlarini, uning alomatlarini mantiqiy keltirib chiqarishni va ba'zi xossalarni isbotlashni bilishlarini, ta'rifi, alomatlari va xossalari doir amaliy masalalarni yechish uchun foydalana bilishlarini bildiradi. Boshlang'ich sinflarda o'quvchilar to'g'ri to'rtburchakning qarama-qarshi tomonlari tengligini o'lchash yo'li bilan aniqlaydilar va to'g'ri to'rtburchakni yasash, uning predmeti va yuzini o'lchash va hisoblashni o'rganadilar.

O'quvchilarda boshlang'ich maktabda shakllanadigan amaliy o'quvlardan ko'pligi maktab matematika kursi uchun asosiy ahamiyatga ega, lekin tasavvurlar haqida bunday deyish mumkin emas. Masalan, son haqida III va IV sinf o'quvchilari ega bo'lgan tasavvur tubdan farq qiladi. Biroq, quyidagi sinflarda shakllanadigan arifmetik amallarni yozma va og'zaki bajarish o'quvlaridan o'rta sinflarda ham, yuqori sinflarda ham foydalaniladi.

Shunday qilib, o'quvchilarda puxta amaliy o'quv va malakalarni shakllantirish boshlang'ich sinf o'qituvchisining asosiy vazifalaridan biridir.

## XULOSA

Shunday qilib, didaktik materiallarni o'quvchilarning o'quv materialini o'zlashtirish darajasini nazorat usullaridan biri sifatida qarash lozim. Shu bilan birga muayyan usul mazkur sinf, mazkur o'qituvchi uchun eng yaxshi usul bo'lmasligi ham mumkin. Shu sababli didaktik materiallar o'qituvchini o'quvchilarning bilimlarni o'zlashtirish darajasini aniqlash imkonini beradigan individual tekshirish uchun nazorat turlarini tuzishdan xalos eta olmaydi. Bu umummetodikaning asosiy vazifalaridan biridir.

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## METHOD AND SOFTWARE TO FIND SPELLING MISTAKES IN TEXT WRITTEN IN UZBEK LANGUAGE BASED ON THE LATIN ALPHABET

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### ANNOTATSIYA

Ushbu maqolada o'zbek tilida yozilgan matnlar uchun matn terish xatolarini aniqlovchi va ba'zi o'rinlarda tuzatuvchi dasturiy ishlanmaga bag'ishlangan. Doimiy ish jarayonida lotin yozuviga asoslangan o'zbek tilidan foydalanilayotganligi va kiril yozuvidan lotin yozuviga o'tishda ba'zi tushunmovchiliklar mavjudligi sababli matn terish xatolarini topish va tuzatish alohida muhim masala hisoblanadi. Maqolada o'zbek tilida yozilgan matnlarda orfografik xatolarini topish bo'yicha ishlab chiqilgan dasturiy vosita ahamiyati va uning afzalliklari yoritib berilgan.

**Kalit so'zlar:** imlo xatolarni tuzatish, asos va qo'shimchalar, o', g' harflari imlosi, x va h harflari imlosi.

### ABSTRACT

This article is devoted to software development for Uzbek texts, which detects spelling errors and corrects them in some places. Due to the constant use of the Uzbek language based on the Latin script and some misunderstandings in the transition from Cyrillic to Latin, it is especially important to find and correct spelling errors. The article describes the importance and advantages of the software developed for finding spelling errors in texts written in Uzbek.

**Keywords:** correction of spelling mistakes, roots, prefixes and suffixes, spelling of letters "o'", "g'", spelling of letters "x" and "h".

### Introduction

The relevance of spelling correction software is that it helps to eliminate spelling errors and omissions that may occur in various documents, texts, and articles. This, in turn, is important

to prevent situations such as violations of language norms, an increase in the misuse of lexemes in languages, and the gradual normalization of these errors.

To date, the Uzbek Spelling Dictionary has identified more than 85,000 correct spelling words and word forms [1]. One of the most common mistakes is the inverted use of the upper right side of the letter “o” in our alphabet, which represents the sound and the letter “o”, and the same confusion is used with the letter “g”, which represents “g”. There are also errors in the use of the letters “x” and “h”. For this reason, it is important to check and correct the Uzbek text for spelling errors.

### Analysis of the most common spelling mistakes in the Uzbek language

Many spelling mistakes are made in the process of writing in Uzbek. If spelling mistakes are not corrected regularly, these words will be misspelled and the words will change altogether. There are different ways to detect errors [3]. They can be used in Uzbek spelling dictionary, annotated dictionary or in programs that help to find and edit mistakes [2].

One of the most common mistakes in the Uzbek language is given in the following table:

Table-1. The most common mistakes in the Uzbek language.

	wrong	wrong	wrong	right
The symbol used in the letters “o” and “g”	o`, g`	o', g'	o', g'	o', g'
The modifier letter apostrophe	`	'	'	'

Another common mistake is to misuse the letters “x” and “h”. Because these two letters represent different sounds, it is important to use each one correctly. For example, the words “xush” and “hush” are semantically different. For example: “Xush kelibsiz”, “Hushidan ketmoq” [1].

It follows that it is important to know the norms of literary language when writing and using texts in Uzbek. Knowledge of literary language norms is also required in the process of software development. This, in turn, will greatly help to understand how mistakes are made and how to fix them.

### Roots and suffixes

In Uzbek, as in other languages, words consist of root and suffixes. That is, a word may contain a root and one or more suffixes. The root word is the part of speech that can come into its

own and is independent and meaningful. Adding prefixes and suffixes to word stems creates completely new words. There are many such suffixes in Uzbek language. For example, conjunctions: “-ning”, “-ni”, “-ga”, “-dan”, “-da” help to connect words by joining the root, and they are also called word-changing suffixes.

Genitive case can be answered by questions “kimning?”, “nimaning?”, “qayerning?”. The suffix of genitive case is “-ning”. “-ning” suffix connects a noun to another noun. The nouns of genitive case are in the main role. Examples: “o‘quvchining kitobi”, “ko‘ylakning yoqasi”, “daraxtning kurtagi”, “buloqning ko‘zi”.

Accusative case can be answered by questions “kimni?”, “nimani?”, “qayerni?”. The suffix of accusative case is “-ni”. Accusative case suffix connects a noun to verb in the sentence. The nouns of accusative case are main parts of sentence. Examples: “She’rni o‘qidi”, “Multfilmni tomosha qildi”.

Dative case can be answered by questions “kimga?”, “nimaga?”, “qayerga?”. The suffix of dative case is “-ga”, (“-ka”, “-qa”). Accusative case suffix connects a noun to verb in the sentence. The nouns of accusative case are main parts of sentence. The “-ka” suffix is added to the nouns which end with the sound “k”, the “-qa” suffix is added to the nouns with the last sound “-q” and in other cases “-ga” suffix is added to the nouns.

Ablative case can be answered by questions “kimda?”, “nimada?”, “qayerda?”. The suffix of ablative case is “-da”. Ablative case suffix connects a noun to verb in the sentence. The nouns of ablative case are main parts of sentence. Examples: “Saroyda ishladi”, “Tog‘da yashaydi”.

In addition, there are word-forming, noun-forming, adjective-forming and verb-forming suffixes.

For instance:

word-changing suffixes are “-ning”, “-ni”, “-ga”, “-da”, “-dan”;

word-forming suffixes are “-chi”, “-la”, “-li”, “-kor”, “-dosh”;

noun-forming suffixes are “-chi”, “-zor”, “-dosh”, “-kor”, “-k”, “-q”;

adjective-forming suffixes are “-ser”, “-be”, “-siz”, “-li”, “-chan”, “-dor”, “-q”;

verb-forming suffixes are “-la”, “-lan”, “-sira”, “-illa”, “-(ulla)”, “-lash”.

Noun-forming suffixes are added to words and made nouns. Examples: “chi”, “hasharchi”; “-zor”, “g‘allazor”; “-dosh”, “sinf-dosh”; “-kor”, “paxtakor”; “-k”, “elak”; “-q”, “-taroq”.

Verb-forming suffixes are added to words and made words which is in the category of verbs. Examples: “-la”, “bog‘la”; “-

lan”, “tayyorlan”; “-sira”, “suvsira”; “-illa”, “-(-ulla)”, “vizilla”, “shivilla”; “-lash”, “tiklash”.

The present continuous tense verb (“hozirgi zamon fe’li”) refers to an action that is performed (or not performed) while speaking. “-yap”, “-moqda” are present continuous tense (“hozirgi zamon”) suffixes. For example: “O‘rik bechora oppoq, nozik gullarini qayoqqa yashirishni bilmayapti”.

The future tense verb (“kelasi zamon fe’li”) refers to an action that can be performed (or will not be performed) after the speech. “-moqchi” is a future tense (“hozirgi zamon”) suffix. Example: “Sevara o‘zi yozgan she’rini o‘qib bermoqchi”.

The past tense verb (“o‘tgan zamon fe’li”) refers to an action performed (or not performed) before the present tense. “-di”, “-gan” are past tense (“hozirgi zamon”) suffixes. For example: “Dilnozaning uyiga Sarvi xola chiqdi”.

The past tense suffix “-kan” for verbs ending in “k”; for verbs ending in “-q”, “-qan”; added to other verbs in the form “-gan”. Examples: “qirq” – “qirqqan”, “qo‘rq” – “qo‘rqqan”, “cho‘k” – “cho‘kkan”, “chop” – “chopgan”.

### **Software development process**

In the process of developing the program, an attempt was made to find a solution by studying the norms of the Uzbek language. From the above information, it follows that words in the Uzbek language are formed from suffixes added to the roots, and by adding many suffixes to one root, completely different words are formed. So it can be a bit tricky to check every word in the text to see if it's incorrect. For example, the word “kitoblarimizning” consists of parts such as “kitob”, “-lar”, “-imiz”, and “-ning”.

The solution is to examine the roots and suffixes separately. This makes the software less cluttered and easier to find errors.

### **How the program works**

With the help of the Uzbek dictionary based on the Latin script, a separate database for stems and suffixes was created. Suffixes are also divided into prefixes and suffixes. The program is installed in Microsoft Word in macro mode, the desired text is selected, and macro is run to detect spelling errors in the text. When the macro starts, it first checks to see if the selected word has prefixes. All prefixes are compared, and if there is a prefix, it is removed and re-checked. The process continues until there are no prefixes left. The next step is to check for the presence of suffixes by comparing them through a database of suffixes. This process continues until there are no more suffixes in the word. The word without suffixes is checked from the base database. If the word does not exist in the database, it is considered an error. Even if there is an

error in the suffixes, it will not be found when comparing through the databases of suffixes and the database of roots, and will be automatically recognized as an error. Words found to be incorrect are highlighted in red. All words in the text are checked in the same way.

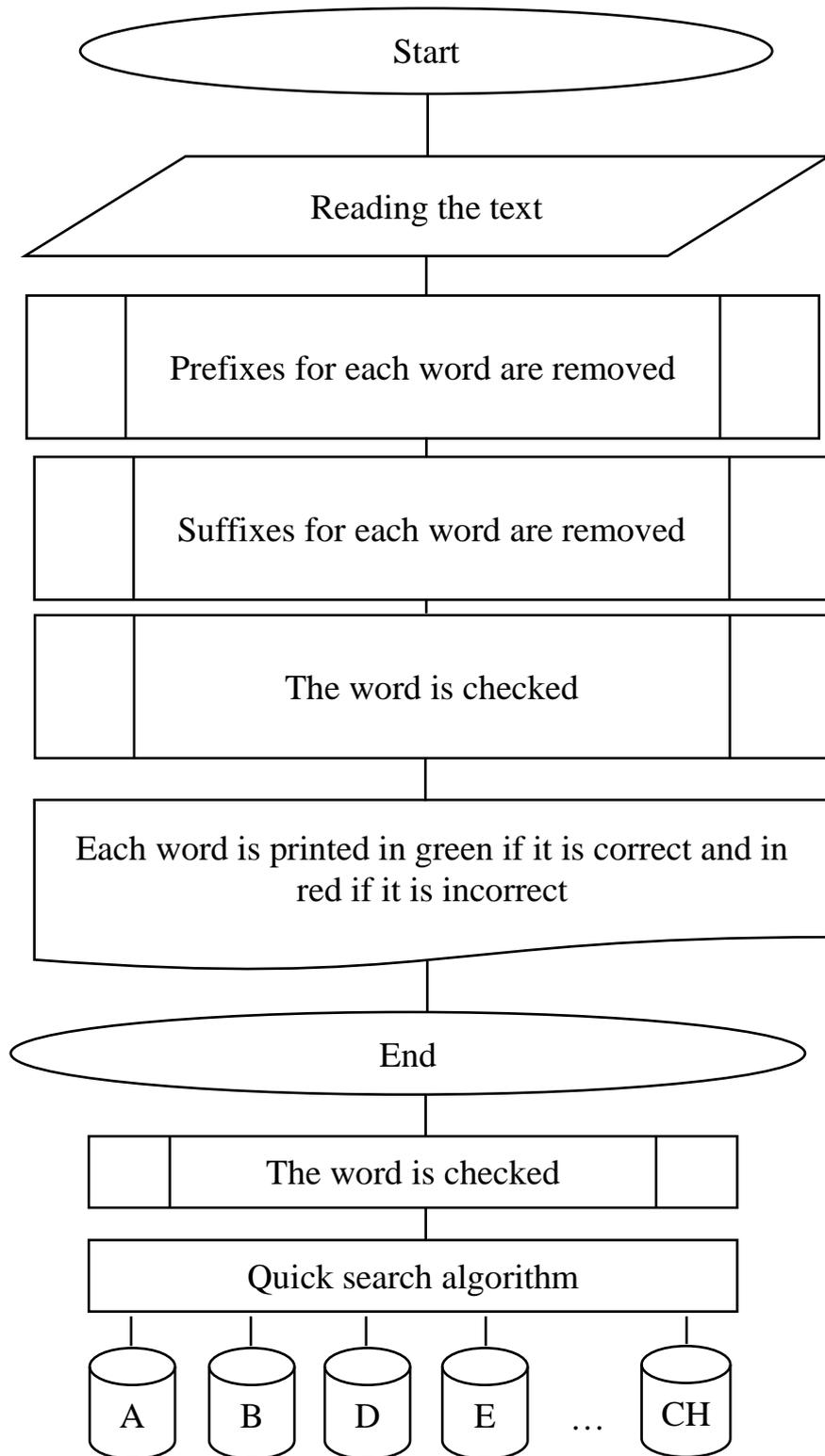


Figure-1. Block scheme of program

The program also includes the function of correcting the special character of the letters “o” and “g”. The function searches for the symbols “o” and “g”, if one of the symbols “ ’ ”, “ ` ”, “ ` ” is used after them, it replaces the characters with the symbol “ ‘ ”. If the special character “ ‘ ” of the letters “o” and “g” is dropped, the program will recognize the word as an error. In the same way, if one of the “ ’ ”, “ ‘ ” or “ ` ” characters is used instead of the modifier letter apostrophe “ ` ” in a word, the program will replace it with the modifier letter apostrophe “ ` ”.

The following is a view of the text before the scan and after the scan is completed:

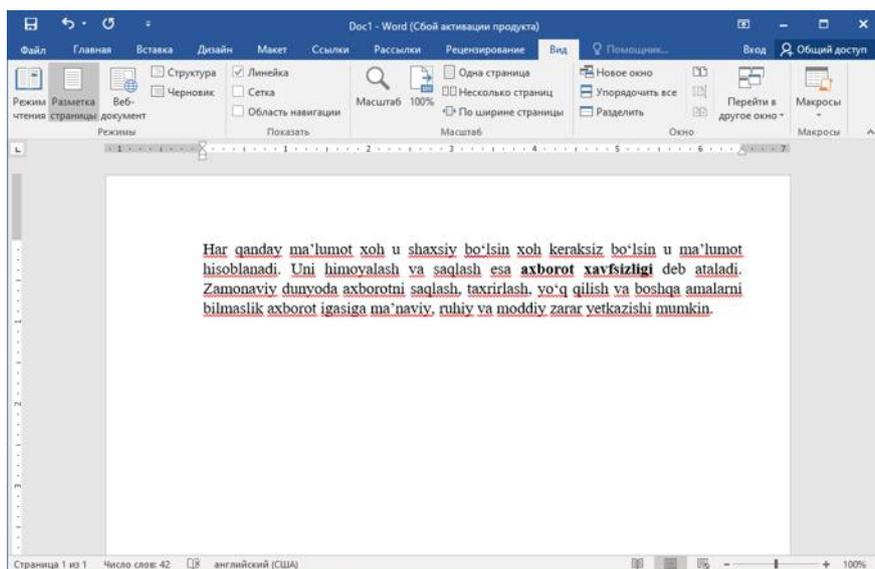


Figure-2. View of the text before the program starts

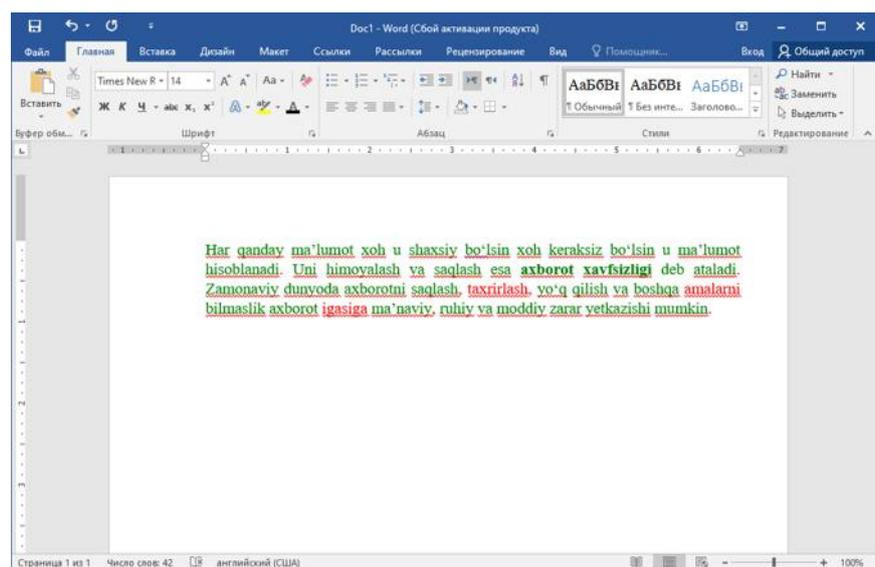


Figure-3. The appearance of the text after the start of the program



There are three misspelled words in the given text, and as shown in Figure b, the program marked the correct words in green and the incorrect words in red.

### Conclusion

This software, which detects errors in Uzbek texts based on Latin script, can detect word errors relatively quickly using the above methods. This is due to the fact that the bases and suffixes in the words are placed in separate databases, the front and back suffixes of the word, and the base is checked separately. Dividing the base database into sections by letter, determining which letter the word starts with, and checking the word base that only starts with that letter can significantly increase performance. This is because there is no need to check for incorrect databases in this case, which saves time. This software detects text errors, highlights correct words in green and incorrect words in red.

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## INVESTIGATION THE THERMAL RESISTANCE CHARACTERISTICS OF OLIVE OIL

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### ABSTRACT

Olive oil has more anti-oxidant and heat resistance than many other oils. The heat resistance stability of extra virgin olive oils varies slightly and depends on various factors. But in general, extra virgin olive oil is suitable for cooking and frying. Compared to other oils such as soybean oil or sunflower oil, this oil tolerates higher temperatures and is less susceptible to obvious changes such as cracking, oxidation and neutralization. For this reason, extra virgin olive oil can be used for cooking and frying.

Heating oils at high temperatures causes extensive changes in their chemical properties, and due to the importance of oils in health, it is necessary to study and research more in choosing the type of oil to be used and its quality. Extra virgin olive oil is considered one of the best oils due to its beneficial nutritional effects. Therefore, this study was conducted with the aim of comparing the thermal stability of extra virgin olive oil and normal olive oil. In this research, eight types of extra virgin olive oil were tested. In order to evaluate the thermal stability, the oils were heated at 120°C for 4 hours and sampling was done at 2-hour intervals. The composition of fatty acids, acid number, peroxide number, anisidine number, totox number and oxidative stability with Rancimet were performed according to standard methods. According to all the researches that have been done so far, it is clear that oleic acid is the main fatty acid of olive oil, and its amount is between 69 and 74%. Based on the results, it can be

seen that extra virgin olive oils have more favorable properties than the normal type and are more resistant to heat. It is recommended that if olive oil is consumed raw, it is better to use normal oils, but if it is used in cooking, extra virgin oils should be used as much as possible.

**Keywords:** extra virgin olive oil, edible oil, heat resistance, regular olive oil.

## INTRODUCTION

The thermal resistance of olive oil is about 190 degrees Celsius. This means that if a high temperature is applied to the olive oil and its temperature reaches above 190 degrees Celsius, during frying, cooking or other thermal processes, the olive oil may oxidize and spoil and create substances harmful to health. To use olive oil, it is better to use a lower cooking temperature and store it at room temperature to extract the best quality and health benefits from it.

Fats and oils are important components of food, during the reaction with food ingredients, they leave favorable organoleptic characteristics, on the other hand, during frying, factors such as moisture, heat and oxygen cause the oxidation of frying oil, which This causes the quality of the product to drop [1]. Heating oils at high temperatures causes extensive changes in physical and chemical properties, fatty acids as the most important components of oils have an important position in changing the chemical and physical properties of oils [2]. Due to the importance of oils in health, it is necessary to study and research more in choosing the oil to use and choosing its type and quality. Most researchers in the field of edible oils, among oily fruits, introduce olive as one of the most important sources of oil. Olive oil is one of the important components of the Mediterranean diet, which is obtained by extracting the fruit of the *Olea europaea* tree. Due to the fact that the properties of olive oil depend on its quality and the price of olive oil is also related to its quality, for this reason, the best oil should be chosen in terms of quality [3]. The nutritional benefits of olive oil depend on the composition of their fatty acids. Olive oil contains high amounts of natural antioxidants that are effective in preventing many diseases [4,5]. Olive oil improves the fat profile by reducing the amount of low-density lipoprotein and increasing the amount of high-density lipoprotein, improving vascular oxidative damage, improving vascular function, reducing blood cholesterol, improving blood pressure control and favorable changes in body homeostasis [5, 6]. Compared to other vegetable oils, olive oil is resistant to oxidation, which is due to the composition of its fatty acids, especially the ratio of monounsaturated and polyunsaturated fatty acids and other partial compounds [7]. Among the classifications of olive oil, natural

olive oil has numerous nutritional, therapeutic and economic benefits[8]. Antioxidants, like phenolic compounds, prevent oil spoilage and at the same time create a good taste [9]. Based on previous studies, it can be found that heat changes the oxidative stability and degradability of olive oil[10]. Thermal process in oils activates free radicals and increases oxidation [11]. Heating increases free fatty acids, decreases tocopherols and isomerization of fatty acids [12]. The most important factors that have the most effects on oils during heat treatment are oil structure, heating time and temperature [13].

Baluryan and his colleagues in the study of thermal resistance and efficiency of palm olein and rapeseed oil mixtures in frying potato chips showed that after 5 consecutive days of heating at 180 degrees Celsius, it increased the amount of polar compounds, acidity, and peroxide value of the oils. During frying, the presence of free fatty acids reduces the smoke point of the oil [14]. In a research conducted to investigate the stability of fatty acids in frying oils and liquid oil during frying, it was shown that the stability of frying oils during frying is low and they cannot be used for frying several times. In addition, these studies showed that liquid oils are not suitable for frying [15]. In the studies conducted regarding the investigation of phenolic compounds and oxidative stability of olive oil during storage, it was shown that increasing the storage time increases the acidity and peroxide and decreases the phenolic compounds in the oil, and this can cause the oil's low resistance to oxidation [16]. In 2013, by investigating the characteristics of two varieties of yellow and oil olives in the cities of Shiraz and Kazeroon, Hamapour and his colleagues found that the quality of olive oil depends on the type of variety and the climate of its cultivation[17]. Also, in 2013, Alavi Rafi and his colleagues, by studying the properties of olive oil, concluded that climatic and agricultural conditions affect the composition of olive oil[18]. Due to the fact that nowadays natural and untouched products are highly welcomed and extra virgin olive oil is considered one of the natural products and statistics have shown that 90% of consumed oils are oils that are almost virgin. And people use them in cooking and it is effective in people's health, especially cardiovascular diseases, diabetes and cancer. Therefore, the quality control of these oils is considered one of the most important issues in health and food safety. For this reason, this study was carried out with the aim of comparing the thermal resistance of extra virgin olive oil with the normal type and investigating the changes in chemical compounds during the heating period and providing recommendations for the correct use of extra virgin olive oil.

## 2- MATERIALS AND METHODS

Solvents and chemicals used in this study were of analytical grade and were purchased from Merck.

### 2-1. SAMPLING

Extra virgin olive oils including 10 types from border markets in the west of the country and Iranian extra virgin olive oils including 8 types from local stores in Qazvin province. were purchased, all the samples had been produced for at least 4 months at the time of testing.

### 2-2. THERMAL STABILITY TEST

Some oil was removed from each sample and heated at 120°C for 4 hours. Sampling was done with time intervals of 2 hours, and after cooling down and reaching the ambient temperature, the samples were transferred to closed tubes and kept in the freezer until the test.

### 2-3- ANALYSIS OF PARAMETERS

In this research, the profile of fatty acids with a gas chromatography device (Varian CP-3800) equipped with a flame detector (FID) based on the Iranian national standards number 4090 and 4091 [19, 20], acid number according to standard number 4178 [21], peroxide index with standard number 4179 [22], anisidine index with standard number 4093, totox index was calculated and from the total of twice the number of peroxide and anisidine index [23] and also to determine the oxidation resistance of olive oil samples Ransimet model 743 device was used [24].

### 2-4- STATISTICAL ANALYSIS

To perform statistical analysis, the average of three repetitions was considered, and analysis of variance was used for repeated data in SPSS-16 software. The graphs were drawn with Excel 2010 software.

## 3- FINDINGS

Figure 1 shows the composition and percentage of fatty acids of olive oil. Oleic acid is the main fatty acid of studied olive oils. After that, palmitic acid, linoleic acid, stearic acid, palmitoleic acid and linolenic acid are in the next ranks. In Figure 2, the results related to acid, peroxide, anizidine and totox indices are presented. The results indicate that in most of the tested samples, the amount of acid number before heating corresponds to the standard amount of IOC (International Olive Council), which is less than 1% in terms of oleic acid for extra virgin olive oils[25]. But in samples 1 and 4, this amount is higher than the determined limit. In the second hour, the heat changes it, which is accompanied by a decrease in its value in the fourth hour. The amount of indic peroxide of all the samples before the heat process is consistent with the amount of IOC standard and Iran's



internal standard 1446, which is determined for extra virgin olive oils, less than or equal to 20 [22].

In the second hour, the amount of peroxide in all the tested oils was found, and in some of these samples, its amount reached higher than the standard range. From the second hour onwards, peroxide failure is observed. The amount of anisidine in all the tested samples before heating is within the standard range, which is based on the Iranian National Standard No. 4152, the maximum amount of anisidine in frying oils is set at 6, but in the second and fourth hours, this amount It increases and in some samples it rises to more than several times compared to the standard range. Standard totox index of total oxidation is calculated from the sum of two times of peroxide index and anisidine index. At first, the amount of this index is low, but due to heat, its amount increases in the second and fourth hours. In order to investigate the oxidative stability, 3 grams of oil samples were tested at a temperature of 120°C. The ventilation speed was also set at 20 liters per hour [24]. Figure 3 shows the duration of oxidative stability of the samples, based on which it can be seen that sample 2 has the highest and sample 4 has the lowest oxidative stability.

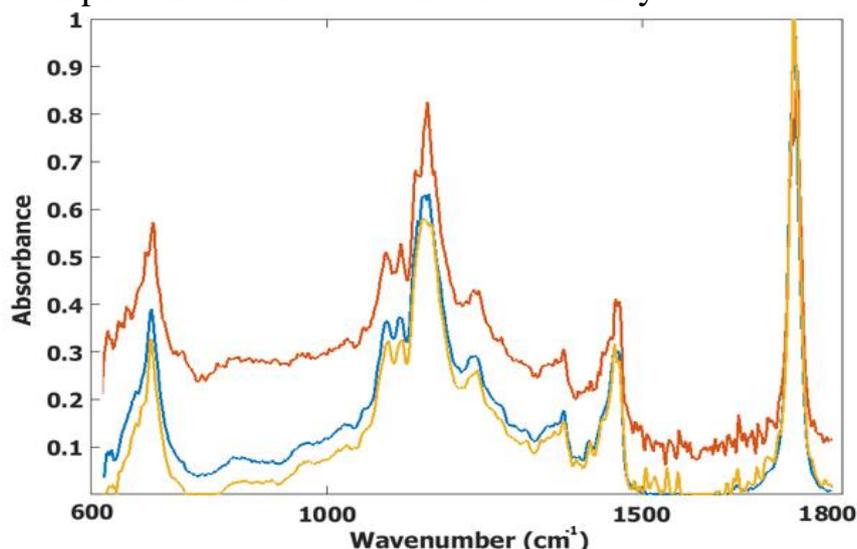


figure 1. Comparison of acid index changes during thermal process

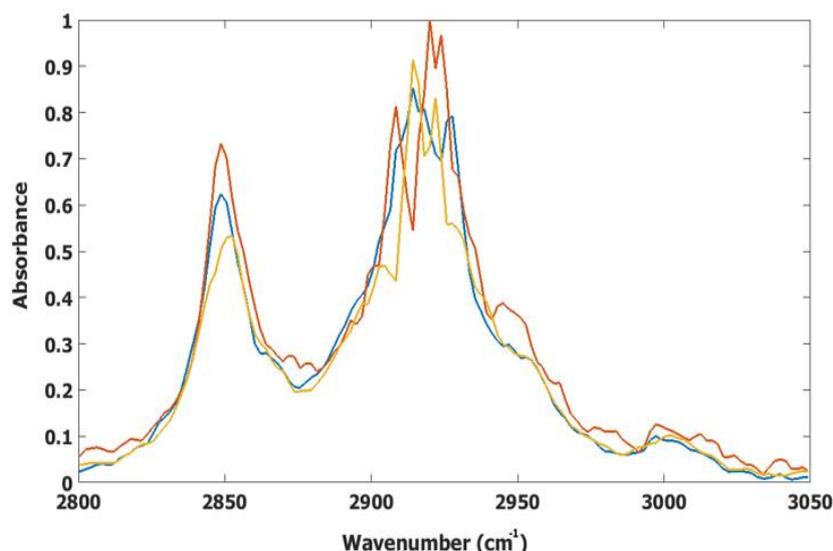


figure 2. Comparison of anisidine index changes during thermal process

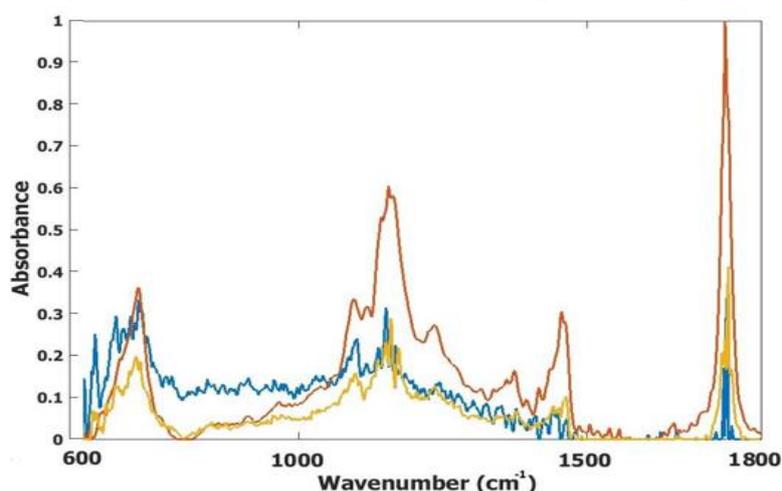


Figure 3. Comparison of Totox index during the thermal process

#### 4- RESULTS AND DISCUSSION

The results of this research showed that each type of oil mainly contains monounsaturated fatty acids, especially oleic acid, saturated fatty acids, especially palmitic acid, and polyunsaturated fatty acids, especially linoleic acid. The percentage of two unsaturated fatty acids in Iranian extra virgin olive oils, i.e. oleic acid and linoleic acid, was 69-74 and 8-9% respectively, and in foreign oils it was 73-79 and 3-8% respectively. , which results show that both extra virgin olive oils are consistent with the results of the study conducted in 1996 [26], as well as the findings of Khorazy et al. and Fashi found that their dominant fatty acid is oleic acid [27]. The results of Pokorny and Sakurai's research in 2002 showed that both types of oil mainly contain high oleic acid and a lower percentage of monounsaturated fatty acids, especially oleic acid and linoleic acid. They are superior both in terms of storage and thermal

processing.[28] In 2003, Pinelli et al. studied virgin olive oils in Italy and concluded that the high amount of polyunsaturated fatty acids increases the oxidizability of the oils and thus decreases their stability[29], based on Figure 1. It can be seen that foreign samples have higher oleic acid than domestic samples, but the amount of linoleic acid in domestic oils is higher than in foreign oils.

It can be said that based on the structure of fatty acids, foreign oils have more favorable reduction stability. However, Iranian samples are in a more favorable nutritional condition due to the high amount of linoleic acid, which is considered a part of essential fatty acids, which is confirmed by the research conducted by Alavi Rafiei and colleagues[30].

In Figure 2, the results of the acid index show that samples 1 and 4 have values higher than the standard. The high percentage of free fatty acids in these samples indicates inappropriate olive storage conditions, such as high humidity and temperature [31]. Due to the hydrolysis of triglycerides, heat causes an increase in acidic andes [32]. But the results of Figure 1 showed that in both types of oil, with increasing time, the amount of acid base does not increase much. Because one of the first factors that trigger hydrolysis is the presence of water from frying material[33] and because there is no frying material in this study, the amount of hydrolysis will decrease and the amount of acidity will not increase much, and the second hour after the amount It decreases, this decrease is due to the volatility of free fatty acids at high temperatures [34]. Since the rate of oxidation of free fatty acids is higher than the fatty acids participating in the structure of triglycerides, the lower the amount of free fatty acids, the more the amount of acid andes decreases, and the oil is less resistant to oxidation. It will be higher. By comparing the average acid index in Figure 1, it can be seen that foreign oils have a favorable condition compared to Iranian oils during the thermal process.

The amount of oil peroxide can change under the influence of various factors. One of these factors can be the amount of unsaturated fatty acids, as the amount of polyunsaturated acids in the oil increases, the amount of peroxide increases. Also, other factors such as oil extraction conditions, water temperature used, type of olive variety and climatic conditions of growth can affect the peroxide level [35]. In figure number 2, it is evident that in the second hour onwards, the hydrogen peroxide will fail, that is, its amount will decrease. In 1994, in a study by Neff and colleagues, they heated frying oil with a formulation of 1:1 palm olein and soy without antioxidants and reported the breakdown of peroxide after 5 and 6 hours[36], due to the high level of unsaturated fatty acids. In these oils, at high temperatures, the rate of formation and transformation of



free radicals in them is faster, and therefore the peroxide concentration quickly reaches the breaking point and their amount is reduced, that is, in this case, hydroperoxide turns into secondary oxidation compounds such as aldehydes. And ketones are converted. That is, after the failure of oxidation, it continues [37]. This article shows that peroxide has an unsFigure structure chemically and breaks at high temperatures[38]. In Figure 2, it is clearly seen that foreign oils have better characteristics than Iranian types. The presence of natural antioxidants in olive oil increases the oil's resistance to oxidative spoilage, and as a result, it reduces the amount of peroxide increase [39, 40].

Anisidine index indicates the level of secondary oxidation, which is more sFigure than primary oxidation products, i.e. peroxides [41]. Previous studies show that as a result of increasing temperature and time, Anisidine also increases [1, 37]. Baiano and colleagues in 2005 stated that the lower the amount of this index, the lower the secondary oxidation rate. The antioxidant properties of phenolic compounds are mostly related to the secondary compounds of oxidation [42]. It is evident in Figure 3 that in the second hour by applying the heat process, the amount of secondary compounds increases, the result of which is an increase in anisidine, and this increase in oxidation can be due to the destruction of existing antioxidants such as phenolic compounds in olive oil, but in the fourth hour It will be reduced a bit.

In 1992, Tsimidou and his colleagues, by studying the phenolic compounds in olive oil, showed that increasing the amounts of these compounds in olive oil increases its stability and durability[43]. This low stability can be related to the high content of polyunsaturated fatty acids such as linoleic acid (which quickly oxidizes and turns into secondary compounds) [39] and the degradation of phenolic compounds over time [42].

Due to the fact that peroxide alone is not considered a reliable indicator for the oxidation of oils, the Totox index for oils is calculated based on this [1], which is a measure of total oxidation. The calculation of Totox index showed that heat causes a change in the total oxidation rate, which leads to an increase in the number of peroxide, anisidine and Totox. The previous studies also confirm this[1, 45-47]. Figure 3 shows the difference between Iranian and foreign oils. In Iranian oils, the amount of this index is higher, which indicates that total oxidation is higher than foreign oil. Abdulkarim and his colleagues showed in the comparison of the thermal stability of vegeFigure oils that the high content of polyunsaturated fatty acids such as linolenic and linoleic acids increases the amount of TOTOX number [48].

In 2010, Susana Casal and her colleagues showed that extra virgin olive oil has the longest oxidation resistance time by evaluating the oxidative stability with Rancimet method in different edible oils [45]. The highest oxidation resistance time indicates the high stability of the oil during heating. In 2004, Aranda and colleagues showed that the high oxidation resistance of two Spanish olive cultivars, Cornicabra and Picol, was due to the high amount of oleic acid and low amounts of linoleic acid and linolenic acid [49]. Susana Casal and colleagues in 2010 showed that extra virgin olive oil has more phenolic compounds than other vegetable oils, these compounds have high antioxidant and antimicrobial effects, the amount of phenolic compounds has a direct relationship with the amount of oxidative stability. [45]. Among the tested samples, sample No. 2 with a time of 13.68 hours has the highest and sample No. 4 with a time of 2.70 hours has the lowest oxidation resistance. In their study, Haqi Kharazi and colleagues stated that the low oxidation stability of the oil Fishi variety olive is because of the low amount of oleic acid and high linoleic acid in it [27], which can be a justification for the high oxidative stability of sample number 2 compared to the rest. Among the studied samples, no significant difference was observed between sample 6 and sample 8 at the 5% level, but there was a significant difference at the 5% level in other samples. Based on Figure 4, it can be stated that extra virgin olive samples have higher oxidative stability than normal olive oil samples. It can be seen that extra virgin olive oils have higher amounts of phenolic compounds of monounsaturated fatty acids such as oleic acid and a lower amount of linoleic acid than normal samples, also other factors such as growth and climatic conditions can be involved in the stability of olive oil.

## 5- CONCLUSIONS

Based on the results obtained from the thermal stability of the oil during heating and the results of the oxidation resistance with Rancimet machine, it can be concluded that extra virgin oils have more favorable conditions in terms of thermal stability than normal oils. which can be attributed to the presence of high monounsaturated fatty acids and low polyunsaturated fatty acids and antioxidants such as phenolic compounds. In general, it can be concluded that due to the fact that oils with poor initial quality are oxidized sooner, it is better to use high quality oils for cooking, due to the fact that olive oil changes its composition due to heat. occurs and causes its quality to decline, it is recommended that if extra virgin olive oil is consumed raw, it is better to use normal oils due to the higher polyunsaturated fatty acids and also due to the availability And the lower cost of their consumption will be more economical, but if they use extra virgin

olive oil for cooking, it is better to use normal oils because of their higher thermal and oxidation stability.

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**ANNOTATSIYA**

Bu maqola mobile ilovalarning barcha insonlar uchun taqdim etilgan zaruriyati haqida. Maqolada, mobile ilova yaratishni taqdim etib, OTM-larga qabul qilinishi uchun o'quvchilar tomonidan ishlab chiqilgan ishlar va boshqa ko'rsatkichlar haqida ham ma'lumot berilgan.

Maqolada ko'proq oila azolari o'rtasidagi aloqalarni mustahkamlash, ular haqidagi malumotlarni ilovaga joylab borish, u malumotlarni o'zgartirish, afzalliklari va kamchiliklari haqida malumot berilgan.

**Tayanch so‘zlar:** Reyting, funksiya, tizim, mobil ilova, foydalanuvchi, mahsulot, dizayn, interfeys.

**ABSTRACT:**

This article is about the necessity of mobile apps offered to all human beings. The article also provides information about the work and other indicators developed by readers to be accepted into OTMs by providing mobile app creation.

The article is more about strengthening ties between family members, placing information about them in the application, changing the information it provides, the advantages and disadvantages.

**Keywords:** Rating, function, system, mobile application, user, Product, Design, interface.

**KIRISH**

"Oila daraxti" mobil ilovasi, oila a'zolari uchun ma'lumotlar almashish, ta'lim olish va ko'plab amallarni bajarish uchun yordam beruvchi tizimdir. Bu ilova, o'zida har bir oila a'zosi uchun muhim



ma'lumotlarni saqlab, ularga bir-birini taklif qilish va hayotlarini osonlashtirishga yordam beradi.

Ilovada qo'llanadigan asosiy funktsiyalar quyidagilardir:

1.Oiladagi har bir a'zoning tug'ilgan sana, tashqi va ichki turar joyi, telefon raqami va boshqa shaxsiy ma'lumotlari;

2.Oiladagi a'zolar orasida aloqa saqlash;

3.Urg'uchilik jadvallari va shuningdek, oila azolari uchun asboblarni ro'yxati va har bir a'zoni hayotidagi muhim tadbirlar haqida xabar beruvchi imkoniyat;

4.Har bir a'zo uchun shaxsiy maqolalar, tavsiyalar va o'rgatuvchi materiallar saqlanishi mumkin bo'lgan ma'lumotlar markazi;

5.Oiladagi katta yangilik va tadbirlar haqida xabar berish, qo'shimcha fikrlash va salomatlik ko'nikmalarini taqdim etish.

Ilovada o'rnatilgan modullar orqali, oila a'zolari ko'p ma'lumotlarni almashishi, bir-biriga aloqa o'rnatishlari va oilalariga yordam berishlari mumkin bo'ladi. "Oila daraxti" ilovasi, aholi ko'rsatmalarida katta talabga ega bo'lgan mobil ilovalardan biri bo'lib, oila a'zolari uchun ko'p qulayliklar yaratadi.

Ilovada foydalanuvchilar o'z oilalari bilan bog'liq har qanday ma'lumotni saqlashi va ularning o'zaro aloqalarini oshirishi mumkin. Masalan, oila a'zolari oiladagi yangiliklarni, tadbirlarni, xususiy kunlarni va bayramlarni hamkorlikda yuborishadi. Bu yordamida har bir oila a'zosining hayoti osonlashtiriladi va ular o'zaro aloqalarni oshirish, bir-biriga ko'maklashish va muloqot qilishga imkoniyat yaratiladi.

Ilova, oiladagi kattalar va kichiklarga yordam berish uchun ham yaxshi variantdir. Ota-ona o'zining vaqtida unga qiz bola bo'lsa, ularning maslahatlari va tavsiyalari yordamida ta'lim olishlari mumkin. Ilova shuningdek, yoshlar va katta farzandlar orasida aloqa saqlash uchun ham qulayliklar yaratadi. Shu tarzda, oilalar oila a'zolari o'rtasidagi aloqalarni oshirishadi va ular o'zaro fikrlash, tajribalarini ulashish va yordamlashish imkoniyatini topishadi.

## ADABIYOTLAR TAHLILI VA METODOLOGIYA

"Oila daraxti" ilovasi, ilgari qismlariga alohida tayyorlangan ma'lumotlar va materiallar yordamida foydalanuvchilarga yordam beradi. Shuningdek, ilova foydalanuvchilarga ta'lim olish, maslahat olish, tashqi va ichki sharoitlarni tahlil qilish, tibbiy yordam olish va boshqa masalalarda yordam berish uchun ko'plab qulayliklar taqdim etadi.

So'zning qismini olib, "Oila daraxti" mobil ilovasi, oila a'zolari uchun ko'plab qulayliklar taqdim etadigan muhim va





foydali tizimdir. Bu ilova, oilalar orasidagi aloqalarni oshirish, ularga yordam berish va hayotlarini osonlashtirish imkonini beradi.

"Oila daraxti" ilovasi, oila a'zolari uchun qulayliklar taqdim etishning yanada ko'proq yo'nalishlarini o'z ichiga olgan. Bu yo'nalishlar o'zaro aloqalar, ta'lim va o'qish, salomatlik va xavfsizlik, maslahat olish, turar joy, tadbirlar va yana ko'p narsalarni o'z ichiga oladi. Bu ilova, oila a'zolari uchun turli xil vazifalarni bajarish uchun ko'plab modullar va funksiyalarni o'z ichiga oladi.

Salomatlik va xavfsizlik yo'nalishi, "Oila daraxti" ilovasi uchun juda muhimdir. Ilovada, oila a'zolari uchun salomatlikni ta'minlash va ularni xavfsizlikda saqlashga yordam beradigan ko'plab modullar mavjud. Bunda oila a'zolari o'zaro tajribalarini ulashish, salomatlik masalalarida maslahat olish va kerakli tibbiy yordamni olishlariga yordam beradigan modullar mavjud.

O'qish va ta'lim yo'nalishi esa, "Oila daraxti" ilovasining birinchi va muhim yo'nalishlari bilan hisoblanadi. Bu yo'nalishda, ilova oila a'zolari uchun har qanday ta'lim materialini, ko'rsatkichlarni va o'qish imkoniyatlarini taqdim etadi. Ilova orqali, oila a'zolari ulardan bir-biriga dars berish, bir-biriga maslahat bermoq va o'zaro tajribalarini ulashish imkoniyatini topishadi.

"Oila daraxti" ilovasi, oila a'zolari uchun qulayliklarni yaratish va ularni hayotlarini osonlashtirishga yordam berishning yanada ko'proq usullarini o'z ichiga oladi. Bunda ilova foydalanuvchilarga, turar joylarini, tadbirlarni, xususiy kunlarni va bayramlarni yuborish, aloqalar o'rnatish, maslahat olish, va ko'plab boshqa imkoniyatlar yaratish imkonini beradi.

So'zning oxiriga kelib, "Oila daraxti" mobil ilovasi, oila a'zolari uchun juda ko'p imkoniyatlar yaratuvchi va foydali tizimdir. Bu ilova orqali, oilalar o'zaro aloqalarni oshirish, bir-biriga yordam berish, hayotlarini osonlashtirish va salomatlikni ta'minlashga yordam beradi.

Mobil ilova ishlab chiqishning kamchiliklari o'zgarib turuvchi va har bir proyektda mavjud bo'lishi mumkin. Bu ilovaga ham xos bo'lgan kamchiliklar quyidagi bo'limlarni o'z ichiga oladi:

1. Texnologik kamchiliklar: Mobil ilova yaratish uchun yaxshi texnologiya va bo'limlar, mutaxassislar va boshqa resurslarga ehtiyoj bor. Bu resurslarga ega bo'lish oson bo'lmaydi va shuning uchun ilova yaratish mahsulotlari va xizmatlarining narxi yuqori bo'lishi mumkin.

2. Dastur tili: Dastur tili ilovani yaratish uchun muhimdir. Dastur tili ancha quyidagi muhim tushunchalarni o'z ichiga oladi, masalan, yaxshi performans, qulay va oson tashqi interfeys va boshqa



imkoniyatlar. Ilovani to'liq yaxshi ishlatish uchun, dastur tili va asosiy imkoniyatlari bilan tanish bo'lish kerak.

3. Qulay interfeys: Mobil ilova yaratishda, foydalanuvchilarning qulayligi va interfeysi juda muhimdir. Ilova dizayni va tizimni oson tushunish uchun to'g'ri bir yonlama tanlash lozim. Bu qulay interfeys, juda ko'p yordam berishi mumkin bo'lgan oson bo'lishiga yordam beradi.

4. Xavfsizlik va sirli ma'lumotlar: Mobil ilovalar uchun xavfsizlik muhimdir. Foydalanuvchilarning ma'lumotlari ilova tomonidan himoyalangan va qo'shimcha yaxshi xavfsizlik ko'nikmalariga ega bo'lishi kerak.

5. Ishonchli serverlar: "Oila daraxti" ilovasi mobil tarmog'i uchun ishonchli serverlar talab qiladi, bu esa narxlarga ta'sir ko'rsatishi mumkin.

6. Marketing: Ilovaning to'liq foydalanishiga erishish uchun yaxshi marketing kerak. Bu esa ilova sotishiga yordam beradi.

Shunday qilib, mobil ilova yaratish kamchiliklariga ega bo'lish mumkin. Bu kamchiliklar esa mahsulotning sifati va qulayligi yoki narxi kabi faktorlarga ta'sir qilishi mumkin.

"Oila daraxti" mobil ilovasi ishlab chiqishning bir nechta afzalliklari mavjud:

1. Oila tadbirlarini tashkil qilish: "Oila daraxti" mobil ilovasi, oila tadbirlarini tashkil qilishni oson va qulay qiladi. Bu ilova, bir necha odamlar tomonidan boshqarilishi mumkin va tadbirlar bo'yicha ishlar osonlashtiriladi.

2. Oila a'zolari o'rtasida aloqani oshirish: "Oila daraxti" ilovasi, oila a'zolari o'rtasida aloqani oshirishga yordam beradi. Ilovada, oila a'zolari bir-biriga xabar yuborish, o'zaro fikr almashish, tadbirlar haqida xabar qoldirish va boshqalar kabi imkoniyatlar mavjud.

3. Oila tuzilishi va tadbirlari haqida malumot olish: Bu ilova, oila tadbirlari va oila tuzilishi haqida hamda bir-biriga oid yangiliklardan xabardor bo'lishni osonlashtiradi.

4. Tadbirga qatnashuvchilar ro'yxatini tuzish: Ilova tadbirga qatnashuvchilar ro'yxatini olib tashlashni va unda faoliyat ko'rsatishni osonlashtiradi.

5. Hayotga imkon berish: "Oila daraxti" mobil ilovasi, oila a'zolari uchun yangi do'stlar topish va yangi tajriba olish imkonini beradi. Bu, hayotni zavqli va qiziqarli qiladi va o'zaro aloqani oshiradi.

6. Yaxshi foydalanuvchi tajribasi: "Oila daraxti" mobil ilovasi o'z ichiga qulay va sodda interfeysga ega bo'lib, foydalanuvchilar uchun yaxshi tajriba ta'minlaydi. Bu, foydalanuvchilarining ilovani qulaylik bilan ishlatishiga olib keladi va ularni qayta ishlatishga yordam beradi.



7. Yaxshi marketing ko'nikmalari: Mobil ilova sotishini oshirish uchun yaxshi marketing ko'nikmalari bor. "Oila daraxti" mobil ilovasi, oila a'zolari orasida tarqalgan ko'nikmalar yordamida ilovani ko'paytirishga yordam beradi.

Shunday qilib, "Oila daraxti" mobil ilovasi, oila a'zolari o'rtasida aloqani oshirishni osonlashtiradi, tadbirlar va oila tuzilishiga doir yangiliklardan xabardor bo'lishni osonlashtiradi va oila a'zolari uchun yangi do'stlar topishga imkon beradi. Bu ilova qulay va sodda interfeysga ega bo'lib, foydalanuvchilar uchun yaxshi tajribani ta'minlaydi va marketing ko'nikmalari yordamida ilovaning foydalanuvchilarini ko'paytirishga yordam beradi.

"Oila daraxti" mobil ilovasi, oila a'zolari uchun ko'plab afzalliklarga ega bo'lib, ularni o'zaro aloqani oshirishga yordam beradi va oila tadbirlarini tashkil qilishni osonlashtiradi. Buning bilan birga, ilovada oila tuzilishi va tadbirlari haqida malumot olish, tadbirga qatnashuvchilar ro'yxatini tuzish va yaxshi foydalanuvchi tajribasi ta'minlanadi. Bu afzalliklar, ilovani oila a'zolari tomonidan keng tarqalgan va ishlatilgan ilovalar orasiga kirib kelayotgan muhim ilovalardan biri qiladi.

## XULOSA

"Oila daraxti" mobil ilovasi ishlab chiqish uchun quyidagi xususiyatlarga e'tibor berish kerak:

1. Foydalanuvchilarga qulay va sodda interfeys: Ilova foydalanuvchilarga oson foydalanish tajribasi ta'minlashi uchun qulay va sodda interfeysga ega bo'lishi kerak.

2. Ko'p miqdorda ma'lumot olish imkoniyati: Ilovada oila tuzilishi, tadbirlar, va oila a'zolariga tegishli boshqa ko'p miqdorda ma'lumotlar mavjud bo'lishi kutilmoqda.

3. Push xabarlar: Foydalanuvchilarni ilovadan foydalanish haqida xabardor qilish uchun, push xabarlar yuborish imkoniyati yaratiladi.

4. O'zaro aloqa: Foydalanuvchilar uchun, oila a'zolari o'rtasida o'zaro aloqani oshirish uchun chat va messaging funksiyalari ishlab chiqiladi.

5. Ilova foydalanuvchilar uchun yaxshi tajriba ta'minlashi uchun foydalanuvchi yo'riqnomasi va soda, qulay dizayn ishlab chiqiladi.

6. Ilovadan foydalanuvchilar sonini ko'paytirish strategiyalari: Ilk etapda, ilovadan foydalanuvchilar sonini ko'paytirish strategiyalarini yaratish kerak. Buning uchun marketing ko'nikmalari, reklama strategiyalari, ommaviy axborot vositalarini qo'llash kabi chora-tadbirlar ko'riladi.

8. Platformaga mos kelish: Ilova yaratishda, kerakli platformalarni tanlash va mos kelishlarini aniqlash kerak. Android yoki iOS platformalari uchun yaratilgan ilovani yaratish uchun mos kelishlar va aniq talablarga e'tibor qaratiladi.

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## ASSESSMENT OF AWARENESS AND COMPREHENSION OF USAGE OF SMART MOBILE DEVICES FOR CHEMISTRY LEARNING AMONGST UNDERGRADUATE STUDENTS: A CASE STUDY AT KANDAHAR UNIVERSITY (KANDAHAR- AFGHANISTAN)

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### ABSTRACT

The use of cell phones, and particularly "smart phones," seems to be widespread. The increasing functionality of mobile or smart phones has caused them to overtake PCs as the preferred technology for many consumers, particularly university students. Therefore, it must be understood that using these devices as a learning aid in higher education is unavoidable. The goal of this study was to determine whether university students in Kandahar, Afghanistan, were aware of using mobile devices in the learning of chemistry. The study was a descriptive survey and the questionnaire was distributed in the last three months of 2022 among chemistry department students at the University of Kandahar. The study utilized a sample of 152 undergraduate chemistry students. Students in their first year make up 30% of the sample, followed by those in their second year (22%), third year (26 %), and fourth year (22 %). A validated questionnaire served as the original study primary data collection tool. Using the Cronbach alpha method, the reliability of instrument was evaluated, and a reliability coefficient index of 0.83 was found. To respond to the three study-related research questions, mean and percentage were used. According to the research, undergraduate students use a variety of phones and mobile devices as social media for tasks like online charting, learning, and submitting assignments to gather pertinent course materials and obtain helpful information whenever and wherever they need it for academic purposes. So, it was advised that each student should have an Android phone for informational purposes. There should be more portable mobile gadgets produced by phone manufacturers. If at all possible, the university administration should give students access to the internet for free and without interruption.

**Keywords:** Smart mobile device, Awareness, Comprehension, Chemistry, Students.

## Introduction

Since education is important for transmitting knowledge from teachers to students, it can help to eliminate illiteracy from society. Face-to-face interaction has been used for both teaching and learning [1,2]. But, with the development of information and communication technology (ICT), education can now move beyond in-person instruction to online teaching and learning using portable devices like smartphones, laptops, and tablets [3]. The internet can be accessed using mobile devices, which are handheld computers that utilize wireless fidelity (WiFi). Until Martin Cooper and Motorola produced portable phones, technology in the 1940s was not transportable [1]. According to [4], mobile learning has resulted from the use of mobile devices for educational purposes. As a result of this digital development age, Wright observed that a large number of smartphones and other mobile gadgets have been introduced [22]. The sort of mobile device that students use may depend on user preferences, such as advanced computational skills, phone size and weight, and a battery that can run the device for a longer period of time. As stressed by Rothaernal [7], mobile device manufacturers have developed their creative thinking to incorporate new functions into the phones in order to outperform their rivals. According to UNESCO's 2002 statement that information and communication technology promotes education in the 21st century, these devices could allow students conveniently access information and enhance learning activities anywhere in the world [1].

According to Health, Vom Lehn, Hindmarch, and Svensson, the students must be very aware and responsive to advancements in the digital world [1,2]. Sanchez and his coauthors believe that awareness is the ability to respond to situations when a need arises [2]. The students' capacity to react to the usage of mobile devices for educational purposes demonstrates integration to the aspect of practical. The teachers must be well-trained and computer literate, especially given the importance of ICT, and the schools must be well-equipped with standard classrooms, libraries, and laboratories in order to acquire all of these.

Antony J. Williams and his colleague showed that at the moment, there are three main uses for smart phones in education. Two-dimensional barcode labels can be used to build "smart objects" on smart phones, which have built-in Web browsers that allow access to the World Wide Web's (WWW) plenty of information. When combined, these capabilities are paving the way for a future of mobile computing that may have a bigger influence on society and chemistry education than the personal computer achieved [9].

Technology has advanced as a result of chemistry as a science. Students are exposed to all facets of existence, including the study of matter, energy, and their interconnections. Engineering, as well as other fields like agricultural, biological, and environmental sciences, benefit greatly from a working grasp of chemistry [15-17].

Clinical and medical appliances like Magnetic Resonance Imaging (MRI), ultrasound machines, mass spectrometers, blood



glucose monitors, artificial joints, drug delivery systems, and DNA sequencing machines are examples of new instruments and equipment that have been produced to chemistry knowledge. The advancement of agricultural technology, the use of modern equipment, and the effects of climate change have all benefited the economy [18,19].

In the educational system, the adoption of online teaching and learning is crucial. Information and communication technology (ICT) is the term used to describe telecommunications-based technologies that enable access to information. In the educational system, using online learning and teaching is crucial. Wylie revealed that students use the majority of ICT tools and their mobile devices to support their academic work [5].

Research shows that students use social media on their mobile device for educational purposes [6]. The connectivism theory is crucial to this investigation. According to connectivism theory, internet technology gives new chances that allow people to study and share information globally [21]. Social networks and online forums with mobile devices are the instruments required to communicate this knowledge on the World Wide Web. It also depends on the Kearsley and Schneiderman engagement-based philosophy [23]. The approach placed a strong emphasis on fostering collaborative learning and engagement with educational resources, activities, and communities. It involves the students cooperating as a team to relate, produce, and provide. Similar to how communication works with mobile devices, students can talk to one another and share ideas [9].

### Statement of the Problem

With the help of the internet, it is assumed that one can obtain the knowledge required for daily living because the globe has truly become a global village. This highlighted how important it is for both teachers and students to utilize mobile devices responsibly. The majority of the time, students are seen using their phones to play games, chat with friends, and chat [20,21]. Are the students aware that they can use their phones for academic purposes, such as discussing homework and obtaining online study materials? In most cases, people waste their time chatting rather than engaging in productive academic work. Could it be that they are ignorant of the fact that they can access academic resources online? Consequently, the purpose of this study is to ascertain whether undergraduate students at Kandahar University are aware of using mobile devices for learning chemistry.

### Aim and Objectives

The purpose of this study is to look into how undergraduate students at the University of Kandahar in Afghanistan are using mobile devices to learn chemistry.

The specific objectives of this research are to:

1. Find out what kinds of mobile devices undergraduate chemistry students use.



2. Look into the use of mobile devices by chemistry students at the undergraduate level.

3. Find out how much knowledge university students have about using mobile devices to learn chemistry.

### Research Questions

The research will be guided by the following questions.

1. What kinds of mobile devices do undergraduate students in chemistry use?
2. How do chemistry undergraduate students use mobile devices?
3. What level of knowledge do chemistry students have about using mobile devices to learn chemistry?

### Methodology

The research is a descriptive survey. The sample was obtained by the use of purposeful sampling. The study involved 152 undergraduate chemistry students from the University of Kandahar in Kandahar city. Due to their small number, the 152 undergraduate chemistry students who make up the population of study serve as the sample as well. All the respondents were boys with an age range from 18 to 29 years old because girls were not allowed to go to universities. According to figure 1, the sample comprises 30% of first-year students, 22% of second-year students, 26% of third-year students, and 22% of fourth-year students. The main tool of the study was a structured questionnaire called the "Chemistry Students Awareness and Usage of Smart Mobile Devices for Learning Questionnaire" (CSAUSMDLQ). The questionnaires were distributed during lectures or laboratory sessions to guarantee that the students have relied solely on their knowledge to answer the survey questions. Using the Cronbach Alpha statistical approach, the reliability of instrument is 0.83. It was designed by the researchers to look into undergraduate students' knowledge and use of mobile devices for learning chemistry. The instrument is divided into sections A and B. The demographic information about responders was provided in section A. In section B, information gathered from respondents regarding the sort of phones they use, their awareness of mobile devices, and how they use them to learn chemistry among undergraduates.

The type of phones respondents use, their knowledge of mobile devices, and how they utilize their mobile devices to learn chemistry among students are all covered in part B of the report. The questionnaire items are to be answered on a modified four-point likert scale with the following responses: Strongly Agreed (SA=4), Agreed (A=3), Disagree (D=2), and Strongly Disagree (SD=1). Low Level (LL=2), Very Low Level (VLL=1), High Level (HL=3), and Very High Level (VHL=4). The weighted mean responses yield the criterion mean, which is  $(4+3+2+1) / 4 = 2.5$  (Criterion mean). In order to respond to the research, the criterion mean and percentage were applied. The study focuses on the use of mobile devices in the learning of



chemistry among undergraduate chemistry students at the University of Kandahar, Afghanistan.

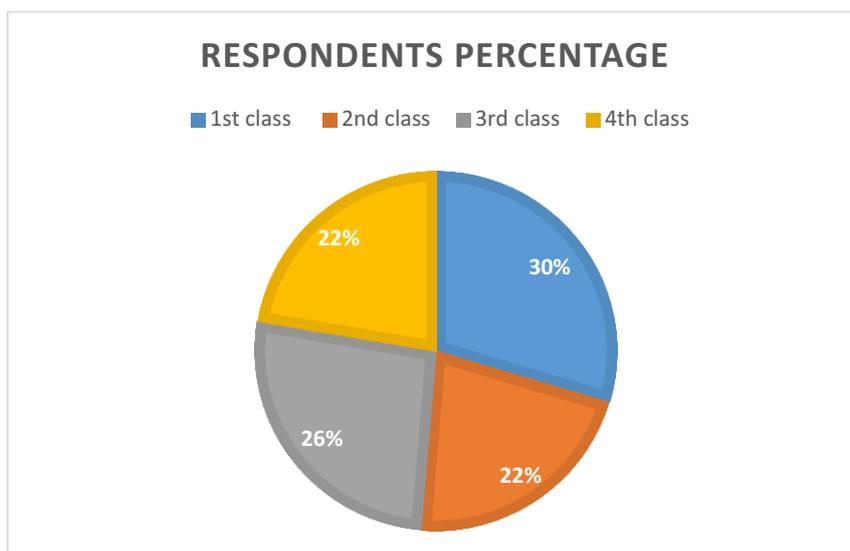


Figure 1. Percentage of the surveyed students according to their classes.

## Results

**Research Question 1:** What types of mobile devices are being used by undergraduate chemistry students?

**Table 1. Responses of students on the types of mobile devices**

S/N	Items	Frequency	Percentage
1	Samsung	96	63.16%
2	Huawei	39	25.66%
3	Iphone	17	11.18%

Total number of respondents = 152

According to Table 1, the most popular smartphones among Kandahar University Undergraduate Chemistry students are Samsung (63.16%), Huawei (25.66%), and iPhone (11.18%).

Total number of respondents = 152

**Research question 2:** What are the ways Chemistry undergraduate students use mobile devices?

Table 2. Responses on ways in which chemistry undergraduate students use mobile devices frequencies in percentages

No	Statement	Strongly Agree	Agree	Disagree	Strongly disagree	Total score	Mean	Remarks
1	I usually download materials online for my study.	67 (44.07%)	58 (38.16%)	17 (11.18%)	10 (6.58%)	486	3.19	Accept
2	I use mobile devices to get materials for exams.	86 (56.58%)	46 (30.26%)	13 (8.55%)	7 (4.61%)	515	3.38	Accept
3	I do carryout my own research after lectures using mobile device.	63 (41.45%)	55 (36.18%)	19 (12.5%)	15 (9.86%)	470	3.09	Accept
4	Mobile devices are very effective when I am taking notes in class.	86 (56.58%)	40 (26.32%)	18 (11.84%)	8 (5.26%)	508	3.34	Accept
5	I use mobile devices to get information for my seminar and project work.	73 (48.02%)	38 (25%)	26 (17.10%)	15 (9.86%)	473	3.11	Accept
6	I use mobile devices during online courses.	31 (20.4%)	27 (17.7%)	43 (28.3%)	51 (33.5%)	342	2.25	Reject

Grand mean = 3.06

Total number of respondents = 152

According to Table 2, The majority of respondents (82.23%) strongly agree or agree that they download study materials using their mobile devices. 86.84% of respondents agree or strongly agree that they utilize their mobile devices to obtain chemistry related information for exams. In addition, 77.63% of the respondents agreed and strongly agreed on using their mobile devices for personal research after lectures. Almost 83% of respondents either strongly agree or agree with regard to utilizing a mobile device to take notes in chemistry classes. In order to gather information for seminars and projects, 73.02% of respondents strongly agree or agree that they do so. Nonetheless, 38.1% of the respondents either strongly agree or agree that they register for courses online using their mobile devices.

**Research question 3:** What level of knowledge do chemistry students have about using mobile devices for chemistry learning?

Table 3: responses of chemistry students at the undergraduate level regarding their level of knowledge regarding the usage of mobile devices for learning chemistry (Frequency in percentages)

No	Statement	Strongly Agree	Agree	Disagree	Strongly disagree	Total score	Mean	Remarks
1	I am aware mobile devices can be used to do assignments.	94 (61.84%)	46 (30%)	9 (6%)	3 (2%)	535	3.51	High level
2	Chemistry students are aware they can participate in group learning using mobile devices.	73 (48%)	55 (36.2%)	7 (4.6%)	17 (11.2%)	488	3.21	High level
3	I am aware mobile device can be used to simulate chemistry concept.	78 (51.31%)	40 (26.31%)	11 (7.23%)	23 (15.13%)	477	3.13	High level
4	Students are aware they can use mobile devices to access information and study materials anywhere in the globe.	98 (64.47%)	46 (30.26%)	5 (3.29%)	3 (1.97%)	543	3.57	Very high level
5	I am aware mobile device, can be used for research.	48 (31.52%)	44 (28.95%)	30 (19.74%)	30 (19.74%)	414	2.72	High level
6	I am aware my knowledge of chemistry can increase with the use of mobile device.	94 (61.84%)	37 (24.34%)	15 (9.87%)	6 (3.95%)	523	3.44	High level
7	I am not aware that I can discuss difficult chemistry concepts with my lecturers and colleagues using mobile device.	86 (56.58%)	29 (19.08%)	23 (15.13%)	14 (9.21%)	491	3.23	Very high level

Grand mean = 3.26

According to Table 3, 91.84% of respondents are agree or strongly agree that they have of awareness regarding the use of mobile devices when completing assignments. The majority of respondents (84.2%) said that chemistry students have a good level of awareness regarding using mobile devices for group learning. 77.62% of those surveyed agreed that there is a very high level of awareness regarding the use of mobile devices to simulate chemistry topics. With regard to using mobile devices to access information and study materials anywhere in the world, 94.73% of respondents agreed that awareness among students is extremely high. The majority of the 5.22% of students who studied chemistry exclusively from library materials were in the

first class. A very high level of awareness of students using mobile devices for research was acknowledged by 60.47% of the respondents. While 39.53% of respondents do not utilize mobile devices for their study or projects, the majority of them are in first and second classes.

The usage of mobile devices has significantly enhanced chemical knowledge, according to 86.18% of the respondents. The knowledge that they might debate challenging chemistry concepts with their instructors and colleagues via a mobile device was not accepted by 75.66% of the respondents.

## Discussion

Undergraduate Chemistry students at the University of Kandahar frequently use these smartphones: Samsung, Huawei, and iPhone. According to Rothaermel, attractive and novel characteristics should be taken into account by mobile device manufacturers [7]. The reason why the students are so enthusiastic about using these phones may be due to their portability, quick internet connectivity, long battery life, and potential for a wide range of services [9].

Students use mobile devices for academic purposes such as obtaining exam materials, downloading study materials from the internet, locating information for seminars and project work, and registering for online courses. Grand mean 3.06 is significantly higher than criterion mean 2.5. This supports the assertions made by [5, 9] that students use mobile devices for academic purposes.

Undergraduate students studying chemistry are very aware of the use of mobile devices for chemistry learning. The grand mean 3.26 is much higher than the criterion mean of 2.5. According to research performed by Sanchez and his colleagues, students are utilizing their mobile devices effectively for academic purposes since they are aware of the developments in the digital age [2].

## Conclusion

The study demonstrates that undergraduate students at the University of Kandahar are aware of and utilize mobile devices for academic purposes and there is a chance that they could be used to learn chemistry effectively. It was found that the majority of students utilize their phones technology for academic objectives, such as downloading educational materials for projects, classwork, and assignment submission. Investigations were also conducted into the various phone models that the students were using.

## Recommendations

According to the research findings, it is recommended that:

1. Students frequently use smartphones; thus the market should stock them.
2. In order to find chemical resources that are helpful for chemistry learning, students should take advantage of the benefits and opportunities offered by mobile devices.

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## IMPLEMENTATION OF INTERNATIONAL STANDARDS AND BEST PRACTICES IN CORPORATE GOVERNANCE TO DEVELOP TOURISM IN UZBEKISTAN

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### ABSTRACT

This article discusses the importance of implementing international standards and best practices in corporate governance for the development of tourism in Uzbekistan. The article highlights the benefits of improving transparency and responsibility in business, increasing investor and tourist confidence, and ensuring more efficient resource utilization and improved service quality in the tourism industry. The article outlines a plan of action for analyzing the existing system of corporate governance, identifying priority areas for improvement, providing training to personnel, implementing international standards and best practices, and monitoring and evaluating results. The article emphasizes the significance of continued work towards implementing advanced international standards and modern experience in the field of corporate governance to ensure successful tourism development in Uzbekistan.

**Keywords:** implantation, international, standards, best practices, corporate, governance, develop, tourism.

Uzbekistan is one of the most beautiful countries in Central Asia with unique historical landmarks and cultural heritage. In recent years, Uzbekistan has undergone significant changes in the economic and political sphere, leading to growth in the country's tourism industry. However, for further development of tourism in Uzbekistan, it is necessary to improve the investment climate, raise the level of corporate governance, and increase business transparency.

In this context, the introduction of advanced international standards and modern best practices in corporate governance can become a key factor for further development of tourism in Uzbekistan. In this article, we will explore the prospects of innovative development of the national system of corporate governance based on international standards and modern



experience in Uzbekistan and how it can have a positive impact on the country's tourism industry.

Analysis of the prospects for innovative development of the national system of corporate governance based on international standards and modern experience in Uzbekistan can have a positive impact on tourism in the country.

The introduction of advanced international standards and experience in the field of corporate governance can lead to improvement of the investment climate in Uzbekistan. This, in turn, may result in an increase in the number of foreign investors and improvement of the country's economic development. Improvement of economic development may lead to the creation of new jobs, increase in population income and improvement in the standard of living. In turn, this may result in growth of the tourism industry as tourists will spend more on various services in the country.

Furthermore, the implementation of advanced international standards in corporate governance can lead to increased transparency and business accountability to society. This can increase the trust of foreign tourists in businesses in Uzbekistan and lead to an increase in the number of tourists in the country.

Thus, the analysis of the prospects for innovative development of the national system of corporate governance based on international standards and modern experience in Uzbekistan is an important step towards the development of tourism in the country. It can lead to improved economic development, creation of new jobs, increase in population income, and improvement in the standard of living.

Specific benefits for tourism from innovations in corporate governance.

In the modern world, where technologies and innovations play an increasingly important role, the tourism business cannot remain apart from these processes. The application of innovations in corporate governance can bring many benefits to tourism. In this article, we will look at what specific benefits can be obtained for tourism from innovations in corporate governance.

### **Improvement of service quality**

One of the main benefits of applying innovations in corporate governance is the improvement of service quality. Implementation of quality management system and usage of new technologies can help to increase the quality of service, which will lead to customer satisfaction and repeat sales.

### **Optimization of business processes**

The usage of new technologies and management systems allows tourism companies to optimize their business processes, reduce costs and increase efficiency. For example, automation of booking and





payment processes can reduce the time spent on customer service and decrease the number of errors related to manual data entry.

### **Increasing competitiveness**

The application of innovations allows tourism companies to be more competitive in the market and attract more customers. For example, the usage of new technologies such as virtual tours and augmented reality can help companies attract more customers interested in new forms of tourism.

### **Development of corporate culture**

The development of corporate culture helps to create a positive work environment, increase employee motivation, and improve the quality of service. For example, the application of new methods of training and staff development can help employees better understand their tasks and increase their productivity.

### **Increasing transparency**

Open management systems and social responsibility help to increase the trust of customers and investors in the company. For example, the use of blockchain technology can help ensure transparency and security in conducting transactions, which will increase customer trust in the company.

In general, the use of innovations in corporate governance helps tourism companies to be more efficient, competitive, and meet the needs of modern customers. However, in order to successfully implement innovations:

Corporate governance is an important element of successful business, and Uzbekistan is no exception. In recent years, the government of Uzbekistan has taken measures to improve corporate governance in the country. Some of the best practices of corporate governance in Uzbekistan include:

1. Development of legislative framework: In 2019, Uzbekistan adopted a new law "On limited liability company and joint-stock company", which sets new requirements for corporate governance. This law helps to protect investors' rights and improve transparency in business.

2. Creation of the National Center for Corporate Governance: In 2020, the National Center for Corporate Governance was created, which provides consultancy and support to companies in the field of corporate governance.

3. Development of the securities market: Uzbekistan actively develops the securities market, which helps companies attract investments and improve their financial performance. Moreover, the government of Uzbekistan actively works on improving transparency and reporting in this area.

4. Active participation in international initiatives: Uzbekistan actively participates in international initiatives such as

the UN Global Compact and the Extractive Industries Transparency Initiative (EITI), which helps to improve transparency and accountability in business.

5. Development of corporate culture: Many successful companies in Uzbekistan actively develop corporate culture, which helps to create a positive work environment and increase employee motivation.

Yes, these are just some examples of the best practices of corporate governance in Uzbekistan. Overall, the country actively works on improving corporate governance, which helps to create a favorable environment for business and investments.

In global practice, there are many international standards and best practices in the field of corporate governance that can be applied in Uzbekistan to identify the prospects of innovative development of the national system of corporate governance and its positive impact on the country's tourism. Some of these standards and practices include:

- International Organization for Standardization (ISO) standards for quality management and environmental management
- OECD Principles of Corporate Social Responsibility (CSR)
- Corporate Governance recommendations from the International Finance Corporation (IFC)
- Best practices in risk management, including financial risks and tourists' safety risks.

The implementation of international standards and best practices in corporate governance can help improve transparency and responsibility in business, increase the level of trust of investors and tourists, as well as ensure more efficient use of resources and improve the quality of services in the tourism industry. As a result, this can lead to an increase in the number of tourists visiting Uzbekistan and an increase in the profitability of the tourism industry in the country.

It should also be noted that the implementation of international standards and advanced modern experience can become a key factor in further development of tourism in Uzbekistan. However, to achieve this, it is necessary to analyze the existing system of corporate governance in Uzbekistan, identify its problems and shortcomings, and determine the areas that require the most attention.

To successfully develop tourism in Uzbekistan, it is necessary to continue working on the implementation of advanced international standards and modern experience in the field of corporate governance. This will not only improve the investment climate and increase the level of trust of investors and tourists but also ensure more efficient use of



resources and improve the quality of services in the tourism industry.

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## DECREASE IN PRE-TRAINING ANXIETY IN ROWERS DUE TO MASTERING THE BASIC TECHNICAL ELEMENTS ON LAND

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### ABSTRACT

The article reveals the effectiveness of the means and methods used to develop the balance stability of kayakers at the initial stage of training, affecting a number of psychological conditions in children, which in turn leads to a decrease in anxiety.

**Keywords:** balance, simulator, rowers, initial training stage, anxiety , training.

### Introduction

At present, the popularization of physical culture and sports has been identified by the world community as one of the important areas of social policy. The role of sport in educating a physically healthy, mentally mature, strong, strong-willed, persistent person is incomparable. In this regard, rowing is one of the most popular and developed sports in the world. It should be noted that in the development of kayaking and canoeing in the world, it is important to attract talented children, improve their sportsmanship, and organize training on a scientific basis. Numerous scientific studies have been carried out in the world in the field of the theory and methodology of rowing on the use of means and methods used in the psychological, general and special physical, technical, tactical and functional training of young athletes in the training process. At present, the rapid growth of results in kayaking requires the improvement of the training system in this area that meets modern requirements.

In our country, it is important to increase and realize the creative and intellectual potential of the younger generation, " To form a healthy lifestyle in children and youth, to involve them in physical education and sports . " Currently, athletes represent the honor of Uzbekistan on the world stage, achieving high results in various competitions. It is advisable to pay special attention to the development of children's sports, its *scientific* support and the creation of an organizational basis. The role of youth sports is growing day by day, as it is the main base for the training of the sports reserve. The foundation for future sporting success and achievement will be laid in the early stages of training and will be ensured by the quality of reserve training. An analysis of the results of scientific work of the last decade showed us the need to create an



innovative device and a special set of physical exercises that help develop the balance stability of rowers. It is expedient and relevant to develop such a pedagogical system that can be used not only on water, but also on land, since it is recommended to train throughout the year to form and develop balance.

**Research methodology**

Classes for the development of balance were held 3 times a week using "BOSU", "Fitball", "Balance Cushion" and a special simulator. For each week, a "balance training plan" was drawn up. Each session consisted of a 10-minute warm-up, ten special balance exercises, and machine rowing. Balance exercises (each exercise is given 3 minutes, 30 seconds rest between exercises) are performed according to the circuit training method for 40 minutes. Exercises were performed from simple to complex, static exercises were performed in combination with dynamic ones, the pace of training gradually increased to the optimum.

**Table 1**

**A set of exercises for the development of coordination abilities of rowers at the initial stage of training**

Purposefulness of exercises	fixed assets	Guidelines	Part of the lesson
It is aimed at the formation and development of a sense of balance and stability of balance.	Holding various positions of the body in " Bosu " for a certain period of time	Exercises are performed on both legs, one leg in the "Swallow" position, with closed eyes and using dumbbells.	In the preparatory or main part of the lesson
It is aimed at the formation and development of a sense of balance and stability of balance.	Maintaining balance in " Fitball " in different positions of the body	Exercises are performed in a sitting position, lying on the stomach and lower back, kneeling, with closed eyes and dumbbells.	In the preparatory or main part of the lesson

Aimed at the formation and development of balance, balance, coordination abilities and the vestibular apparatus	Performing various movements in " Bosu " with increasing amplitude	Walking (on the spot, around its own axis), performing ORU exercises, rowing imitation	In the main part of the lesson
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## Analysis and results

The results of the experiment in subjects aged 10–11 years to study anxiety in the pre-training the situations were as follows (see table 6, figure 6). And based on this, statistical differences between the indicators of situational anxiety of the subjects of the experimental and control groups at the beginning of the pedagogical experiment were not found [ $p > 0.05$ ]. According to the results obtained in the course of the pedagogical experiment, differences in the level of situational anxiety were revealed between the subjects of the experimental and control groups [ $P < 0.05$ ].

The data show that at the beginning of the experimental period (1-2 months), pre-workout situational anxiety of the subjects in the experimental group was "moderate", and in the control group "high". During the remaining four months of the trial period, the pre-training situational anxiety of the subjects in the experimental group was "low", and in the control group "moderate".

Studies have shown that the use of a pedagogical system of special exercises on land when teaching kayaking techniques affects a number of psychological conditions in children, which, in turn, leads to a decrease in anxiety. In the initial training group, it is very important to achieve such a result in the first months of training, because during this period there are more cases of leaving rowing due to such mental conditions as anxiety, fear.

**Table 2**

**Indicators of situational anxiety of the subjects of the experimental and control groups before and during the study**

No.	Kursatkichlar	score	EG		CG		t	p
			$\bar{x}$	$\pm\delta$	$\bar{x}$	$\pm\delta$		
1	Anxiety (before experiment)		23.7	3.1	24.6	2.3	1.79	$>0.05$
2	Anxiety (1 month)		43.8	2.5	57.9	3.7	2.09	$<0.05$
3	Anxiety (2 month)		33.4	2.3	54.0	2.9	2.10	$<0.05$
4	Anxiety (3 month)		29.9	3.2	46.7	3.1	2.19	$<0.05$
5	Anxiety (4 month)		27.3	3.0	40.8	3.8	2.11	$<0.05$

6	Anxiety (5 month)		24.4	3.1	36.2	2.9	2.21	<0.05
7	Anxiety (6 month)		22.9	3.6	30.8	3.4	2.15	<0.05

## Conclusions

Teaching kayaking techniques using the KBTE simulator affects a number of psychological conditions in children, which in turn leads to a decrease in anxiety. The study of the results of situational anxiety in rowers 10-11 years old in the experimental and control groups showed: at the beginning of the experimental period (1-2 months), the pre-training anxiety of the subjects of the experimental group was expressed as "moderate", and in the control group it was set as "high". During the remaining four months of the trial period, pre-exercise anxiety was "low" in the experimental group and "moderate" in the control group.

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## LEVEL OF SATISFACTION OF DISPLACED POPULATION ON ACQUISITION AND COMPENSATION IN INFORMAL SETTLEMENT: CASE STUDY OF QALACHA KHAMDAN, KABUL, AFGHANISTAN

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### ABSTRACT

Most of development-induced displacement projects happening in informal settlements, squatter areas, and slum areas. These projects often left behind many problems in acquisition and compensation processes for displacement households which cause several economic impacts. Afghan government and NGOs have implemented many development and extension projects in each part of Afghanistan since 2001. These development projects are building of dams, airports, and roads. The road extension project, connecting Kabul to Logar province located on the southern side of Kabul capital of Afghanistan. These urban projects have displaced many dwellers of Qalacha Khamdan's area and lost their valuable land and well-designed dwellers. Moreover, the acquisition and compensation processes also had numerous shortages in the world during implementation of development projects. Therefore, this paper examines the acquisition and compensation processes in Qalacha Khamdan areas. The relevant data has been collected by observations, interviews, and questionnaires from key informants of displacees. The finding shows that the displaced population has lost valuable land and well-designed homes and dissatisfied on acquisition and compensation due to no transparency existed in the assigned committee. Finally, this study argues for government involvement to manage the reminded acquisition and compensation transparently and give the legal rights to displaced population in Qalacha Khamdan.

**Keywords:** Development-induced displacement, informal settlement, and acquisition and compensation.

### Introduction

Informal settlements are seriously threatened by policies that frequently entail land readjustment and displacement operations in rising cities in developing nations [1]. Through fast urbanization, Afghanistan's chosen visions and development plans for new cities and social housing seek to



improve and strengthen the local economies and quality of life [2]. Those urban plans motivate investing in urban infrastructure, public facilities, housing development, and other services. Implementing these plans has often hit urban dwellers, especially the squatter settlements in central and well-located parts of the cities. (Hidayat & Kjita, 2020).

Numerous urban development projects have a big impact on the communities they are in. Development projects including mines, hydroelectric dams, and infrastructure provide public services to prevent environmental damage, lessen poverty, and prevent displacement [4]. Many development projects, such as dam projects, airports, and road projects, have been implemented during the new establishment in Afghanistan. Wazir Akbar Khan (Qala-e-Musa) was the first road-development project successfully implemented in Afghanistan's Kabul capital, which has several economic impacts on displaced people [3]. Families in both developed and developing nations have been significantly displaced by development projects. Urban development programs and renewal or regeneration are essential strategies for addressing urban issues like slums, squatter settlements, and informal settlements. These development programs mainly target the dwellers of informal settlements, squatters, and slum areas by low-income and disadvantaged households. Indeed, the displaced population has strongly affected their livelihood and faces numerous problems (Majrashi, 2017). Cernea (2000) illustrated how breaking living patterns, socioeconomic instability, the rise of infectious diseases, and other health issues are primarily caused by forced displacement. People and their immediate families play crucial roles in the displacement crisis in western countries. However, most villagers in European nations are characterized by mass employment diversity. Forced or involuntary evictions can substantially challenge households regarding economic and social aspects. The afflicted families are making an effort to preserve the relationships that already exist between their family members. However, socioeconomic and demographic changes that are brought on by development may threaten family cohesion. [6].

Three provinces (Logar, Paktia, and Khost) are connected to the capital of Kabul by a recent road construction project that began on the southern edge of Kabul city. Three different types of roads comprised this massive road development project: arterial, collector, and local. Moreover, this project had medium size bridges, culverts, and protection walls. Therefore, this road extension project has displaced many informal settlements in the Qalacha Khamdan area. On the southern part of Kabul Province is a research area known as Qalacha Khamdan. According to the local administration, the



Qalacha Khamdan region has a total size of 4.542 km<sup>2</sup> or 454.2 hectares. The road development project had two phases. The project's first phase started from Qalacha Khamdan to Bani Hesar, then Walayati-Niazi to Yaqoub's village. The total length of the first phase was 7km. Qalacha Khamdan area is the starting point for the mentioned project; therefore, the researcher has been chosen for his study. During the implementation of the road development project, 157 properties have been expropriated, and 51 families have been displaced. However, some families with enough space return to their remaining land, rebuild their homes and small shops and reset their everyday lives.

Informal settlements are seen as a burden on society since they frequently engage in crime and other vices. Different treatment was given to the population relocated as a result of Kabul City's development project; for example, affected residents of informal settlements were entitled to compensation under the approved acquisition law, while illegal immigrants were not. This proper resettlement of the displaced population paves the way for sustainable city development that can be achieved by facilitating affordable and equitable access to opportunities. Thus, this study examines the level of satisfaction with acquisition and compensation after implementing development-induced displacement on informal settlements by road extension project in the Qalacha Khamdan area of Kabul, Afghanistan.

### **Development-induced Displacement**

Displacement caused by development can be described in a variety of ways. The most pertinent definition is the permanent removal of a family from its original site due to the development of a project. Airports, highways, pipelines, dams, mines, railroad lines, and bridges will be among these projects. [4]. Development-induced displacement forces communities to leave their original place for economic development Dhru (2010). Previous researchers on several development projects, especially on dams, have found socioeconomic impacts on displaced populations. According to a meta-analysis, 44 communities have been replaced by the construction of large dam projects [4]. Eighty-two per cent is a large number of people who destroy their everyday life through development projects in the world. These projects often hit African countries. For instance, Keya the Kiambere Hydropower project dropped, the average landholdings from 13 ha to 6 ha, and 89% have dropped their agriculture income. In China, many communities have been displaced by the Three Gorges Dam. The mentioned dam has caused to loss of farmlands, decreasing household income, lack of healthcare services, increased debt, insufficient social support, and poverty [7], [8]. Moreover, Tucurui Dams, located in Brazil, have been

criticized due to various impacts on local communities after completion.

Furthermore, there have been a lot of detrimental effects on the economy and wellbeing of disadvantaged areas. Poverty, a lack of resources for purchase and compensation following displacement, land abandonment, and numerous pandemics caused by mosquitoes were the economic impacts [9]. Besides the negative impacts of development-induced displacement on informal settlement, there are some successful cases existed: the Arenal Hydroelectric project in Costa Rica, the Yacyreta Hydroelectric project in Argentina, and two projects in China such as Shuikou and Yantan Dams have left positive impacts on livelihoods and keep increasing their daily wages and has created many job opportunities [4].

### **Informal Settlement**

The informal settlement has been defined by scholars variously. According to Nassar & Elsayed (2018), The term "informal settlement" refers to a broad spectrum of residential regions made up of groups residing in self-constructed shelters that are regarded as temporary due to their legal status, physical qualities, or both. The informal settlement is a neighbourhood where numerous family units reside. These dwellings were constructed on land that was being used illegally and to which they had no legal title. The settlements have been made without a proper plan and not adopted with building planning and regulation [11]. According to the UN habitat definition, the area with unauthorized homes which do not have a land title and no limits for occupation is called an informal settlement [12]. Lack of infrastructure, failing neighbourhoods, substandard housing, a lack of freshwater resources, and deteriorating environmental conditions are all problems that informal settlement residents must deal with. Construction of informal communities does not adhere to engineering and architectural standards. Informal settlements frequently struggle with a lack of basic amenities and uncertain property tenure. There are potential for three more growths of informal settlements worldwide. Extension, densification, and intensification are these kinds. [13].

Densification frequently fills the open area in the vicinity of existing homes and the extension is an inside and outward growth of informal settlements free from boundary determination, thus it creates the path for informal settlements. Finally, intensification is the vertical growth buildings called the informal settlements' densification form. According to Nazire & Kita (2016), various characteristics of the informal settlement are existed in the world. A wide range of social and economic groups may benefit from informal settlements, and they can have a variety of settings and features. Informality transcends classes and social divisions. They varied in density from high to low and

can be found either in the middle of cities or on their outskirts (Khalifa, 2015; Maqsood Rezayee et al., 2019).

### **Law review in addressing acquisition and compensation processes**

The first land acquisition and compensation law was published in the first era of the Taliban regime on September 24th 2000. This land acquisition and compensation law has been concluded in three chapters into 23 articles [17]. When the Taliban government fell in 2001, the new Islamic Republic of Afghanistan was established; on May 10th 2017, they revised the previous land acquisition and compensation law and have emended with tiny changes. Article 7 indicates about duties and obligations of the acquiring organization with the initial step toward land acquisition and compensation processes.

1. Public projects need written justification.
2. For any project implementation required to estimate land
3. Non-agriculture lands are better than agricultural land for new project implementation
4. Pre-assessment of environmental and social impacts is advised
5. Clearance (Tasfia) of the land and conducting the cadastral survey.
6. After conducting a cadastral survey and land clearance, present a list of direct and indirect impacts on the population.
7. We are submitting the appraisal, cost, and compensation committee for approval from the presidential office.
8. We provide a report on the project's viability, both procedurally and technically.
9. Specify the exact date of project implementation.
10. Keep progressing with regular meetings and consultations with respective dwellers regarding the new project.
11. Estimating the project's budget
12. Preparing detailed drawings for the project
13. Submitting a detailed plan to the technical committee for approval and assessing the prepared acquisition plan
14. The technical committee submits a detailed acquisition plan to related ministers for approval.
15. The land-acquiring organization shall offer information about the following points to the owners of the property and project-affected persons nine months before the project's implementation through mass media after the project and relevant acquisition plan has been approved.
  - a. The acquisition's goal.
  - b. The specific location of the acquisition land.
  - c. Land size and its type.
  - d. The estimated cost of the expropriated land.
  - e. Ensure enough compensation
  - f. Starting date of the new project
  - g. Compensation is paid to the landowner.



- h. Tax is paid for the compensation
- i. Payment of suitable incentives to those who are indirectly impacted
- j. If the public welfare project is carried out on state land, demand land transferring from ARAZI.
- k. If the acquiring organization faces with lack of funds or compensation, then requesting to ARAZI a land swap with the landowner.
- l. All related documents of the property are provided and receive.
- m. Projects are implemented according to the approved plan.

Based on article #31, the houses' land and physical structures must be included in the compensation process. The assigned compensation committee and technical engineers assess the displaced population's damages (land and homes). Article #36 advises for compensation payable to the landowners whenever the overall processes are finished under articles #29 and #34;

- a. Land that is comparable to land bought in terms of quantity, quality, and commercial worth.
- b. If adequate land is unavailable, land and cash are based on the circumstances set out, which clearly shows in paragraph (a).
- c. The government can only pay in cash if there is not enough land.

The people of Qalacha Khamdan who were displaced by road extension still haven't received their legal rights. However, they have had land and well-designed houses and are fully eligible to include their properties in the acquisition and compensation processes. Unfortunately, they still haven't received the exact amount of cash, and some valuable part of their land hasn't been included in the acquisition process. The main problems have been created by the assigned committee for this project which large margins of corruption have criticized.

## Methodology

### Study area

Afghanistan's most developed province and its political, social, and economic hub is Kabul City. The province of Kabul has currently grown into a metropolitan area, and the expansion of this historic and significant Afghan metropolis has had a significant impact. The city is planned for 700,000 population. However, now home to upwards of 500, 0000 which has caused severe challenges, and 67% of the informal population still lives in Kabul province. The total area of Kabul city is (1,028 km<sup>2</sup>), and the number of people in 2020 was 4.435 million. Kabul is the largest city in Afghanistan, located on the country's eastern side. This city is between latitude 34° 31' North and 69° 12' longitudes East, at 1800M or (6000 feet) above the sea surface [18]. The research site Qalacha Khamdan is in the south of Kabul province. The current population of Qalacha Khamdan is almost 1600 people (Local authority). Due to the new master plan of Kabul city, the government approved some vital urban



development projects, especially road extension projects for Kabul city. These extension projects are crucial in decreasing traffic jams and modernizing the Kabul road network. The road extension project of Qalacha Khamdan is among these projects, which displaced many informal households and expropriated their land. This road development project had two phases. The first phase was started from Qalacha Khamdan to Yaqoub's village. The total length for the first phase was 7km. The second phase was started from Yaqoub village to the centre of Logar province.

The researcher has chosen the extension road of 2.7 km, which was passed from the Qalacha Khamdan area, which is the starting point of the urban road extension project. During the implementation of the road development project, 157 properties have been expropriated in the Qalacha Khamdan area, and 53 families have been displaced and moved to different locations. However, some families with enough space returned to their remaining land and rebuilt their homes and small shops. The typology of the informal houses in Qalacha Khamdan was different. There were high-quality houses and low-quality informal houses. High-quality informal dwellings were constructed with reinforced cement, and plain cement, bricks, plaster, and high-quality windows and doors were used. These houses had attractive orientations, but low-quality informal dwellings were built from mud, mud bricks, and wooden roofs, and the direction needs to be considered.

Table 1: Expropriated properties in Qalacha Khamdan area

No	Location	Expropriated properties	Length (Km)
1	Dahan Chaman	27	0.5
2	Qalacha-Khamdan	157	2.7
3	Bani Hesar	196	1.59
4	Walayati	68	1.185
5	Yaqoob's village	63	1.025
<b>Total</b>		<b>511</b>	<b>7</b>

#### *Data collection and analysis*

For this research, primary and secondary data are needed. Preliminary data has been collected from displaced households by site observation, interview, and questionnaire survey. Secondary data have been gathered from several related articles, books, and master and PhD theses. Site observation has been conducted two times which observed the daily life and economic impacts of the displaced population by development-induced displacement. These impacts included losing best-quality houses, green spaces, small businesses, and valuable land, especially commercial areas. During site observations, many photos were taken that clearly showed their demolished homes, and many

structures remained uncompleted and struggled with economic problems after displacement.

Furthermore, the researcher spoke with members of committees formed by members of displaced families to assist the authority in implementing the aforementioned road expansion project. Open-ended interview questions were employed in a semi-structured interview. All questions focused on identifying the satisfaction level with the displaced population's acquisition and compensation after the development project—the third tool the researcher used was a questionnaire survey. The researcher has gathered data from 50(100%) displaced respondents which 47(94%) were male, and 3(6%) were females, which shows almost a hundred respondents of males. In addition, 30% of respondents have been chosen for an interview. Most interview respondents were heads of displaced families and committee members, and the remaining 20% tried to find new respondents for the questionnaire survey. All respondents in the questionnaire and interview were vulnerable people displaced by the road extension project in Qalacha Khamdan. Government records, published articles, books, thesis, and electronic data have been used as secondary data collection for getting enough information on acquisition and compensation after implementing development projects in informal settlements.

## Result and Discussion

### *Demographic Background*

The researcher has gathered 50(100%) data from displaced respondents which 47(94%) were male and 3(6%) were females. Table 2 the gender of the respondents.

Table 2 Gender of respondents

Sex	No	%
Male	47	94
Female	3	6
Total	50	100

The demographic background of this study is contained two parts: the first demographic background is of the interviewers, and the second is the respondents of the questionnaire survey. The demographic background of the interviewees is insisting on age, gender, job, education level, and work experience. The total interview respondents for this study are 30 personnel, most of whom were representative of the displaced households and local community members. Most of the answers from the questionnaire respondents were the same as the interview respondents. Therefore, the researcher has concentrated chiefly on the interview data and tried to select representatives with enough information regarding the road development project. In addition, 2(6.6%) people were from Abdul Khaliq Saray, 1(3.3%) from Juma Gul

Saray, 3(9.9%) were from the Mula family, 3(3.3%) were from Gul Mohammad family, 3(3.3%) from Fazal Ahmad family, 4(13.3%) from Haji Gul Rahman, 1(3.3%) has chosen from Jilani family, 2(6.6%) from Habib family, 1(3.3%) Mohammad family, 1(3.3%) from Mir Agha family, 1(3.3%) Yasin family, 3(9.9%) Mohammad Nabi family, 2(6.6%) Hamish Gul family, and 3(9.9%) has selected from Rahim's family for an interview. Table 3 shows the position of respondents.

Table 3 Position of the interviews respondent

### *Age and gender of the respondent*

Regarding age, the researcher has divided the eligible interviewees into three categories. For instance, 18 to 24 is the first, 25 to 34 is the second, and 35 to 45 is the third category. For this research, five people have chosen from 18-24 ages, 15 people from 25-34 years old, and ten personnel from 35 to 44 ages. Table 4 shows the ages of the respondent.

Age	No of Interviewees	Gender	
		Male	Female
18 to 24	5	5	–
25 to 34	15	15	–
35 to 44	10	9	1
<b>Total</b>	<b>30</b>	<b>29</b>	<b>1</b>

Table 4 Age of respondents for the interview

**Marital status of the respondent:** The researcher has tried to gather marital information from people displaced by a road development project. Among of 30(100%) displaced people, 15(50%) were single, 13(43.3%) were married, and 2(6.6%) were divorced. Table 6 shows the status of respondents The researcher has tried to gather marital information from people displaced by a road development project. Among of 30(100%) displaced people, 15(50%) were single, 13(43.3%) were married, and 2(6.6%) were divorced. Table 6 shows the status of respondents.

Table 6 Status of respondents for the interview

Status	No	%
Single	20	66.6%
Married	8	26.6%
Divorce	2	6.6%
Widow	-	-
Total	30	100

### *Finding from Site Observation*



Two site visits have been conducted with different timelines. The first site visit was arranged from September 23rd, 2022, to October 2nd 2022, and the second site visit was conducted from December 20<sup>th</sup>, 2022, up to December 29th 2022. The researcher has observed many houses completely demolished by urban road extension projects. Many homes were half parts, and some were destroyed with their quarter parts. Based on the site observation, the informal households in the mentioned area had better conditions before relocation and were happy with their living needs and smooth lives. Even many families had yet to learn about the project which was going to implement, and they were unaware of the current and future situation. The government was forced to leave their homes within a month without notice, which took a lot of work to resettle in new locations. Moreover, the relocated people have faced numerous economic problems. For instance, they need more funds to rebuild their lives and cannot afford to buy construction materials for their new houses. The researcher has observed many low economic activities and some homes that still need to be completed and still need to be completed because they have yet to receive the approved compensation on time.

#### ***Level of satisfaction with the process of acquisition of road extension project on informal settlements***

From table 3, three interviewees have indicated, *"The road extension project has destroyed our economic status. They said we had smooth businesses and were entirely satisfied with our income before displacement. In addition, we have had small shops alongside our houses and could earn enough money to respond to all necessities of our daily life, but after displacement, we have lost everything."* Interviewees #2, #1, and #3 indicated, *"The first impact of the road extension project has destroyed our well-arranged houses and properties. The authorities have strongly promised to complete the required documents for expropriated properties on time, and soon, the displaced population will receive all privileges and all physical structures will be included in the acquisition according to the approved law. Unfortunately, they have not included our properties and not completed their promise, delayed our rights for many years, and still not fully implemented the law of*

No	Position	No of respondents	%
1	Representatives of Abdul Khaliq Saray	2	6.6
2	Owner of the Juma Gul Saray	1	3.3
3	Representatives of the Gul Mohmmad family	3	9.9
4	Representatives of the Fazal Ahmad family	3	9.9
5	Representatives Mula family	3	9.9
6	Representatives of Haji Gul Rahman	4	
7	Head of Jalani family	1	
<b>Total</b>		<b>30</b>	

*an acquisition, which left behind more negative impacts on our economy."* The process of acquisition needs to be more transparent generally. Many displaced families have a complaint from the assigned committee for the mentioned process. They said if somebody has close contact with the designated committee, their work and all documents for the acquisition would be finished on time. If some families had no friends or relatives in the committee, their acquisition reminded them uncompleted. The researcher has met many displaced families that have been thoroughly dissatisfied with the acquisition, especially the process of including land in the acquisition. Many families have lost valuable land and houses, which have yet to be entirely comprised by the assigned committee. Although it is a commercial area, the land value is more expensive than others.

The researcher found two kinds of people on the site: the displaced families whose acquisition process was successfully finished by an assigned committee and received their legal rights on time. The second category of the displaced families was who still needed to receive all the documents; the land and physical structures of houses have reminded uncompleted. Based on the survey, the assigned committee is interested in something other than finishing the project according to the consent of displaced families within the constitution of acquisition and compensation.

#### ***Level of satisfaction with the process of compensation of road extension projects in informal settlements***

From table 3, four interviewers stated that the compensation process was full of problems. Interviewer, no 4, said, *"I have eligible for both land and physical structure of my properties. However, the government-assigned committee is not interested in satisfying our rights according to the approved law. They have tried to delay the compensation process for unknown reasons intentionally"*. Based on interviewers #5 and #4, *"the compensation rate hasn't matched with the marketed that time. As a result, we have received less of our expropriated land and houses, which had a massive impact on our economy. Furthermore, the allocated compensation amount was too low, and we couldn't rebuild homes like before"*. Interviewers #1 and #6 indicated, *"We have fully supported any urban development projects implemented by the government but the projects which haven't destroyed our daily life and businesses. In the beginning, we were too pleased with the mentioned project, which positively impacted our life and economy. Still, later the assigned committee intentionally created many problems and hit the economy deeply"*.

Based on the displaced people, many problems have existed in the compensation process, and the displaced population were

almost unhappy with the government. Moreover, the researcher has seen many small parts of land and houses that haven't been entirely demolished, and only 2/3 of the homes have been destroyed, which has vivid proof of their allegation. The mentioned area is too valuable and commercial, and it was their legal right when the government going to expropriate their properties needed to pay for the equivalent of land and well-designed houses; after displacement, no government nor any NGOs supported for resettle their everyday life; as a result, they have faced with numerous economic problems. They have tried to buy land and built homes by saving funds and later met with a need for more money to start businesses as previously. The displaced population has yet to look happy and satisfied with the compensation process.

### *The finding of the Questionnaire survey*

The main finding of the questionnaire survey to explore the level of satisfaction an acquisition and compensation during road extension project were the same as the interview. Therefore, no need for rewriting.

### **Discussion of findings**

This study aims to determine the level of satisfaction with the acquisition and compensation of road development-induced displacement in informal settlements in the Kabul and Qalacha Khamdan areas. Road extension projects have displaced many families, faced economic problems, and lost valuable land and well-designed dwellings. This involuntary displacement of the mentioned area has destroyed their financial status entirely. For instance, they have lost not only the physical structures of homes and valuable land in a commercial area but also their small businesses and economic status. Many respondents indicated they had had a smooth life, small businesses, solid social ties with neighbours and family, and sufficient income before displacement.

Moreover, the acquisition and compensation have had many obstacles from the beginning of Kabul to the Logar road extension project, and the project needed to be more straightforward for everyone. According to the respondents, both processes need to be more transparent. For instance, some valuable land has yet to be included in the assigned committee's acquisition process due to unspecific reasons, and the committee has tried to delay without any logical reason. The compensation also has had too many shortages. Most of the problems have been created by authorized personnel, especially the assigned committee from the government. This committee has tried to delay the processes and paved the road for corruption. Therefore, both acquisition and

compensation have thoroughly dissatisfied the displaced population. Some families believed most of the documents had been completed but still needed their legal rights and approved compensation. Due to this uncertainty, the displaced people have faced many economic problems, and their life has changed after displacement entirely, and their everyday living conditions have worsened.

### Conclusion

Due to the rapid urbanization of Kabul city, the capital of Afghanistan, has reached 80% population. Sixty-nine per cent of the people in Kabul city lives in informal areas, which is a significant amount in the area. The Kabul to Logar road extension project, which started from the Qalacha Khamdan to Yaqoob's village, has caused to displace many families and expropriated their valuable land and destroyed their well-designed houses. The acquisition and compensation of the mentioned project have had numerous shortages and problems. These problems have hit the economic status and almost destroyed the economic conditions of the displaced population in the Qalacha Khamdan area. Many families alleged that their land wasn't included in the acquisition and had not received all documents on time. The compensation, which was too vital for the displaced population, hasn't freed from shortages. Many families have only received land compensation and have yet to for houses. Although their land and physical structures of dwellings have been legally contained into acquisition, they still need help. Moreover, many families have been waiting for their rights since then. However, after the Islamic Republic of Afghanistan collapsed, there was no hope for getting their approved amount of compensation, and the current government has no interest in this issue.

Moreover, the households displaced by development-induced displacement (road extension project) faced many economic problems; they lost their precious land and smooth running businesses and well-designed houses. The amount of compensation should have been determined according to the market at that time; unfortunately, they were underpaid, and now they cannot build houses on the compensation and resume their previous business. Finally, the relocated families have dissatisfied with both acquisition and compensation.

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## TARMOQLI REJALASHTIRISH VA BOSHQARISH USULI

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### ANNOTATSIYA

Ushbu ish bir tarmoqni ma'lumotlarini olinib, bu ma'lumotlardan foydalanib rejalashtirilgan ishlar kompleksini bajarish jarayoni o'rganilgan. Bu jaratonda har bir ishni bajarish uchun ma'lum vaqtlar ajratilgan.

**Kalit so'zlar:** Rejalashtirish, boshqarish, tarmoq, tarmoqli grafik, ish, voqea, to'la yo'l, kretik yo'l.

### KIRISH

Rejalashtirish va boshqarish sohasida masalalarning xilma-xilligi va o'zaro bir-biriga bog'liqligi ilmiy asoslangan tizim bo'yicha rejali boshqarish ishlarini bajarilishini nazorat qilishni taqoza etadi. Bunday maqsadlar uchun keyingi yillarda tarmoqli rejalashtirish usuli va modellari kabi vositalardan samarali foydalanmoqda hamda qayd etilgan fikrlar negizida tarmoqli rejalashtirish va boshqarish tizimi yaratildi va qo'llanilmoqda. Bunday tizimlar murakkab obyektlar, o'zaro bog'langan ishlar, operasiyalar, mavzular, ishlanmalar kabi ko'plab ijrochilar faoliyatini aniq koordinasiya qilishni talab qiladi.

### ADABIYOTLAR TAHLILI VA METODOLOGIYA

Tarmoqli rejalashtirish va boshqarish usulining asosiy rejaviy xujjati bo'lib, tarmoqli grafik hisoblanadi. O'z navbatida tarmoqli grafik ikki element, ya'ni ish va voqea yordamida quriladi. Ish ikkita doirachani tutashtiruvchi yo'nalish bilan tasvirlanadi. Har bir voqeaga ma'lum  $i$  raqam yoziladi (beriladi), shuning uchun ikkita  $i$  va  $j$  voqealarni tutashtiruvchi har bir ishni  $(i, j)$  ish deb o'qiladi, hamisha  $i < j$ . Har bir ishga  $t_{ij}$  -davomiylik muddati yoziladi. Bajarilishi uchun resurslarni talab etmaydigan hamda ikki va undan ziyod ishlar o'rtasida faqat mantiqiy aloqani ifodalovchi ishga yolg'on ish deyiladi. To'la yo'l deb boshlang'ich voqeadan tortib to oxirgi voqeagacha uzluksiz ishlar

ketma-ketligidan tashkil topgan yo'lga aytiladi, masalan  $L_n$  -  $n$ -chi to'la yo'lni anglatadi.

Yo'lning uzunligi deganda unda yotgan ishlarning davomiyligini yig'indisiga aytiladi:

$$L_n = \sum t_{ij} \quad (1)$$

Xavfli yo'l – bu tarmoqli grafikni eng muhim va mas'uliyatli qismi hisoblanadi, chunki bu ishlarni bajarilish muddatlarini buzilishi barcha ishlar majmuini bajarilish muddatini barbad qilib yuborishi mumkin. Shu nuqtai nazardan tegishli mas'ul shaxs shu xavfli uchastkaga butun e'tiborini qaratishi va qolgan xavfli bo'lmagan uchastkalardan foydalanilmay turgan zahiralarni qidirib topishi hamda ularni qayta taqsimlash natija-sida butun ish majmuini shiddat bilan bajarilishini ta'minlashi kerak bo'ladi. Aks holda belgilangan ishlar majmuini ko'rsatilgan muddatlarda bajarilishi xavf ostida qolish mumkin. Ammo tarmoqli grafik ko'p sonli voqea va ishlardan tashkil topsa, mazkur yuqorida zikr etilgan usul bilan kiritik yo'lni aniqlash o'ta mehnat talab ish bo'ladi.

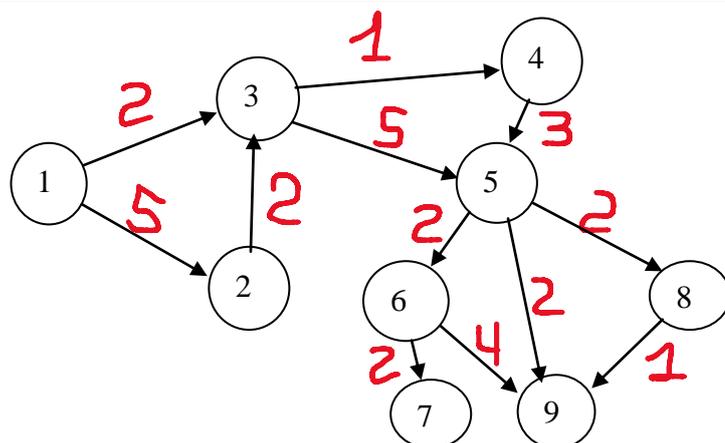
Quyidagi jadvallarda keltirilgan ma'lumotlar bo'yicha Supermarketning tijorat faoliyatini rivojlantirish rejasining tarmoqli grafigi qurilsin xamda kritik yo'l aniqlansin:

Tijorat korxonasi savdo faoliyatini rejalashtirish.

1-jadval.

Ish ( $i, j$ )	Ishning mazmuni	Ishni davomiyligi (kunda)
<b>1</b>	<b>2</b>	<b>3</b>
(1,2)	Hisobot ma'lumotlarini o'rganish	5
(1,3)	Korxonani rivojlanish istiqbolini o'rganishi	2
(2,3)	Tovaroborotni umumiy hajmini rejalashtirish	2
(3,4)	Tovar ta'minotini umumiy hajmini rejalashtirish	1
(3,5)	Tovaroborotni assortiment bo'yicha rejalashtirish	5
(4,5)	Mehnatni tashkil etish rejalashtirish	3
(5,6)	Tovaroborotni magazinlar bo'yicha rejalashtirish	2
(5,8)	Daromadlarni hisoblash	2
(5,9)	Do'konlar bo'yicha zahiralarni rejalashtirish	2

(6,7)	Tovar ta'minotini assostimentlar bo'yicha rejalashtirish	2
(6,9)	Muomala xarajatlari rejasini statyalar va korxonalar bo'yicha rejalashtirish	4
(7,9)	Zahiralarni assortimentlar bo'yicha rejalashtirish	2
(8,9)	Muomala xarajatlari rejasini daromadlarni hisobga olgan holda rejalashtirish	1



Bevosita tarmoqli grafikdagi barcha to'la yo'llarni davomiylik muddatlarini hisoblash orqali, ya'ni

2-jadval.

No	Voqealar	Yo'l davomiyligi	Yo'ning umumiy vaqti
1	1,2,3,4,5,6,7,9	5+2+1+3+2+2+2	17
2	1,2,3,5,6,7,9	5+2+5+2+2+2	18
3	1,2,3,4,5,6,9	5+2+1+3+2+4	17
4	1,2,3,5,8,9	5+2+5+2+1	15
5	1,2,3,4,5,9	5+2+1+3+2	13
6	1,2,3,5,6,9	5+2+5+2+4	18
7	1,2,3,5,8,9	5+2+5+2+1	15
8	1,2,3,5,9	5+2+5+2	14
9	1,3,4,5,6,7,9	2+1+3+2+2+2	12
10	1,3,4,5,6,9	2+1+3+2+4	12
11	1,3,4,5,9	2+1+3+2	8
12	1,3,4,5,8,9	2+1+3+2+1	9
13	1,3,5,6,7,9	2+5+2+2+2	13
14	1,3,5,6,9	2+5+2+4	13
15	1,3,5,9	2+5+2	9
16	1,3,5,8,9	2+5+2+1	10

**XULOSA**

Qoidaga ko'ra tarmoqli grafikdagi birinchi va oxirgi voqealarni tutashtiruvchi yo'llar jami 16-ta bo'lib, ulardan faqat





ikkitasi to'la yo'l, ya'ni 1-2-3-5-6-7-9 va 1-2-3-5-6-9 voqealarni tutashtiruvchi to'la yo'l eng xavfli (kritik) yo'llar bo'lib hisoblanadi va mazkur yo'llarda zahiralarni mavjud emas. Ushbu to'la yo'llarda biror bir uchastkadagi ishlarni bajarilish muddatini kechiktirilishi butun ish majmuini belgilangan direktiv muddatlarda bajarilishini buzib – kechiktirib yuborishi mumkin. Shuning uchun mutaxassis – mas'ul xodim birinchidan belgilangan ishlarni o'z vaqtida bajarilishini ta'minlashni qattiq nazorat qilishi hamda xavfli bo'lmagan uchastkalardan zahiralarni qidirib topib va ularni havfli uchastkalarga taqsimlash natijasida ishlarni belgilangan direktiv muddatlarda bajarilishini ta'minlashga qaratilgan chora-tadbirlarni ko'rishi shart.

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## MULOQOT JARAYONIDA NUTQIY AKTLARNING AHAMIYATI

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### ANNOTATSIYA

Nutqiy akt mazmuni to'lig'icha so'zlovchining muloqot maqsadi bilan bog'liq bo'lib qoladi. Aytish mumkinki, nutqiy aktning muloqot tizimining asosiy tayanch birligi sifatida qarash maqsadga muvofiq. Nutqiy akt mazmuni lisoniy va nolisoniy xususiyatlar umumlashmasidan tashkil topadi. Quyida nutqiy aktga uch bosqichli faoliyat sifatida qarash nuqtai-nazardan yondashamiz.

**Kalit so'zlar:** Nutqiy akt, lisoniy muloqot, lokutiv, illokutiv va perllokutiv harakatlar, diskurs, adresant, adresat.

### KIRISH

Malumki, XX asrning ikkinchi yarmidan nutqiy akt nazariyasi shakllana boshladi. Tilning mavjudligi insonlarning so'zlash yoki yozish harakatlarini bajarishi bilan bog'liqdir. Bu harakatlarning bajarilish jarayonida lisoniy birliklar asl ma'nosidan tashqari, tasdiqlash, buyurish, ogohlantirish, va'da berish kabi mazmuni ifodalash imkoniyatini namoyon qiladilar. Bu ma'nolar so'zlovchi shaxs tomonidan bajarilayotgan nutqiy faoliyat natijasidir. Demak, nutqiy akt so'zlovchining ma'lum muhitda, aniq maqsadda tinglovchiga lisoniy murojaatidir.

### ADABIYOTLAR TAHLILI VA METODOLOGIYASI

Nutqiy akt mazmunining tarkib topishi va uning voqelanishi bevosita so'zlovchining muloqot maqsadi, istagi bilan bog'liqdir. Jon Syorl bu borada shunday deydi: "Lisoniy muloqot birligi, odatda, taxmin qilganlaridek, simvol (ramz), so'z yoki gap emas, hatto simvol so'z yoki gapning belgisi ham emas, balki simvol, so'z yoki gapning nutqiy akt ijrosi jarayonida yaratilishi va qo'llanilishidir. Bundan ko'rinib turibdiki, gap belgisining ma'lum sharoitda yaratilishi va qo'llanilishi nutqiy aktdir va nutqiy aktlar lisoniy muloqotning asosiy va eng kichik birligidir".

Demak, nutqiy akt nazariyasi uchun gap tayanch birlik emas, undan "tayyor material" sifatida foydalanilmaydi. Aksincha, gap aynan nutqiy muloqot jarayonida yaratiladigan hodisa. Shunday ekan, nutqiy akt mazmuni to'lig'icha so'zlovchining muloqot maqsadi bilan bog'liq bo'lib

qoladi. Aytish mumkinki, nutqiy akti muloqot tizimining asosiy tayanch birligi sifatida qarash maqsadga muvofiq.

Ma'lumki, nutqiy akt mazmuni lisoniy va nolisoniy xususiyatlar umumlashmasidan tashkil topadi. Quyida nutqiy aktga uch bosqichli faoliyat sifatida qarash nuqtai-nazardan yondashamiz. Bu bosqichlarda uch xil harakat bajariladi. Ular – lokutiv, illokutiv va perlokutiv harakatlardir.

Biz muloqot jarayonida mazmundor lisoniy kalimani yaratamiz va uni talaffuz qilish yo'li bilan nutqiy faoliyat bajaramiz, xuddi shu faoliyat ijrosi lokutsiya yoki lokutiv aktdir.

*-Oppoq qizim, Marjonoy, beri keling, sizga ikki og'iz gapim bor! (dedi u allaqanday muloyim, mehribon ovozda, so'ng, bo'yinsiz boshini arang burib, so'rida o'tirgan jo'ralariga yuzlandi). ("Adolat manzili", 37 bet).* Bu gapdan ko'rinib turibdiki, so'zlovchi ma'lum lisoniy kalimani yaratib uni talaffuz qilish yo'li bilan nutqiy faoliyat bajarmoqda. Agar biror-bir sabab bilan (tilni bilmaslik, gung bo'lish) mazmundor gap tuzilmasa va u talaffuz etilmasa, lokutiv harakat yuzaga kelmaydi. Masalan, *"Oppoq qizim, Marjonoy, beri keling, sizga ikki og'iz gapim bor!"* gapi faqatgina yozuvda qolsa lokutsiya yo'q. Mazmundor gaplar bekordan bekorga tuzilavermaydi, ularni tuzishdan va talaffuz etishdan ma'lum bir maqsad ko'zlanadi. Ushbu maqsadning voqelanishi esa illokutiv akt natijasidir. Illokutsiya shaxslararo (muloqot ishtirokchilari o'rtasidagi) munosabatlarning ifodalanishidir. Masalan, *E, bu qanaqasi bo'ldi, xo'jayin? Biz tomonlarga keladilar-u, kaminani yo'qlamaydilar ham? Jamoliddin aka?"* ("Osiy banda", 26-bet) gapini talaffuz etish vositasida shu voqeadan xabardor ekanligi, meni ko'rib keting deya suhbatdoshidan arazlaganday bo'ladi. Shu bilan birga muloqotga undash kabi kommunikativ istaklarni ifodalash imkoni bor. Demak, illokutiv akt muloqot ishtirokchilari, ya'ni shaxslararo munosabatlarning ifodalanishi bo'lib, bu munosabat ma'lum faoliyat natijasida yuzaga chiqadi. Faoliyat nazariyasining asoschilaridan bo'lgan A.N.Leont'evning faollikning tarkibiy qismlari aniq ko'rsatilgan: ehtiyoj→motiv→maqsad→maqsadga erishish sharoiti. Shaxs maqsadga ma'lum sharoitda ma'lum harakat vositasida erishadi. Maqsadga erishish sharoitida faoliyat doimo o'zgarib, o'sib boradi.

Inson ko'plab turdagi faoliyatlarni bajaradi va bu faoliyat turlari o'zlarining zotiy mazmuni bilan farqlanadi. Muloqot faoliyatning ana shunday turlaridan biridir. Perlokutiv akt nutqiy faoliyat ta'sirining natijasi sifatida tavsiflanadi. Bu yuqoridagi aktlardan farqli o'laroq lisoniy vositalarsiz ham amalga oshishi mumkin. Chunki nutqiy ta'sir natijasini oldindan aytish qiyin, so'zlovchi nutqini eshitgan tinglovchining bo'lg'usi xatti-harakati, javobi

turlicha bo'lishi mumkin: - *Qani, ketdik, jiyan!*  
- *Tog'ajon! Bilasiz-ku, men ichmayman.*

- *Juda soz, menga ko'proq qoladogan bo'пти! – piching qildi Sarkor.*

- *Tog'ajon, bilasiz-ku, men ichmayman. (“Osiy banda”, 90-bet).* Yuqoridagi gapdan ko'rinib turibdiki, so'zlovchining nutqiy faoliyatiga natijasi bu tinglovchi tomonidan berilib uning qanday natija berganligi lisoniy vosita orqali bayon etilib, taklifni inkor etmoqda.

## XULOSA

E'tirof etganimizdek, tinglovchining so'zlovchi nutqiy faoliyatiga javobi nolisoniy vositalar bilan ham bayon etilishi mumkin.

- *Uchir. Shunday uchirginki, yarim soatda yetib boraylik ovulimizga, - dedi Sarkor.*

- *Tinchlikmi o'zi, xo'jayin? Shashtingiz past?*

- *Men bilan ishing bo'lmasin? – dedi Sarkor.*

- *Yo'lga qara! Shafyor xo'p deganday bosh irg'adi. (“Osiy banda”, 30-bet).*

Bu yerda tinglovchi nolisoniy vosita orqali muloqoti amalga oshgan, keyin so'zlovchi uchun ayni bu vaziyatda tinglovchining fikri qiziq emas.

Keltirilgan misollardan ko'rinadiki, nutqiy akt ma'lum bir gapning aniq muloqot muhitida talaffuz etilishidir. Nutqiy akt mazmunining shakllanishi talaffuz qilinayotgan gap ma'nosining so'zlovchi va tinglovchi tomonidan muloqot matniga nisbatan “boyitilishi”, idrok etilishi natijasidir.

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## RIVOJLANISHDA NUQSONI BO'LGAN BOLALARNI O'RGANISH VA TASVIRIY FAOLIYAT JARAYONIDA NUTQINI RIVOJLANTIRISH.

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### ANNOTATSIYA

Maqolada rivojlanishida nuqsoni bo'lgan bolalarni erta aniqlab ularga tashxis qo'yish, va nuqsonni erta bartaraf etish, bolalarni tasviriy faoliyat jarayonida nutqini rivojlantirishning umumiy va maxsus didaktik tamoyillarini, shakli, mazmuni, metodlari haqida so'z boradi.

**Kalit so'zlar:** Reabilitatsiya, kompleks, nuqson, rivojlanish, ijtimoiy, diagnostik, psixik, jismoniy, intellektual, tashxis, skrinni, defferensial, defektolog, nutq, tasviriy faoliyat.

### KIRISH

Rivojlanishida nuqsoni bo'lgan bolalarga samarali ta'lim, tarbiya berish, ijtimoiy moslashuvini yaratish uchun uning rivojlanish imkoniyat va xususiyatlarini to'g'ri baholay olishga bog'liqdir. Bu vazifani rivojlanish nuqsonlarini kompleks psixologo-pedagogik diagnostika qilish orqali amalga oshirish mumkin. Psixologopedagogik diagnostika rivojlanishida nuqsoni bo'lgan bolalarning kamchiliklarini aniqlash, bolaning psixik-jismoniy xususiyatlarini e'tiborga olgan holda unga individual psixologo-pedagogik yondashuvni ta'minlaydi. Rivojlanishida nuqsoni bo'lgan bolalar uchun maxsus maktabgacha va maktab ta'lim muassasalari faoliyat ko'rsatadi. Ushbu bolalarni psixik va jismoniy rivojlanishini ta'minlovchi ta'lim sharoitlar yaratilgan. Bunday sharoitlardan awalo har bir bolaning xususiyatlari e'tiborga olgan xolda yakka yondashuvni talab etadi. Ushbu yondashuv maxsus dastur, metod, keraqli maxsus texnik vositalarni, maxsus tayyorgarlikka ega pedagog, psixolog, defektolog va boshqalar bilan birgalikda kerakli tibbiy -profilaktik hamda davolov tadbirlarini, maxsus ijtimoiy yordamni, maxsus ta'lim muassasalarini texnik va ilmiy-metodik jihatdan ta'minlashni o'z ichiga oladi. Hozirgi kunda turli xil maxsus ta'lim muassasalari mavjud. Bolalar puxta saralash natijasida qabul qilinishi mo'ljalangan va O'zbekiston respublikasi xalq ta'lim vazirligi tomonidan tasdiqlangan maxsus ta'lim dasturlarini amalga oshiradigan maxsus ta'lim muassasalar bilan bir qatorda turli

reabilitatsiya markazlari, rivojlantirish markazlari, aralash guruhlar ochilgan. Shuningdek, umuta'lim maktabgacha ta'lim muassasalarida, umumta'lim maktablarda psixik va jismoniy rivojlanishida nuqsoni bo'lgan bolalarni uchratish mumkin.

Ushbu nuqsonlarning ko'rinishi turlicha bo'lishi mumkin. Son jihatdan yirik bo'lgan guruhni harakatlanish, sensor yoki intellektual sohalarda nuqsonlari aniq ifodalanmagan: eshitishda, ko'rishida, fazoviy-idrok tassavurlarida, harakat-tayanch apparatida, fonematik idrokida nuqsoni bo'lgan, hissiy-irodaviy buzilishli, nutqiy rivojlanishida kamchiliklarga ega, xulq buzilishlariga ega, psixik rivojlanishi orqada qolgan, somatik sust bolalar tashkil etadi. Yaqqol ifodalangan psixik yoki jismoniy rivojlanishdagi nuqsonlar maktabgacha yoshda aniqlansa, yengil nuqsonlar uzoq vaqt mobaynida e'tiborsiz qoladi.

### ADABIYOTLAR TAHLILI VA METODOGY

Rivojlanishdagi nuqsonlarni tashxis qilish uch bosqichni o'z ichiga oladi:

Birinchi bosqich - skrining nomini olgan. Ushbu bosqichda bola rivojlanishidagi orqada qolish, psixik-jismoniy kamchiliklari aniqlanadi, lekin ularning xarakteri va chuqurligi belgilash murakkab bo'ladi.

Ikkinchi bosqich - rivojlanishdagi nuqsonlarni differensial tashxis qilish. Ushbu bosqichning maqsadi rivojlanish nuqsonini turini (xil, toifasini) aniqlash. Uning natijalariga ko'ra bolaning imkoniyat va xususiyatlarini hisobga olgan xolda, ularning ta'lim olishlari uchun ta'lim muassasasini turi va dasturi, optimal pedagogik yo'llanmasi aniqlanadi. Psixologo-tibbiy-pedagogik komissiyaning faoliyati differensial diagnostikada yetakchi rolni egallaydi.

Uchinchi bosqich - fenomenologik. Uning maqsadi - bolaning individual xususiyatlari, ya'ni tafakkur faoliyatining xarakteristikasi, hissiy-iroda doirasi, ishchanlik qobiliyati, shaxsi o'rganilib u bilan ishlash bo'yicha korreksion rivojlantiruvchi individual shart-sharoitni tashkillashtirishdir.

Ma'lumki, nutq-odamlarning til vositasi bilan aloqa bog'lashlaridir. Odam nutq orqali munosabatga kirishib, o'zining bilimlarini faqat yakka tajriba hisobiga emas, balki juda ko'p avlod-ajdodlar tomonidan to'plangan ijtimoiy tarixiy tajriba hisobidan ham boyitadi. Nutq barcha aks ettirish jarayonlari kabi har bir odamning yakka hayoti davomida o'zlashtiriladi. Bola dastlabki nutqni egallayotgan davrda uning nutqi tovushlarga bo'lgan reaksiyasi juda umumlashgan xarakterga ega bo'ladi. Bolani nutqi rivojlanayotganda, u atrofdagi odamlar muloqoti ta'siri ostida rivojlanib boradi. Kar va zaif eshituvchi bolalar nutqi, lug'at boyligi oshishida va rivojlanishida bir qator qiyinchiliklar

yuzaga keladi. ENB bolalar eshitish analizatori turqun pasayganligi tufayli ularning nutqida ko'pgina kamchiliklar kuzatiladi, lug'atining kambag'al bo'lishi, gramatik komponent rivojlanmagan, gap ichida so'zlarni tashlab ketishi, so'zlardagi tovushlarni tushirib talaffuz etish, so'zlarni o'zaro boqlay olmaslik, kelishik, so'z yasovchilarni, so'z o'zgartiruvchi qo'shimchalarni ishlata olmaslik, o'xshash jarangli va jarangsiz undoshlarni bir-biri bilan adashtirish shular jumlasidandir. ENB bolalar maktabida ta'lim tizimining bosh maqsadlaridan birini yuqoridagi kamchiliklarni bartaraf etgan holda nutqini muloqot quroli sifatida shakllantirishdir. Nutqini shakllantirish va nutqini logik idrok eta olishni faqatgina nutq o'stirish darslarida emas, balki har bir darslarda, to'garaklarda lug'at boyligi oshirib boriladi. Birinchi sinfda o'quvchilarga qoyiladigan talab, nutqiy materialni og'zaki daktilda talaffuz qilish orqali lug'at boyligi oshiriladi. Muloqot malakasini xosil qilish asta-sekin nutq materialini atrofda odamlar bilan o'zaro bir-birlarini tushunish uchun zarur. Har bir chorak uchun mavzudan kelib chiqqan tholda nutqiy material beriladi. S.A.Zikovning ta'kidlashicha, kar bolalarni tilga o'rgatish ishining maqsadga muvofiq sistemasini kommunikativ funksiyasini amalga oshirish kerakdir. Bunda har bir yil uchun tuzilgan reja, dastur o'quvchilarning nutq egallashlari amal qilgan holda o'zlashtiriladi. Har bir so'z va so'z birikmasi o'zida kommunikativlik ma'suliyatini olgan bo'ladi.

Surdopedagog o'quv jarayoniga asosiy ta'sir etuvchi shaxsdir, u o'qitishning har bir bosqichida dastur talabiga asoslangan holda o'quv jarayonlarini tashkil etadi. Ularga rahbarlik qiladi. Sog'lom bolalar kabi kar va zaif eshituvchi bolalar nutqini egallashni, o'z atrofda odamlarga taqlid qilishdan boshlaydilar. Kar bolalarni taqlidi nutq organlarini xarakatini ko'rish orqali egallashlariga asoslanadi. Zaif eshituvchi bolalarni nutqqa o'rgatishda ularning atrofda odamlardan eshitgan so'zlaridan foydalanadilar. Shuning uchun surdopedagog o'zining nutqiga talabchan bo'lishi kerak. Lekin o'quvchilarning imkoniyatiga qarab so'zlarni qisqartirish, birlashtirish mumkin emas. Bu talablar nutqiy malakani oshirishning hamma turlari uchun qo'llaniladi. Tasviriy faoliyat darslarida kar va zaif eshituvchi o'quvchilar qanday faoliyatga kirishsalar, qanday predmetni chizishlari va qaysi o'quv qurollaridan foydalanish bosqichlari albatta surdopedagog tomonidan nutqiy boshqarilib boriladi. Har qanday faoliyat ENB bolalarni nutqini aktivlashtirish, shakllantirishga, lug'atini boyitishga qaratilgan. O'qituvchi har bir dars uchun lug'at tanlashi kerak. Lug'at tuzishdan oldin o'qituvchi sinfdagi o'quvchilarni eshitish darajasini xisobga olishi kerak. Lug'at boyligini oshirish quyidagicha amalga oshiriladi. Nutqni rivojlantirish surdopedagog tomonidan bolalarda predmetning katta-kichikligi, shakli tushunchalari shakllanadi.

Tasviriy faoliyatda esa bolalar vazifani amaliy bajarib olingan tushunchalar kengaytiriladi, aniqlashtiriladi va mustahkamlanadi. Har qanday faoliyat bolalar nutqini aktivlashtirishga, shakllantirishga, lugʻatni boyitishga va nutqini mustahkamlashga qaratilgan.

Oʻqituvchi har bir dars uchun toʻgʻri lugʻat tanlashi kerak. Lugʻatga 4 qismdan iborat soʻz va iboralarni kiritish mumkin:

1) Soʻz va ibora, bajarilayotgan ish faoliyatiga boʻliq ishlatiladigan materialning nomi (loy, qogʻoz, boyoq, yelim, ...) bajarilayotgan faoliyat (lepka, rasm chizish, byoyash, yopishtirish, shtrixlash, ...) ish quollarining nomi (qalam, boyoq qalam, qaychi, bolgʻa).

2) Soʻz-predmetning nomi va iborasi, bolalar tasvirilayotgan predmet (shar, archa, qoʻqirchoq, ...)

3) Soʻz va ibora, bolalarning idrok qilishlari uchun yoʻnaltirilgan harakat (kuzatib chiq, barmoqing bilan aylantirib kuzatib chiq, paypaslab koʻrib chiq)

4) Soʻz va ibora, idrok qilish orqali mustahkamlash (rangning nomi, geometrik shakli, hajmini belgilab olish). Birinchi gruppada soʻzlarni tasviriy faoliyatda sekin-asta oʻzlashtirib boriladi. Ikkinchi gruppada soʻz (soʻz-predmetning nomi) – tartib boʻyicha bolalar topish. Tasviriy sanʼat faoliyatida soʻzlar predmet bilan yangicha boʻqlanishi. Uchinchi va toʻrtinchi guruhdagi soʻzlarga alohida ahamiyat beriladi. Bolalarning diqqatini predmetga va uning xususiyatiga qaratiladi. Soʻngra esa bolalar idrok qilgan obrazi mustahkamlanadi. Masalan: Tasviriy faoliyatda olma rasmini tasavvur orqali chizish jarayonida oʻqituvchi “Olma shar shakliga oʻxshaydi. Yuqorisida chuqurchasi bor, chuqurchasida dumchasi bor”. Aytilayotgan soʻzlar qoyiladigan choʻntakchaga quyiladi. Mashgʻulot uchun olingan lugʻat aniq koʻrsatilishi lozim. Tasviriy faoliyatda foydalanilayotgan nutq materialining koʻp qismi bolalarga tanish boʻlishi lozim. Oʻqitishning 1-2 yilida tartibli har bir Mashgʻulotga ikkitadan ortiq yangi soʻz berish mumkin emas. Oʻqitishning keyingi yillarida 3-4 tadan ortiq yangi soʻz berish mumkin emas. Rivojlanishda orqada qolayotgan bolalar tasviriy faoliyatida oʻquvchilarning lugʻati ortadi, nutqi aktivlashtiriladi. Rivojlanishda orqada qolayotgan bolalar shaxs sifatida shakllanishlarida nutqning rivojlanish ahamiyati katta. Shunday ekan yuqorida aytib oʻtganimizdek, har bir faoliyatda bolalar nutqini rivojlantiriladi. Har bir tasviriy faoliyat darsida, chizishdan oldin mavzudan kelib chiqqan holda suxbat, savol javob oʻtkaziladi. Oʻqituvchi sinfda bolalar soni kamligi tufayli, har bita bola bilan ogʻzaki muloqotga kirishish, imkoniyatiga ega. Oʻquvchilar rasm chizishda analiz-sintez qilishga, rasmlarni ajratishga oʻrgatiladi.



O'quvchilar yuqorida, pastda, oldinda, orqada, uzun qisqa kabi tushunchalarga ega bo'ladilar.

Mavzudan kelib chiqqan holda har bir darsda yangi lug'at va tushunchalarga ega bo'ladilar. Chizish jarayonida ham, o'qituvchi bolalarni savolga tutadi, sen nimani rasmini chizyapsan? Rangi qanaqa? Nimaga o'xshaydi?... shu kabi savolar bilan murojat etib, bolalarni og'zaki nutqini tekshiradi va rivojlantiradi. Ayrim Rivojlanishda orqada qolayotgan bolalar so'zlari va gaplari bir biriga bog'lanmagan holda, so'z yasovchi, so'z o'zgartiruvchi, kelishik qo'shimchalarini tashlab gapirishadi, shunda o'qituvchi bolalar nutqini to'g'rilab gapirishga, to'liq gapirishga o'rgatadi.

### XULOSA

Rivojlanishda nuqsoni bor bolalarning nutqini rivojlantirishda tasviriy faoliyatning o'rni katta. Bolalar tasvirlashga qiziqishlari yuqori bo'lganligi sababli biror buyum yoki narsani tasvirlash jarayonida nomini qayta qayta takrorlash, tasvirlanish va nomlanishi murakkab buyum va narsalardan boshlamalik kerak. Ba'zi bir xolatlarda nutqida muammosi bor bolalar bilan shug'ullanishning o'zi katta samara bermaydi.

Bolani erta tashxis qilib o'rganishning muhimligi shundaki, u orqali bolani korreksion ta'limga vaqtida yo'naltirib, ikkilamchi nuqsonlarni paydo bo'lishini oldini olish mumkin. Bolalar rivojlanishidagi nuqsonlariga korreksion va diagnostik yordam. Bola imkoniyatlariga baho berish hamda psixik rivojlanishini aniqlash orqali korreksion pedagogik ishning vazifalarini xal etish mumkin.

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## ОЛИЙ ТАЪЛИМ МУАССАСАЛАРИДА НОМУТАХАССИСЛИК ТАЪЛИМ ЙЎНАЛИШИ ТАЛАБАЛАРИНИНГ КИМЁВИЙ КОМПЕТЕНЦИЯСИНИ ШАКЛЛАНТИРИШ

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### АННОТАЦИЯ

Ушбу мақолада номутахассислик таълим йўналиши талабаларининг кимёвий компетенциясини шакллантиришда кимёвий жараён ва ҳодисаларни кузатиш, тушунтириш, билим ва кўникмаларидан фойдаланиш қобилияти, турли хил амалий муаммоларни ҳал қилиш ҳақида фикр юритилган.

**Калит сўзлар:** кимёвий компетенция, кимё йўналиши, олий таълим, номутахассислик, кимёвий жараён, реакция, модда, талабалар, шаклланиш.

### ABSTRACT

This article discusses the ability to observe, explain, use knowledge and skills of chemical processes and phenomena, and solve various practical problems in the formation of chemical competence of non-specialist education students.

**Keywords:** chemical competence, chemistry major, higher education, non-specialty, chemical process, reaction, substance, students, formation.

### КИРИШ

Ўзбекистон Республикаси ўз мустақиллигини қўлга киритиб, жаҳоннинг ривожланган давлатлари қаторидан ўзининг муносиб ўрнини эгаллаши сари дадил қадамлар билан илгарилаб борар экан, шубҳасиз, шу мустақилликка ва унинг порлоқ истиқболини таъминловчи инсон омилларининг аҳамияти тобора ортиб бораверади. Шунинг учун ҳам, мустақиллигимизнинг илк давлариданок, республикамиз ҳукумати томонидан мутахассислар тайёрлаш, ёшларга тегишли таълим-тарбия бериш масалаларига алоҳида эътибор бериб келинмоқда. Жумладан, 2019-йил 8-октябрдаги №ПФ-5847-сонли Ўзбекистон Республикаси олий таълим тизимини 2030-йилгача ривожлантириш концепциясини тасдиқлаш тўғрисида Президент фармони, 2020-йил 12-августдаги ПҚ-4805-сон “Кимё ва биология йўналишларида узлуксиз таълим сифатини ва илм-фан натижадорлигини ошириш чоратадбирлари тўғрисида”ги Президент қарорини қабул



қилиниши ва уларни ҳаётга тадбиқ этиш борасида амалга оширилаётган тадбирлар мутахассисларнинг касбий билимларини эгаллашдаги тайёргарлигини тубдан яхшилашни талаб этади [1].

Мамлакатимизда компетенциявий ёндашувга асосланган янги давлат таълим стандартларини жорий этилиши олий таълим ўқитувчилари зиммасига қатор долзарб вазифаларни қўймоқда.

## АДАБИЁТЛАР ТАҲЛИЛИ

Педагогика олий таълим муассасаларида ноқимёвий йўналиш талабаларининг қимёвий билимлар асосларининг муҳим ва кўп қиррали интеграциясини, турли фанлараро алоқаларни яратишни, назарий ва амалий материалларни бирлаштиришни, умумий илмий усулларни ўрганишни ва улардан тадқиқот муҳим бўлган муайян вазиятларда фаол фойдаланишни ўз ичига олади тегишли кўникмаларни ривожлантириш ва мустақиллик, ташаббускорлик, садоқат, қатъиятлилиқни ривожлантириш, шунингдек ўзини ўзи ташкил этиш ва ўзини ўзи бошқариш қобилиятини ривожлантириш. Мақсадли ваколатли вазифалар тўплами билан ифодаланади, уларнинг ечими қимёвий компетенцияни шакллантиришнинг узоқ муддатли мақсадига эришишга олиб келади. Қимёвий компетенция деганда биз шахснинг бундай интеграл сифатини назарда тутамиз, бу уларни келажакдаги касбий фаолиятда қўллаш учун фундаментал қимёвий билимлар ва амалий кўникмаларни шакллантиришнинг етарли даражаси билан тавсифланади.

“Компетенция” термини (лотинча *competere* — мос келиш) – қўзланган натижаларга эришиш учун билим, кўникма ва малакаларни қўллай олиш қобилиятини намоёниш эта олиш деган маъноларни билдиради.

## ТАДҚИҚОТ МЕТОДОЛОГИЯСИ

Қимёвий компетенцияни шакллантиришнинг мазмуни ва моҳияти қуйидагилардан иборат: инсоннинг табиат билан уйғунлиги ғояси билан сингдирилган кўникма ва билимларни ўзлаштиришда, талабалар билимларини чуқурлаштириш [2] ва уларнинг қимёвий тафаккурини ривожлантиришда; дунёнинг бирлигини тушунишда, илмий фикрлаш қобилиятида, илмий фикрлаш қобилиятини қўллаш истагида. шахсий фазилатларни шакллантиришга йўналтириш учун олинган билим ва кўникма, таълим жараёнининг самарадорлигини ошириш мақсадида ўқитиш ва билимларни ўзлаштириш жараёнида ўқитувчининг педагогик ва талабаларнинг билиш фаолиятини уйғун равишда ташкил

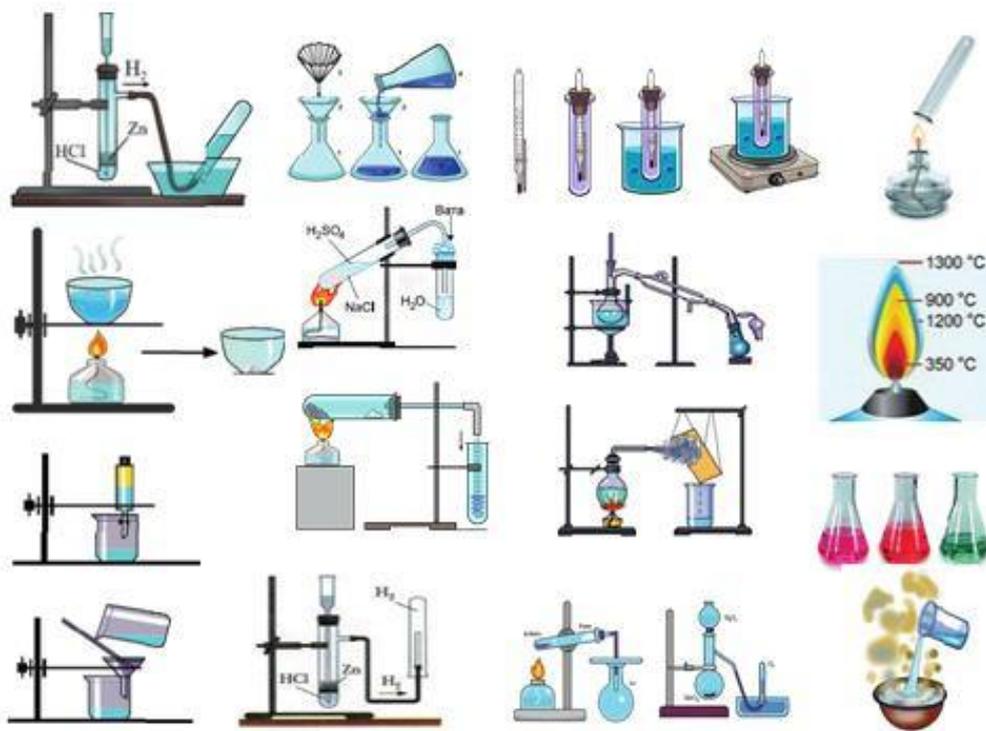


этиш, мазкур фаолиятни фаоллаштириш мақсадида, самарали ўқитиш методлари, воситалари ва шакллари қўллаш, уларнинг ўзаро таъсирини аниқлашга имкон берадиган тизимлар мажмуасидир [3].

## ТАҲЛИЛ ВА НАТИЖАЛАР

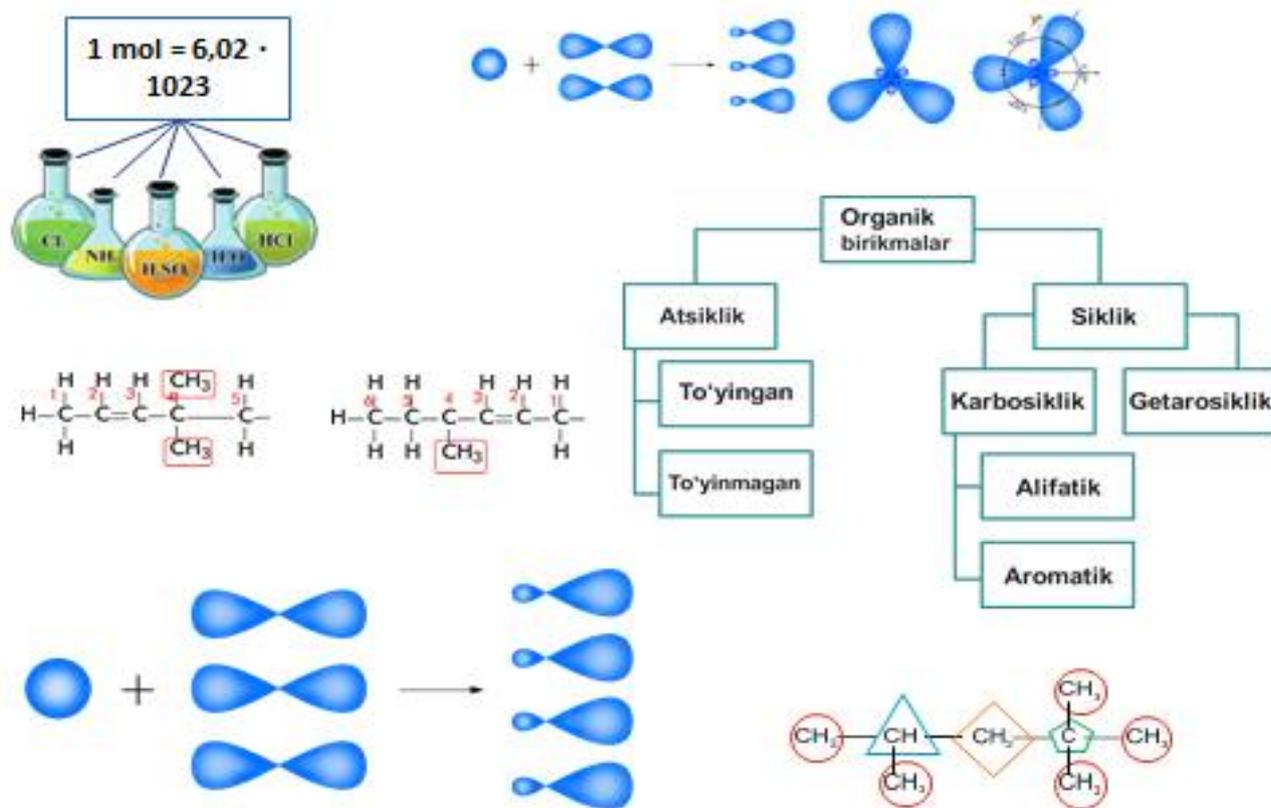
Кимё бошқа фанларга алоқадор шунинг учун бу илмий соҳадаги кўп тармоқли интизом деб айтилади. Уларнинг алоқалари орасида биз физика, математика, биология ва астрономия ва бошқаларни топамиз. [4]. Талаба кимё фани бўйича эгаллаган билим, кўникма ва малакаларини кундалик ҳаётида дуч келадиган амалий ва назарий масалаларни ечишда фойдаланиш ва амалиётда қўллаш олиши керак ва шу билан бирга кимё фанидан қўйидаги компетенцияларни билиши шарт:

-кимёвий жараён ва ҳодисаларни кузатиш: модданинг агрегат ҳолати, моддаларнинг хоссалари, ёниш, аланга, суюқланиш, эриш, диффузия, буғланиш, қайта кристалланиш, сублимация, ёруғлик, қайнаш, қотиш, ажратиш, тозалаш, эритиш, филтрлаш, декантациялаш, рангларга ажратиш ва органик бирикмаларнинг изомерияси, гидратланиш, дегидратланиш, гидрогенлаш, дегидрогенлаш, галогенлаш полимерланиш гибридланиш, хайдаш, крекинглаш, пиролиз, коксашларни кузатиш.

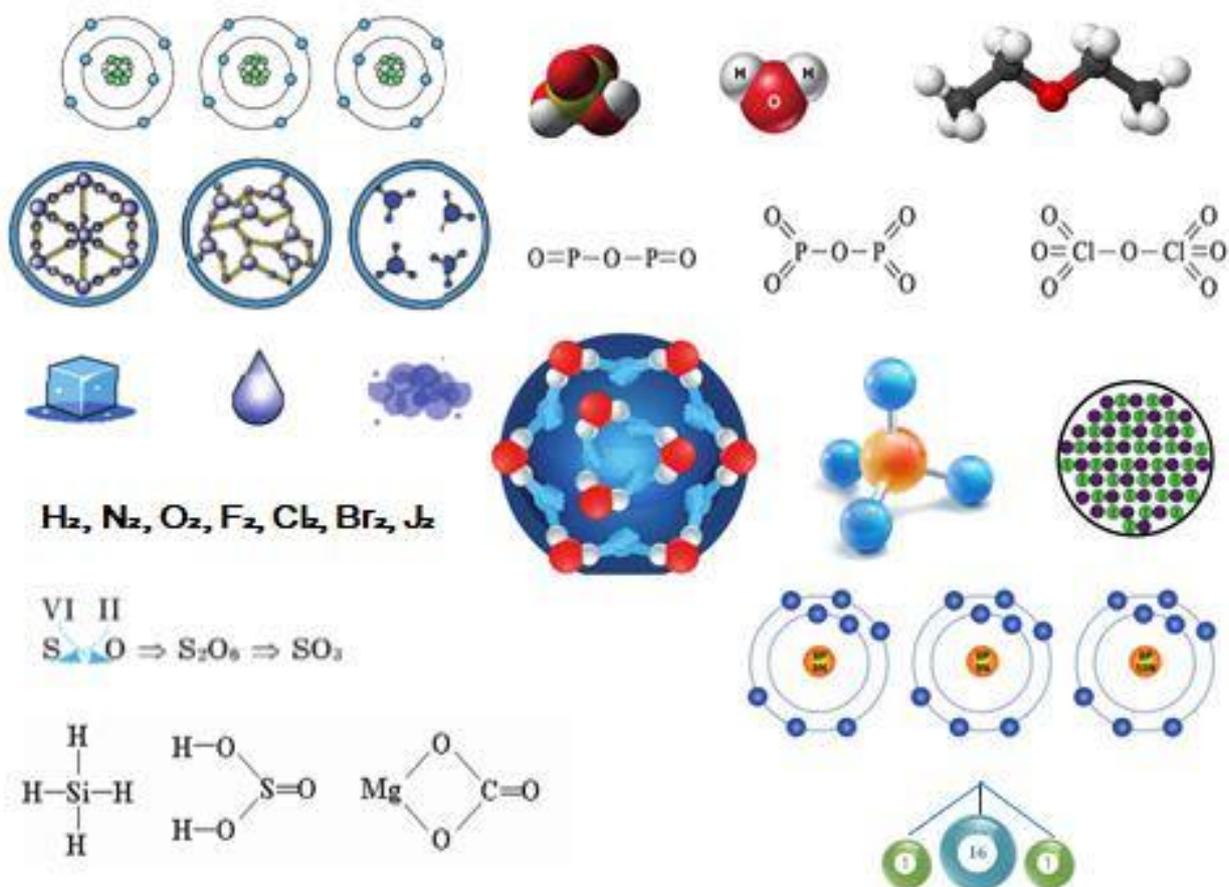


-кимёвий жараён ва ҳодисаларни тушунтириш: кимёвий ҳодисанинг ҳосил бўлиш шартлари ва содир бўлиш

шароитлари, ушбу ҳодисанинг бошқа ҳодиса билан боғлиқлиги, жараёнлар ва ҳодисаларни Авогадро, модда массасининг сақланиш қонуни, таркибнинг доимийлик қонуни, эквивалентлик қонуни, кимёвий элементлар даврий қонуни, диссоцияланиш назарияси, Бутлеров назарияси, Марковников қонидаси ва органик бирикмаларнинг хоссаларига тегишли реакциялар асосида органик бирикмаларни тушунтириш.



-элемент ва формулаларни кимёвий тилда ифодадай олиш: кимёвий реакциялар, кимёвий реакция тенгламалари, коэффициент, кимёвий реакцияларнинг турлари, кимёвий белги ва индекслар асосида формулалар тузиш, кимёвий элементлар ва уларнинг бирикмалари формулаларини валентлик асосида (структура, молекуляр, электрон ва эмперик формулалари) ёзиш, номлаш, кимёвий тушунча ва қонуниятларнинг таърифини билиш, мазкур қонуниятларни бошқа қонуниятлар билан боғловчи формулалар, физик катталикларнинг (масса, ҳажм, сирт юзаси, зичлик, вақт) бирликлари, тажрибавий масалалар ечишда амалиётдаги хатоликларни ҳисоблай олиш.



-кимёвий модда, жиҳозлар билан ишлай олиш ва тажрибалар ўтказиш: Кимёвий шиша, полипропилен ва чиннидан ясалган идишлар, Эвдиометр, тарози, термометр, цилиндрли ареометр, куруқ ёқилғи, микроусулдаги тажриба жиҳозлари, модда массасини сақланиш қонунини амалда кўрсатувчи асбоб, газларни йиғиш, галогенларни олиш, электролитик диссоцияланишни кўрсатувчи, кимёвий реакция тезлигини аниқловчи, азот йиғиш, электромагит аралаштиргич, пробирка, қолба иситгич асбоблари, сульфат кислота ва нитрат кислота ишлаб чиқариш моделлари, моддаларнинг кристалл панжара тузилишни кўрсатувчи моделларни тузилишини тушунтира олиш. Тажрибани ўтказишдан мақсадни билиш, тажриба учун кимёвий жиҳозлар ва асбобларни танлай олиш, йиғиш ва улардан фойдаланиш, тажрибанинг амалга ошириш шароити ва натижалари ёзиш ва хулосалай олиш.



-кимёвий билимларни амалиётда қўллаш:

- ўрганилган тушунчалар, қоидалар, таърифлар, қонунлар ва формулалардан фойдаланиб кимёвий ҳодисаларга доир масалаларни еча олиш;
- кимёдан эгалланган назарий билимларни тажрибалар ёрдамида амалиётда қўллаш;
- моддалардан зарарланиш оқибатларига қарши чора тадбирларни қўллай олиш;
- кимёдан эгаллаган билим, кўникмаларидан кундалик турмушда фойдаланиш (сувни тозалаш, тузни тозалаш, газ плитани ёқиш, доғларни кетказиш, оҳакни сўнгдириш, тупроқни таркибини аниқлаш, дори-дармонлардан фойдаланиш маданияти, биоген элементларнинг тирик организмга таъсирини, минерал ва органик ўғитларни қўллаш, кимёвий моддаларни кундалик озиқ-овқатда қўллай билиш), (сирка кислота, натрий бикарбонат- ичимлик содаси), суний ва синтетик ювиш воситалари, эритувчи ва ёқилғилар, полимер маҳсулотлар (пластмасса идишлар, резина буюмлар), ишқорлар (гель, хўжалик совуни, шампунлар) ни бир-биридан фарқлаш ва сифатли маҳсулот танлай билиш.





Биз кимёвий компетенцияни талабанинг кимёвий билим ва кўникмаларидан фойдаланиш қобилияти ва тайёрлиги, шунингдек, турли хил амалий муаммолар ва вазифаларни ҳал қилиш учун қиймат муносабатлари билан ифодаланган таълим натижаси деб биламиз. Асосий вазифалар сифатида биз қуйидагиларни таъкидлаймиз:

1. талабаларнинг кимё фанининг энг муҳим қонунлари, айрим муаммоларнинг сабаблари (кислотали ёмғир, тутун ва бошқалар), турли бирикмалар ва ишлаб чиқаришнинг атроф-муҳит ва инсон объектларига таъсирининг оқибатлари тўғрисида билимларини шакллантириш;
2. ривожланаётган экологик муаммоларни ҳал қилишда кимёнинг роли тўғрисида тушунчани шакллантириш;
3. кимёвий муаммоларни кўп томонлама кўриб чиқиш қобилиятини ривожлантириш;
4. физик-кимёвий таҳлил усулларини жалб қилган ҳолда табиий объектларни (туپроқ, сув, ҳаво) сифат ва миқдорий даражадаги аналитик мониторинг ҳамда кимёвий таҳлил қилиш тизими билан танишишдир.

Талабаларни билим олишга жалб қилиш, уларни олға ҳаракатлантиришдир. Бу эса педагог ва талабаларни (ўзаро) биргаликдаги меҳнатга жалб қилади [5]. Талабалар фаолиятини ташкил этишда ўқитувчининг

ёрдами талабалар томонидан олинган натижаларни умумлаштириш, уларнинг фикрлаш, акс эттириш ва акс эттиришни рағбатлантиришдан иборат.

Кимёвий идиш номларини аниқланг ва жадвалдаги ҳар бир расмга мос рақамларни ёзинг.

1	
2	
3	
4	
5	



Кимёвий идиш номларини аниқланг ва жадвалдаги ҳар бир расмга мос рақамларни ёзинг.

1	Ясси тубли колба
2	Мензурка
3	Сайқалланган конуссимон колба
4	Бюкс
5	Бунзен колбаси



## ХУЛОСАЛАР

Хулоса қилиб шуни айтадиган бўлсак кимёвий билим ва касбий кўникмаларни бирлаштиришнинг самарали воситаси-бу ўқув амалиёти ва кимёвий боғлиқ муаммоларни ҳал қилиш, бу кимё фанини ўқитиш ва чуқурроқ ўзлаштиришга ёрдам

беради ҳамда талабаларни муайян фаолият турларига ўргатишда алоҳида эътибор касбий компетенциянинг асосидир [6].

Бу эса талабалар томонидан кимё фанини янада чуқур ўзлаштириш учун замин яратади. Натижада ўқув жараёнининг самарадорлигини ошишига эришилади.

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## ACTIVITIES OF THE FIRST MUSICAL EDUCATIONAL INSTITUTIONS AND THE FIRST THEATERS

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### ABSTRACT

When and where did the art of music appear? To answer this question, it is necessary to look at the ancient history of mankind. It is known that the development of the art of music, like other arts (dance, painting, etc.), began to appear gradually.

Through this article, you, dear readers, have the opportunity to expand your knowledge about this process, and the history of the formation and development of dramatic and musical theater is described through the analysis of exemplary plays and performances of various genres and themes. In it, the creative ways of playwrights, the creative pursuits of actors and directors who became famous for their high talent in dramatic and musical performances are revealed in detail based on scientific reviews and artists' memories.

**Keywords:** Music, Archaeological find, History, Theater art, Musical theater, Drama theater, Actor, talent

A person who enters the mysterious world of music will inevitably realize that it is an unparalleled ocean. This ocean is characterized by its sounding from the modern, its formation on the basis of the laws of time and space throughout history, its appreciation and transformation into values in the maturity of traditions, and its lively development based on the divine gift of creativity. That is the wisdom of explaining each era with its own musical traditions.

The fact that music is heavenly or divine is reflected in ancient sources. Humanity has formed its spiritual wealth at the level of its spirituality and developed it over time. In this process, every field has been sharpened and perfected in the course of time, and enriched on the basis of new creative relations, showing its effectiveness.

From ancient values to modern standards can be understood only from unique works sealed in tones. The scope of this is very wide, it is difficult to even imagine them. Because every nation has its own spirituality, enlightenment, aesthetics, and in the process of life, it has been

infused with national and skillful factors. It is based on two great ways of thinking, that is, the product of individual creative relations of folk music and thinking.

The fact that the ancient traditions of musical art were formed and developed in the culture of the peoples of the East and had a creative effect on the whole of humanity, has found its answer in science. In the process of life development, it is difficult to surpass the unique perfection of Western culture in the scale of modern music art. It is based on the recognition that passing through the stages of generalization of the art of music and its inner elements at a professional level, harmonizing proportional sound curtains in this process, and criteria such as the acceptance of all equals, has led to the beautiful harmony of the art of music. should be done. As a result, in the creation of musical art, attitudes such as striving for, imitating, and following Western music art have arisen. Each nation, together with its national music art, formed the Western musical creativity based on them. And there is no doubt that it is an imitative relationship in its first stages. However, time and space, ideology and politics, as well as modern creative relations ensure the emergence of new directions.

The art of Uzbek folk music has a unique folk and classical music heritage that is unique and perfectly formed in its national processes. By the 20th century, a new direction began to be introduced in these areas of social life and in our musical culture. This was the development of musical creativity based on this western music culture. It should be noted that any music, if it serves the development of the national culture, will certainly find its response in practice. By the 20th century, the influence of the European stream of thought began to be felt in Uzbekistan as well, and it began to find a solution in practice in the form of compositional creativity of modern music.

In the early years of the 20th century, the political, social and cultural environment in Uzbekistan was characterized by conditions of renewal. In Central Asia, the revolutionary movement, its representatives and their creative activities are of particular importance. In this, the creation of European-style national theater also had its influence. The creative activities of such artists as Mahmudhoja Behbudi, Sadridin Ainiy, Abdurauf Fitrat, Tavallo, Abdulla Avloni, Hamza Hakimzada Niyozzi and Abdulla Shakuri are of particular importance.

It is permissible to mention separately the works of Russian music artists and composers who worked in Uzbekistan during the beginnings of compositional art that entered the pages of Uzbek music. Specialists who worked mainly in the 20s-40s of the 20th century introduced a new direction of musical creativity. They studied musical folklore and based on it, they entered the world of creating works in the genres of composition. This process is related to the creation of an amateur artistic community, the opening of a special music school, the

creation of a professional theater, and the creation of Uzbek drama, opera, and ballet.

The 20th century is one of the rare events in the history of our culture. The Uzbek theater, which opened its curtain in 1914 with the play "Padarkush" by Mahmudhoja Behbudi, emerged as a theater worthy of every nation's pride in two to three decades. The Uzbek theater was born as an educational theater, the fruit of the revolutionary movement. In Nizom, the first Uzbek creative team, "Turon" troupe, the main goal of the theater is "a) to develop a serious attitude to stage work and charity among the population, b) to perform for the people, to give them a healthy audience ..." was said.

Mahmudhoja Behbudi, who organized the stage work and spread it widely among the people, this theater soon became a component of the cultural life of the people. In just a few years, about thirty plays were created, and the basic principles of acting and directing were laid. An important feature of Jadid's theater and dramaturgy was its penetration into the heart of a person by depicting his family life, enlightening him and thereby glorifying the ideas of the national revival that is growing in the life of the society.

Enlighteners of Jadid illuminated the paths of artists who entered the theater and dramaturgy with new ideas and aspirations. It is worth noting that the Uzbek theater did not remain wrapped in the shell of national limitations, but adopted the experience of the world theater on the way to its development. The experience of staging the drama of other nations, which began in the "Turon" troupe, was later continued with the introduction of the works of playwrights such as Schiller, Gogol, and Shakespeare to the Uzbek stage.

The fact that Uzbek actors studied at the Baku Theater Technical College and at the Moscow Theater Studio under the leadership of M. Uyghur and Cholpon in 1924-1927 became important in improving their professional level. The period of education in Moscow coincided with the period when various methodological trends and researches were flourishing in the Russian theater. Uzbek actors diligently observe and study this sensational theater life. But it is worth noting that they do not follow the path of imitating them and blindly accepting their styles. In his article "Meyerhold Theater", for example, Cholpon wrote with inspiration about the fame of this director, who became the bearer of the life of the Moscow theater in the 1920s, but he does not put forward the idea of following him somewhere, taking a model from him. "We need the simplicity of this theater. It is necessary for us to come close to many people. Some of the elements of our folk theater are present in this theater" (Cholpon. "Literature is rare", p. 111). That is, the great poet called to be sensitive and alert to foreign influences, and he expressed the idea that it is possible to obtain only "certain elements", "simplicity", "closeness to the masses" characteristic of the Uzbek folk theater. advanced.

This testifies to Uzbek theater's determination to preserve its nationality from the very beginning. In a way, this is not surprising. The reason is that those who decided to connect their destinies with theater and dramaturgy were those who attended old school, madrasa, and came to this sophisticated world under the influence of classical literature, music, and folk theater with a noble desire to establish a truly national theater art. The founders of Uzbek theater, in particular, the famous director and theater personality Mannon Uyghur, organized the most talented playwrights and artists around him and conducted inspiring research with them, building a modern theater that shares the rich spirituality of our people. was on the way to achieve.

Sevish ", "Abulfayzkhan", Cholpon's "Yorkinoy", Hamza Hakimzoda's comedies and dramas were created. was the logical result of these researches.

The emergence of such a complex synthetic art genre as musical drama was also connected with the rich artistic heritage of the Uzbek people and the talent to translate this heritage into the language of modern theater. This genre , which first appeared in the form of small musical scenes, developed as a separate art direction in Uzbek theater with the creation of Ghulam Zafari's "Halima", Khurshid's "Farhad and Shirin", "Layli and Majnun". It should be noted that, in the past, the opinion that this "folklore genre is transitory, only a bridge tool for the transition to opera art" was an obstacle to the path of musical drama, but it continues to develop. was enough. The regional theaters called "Musical Drama and Comedy Theater" aimed at staging both pure drama and musical drama works relied on the experiences of the current National Academic Drama Theater in drama, the Republican Music Theater in the 1930s, and then the Music Theater named after Muqimi in the field of musical drama. created artistic and aesthetic values that were added as a share to the treasure of our nation.

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## SAN'AT ASARLARIDA KOMPOZITSIYA VA UNING MUHIM AHAMIYATI

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### ANNOTATSIYA

Maqolada Kompozitsiyaning san'at asarlardagi tutgan o'rni, Kompozitsiyalar negizida yaratilgan kartinalarning bir biriga o'xshamasligi, ma'lumki san'at borasida juda katta natijalarga erishgan ko'plab davlatlar mavjudligi, bugungi rassom dunyo san'atida kechayotgan jarayonni bilishi, tushunishi kerakligi, badiiy asarlarning insoniyat tarixidagi qoldirgan izi. Rangtasvir kompozitsiyasining o'zining matig'i o'zining falsafasi mavjudligi atroflicha sharqlanadi

**Kalit so'zlar:** Badiiy asar, dunyo, san'at, pedagog, jamiyat, inson, rassom, ijod, tasvir, san'at.

### KIRISH

Kompozitsiya juda keng tushuncha. Soddaroq qilib aytganda kompozitsiya hayot ko'rinishlarining badiylashgan ko'rinishi desak to'g'ri bo'ladi. Barcha san'atlar paydo bo'lishining asosiy omili yoki umummilliy san'atning jamiki yig'indisi bu kompozitsiya bilan bog'liq.

Bugungi rassom Dunyo san'atida kechayotgan jarayonni bilishi tushunishi kerak. Globallashuv muhitida yashar ekanmiz san'at olamiida kechayotgan jarayonlar yurtimizni chetlab o'ta olmaydi, axborot olish va tarqatish hozirgi kundagi kabi hech qachon bunchalik oson bo'lmagan. Dunyo san'atida kechayotgan jarayonlar yurtimiz ijodkorlari ijodiga albatta ta'sir qiladi ya'ni hozirgi ijodiy jarayonlarimizni tashqi dunyo bilan qiyoslashimiz tabiiy holat. Xuddi shunday ijodiy jarayonlarni yoki yoshlarni tasviriy san'at fanlarini o'qitishda muammolarni anglash va yechim izlashda tashqi dunyo tajribasi o'rganish yoki ular bilan qiyoslashimiz ham tabiiy, shunday holatda ijod kishisining ijodiy kompozitsiyalari o'ta erkin bo'lishi davrning o'zi ko'rsatib turubdi. Bu holat san'atning yuqori darajadagi zarurat desak bo'ladi.



## ADABIYOTLAR TAHLILI VA METODOLOGIYA

Dunyo san'ati - bu insoniyatning turli davrlarida va hududlarida paydo bo'lgan badiiy ifodalar to'plami hisoblanadi. Dunyo san'ati tarixi - shu badiiy ifodalarning kelib chiqishi, rivojlanishi va ta'siri haqidagi ilmiy tadqiqotdir. Dunyo san'ati tarixi juda keng va murakkab sohadir, chunki u turli madaniyatlar, dinlar, siyosatlar, iqtisodiyotlar va boshqa omillarning ta'sirini o'z ichiga oladi. Dunyo san'ati tarixi o'rganuvchilar uchun muhim bo'lgan asosiy manbalar - bu badiiy asarlar, uning mualliflari, uning mazmuni va shakli, uning ijtimoiy va tarixiy konteksti hisoblanadi.

San'atga nisbatan har bir insonda qiziqish bo'lishi kerak ya'ni shug'ullanish bilan qiziqish o'rtasida chegara bor, qiziqish deganda anglash va munosabat bildirish olish darajasidagi tasavvurga ega bo'lish demakdir.

San'at asari bu kompozitsiya, uning zamirida xalqning orzu istaklari, keljakka bo'lgan ishonchi yotadi. san'at asarlarini jamiyatda, ayniqsa yoshlar hayotida tabiiy ahamiyati yuksak darajada.

Evropa va bir qancha davlatlar san'ati o'ta professionallashtirgan. Chunki ushbu davlatlarda katta maktab va milliy badiiy boyluk yaratilgan. Jamiyat ilm fan va san'at borasida kuchli an'ana yaratarkan, bu jamiyatlarda juda kuchli maktablar mavjud bo'ladi, va tarixdan ma'lumki bunday jamiyatlar fojea yuz bergan taqdirda ham tezda tiklana olgan.

Rassom ijodkor va San'atshunos o'rtasida fundamental farq bor. Ijodkor san'at asarlarini kompozitsion jihatdan fikrlaydigan, ranglari va o'z uslubi orqali vujudga keltiradigan shaxs. U o'zining hayotiy tajribasidan, va mafkurasidan kelib chiqib tasviriy san'at asarlarini jamiyatga taklif qiladi, albatta u qabul qilinishi va qilinmasligi doirasida hayotga singib boraveradi. San'atshunos bu rassom emas, san'atshunos san'atdagi jarayonlarni, hodisalarni rassomlarni tushuna olishi kerak bo'lgan va jamiyatga tushuntirib beradigan shaxslar, ya'ni u asarni talqin qiladi, sharhlaydi va o'rganadi.

Dunyo davlatlari san'atining rivojlanishi bir-biridan katta farq qilgan. Ma'lumki san'at borasida juda katta natijalarga erishgan ko'plab davlatlar mavjud. Uning ichki sabablari ya'ni ulardagi ichki mexanizmning tog'ri yo'lga qoyilganidir

Demak yoshlar ta'limiga jiddiy e'tibor berish bugungi kunda dolzarb bo'lib qolmoqda ya'ni an'anaviy o'qitish metodlari yoshlarni qoniqtira olmayapti chunki axborot oqimi jadallashib ketgan bir davdni boshdan kechirmoqdamiz.

Jamiyat rivojlangan sari insonlarda san'atga nisbatan qiziqish uyg'onadi va san'atning rivojlanishiga turtki beradi. Albatta bu holat san'atning kengayishiga va raqobatni paydo bo'lishiga olib keladi.

Rangtasvir kompozitsiyasining o'zini matig'i o'zini falsafasi mavjud, san'at asarini palotnoga ko'rsata olish albatta bu ijodkor kompozitsiyasi hisoblanib uni ko'rgazmalarda namoyish etiladi.

Tasviriy san'at asari albatta insonni chuqur mulohaza qilishga zavqlanishga tasavvurini boyitishga, halqlar tarixining bir bo'lagi sifatida o'z qadr qimmatiga ega bo'ladi va halqning ma'naviy boyligiga aylanadi.

Rangtasvirda biror asar yaratilar ekan albatta kompozitsiya qonun va qoidalaridan foydalaniladi. bu asarda ijodkorning o'z oldiga qo'ygan maqsadi va vazifalarini ochib berishga xizmat qiladi V.M.Jirmunskiy aytganidek Kompozitsiyani tadqiq qilishdan maqsad, asarning tashqi tuzilishini aniqlaydigan badiylik asoslarini topishi, undagi badiy materialni taqsimlash va joylashtirishni aniqlashdan iborat.

San'atni doimiy rivojlanishda bo'lishi bu erkin ijodiy taffakur, kompozitsion fikrlashning bo'lishidir. Shuni nazarda tutish kerakki ya'ni san'atning yashovchan bo'lishi uchun avvalo erkin kompozitsiyaning rivojlanishiga imkoniyat yaratish hisoblanadi. Aytishimiz mumkinki san'atni rivojiga to'siq bo'lish va ta'limni sustlashtirishning eng fundamental sharti erkinlikning bo'lmasligidir. Bilamizki butun dunyoda ijodkorlar xususan rassomlar har bir davrda o'zlarining ijodiy ustaxonalari va studiyalariga ega bo'lishgan.

Tasviriy sana't ta'limida ma'lum bir muammaolarni aytish va unga kompozitsion nuqtau nazardan pedagogik yechim nazarda tutiladi Bo'lg'usi rassom kelajakda dars berishi bilan birga rivojlanishning yuksak bosqichlarda ham o'z o'rinlariga ega bo'lishlari shart. Yuksak, maromiga yetgan san'at asarlari bo'ladimi, yoki kamyuter tehnologiyalari asosida zamonaviy turli sohaga oid loyihalar bo'ladimi, undan tashqari sanoatning turli ishlab chiqarishlarida yangicha dizayndagi sanoat maxsulotlari bo'lsin, albatta bu yerda rassom tafakkurining roli nihoyatda zarur.

Ma'lumki, bo'lajak tasviriy san'at o'qituvchilarni ijodiy faoliyatga tayyorlashda ta'lim texnologiyalarini ishlab chiqish va ularni amaliyotga joriy etish va e'tibor beriladigan jihatlarni hisobga olishda, albatta ularga oid ta'lim tamoyillari zarur bo'ladi. Ijodkor o'qituvchilarga ta'lim berishda ularga mos nazariya va amaliyotdan foydalanish, bunda kompozitsiya vositalardan foydalanish eskiz materiallar va kompozitsiyaga doir ijodiy muhitni tarkib toptirish va ulardan amaliyotda keng foydalanishga oid tizimini shakllantirishni ko'zlab faoliyat yuritish, rassom o'qituvchilarni ijodiy faoliyatga tayyorlashni takomillashtirishning metodik ta'minotini izchil yuksaltirib borish, ijodkor pedagoglarni ijodiy faoliyatga tayyorlash jarayonlarida olib borilayotgan mashg'ulotlarda ta'lim oluvchilarning erkin va mustaqil hamda

ijodiy fikrlashlariga keng imkoniyatlar yaratishga e'tibor berish, metod va texnologiyalarni ishlab chiqishda ulardan foydalanishning qulayligi va maqsadga erishishda kompozitsiya qoidalari ko'makchi bo'lishi ilmiy metodik jihatidan asoslanishi hamda ulardan amaliyotda foydalanishga sodda va tushunarli yo'riqnoma tayyorlash ishlab chiqilgan va amaliyotda foydalanishda ta'lim jarayonlaridagi dars mashg'ulotlariga e'tibor berib pedagogik faoliyatni amalga oshirish kerak.

## XULOSA

Tasviriy san'at o'qituvchilarni ijodiy faoliyatga tayyorlashdagi ta'lim mazmunini muntazam ravishda qiziqarli ma'lumotlar, san'at asarlarini qiziqarli jihatlari, boyitilgan hamda mukammallashtirilgan ta'limni tarkib toptirishga doimo e'tiborda bo'lish va bu borada ta'lim jarayonini amalga oshirishdan oldin ijodkor o'qituvchi mahoratini amaliyotda qo'llash ko'nikmalariga ega bo'lishi kerak. Shundan keyingina o'qituvchi oldiga ijodiy jarayonni tarkib toptirish, ijodiy salohiyatga ega bo'lish, ijodiy faoliyatni shakllantirish kabi masalalarni qo'yish mumkin bo'ladi. Buning uchun innovatsion ta'lim muhitidan foydalanib yangi o'ziga xos kompozitsion yechim va yangiliklarni izlashi kerak. Oliy o'quv dargohida kompozitsiya fanining vazifasi sifatida talabalarda ijodiy fikrlashni, hayotni kuzata olish va obrazli tasavvur etish, umuman san'atni idrok etish va taxlil qila olishni, hamda ushbu jihatlarni pedagogik faoliyati davomida tadbiq qilishdir

Tasviriy san'at ustasining eng asosiy ijodiy faoliyati albatta uning erkin ijodiy tafakkuri hisoblanadi va uni ijodida ifoda etadi. Shuni inobatga olgan holda ijodiy muhitni yaxshilash uchun ayniqsa yoshlarga imkoniyat yaratib berish juda muhim hisoblanadi.

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## MIGRANT OILALARIDAGI ER-XOTIN MUNOSABATLARINING O'ZIGA XOS XUSUSIYATLARI

**Mahbuba Bo'riyeva**

“Oila va xotin qizlar” ilmiy tadqiqot instituti kichik ilmiy hodimi

### ANNOTATSIYA

Mazkur maqolada migrant oilalarda migratsiya sababli er-xotin munosabatlarida yuzaga keladigan omillar, sabablar va uning oqibatlari hamda migratsiyaning migrant oilalarda psixologik xulq-atvoriga ta'siri yoritib berilgan.

**Tayanch so'zlar:** migrantlar oilalar, migratsiya, er-xotin, emotsional munosabatlar, tadqiqot, nikoh, nikohdan qoniqqanlik.

### ABSTRACT

This article describes the factors, causes and consequences of migration in marital relations in migrant families, as well as the impact of migration on the psychological behavior of migrant families.

**Keywords:** migrant families, migration, couple, emotional relationships, research, marriage, marital satisfaction.

### KIRISH

Xozirgi zamonaviy ilm-fanda oila instituti bo'yicha juda ko'p tadqiqot ishlari olib borilgan. Psixologiya oilaning mustahkamlig va uning barqarorlig aspektlarini (A.N.Volkova, N.N.Obozov, A.N.Obozova), er-xotinning xarakter xususiyatlaridagi moslik va qadriyatlarga yo'naltirilgan birligi jihatlarini (A.N.Volkova, K. Vitek, T.V. Galkina, A.K. Dmitrenko, D.V. Olshanskiy, A.P. Oshchepkova), oilaviy rollar va oila a'zolarining asosiy funksiyalarini bajarilishi (Yu.E.Aleshina, A.N.Volkova, A.N.Elizarov, S.V. Kovalyov, M.S.Matskovskiy, A.G.Xarchev, E.G.Eidemiller, V.V.Yustitskis.), oiladagi o'zaro munosabat xususiyatlari va ulardan qoniqish (Yu.E.Aleshina, A.I. Antonov, G.Eisenk, M. Argyle, A.A. Bodalev, L.Ya. Gozman, S.I. Ochlik, A.I. Zaxarov, E.S.Kalmykova, S. Kratokhvil, V.P. Levkovich, H.H. Obozov, B. Satir, V.V. Stolin, V.A. Sysenko) va boshqalar) va boshqa tomonlari o'rganilib kelmoqda. Biroq, shunga qaramay tashqi va ichki migratsiya jarayonlarining keng tarmoqli o'rganilishiga qaramay, bu muammolar tadqiqotlarda etarlicha ochiqlanmay kelmoqda.

XX asrdan XXI asrgacha vaqt oralig'ida oila institutida sezilarli o'zgarishlar kuzitildi. Zamonaviy ijtimoiy-iqtisodiy

sharoitlarda an'anaviy oila shakli bilan bir qatorda nikoh munosabatlarining ko'payib borayotgan muqobil shakllari keng tarqalmoqda: ro'yxatdan o'tmagan birgalikda yashash, ochiq, mehmon, uzoq nikohlar, bolalarsiz nikohlar, monovariant turdagi oilalar yoki ularning teskari guruhli oilalari va boshqalar.

Oila bilan bevosita bog'liq bo'lgan o'zgarishlardan tashqari, butun hayot siklidagi o'zgarishlarning har biri oilaga ta'sirini ko'rsatadi. Oila turli xil o'zgarishlarga tayyor turishi kerak. Bunday o'zgarishlarga barqarorlik, stressga chidamlilik oila tuzilishining stabilligidan dalolat beradi va undagi o'zaro munosabatlarning ijobiy natijasini keltirib chiqaradi.

### ADABIYOTLAR TAHLILI VA METODOLOGIYA

V. Satirning fikricha, agar oila a'zolari o'zgarishlarga tayyor bo'lmasa va ulardan qochsa, unda qiyin vaziyatga tushib qolish xavfi ortadi, chunki ular talab qilinadigan joyda o'zgarishlarni xoxlashmaydi.

Migratsiya jarayoni oliaviy munosabatlarga ham o'z ta'sirini o'tkazmay qolmaydi. Erkaklarning ketishi er-xotinlar o'rtasidagi munosabatlarni jiddiy ravishda murakkablashtiradi, bu asosan ayollar uchun stressga va hatto oilalarning buzilishiga olib keladi. Hissiy begonalashuv, turmush o'rtoqlar o'rtasidagi uzoq masofa, oilaning qiyin iqtisodiy ahvoli va xiyonat - bularning barchasi ajralish uchun asos bo'ladi. Rossiyaga kelgan erkak migrantlarning ko'pchiligi rus ayollari bilan Rossiyada qolib, uyga qaytmaslikni afzal ko'rishadi.

Migrant oilalardagi eng keng tarqalgan muammolardan biri turmush o'rtoqlardan birining migratsiyasiga ketishi sababi oilani majburiy ajralishidir. Oila va nikoh munosabatlar sohasida ajralish, bu oiladan vaqtinchalik yoki doimiy uzoqda bo'lish sifatida belgilanadi. Oiladan uzoqda bo'lishning yuzaga kelishi ob'ektiv va sub'ektiv xarakterdagi sabablar bilan bog'liq bo'ladi. Subyektiv sabablar orasida o'zaromunosabatlardan emotsional va psixologik charchash yoki qoniqmaslik. Bunda har ikkala turmush o'rtoqlar yoki ulardan biri majburiy ajralishni boshdan kechirishlari mumkin. Ob'ektiv sabablarga: uzoq xizmat safari, mavsumiy yoki doimiy ish, armiya safarbarligi, o'qish, qamoq va boshqalar kiradi. Bunday vaziyatdagi oilalar masofaviy oilalar deb ataladi.

Gritsenko V.V., Efremenkova M.N., Murashchenkova N.V., Smotrova T.N. tomonidan olib borilgan tadqiqot natijalariga ko'ra, mehnat migratsiyasi tufayli turmush o'rtoqlarning majburiy ajralishi oilada shakllangan nikoh munosabatlari tizimining o'ziga xos katalizator bo'lishi mumkin: bunda majburiy ajralish oilalarni yanada mustahkamlaydi yoki ajralish yoqasida turgan oilalarni parchalanishiga olib keladi. Mehnat migratsiyasi





natijasida turmush o'rtog'i (kamroq hollarda xotini) etarlicha pul topish uchun oilasini uzoq muddatga (bir-ikki yil yoki undan ko'proq) tark etishga majbur bo'ladi. Shu sababli turmush o'rtoqlar ajralishga majbur bo'lgan oilalarni distant oilalar deb tasniflash mumkin.

Turmuh o'rtoqlarning migratsiya sababli majburiy ajralish sharoitida, har bir oila a'zosi u yoki bu darajada stressni boshdan kechirganda, oila roli tuzilishining o'zgarishi, odatiy munosabatlarning tizimining buzilishi (er-xotin, ota-ona-bola) migrant oilalarining yangi bir funksiyalashgan darajaga o'tkazadi.

Ushbu stressorning tizim sifatida oilaga va alohida oila a'zolariga psixologik ta'sirining kuchida bir qator omillar muhim rol o'ynaydi:

- turmush o'rtoqlardan birining to'satdan ketishi omili, agar oila ushbu hodisaga tayyor bo'lmagan bo'lsa;
- hodisaning o'ziga xosligi omili, oilada turmush o'rtoqlardan birini uzoq vaqt ajralishni boshdan kechirish qiyinroq bo'lishi bilan bog'liq bolishi;
- oilaning qolgan a'zolarida sub'ektiv yolg'izlik hissi omili.

Shu bilan birga, ob'ektiv ravishda odam etarli resurslarga ega bo'lsa ham, qiyin hayotiy vaziyatni engish, uni hal etib bo'lmaydi deb hisoblaydi, bu holat esa shaxsga sezilarli stressli ta'sir ko'rsatadi. Bu fikrni yuqorida ko'rsatib o'tilgan tadqiqotchilarning o'tkazilgan tadqiqot natijalari tasdiqlaydi. Migratsiya natijasida er-xotinning vaqtinchalik bir-biridan uzoqlashishi er-xotinlar uchun faqat salbiy hodisa deb hisoblash noto'g'ri bo'lar edi.

Shunday qilib, erkaklar uchun migratsiyaning ijobiy tomonlari bo'ladi: o'zini oilaning boquvchisi sifatida anglash va an'anaviy oilada erkak uchun boquvchi rolda o'zini oqlash, oilaning moddiy farovonligini ta'minlash, oilaviy tashvishlardan tanaffus qilish, ba'zilar uchun nikohdan tashqari munosabatlarga bo'lgan ehtiyojni qondirish va boshqalar uchun nikoh munosabatlarida ma'lum bir yangilanishni boshdan kechirishdir.

Migrant erlar uchun turmush o'rtog'idan uzoqda bo'lishning salbiy tomonlariga esa: beqaror hayot, jinsiy aloqadan voz kechish, kasbiy o'zini namoyon qila olmasligi, karyera qila olmasligi, agar kerak bo'lsa, past malakali ishlarni bajarish uchun professional malakasining yo'qligi, oila tomonidan psixoterapevtik funktsiyani amalga oshirish bilan bog'liq tushunish, qabul qilish, emotsional yordamga bo'lgan ehtiyojni qondira olmaslik. o'z ehtiyojlarini qondira olmaslik bo'ladi.

Migratsiyaning ayollar uchun turmush o'rtog'ining uzoqda bo'lishining ijobiy tomonlari kundalik burch va tashvishlardan qisman qochish, moddiy muammolarni hal qilinishi, hayotda



moddiy farovonlik hissini paydo bo'lishi, nikoh munosabatlarida ma'lum bir yangilanish tajribasi, ya'ni eri bilan har bir uchrashuv bayramga aylanadi, bu xuddi shu sherik bilan sevgi munosabatlarining yangi bosqichini boshdan kechirish, o'zini yana sevilganday his qilish imkonini beradi.

Salbiy tomoni esa, birinchi navbatda ayol uchun ilgari oilada erkak tomonidan bajarilgan funksiyalar va rollarni bajarish zarurati va bir vaqtning o'zida boshdan kechirilgan funktsional-rolning haddan tashqari yuklanishi, shuningdek, yaqin odamdan emotsional yordam ololmasligi.

Tadqiqotchilar Ilene Hyman, Sepali Guruge va Robin Meyson tomonidan migratsiyaning er-xotin munosabatlariga ta'sirini Torontodagi efiopiyalik muhojirlarni o'rganish misolida tadqiqot ishlarini olib borishgan. Kichik tadqiqot doirasida migratsiyaning nikoh munosabatlariga qanday ta'sir qilishini yoki immigratsion juftliklar yangi sharoitlarga moslashish jarayonlarini o'rganib chiqildi. Torontoga turmush qurgan, ajrashgan yoki alohida yashaydigan yangi kelgan efiopiyaliklar bilan olib borilgan tadqiqot loyihasining maqsadi yangi kelgan juftliklar hayotidagi migratsiyadan keyingi o'zgarishlarni va migratsiyadan keyingi o'zgarishlarning nikoh munosabatlariga ta'sirini o'rganishdir. Tadqiqotda doirasi 25 nafar ishtirokchidan iborat bo'lib, ularning barchasi Torontoga kelgan efiopiyalik migranlar edi. Ham individual, ham fokus-guruh suhbatlari o'tkazilgan. Tadqiqot ishtirokchilari tomonidan tasvirlangan migratsiyadan keyingi o'zgarishlarning asosiy turlari uy xo'jaligida yordamning yo'qolishi, emotsional qo'llab-quvvatlash, daromad va maqomni va gender rollarining o'zgarishi edi. Ushbu o'zgarishlarning er-xotin munosabatlariga ta'siri nikohdagi nizolarning kuchayishi, ayollar uchun avtonomiyaning kuchayishi, o'zaro qaramlikning kuchayishi, ko'proq birgalikda qaror qabul qilish, muloqot va yaqinlikdagi o'zgarishlar sifatida tasvirlangan. Bundan tashqari tadqiqotchilar tomonidan migratsiyadan keyin er-xotin munosabatlaridagi ijobiy va salbiy o'zgarishlar tashkilotlar uchun yangi kelgan juftliklar va jamoalar uchun zo'ravonlikning oldini olish strategiyalarini ishlab chiqish haqida ma'lumot berishi mumkin degan fikrni ta'kidlab o'tishgan.

## XULOSA

Shunday qilib, bizning fikrimizcha, oilani migratsiya natijasida er-xotinlarning majburiy bir-biridan uzoqlashish ham ijobiy, ham salbiy tomonlari mavjud bo'lib, buni yanada batafsilroq ktng ko'lamli tadqiqot ishlarini olib borib empirik ko'rib chiqishni talab qiladi.

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## INTERPRETING AS A STRESSFUL ACTIVITY: PSYCHOLOGICAL AND EMOTIONAL MEASURES OF STRESS IN SIMULTANEOUS INTERPRETATION

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### ABSTRACT

Simultaneous interpretation is a challenging task that requires interpreters to process and convey information in real-time. As a result, psychological and emotional issues can arise during the interpreting process, which can affect the performance and well-being of interpreters. Some of the issues that interpreters may face include high levels of stress, fatigue, anxiety, and burnout. Interpreters who work in high-pressure environments, like conferences or courtrooms, may be particularly susceptible to these issues. This paper deals with some of the above issues in detail.

**Keywords:** simultaneous interpretation, psychological issues, emotional issues, fatigue, burnout, interpreters of the UN.

### ANNOTATSIYA

Sinxron tarjima - tarjimonlardan ayni vaqtda ma'lumotlarni qayta ishlash va yetkazishni talab qiladigan qiyin vazifa. Natijada, tarjima jarayonida bir necha psixologik va hissiy muammolar paydo bo'lishi mumkin, bu tarjimonlarning ish sifatiga salbiy ta'sir qiladi. Tarjimonlar duch kelishi mumkin bo'lgan ba'zi muammolarga yuqori darajadagi stress, charchoq va tashvish kiradi. Konferensiyalar yoki sud zallari kabi yuqori bosimli muhitda ishlaydigan tarjimonlar ushbu muammolarga, ayniqsa, tez-tez duch keladilar. Ushbu maqolada yuqoridagi masalalardan ayrimlari batafsil ko'rib chiqiladi.

Psychologists generally believe that conference interpreters work in stressful conditions due to objective stress factors such as the need to constantly process information, work under time constraints, maintain intense concentration, deal with fatigue, and work in confined spaces like interpreting booths. Several studies have confirmed that simultaneous interpreting is a job with high levels of stress.

In a study conducted by Peter Moser in 1995, 26% of the users of interpreting services mentioned high concentration and constant stress as the most challenging aspects of the interpreting profession, while 18% compared the job of interpreters to that of a pilot or air traffic controller. Additionally, experienced conference interpreters may encounter stressful situations that require extra effort. In 1998, Riccardi, Marinuzzi, and Zecchin hypothesized that remote interpreting, where interpreters cannot see the speakers directly, may cause more strain than regular conference interpreting. Their assumptions were later confirmed by two remote interpreting experiments conducted by the United Nations.

One of the most significant challenges that interpreters face is the high level of stress that comes with the job. Interpreters must maintain intense concentration for extended periods while quickly processing and conveying information in real-time. This can be mentally and physically exhausting, which can lead to burnout, anxiety, and other psychological issues.

Additionally, interpreters may experience emotional difficulties when interpreting sensitive or emotionally charged content. For example, interpreters working in legal or medical settings may be exposed to traumatic or distressing information, which can have a significant impact on their mental well-being.

Moreover, interpreters may also struggle with language barriers and cultural differences, which can create additional stress and anxiety. Interpreters who work in high-pressure environments may feel isolated and disconnected from their colleagues, which can compound their psychological and emotional challenges.

In 1999, interpreters who took part in a remote interpreting experiment conducted by the United Nations reported that they were only able to maintain acceptable performance levels at a higher psychological and physiological cost. This finding was supported by the interpreters who participated in a second experiment in **2001**, who reported that remote interpreting required more physical effort and caused more psychological stress than regular on-site work. The Workload Study also found that 73% of respondents who had experience with videoconferencing perceived it to have a negative impact on performance (Mertens-Hofmann 2001).

Although some working conditions can be stressful for most people, how someone perceives stress is subjective and can be influenced by personality factors like self-confidence or perspective. These factors largely determine whether a situation is perceived as stressful or not. Psychological testing under stress, known as ergopsychometric studies, has shown that some individuals perform consistently well under pressure, while others may struggle even if they perform well in less stressful situations. This



phenomenon was confirmed by the Guttman and Etlinger study in 1991.

In 1997, Kurz conducted a study on conference interpreters' anxiety levels using the State and Trait Anxiety Inventory (STAI). The results of the study indicated that conference interpreters are able to control their anxiety in a situation-dependent way and view their anxiety in a positive light. This suggests that they are 'consistent' performers who can maintain a steady level of performance even under stressful conditions.

In 2001, Jiménez and Pinazo used the STAI to investigate the relationship between anxiety and interpreting performance in students. They noted that the ability to manage stress has been a traditional prerequisite for interpreting. However, the Cooper Study conducted in 1982, which focused on mental and emotional stress in conference interpreters, found that 45% of the participants reported that more than 40% of their stress was related to work.

According to Kurz (2002), interpreting for live TV broadcasts is more stressful than ordinary conference interpreting because the interpreter is aware that they are interpreting for a large audience of potentially hundreds of thousands or even millions of viewers. This awareness of the potential for failure can increase the interpreter's fear and anxiety.

Overall, it is essential for interpreters to be aware of the psychological and emotional challenges that come with their job and to take steps to manage these issues effectively. By doing so, interpreters can maintain their well-being and perform their duties at a high level.

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## BOSHLANG‘ICH SINIF O‘QUVCHILARINI TA‘LIMNING KEYINGI TURLARIGA TAYYORLASH OMILLARI

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### ANNOTASIYA

Maqolada boshlang‘ich sinf o‘quvchilarini ta‘limning keyingi turlariga tayyorlash omillari tahlil etilgan va metodik tavsiyalar berilgan.

**Tayanch tushunchalar:** ta‘lim, boshlang‘ich, o‘quvchi, tayyorlash, bilim, ko‘nikma, malaka.

### KIRISH

“Yangi O‘zbekiston taraqqiyot strategiyasi”da qo‘yilgan sifatli ta‘limga erishish vazifalari ijrosi jarayonida boshlang‘ich ta‘limni takomillashtirish va uning yangi vazifalarini idrok etish dolzarb bo‘lib turibdi. [1]. Shu jihatdan boshlang‘ich sinf o‘quvchilarini ta‘limning keyingi turlariga tayyorlash ham yangi vazifalardan biri bo‘lib, u boshlang‘ich ta‘lim jarayonida sifat ko‘rsatkichlariga erishishning omillaridan biri hisoblanadi. Bu o‘rinda e‘tiboringizni ana shu masalaning tahliliga tortamiz.

### ADABIYOTLAR TAHLILI VA METODOLOGIYA

Mamlakatimizda boshlang‘ich sinf o‘quvchilari ta‘limni davom ettiradigan umumiy o‘rta ta‘lim muassasalari, Prezident maktablari, ixtisoslashtirilgan va ijodiy ta‘lim muassasalari faoliyat yuritmoqda. Mazkur ta‘lim turlariga boshlang‘ich sinf o‘quvchilarini tayyorlash dolzarb masalalardan hisoblanadi. Bu masala bo‘yicha bizning yondashuvlarimiz quyidagilardan iborat:

1. ***Boshlang‘ich sinf o‘quvchilarini ta‘limiy tayyorlash.*** Boshlang‘ich sinf o‘quvchilarini ta‘limning ta‘kidlangan turlariga ta‘limiy jihatdan tayyorlash muhim ahamiyatga egadir. Buning uchun quyidagilarga amal qilish kutilgan samarani berishini ta‘kidlash lozim:

a) boshlang‘ich sinf o‘quvchilarining o‘quv fanlari bo‘yicha qiziqishlari va layoqatlarini aniqlab olish;

b) mazkur aniqlash natijasida boshlang‘ich sinf o‘quvchilarini aniq, tabiiy va gumanitar fanlar guruhlariga bo‘lish;

v) o‘quvchilar guruhini mazkur turkumdagi o‘quv fanlarini chuqurlashtirilgan tarzda o‘qitish;





g) o'quvchilarning mustaqil fikrlash, ongli munosabat va bilimga qiziqish ko'nikmalarini shakllantirish;

d) aniq, gumanitar va tabiiy fanlar bo'yicha qo'shimcha mashg'ulotlar tashkil etish;

e) o'quv fanlarining to'garaklaridan oqilona foydalangan holda o'quvchilarning bilimlarini amaliy mustahkamlash.

Bunday yondashuv boshlang'ich sinf o'quvchilarini ta'limning keyingi turlariga tayyorlashda muhim imkoniyatlarni beradi. Shu jihatdan amaliy faoliyatdagi boshlang'ich sinf o'qituvchilarining faolligini kuchaytirish taqozo etiladi [2].

2. **Boshlang'ich sinf o'quvchilarini tarbiyaviy tayyorlash.** Ta'limning keyingi turlariga boshlang'ich sinf o'quvchilarini tarbiyaviy jihatdan tayyorlash eng muhim vazifalardan biridir. Chunki ular kelgusida ta'limning keyingi turlarida boshlang'ich ta'lim jarayonida amalga oshirilgan tarbiyaviy ishlarning amaliyotini yaqqol namoyon qiladi. Shu sababli boshlang'ich sinf o'quvchilarini ta'limning keyingi turlariga tayyorlashda quyidagilarga e'tibor berish muhim ahamiyatga egadir:

a) boshlang'ich sinf o'quvchilarining ahloqiy ongi, ma'naviy fazilatlar va estetik munosabatlarini talab darajasida shakllantirish;

b) boshlang'ich sinf o'quvchilarida vatanparvarlik, insonparvarlik va xalqparvarlik ko'nikmalarini alohida tarkib toptirish;

v) boshlang'ich sinf o'quvchilarining o'zgalarga munosabat, ijtimoiy faollik va tashabbuskorlik faoliyatlarini rivojlantirish;

g) boshlang'ich sinf o'quvchilarida tarbiyaviy layoqatlik va ijtimoiy malakalik ko'nikmalarini tarkib toptirish;

d) boshlang'ich sinf o'quvchilarini tarbiyaviy ko'nikmalaridan faoliyatda foydalana olishga o'rgatish;

e) boshlang'ich sinf o'quvchilarining tarbiyalanganlik darajasini bag'olab borish.

Diqqat qilinsa, bunday yondashuv boshlang'ich sinf o'quvchilarini tarbiyaviy jihatdan ta'limning keyingi turlariga maliy tayyorlash imkoniyatlarini beradi. Shuni ta'kidlash lozimki, boshlang'ich sinf o'quvchilarini tarbiyaviy jihatdan tayyorlashda ular o'qishni davom ettiradigan ta'lim turlari xususiyatlarini ham hisobga olish muhim ahamiyatga ega. Buning uchun amaliy faoliyatdagi boshlang'ich sinf o'qituvchilarini malaka oshirish va qayta tayyorlash kurslari vositasida boshlang'ich ta'limdan keyingi ta'lim turlari bo'yicha ma'lumotga egaligini amalga oshirib borish taqozo etiladi.

### 3. **Boshlang'ich sinf o'quvchilarini amaliy tayyorlash.**

Mamlakatimizda faoliyat yuritayotgan boshlang'ich ta'limdan keyingi ta'lim turlari muayyan yo'nalishlarga moslashganligi

bilan o'ziga xos ta'lim muassasasi hisoblanadi. Misol uchun, ijodiy ta'lim muassasalarida o'quvchilarning ijodkorlik ko'nikmalarini rivojlantirishga asosiy e'tibor qaratilgan. Shu jihatdan boshlang'ich sinf o'quvchilarini ta'limning keyingi turlariga amaliy tayyorlashda quyidagilarga e'tibor berish kerak bo'ladi:

a) boshlang'ich sinf o'quvchilarida uchraydigan muayyan illatlarni korreksiyalab borish;

b) boshlang'ich sinf o'quvchilarining oilaviy muhitini o'rganish vositasida ular bilan individual ishlash;

v) boshlang'ich sinf o'quvchilarini ijtimoiylashtirish;

g) boshlang'ich sinf o'quvchilarida amaliy faoliyat ko'nikmalarini tarkib toptirish bilan ularni yo'naltirish;

d) boshlang'ich sinf o'quvchilarini turli muhitlarga moslashuvchanligini tarkib toptirish;

e) boshlang'ich sinf o'quvchilarini o'z qiziqishlariga ko'ra amaliyot ko'nikmalari bilan qurollantirish.

## NATIJAR VA MUHOKAMA

Diqqat qilinsa, bunday yondashuv boshlang'ich sinf o'quvchilarini ta'limning keyingi turlariga amaliy jihatdan maqsadli tayyorlash mexanizmlarini beradi. Shu ma'noda oliy pedagogik ta'lim jarayonida bo'lajak boshlang'ich sinf o'quvchilarini o'quvchilarni ta'limni keyingi turlariga tayyorlash ko'nikmasi bilan ham qurollantirish dolzarb bo'lib turibdi.

Kezi kelganda ta'kidlash lozimki, boshlang'ich sinf o'quvchilarini ta'limning keyingi turlariga tayyorlashga doir ilmiy-nazariy, metodik va amaliy tadqiqotlarni yaratish ham dolzarb bo'lib turibdi. Bundan tashqari, boshlang'ich sinf o'quv fanlari adabiyotlarini tayyorlashda ham o'quvchilarni ta'limning keyingi turlariga tayyorlash xususiyatlari ham hisobga olinishi kerak. Bularning barchasi boshlang'ich sinf o'quvchilarini ta'limning keyingi turlariga tayyorlash metodologiyasini ishlab chiqishni taqozo etadi [3].

## XULOSA

Shunday qilib boshlang'ich sinf o'quvchilarini ta'limning keyingi turlariga ta'limiy, tarbiyaviy va amaliy jihatdan tayyorlash muhimdir. Bu borada bo'lajak boshlang'ich sinf o'quvchilarini ana shu ko'nikma bilan qurollantirish va amaliy faoliyatdagi boshlang'ich sinf o'quvchilarining mazkur masala bo'yicha malakalarini kengaytirish taqozo etiladi.

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## KO'P TARMOQLI MAKROIQTISODIYOT MODELLARI

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### ANNOTATSIYA

Ikkita tarmoq bo'yicha zarur bo'lgan yalpi mahsulot hajmini hisoblash tahlili o'rganilgan.

**Kalit so'zlar:** balans, ko'p tarmoqli, iqtisod moduli, tarmoqlararo balans.

### ABSTRACT

The analysis of the calculation of the volume of the necessary gross production by two channels.

**Keywords:** balance, multi-channel model of economy, interbranch balance.

Balans tahlilining maqsadi - makroekonomikada vujudga keladigan ko'p tarmoqli xo'jalik yuritishning effektivligi bilan bog'liq savolga javob berishga to'g'ri keladi: har bir  $n$  tarmoqning mazkur mahsulotga bo'lgan talabni qondirish uchun ishlab chiqarish hajmi qanday bo'lishi kerak? Bunda har bir tarmoq bir tomondan, ma'lum bir mahsulotning ishlab chiqaruvchini, boshqa tomondan - ham o'z mahsulotini, ham boshqalar ishlab chiqargan mahsulotning iste'mol qiluvchisi bo'lib chiqadi.

Tarmoqlar orasida bog'liqlik, qoidasiga ko'ra, tarmoqlararo balans jadvallarida o'z aksini topadi, uning matematik modeli esa 1936 yilda amerika iqtisodchisi V.Leontev tomonidan ishlab chiqilgan bo'lib, ularni tahlil qilishga imkon beradi [1].

Faraz qilaylik,  $n$  ishlab chikarishning  $n$  tarmog'i, har biri o'z mahsulotini ishlab chiqarish ko'rilmog'ida. Ishlab chiqarilgan mahsulotning bir qismi mazkur sanoat korxonasi ichki ishlab chiqarish ehtiyojlariga sarflanadi, boshqa qismi esa oxirgi maqsadlar uchun (moddiy ishlab chiqarish sohasidan tashqarida) shaxsiy va ijtimoiy iste'mol qilish uchun.

Ma'lum vaqt davomida ishlab chiqarish jarayonini ko'rib chiqamiz (masalan, yil).

Quyidagi ko'rsatkichlarni belgilaymiz:  $x_i$  - umumiy (yalpi) mahsulot xajmi  $i$  - tarmoqning ( $i = 1, 2, \dots, n$ );

$x_{ij}$  - mahsulot hajmi  $i$ -chi va  $j$ -chi tarmoqning ishlab chikarish jarayonida iste'mol qiluvchi ( $i, j = 1, 2, \dots, n$ );

$y_i$  - ishlab chiqarish bo'lmagan iste'molchi uchun  $i$  tarmoqning oxirgi ishlab chiqargan mahsuloti hajmi.

Agar  $i$ -chi tarmoqning yalpi mahsuloti hajmi  $n$  tarmoqli iste'mol qiladigan mahsulot hajmi va oxirida olinadigan mahsulot summasiga teng bo'lsa, unda

$$x_i = \sum_{j=1}^n x_{ij} + y_i \quad (i = 1, 2, \dots, n). \quad (1)$$

(1) tenglama balans bog'lanishi deyiladi. (1) tenglamaga kirgan barcha kattaliklar narx ko'rsatkichlariga ega bo'lib, ularni baholi tarmoqlararo balansida ko'rib chiqamiz.

To'g'ri harajatlar koeffitsiyentini kiritamiz

$$a_{ij} = \frac{x_{ij}}{x_j}, \quad (i, j = 1, 2, \dots, n), \quad (2)$$

bular  $i$ -chi tarmoq birlik mahsulotini ishlab chiqarish uchun  $j$ -chi tarmoq mahsulotiga harajatlarni ko'rsatadi.

Faraz qilaylik, vaqtning ma'lum oralig'ida  $a_{ij}$  koeffitsiyentlari o'zgarmas bo'lib, ishlab chiqarish texnologiyasiga bog'lik bo'lsin. Bu moddiy sarflarning yalpi mahsulot ishlab chiqarishga chiziqli bog'liqligini ko'rsatadi, ya'ni

$$x_{ij} = a_{ij}x_j, \quad (i, j = 1, 2, \dots, n) \quad (3)$$

natijada mazkur asosda tuzilgan tarmoqlararo model chiziqli bo'lishini hosil qilamiz.

Endi (1) balans munosabati quyidagi shaklda bo'ladi:

$$x_i = \sum_{j=1}^n a_{ij}x_j + y_i \quad (i = 1, 2, \dots, n). \quad (4)$$

Quyidagicha belgilashlarni kiritamiz

$$\mathbf{X} = \begin{pmatrix} x_1 \\ x_2 \\ \dots \\ x_n \end{pmatrix}, \quad \mathbf{A} = \begin{pmatrix} a_{11} & a_{12} & \dots & a_{1n} \\ a_{21} & a_{22} & \dots & a_{2n} \\ \dots & \dots & \dots & \dots \\ a_{n1} & a_{n2} & \dots & a_{nn} \end{pmatrix}, \quad \mathbf{Y} = \begin{pmatrix} y_1 \\ y_2 \\ \dots \\ y_n \end{pmatrix}$$

bu yerda  $\mathbf{X}$  - yalpi mahsulot vektori,  $\mathbf{Y}$  - oxirgi mahsulot vektori,  $\mathbf{A}$  - to'g'ri sarf matritsasi (texnologik yoki strukturaviy matritsa).

U holda (1) sistemani matritsa ko'rinishida quyidagicha tasvirlash mumkin:

$$X = AX + Y \quad (5)$$

Tarmoqlararo balansi asosiy masalasi  $X$  yalpi mahsulot ishlab chiqarishning shunday vektorini topish kerakki, ma'lum to'g'ri sarf qilinadigan  $A$  matritsasi oxirgi mahsulot  $Y$  berilgan vektorini ta'minlaydi.

(5) tenglamani quyidagi ko'rinishda yozib olamiz:

$$(E - A)X = Y \quad (6)$$

Agar  $(E - A)$  matritsasi maxsus bo'lmagan bo'lsa, ya'ni  $|E - A| \neq 0$  u holda (6) tenglikdan  $X$  ni topamiz

$$X = (E - A)^{-1}Y \quad (7)$$

$S = (E - A)^{-1}$  matritsasi to'la harajatlar matritsasi deb ataladi.

Ma'lumki,  $S$  matritsaning har bir  $s_{ij}$  elementi  $i$ -chi tarmoqli yalpi mahsulotini ishlab chiqarishi bo'lib,  $j$ -chi tarmoqli  $y_j = 1$  ( $j = 1, 2, \dots, n$ ) oxirgi mahsulotini ishlab chiqarishini ta'minlaydi.

Masalaning iktisodiy mazmunidan kelib chiqqan xolda  $x_i$  manfiy bo'lmasligi, manfiy bo'lmagan ko'rsatkichlarda  $y_i \geq 0$  u  $a_{ij} \geq 0$ , bu yerda ( $i, j = 1, 2, \dots, n$ ).

$A \geq 0$  matritsasi unumdorlik deb ataladi, agar ixtiyoriy  $Y \geq 0$  vektori uchun (6) tenglamaning  $X \geq 0$  yechimi mavjud bo'lsa. Bu holatda Leontev modeli ham unumdorlik deb ataladi.

Jadvalda hisobot davridagi balans bajarilishi keltirilgan pul birligida

Tarmoq		Iste'mol		Oxirgi mahsulot	Yalpi mahsulot
		energetika	mashinasozlik		
Ishlab chiqarish	Energetika	7	21	72	100
	Mashinasozlik	12	15	123	150

Har bir tarmoq bo'yicha zarur bo'lgan yalpi mahsulot hajmini hisoblang, agar energetika tarmog'idagi oxirgi mahsulot miqdori ikki barobar oshsa, mashinasozlikda esa avvalgi bosqichda saqlansa.

Quyidagilarga egamiz

$$x_1 = 100, x_2 = 150, x_{11} = 7, x_{12} = 21, x_{22} = 15; y_1 = 72, y_2 = 123.$$

(2) formula ko'ra to'g'ri sarf-harajatlar qilinadigan koeffitsiyentlarni topamiz:

$a_{11} = 0,07, a_{12} = 0,14, a_{21} = 0,12, a_{22} = 0,10$  ya'ni to'g'ri sarf-harajatlar matritsasi

$A = \begin{pmatrix} 0,17 & 0,14 \\ 0,12 & 0,10 \end{pmatrix}$  manfiy bo'lmagan elementga ega va

unumdorlik kriteriyasini qanoatlatiradi:

$$\max\{0,17 + 0,12; 0,14 + 0,10\} = \max\{0,29; 0,24\} = 0,29 < 1.$$

Shuning uchun ixtiyoriy  $Y$  oxirgi mahsulot vektori uchun zarur bo'lgan yalpi mahsulot hajmini  $X$  ni (7) formuladan topamiz:

$$X = (E - A)^{-1}Y$$

To'la harajatlar matritsasini aniqlaymiz  $S = (E - A)^{-1}$ :  $E - A = \begin{pmatrix} 0,93 & -0,24 \\ -0,12 & 0,90 \end{pmatrix}$ .

Shunday qilib  $|E - A| = 0,8202 \neq 0$ .  $S$  ni topamiz.

$$S = (E - A)^{-1} = \frac{1}{0,8202} \begin{pmatrix} 0,90 & 0,14 \\ 0,12 & 0,93 \end{pmatrix}$$

Shart bo'yicha oxirgi mahsulot vektori  $Y = \begin{pmatrix} 144 \\ 123 \end{pmatrix}$ . U holda (4) formulaga ko'ra

yalpi mahsulot vektorini topamiz:

$$X = \frac{1}{0,8202} \begin{pmatrix} 0,90 & 0,14 \\ 0,12 & 0,93 \end{pmatrix} \begin{pmatrix} 144 \\ 123 \end{pmatrix} = \begin{pmatrix} 179,0 \\ 160,5 \end{pmatrix},$$

ya'ni, yalpi mahsulotni energetika tarmog'ida 179,0 kelishilgan birlikka, mashinasozlikda esa – 160,5 kelishilgan birlikka ko'paytirish zarur.

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## OILALARNI MUSTAHKAMLASHDA QAYNONALARNING O‘RNINI XORIJ TAJRIBASIDA O‘RGANILGANLIGI

**Mahbuba Bo‘riyeva**

“Oila va xotin qizlar” ilmiy tadqiqot instituti kichik ilmiy xodimi

### ANNOTATSIYA

Mazkur maqolada oilalarni mustahkamlashda qaynonalarning o‘rni, oiladagi milliy qadriyatlarning roli, qaynona va kelin o‘rtasidagi o‘zaromunosabatlar, ular o‘rtasida ziddiyatga sabab bo‘luvchi omillar va oqibatlar yoritib berilgan.

**Kalit so‘zlar:** qaynona, kelin, munosabatlar, oila, nizo, ziddiyat, muloqot, qadriyat, tadqiqot, so‘rovnoma.

### ABSTRACT

In this article, the role of mother-in-law in strengthening families, the role of national values in the family, relations between mother-in-law and daughter-in-law, factors and consequences of conflict between them are highlighted.

**Keywords:** mother-in-law, daughter-in-law, relationship, family, conflict, conflict, communication, value, research, questionnaire.

### KIRISH

Oilaning mutahkamligi jamiyat uchun uhim sanaladi, chunki aynan mana u oilada jamiyat a‘zosi sifatida farzand tarbiya topadi. Ikki yoshning birga umr yo‘llarini bog‘lashi bu oilaning asosi hisoblanadi. Ularning bir bir-birlarini tushunib, o‘zaro hamjihat bo‘lib harakat qilishi, kelajak vorislarini dunyoga keltirib, jamiyatga, insonlarga nafi tegadigan shaxs qilib tarbiya qilishlari oilada sog‘lom muhitning yuzaga kelishi omili bo‘ladi. Oilaning mustahkam bo‘lishi nafaqat er-xotinga, balki qaynona va qaynotalarga ham bohliq bo‘ladi.

Qaynona va kelin mavzusi — bugungi kunda eng dolzarb va muammoli masalaga aylanib ulgurdi. Chunki oilaviy kelishmovchilik va ajrimlar o‘rganilib, chuqur tahlil qilinganda bu kabi salbiy holatlarga ushbu ikki qahramonimiz o‘rtasidagi tushunmovchiliklar asosiy sabablardan biri bo‘lib ko‘zga tashlanmoqda.

Aslini olib qaraganda, qaynona va kelin oilaning tinch, osuda va farovon bo‘lishiga eng katta xizmat qiladigan oila vakillaridir. Ikkisini ayol ekani, bu ularning bir — biri bilan yaxshi til topib ketishiga xizmat qilishi o‘rniga, asosiy muammoga sabab bo‘layotgani taajjubli holat.



Hozirgi kunda qaynona va kelin o'rtasidagi munosabatlar barcha mamlakatlarda dolzarb muammo ekanligini ko'rishimiz mumkin.

### ADABIYOTLAR TAHLILI VA METODOLOGIYA

Rossiyada bir guruh tadqiqotchilar tomonidan qaynona va kelin o'rtasidagi munosabatlarni o'rganish maqsadida tadqiqot ishlarini olib borishgan. O'rganishlar natijasida quyidagi holatlarni aniqlashgan.

✓ Qaynona va kelinlarning oilaviy ahvolidagi farqlar ular o'rtasidagi munosabatlardan qoniqishdagi farqlarga sezilarli ta'sir ko'rsatadi;

✓ Kelinning turmushdagi tajribasi uning qaynonasi bilan bo'lgan munosabatlarning xususiyatlariga ta'sir qiladi;

✓ Qaynonadagi bolalarning soni va jinsi kelin bilan munosabatlarga ta'sir qiladi.

Rus oilalari bo'yicha olib borilgan tadqiqotlar shuni ko'rsatadiki, turmush qurgan ayollarning faqat yarmi qaynonasidan qoniqish hosil qiladi va shu bilan birga yarmidan ko'pi qaynonasini begona deb biladi. Ayollarning 83% qaynonalarining yosh oilaga nisbatan haddan tashqari avtoritar ekanligiga va 70% turmush o'rtog'ining onasidan tushunishni xohlaydi. Agar ma'lum bir umumlashtirilgan portret haqida gapiradigan bo'lsak, turmush qurgan qizlarning fikriga ko'ra, qaynona shunday bo'lishi kerak: yumshoq, muloyim, samimiy bo'lishi. Qaynona kelinning talablariga qanchalik kam javob bersa, nizolar shunchalik tez-tez sodir bo'ladi. Vaziyat qaynona tomonidan ham xuddi shunday - u kelindan o'g'lining xotini haqidagi ideal g'oyasiga mos kelishini kutadi. Ammo umidsizlikka uchragan umidlar yomon munosabatlarning yagona sababi emas. Qaynona va kelin iliq munosabatlarni saqlab, bir-biriga yordam berganda, lekin shaxsiy chegaralarni hurmat qilganda, munosabatlarni ideal deb atash mumkin.

Olib borilgan tadqiqot natijasida an'anaviy ravishda kelin va qaynona o'rtasidagi munosabatlarni bir necha turlarga bo'lishgan:

-Qaynona-dugona. Ikki ayol o'rtasida aloqa o'rnatishga urinishlarni o'z ichiga olgan noyob munosabatlar turi. Qoida tariqasida, qaynona uni "onam" deb chaqirishni so'raydi va keliniga sizdan "sen" ga o'tishga ruxsat beradi;

-Qaynona - ishtirokchi. Bunday ona yosh oilaning bir qismi bo'lishni xohlaydi. U eng yaxshisini biladi va bunday ehtiyojning yo'qligiga e'tibor bermasdan, o'z tajribasini keliniga ishonch bilan o'tkazadi. Qaynona turmush o'rtoqlar hayotining barcha tafsilotlari bilan qiziqadi va ularga har tomonlama yordam berishga harakat qiladi. Afsuski, bu munosabatlarning eng keng tarqalgan turlaridan biridir;

-Masofadagi qaynona. Ikki tomonlama vaziyat shundaki, bunday ona, bir tomondan, oilaga ko'p aralasha olmaydi, balki yordam berishga intilmaydi. Muloqot oddiy telefon qo'ng'iroqlari va juda kam uchraydigan jonli uchrashuvlar bilan bog'liq;

- Qaynona - ikkinchi ona. Kamdan kam, ammo juda yoqimli munosabatlarni ikkita chinakam dono ayol qurishi mumkin. Ona yosh oilaning rivojlanishiga aralashishga urinmaydi, aksincha, u rivojlanishdan xursand bo'ladi va qiyin paytlarda dono so'z va sokin ish bilan qo'llab-quvvatlaydi.

Turkiyaning Arede Survey sotsiologik agentligi va xususiy institut Turkiyadagi oila institutining ahvoli bo'yicha tadqiqot o'tkazdi. Unda nikoh va nikoh maqomi, bolalar, keksalarga g'amxo'rlik, oilaga tahdidlar, oilaviy qadriyatlar, mehnatkash ayollar, oilaning iqtisodiy ahvoli, oilaviy huquq, oilaviy zo'ravonlik va ajralishlar, ommaviy axborot vositalarining ta'siri kabi mavzular yoritilgan. Tadqiqot onlayn so'rov (CAWI) orqali 26 viloyatda o'tkazildi, unda jami 2400 dan ortiq kishi ishtirok etdi.

## NATIJALAR VA MUHOKAMA

Natijalardan ma'lum bo'lishicha, Turkiyada oila instituti hozirgi paytda zaiflashmoqda, bunga ijtimoiy tarmoqlar va onlayn muloqotning tarqalishi, iste'mol mafkurasi, an'anaviy qadriyatlar va odamlar o'rtasidagi aloqalarning zaiflashishi sabab bo'lmoqda.

So'rovdan ma'lum bo'lishicha, oila institutini ozmi-ko'pmi mustahkam deb hisoblovchilar salmog'i 35,6 % ni tashkil etgan bo'lsa, 37,1 % uni zaif, 11,8 foizi oila buzilgan, deb hisoblagan. Oila instituti amalda barbod bo'lgan degan fikrni ko'proq ma'lumoti va daromadi past odamlar bildirgan.

Aksariyat ishtirokchilar qaynonasi bilan munosabatlari haqida na juda yaqin, na juda uzoq tasavvurga ega emasligi aniqlandi, biroq qaynona-kelin munosabatlarida ona-qiz idrokiga ega bo'lgan ishtirokchilar ham ancha yuqori edi. Bundan tashqari, tadqiqotda ishtirok etgan nizoli va buzilgan munosabatlarga ega bo'lgan ishtirokchilar juda kichik qismini tashkil etishini ko'rish mumkin. Aniqlanishicha, ma'lumot darajasi past bo'lgan ayollar qaynona-kelinlik munosabatlari haqida ko'proq ijobiy fikrlarga ega. Shuningdek, nizoli va munosabatlari buzilgan turmush qurgan ayollarning oilaga moslashish ko'rsatkichlari past bo'lar ekan. Turmush qurgan ayollarning qaynonalari bilan munosabatlari va oilaga moslashish ular uchun muhim edi.

Turk tadqiqotchilarining fikricha kelin bilan qaynona o'rtasidagi munosabat ona-o'g'il munosabatlarining sifati bilan chambarchas bog'liq bo'ladi. Qaynona o'g'lidan moddiy yordamga

muhtojligi, kelin bilan qaynona o'rtasida muammo tug'diradi. Bundan tashqari, kelin va qaynona o'rtasidagi muloqot sifatiga ayollarning tug'ilib o'sgan ijtimoiy muhiti, iqtisodiy ahvoli, ta'lim darajasi va qarashlar sezilarli darajada ta'sir qiladi.

Turkiyada kelin va qaynona o'rtasidagi ziddiyatni, asosan, patriarxal oiladagi ayollarning ayollarga tayinlangan lavozimni bo'lishishga qodir emasligi bilan bog'liq. Shu munosabat bilan kelin va qaynona o'rtasidagi munosabatlarni chuqurroq anglash maqsadida Konya shahrida yashovchi 119 nafar turmush qurgan ayollar bilan 2018 yil sentyabr va noyabr oylari orasida suhbat o'tkazilgan.

Suhbat davomida barcha ishtirokchilarga "kelin" sifatida murojat qilishgan va ularni qaynonasi bilan munosabatlariga baho berilgan. Tadqiqotda qaynona bilan munosabatlarida boshdan kechirgan muammolar, nima ularga yoqqan va yoqtirmagan, agar mavjud bo'lsa, va bunday nizoning mavjudligi va sabablari haqida nima deb o'ylashgan kabi savollar berilgan. Bundan tashqari, kelin va qaynona o'rtasidagi munosabatlar o'zgargan yoki o'zgarmaganligini aniqlash uchun ayollar uch avlodga bo'lingan holda tekshirilgan.

Natijalarga ko'ra, ishtirokchilarning aksariyati qaynona bilan munosabatlarini yomon deb ta'riflaydi. Bu ikkinchi avlodda eng ko'p uchraydi. Birinchi avlod esa (eng katta avlod) eng itoatkor edi, nisbatan yaxshi munosabatlarga ega bo'lgan avlod uchinchi avlod edi. Kelinlar qaynona bilan yuzaga keladigan muammoning asosi sifatida "bir uyda yashash" va "qaynona hamma narsaga aralashadi" ko'rsatilgan. Shuningdek, qaynonalarning yomon xislatlari yahshilaridan ko'ra ko'proq bo'lib, "hamma narsaga aralashish" va "ziqna" qaynona, aksincha, sevilmaydigan xususiyatlarni belgilovchi omil bo'ladi deb ta'kidlashgan.

Birlashgan Arab Amirliklarida oilaga g'amxo'rlik 1971-yil 2-dekabrda davlatni rivojlantirish yo'lida faoliyat ko'rsatgan marhum Shayx Zoid bin Sulton Ol Nahayon tomonidan asos solinganidan beri oila va jamiyatga katta e'tibor bergan va ko'plab ayollar uyushmalari tuzigan. BAA tomonidan oilaga bo'lgan bu katta qiziqishning rivojlanishini o'zida mujassamlashtirgan birinchi navbatda ayollar tiklanish uyushmasi, so'ngra umumiy xotin-qizlar ittifoqi va boshqa uyushmalar hozirgi bosqichda ko'payib bormoqda.

Ilgari arab jamiyatlarida qaynona va kelin munosabatlari juda sodda va nozik bo'lgan. Bu jamiyatlarda erkak uchun ayol bilan muloqot qilish oson emas edi, ko'p hollarda ona o'g'liga kelin tanlagan, keyin esa uni o'g'liga taklif qilgan ma'qullash yoki rad etish uchun. Kelin tanlashda birinchi so'zni, ba'zan esa oxirgi so'zni xam qaynona aytar edi. Shuning uchun, kelin va uning oilasi, birinchi navbatda, kelajakdagi erning onasini rozi qilishga intilishadi. Ona bu oliy kuch va mavqeni arab madaniyatining asosi bo'lgan diniy



qarashlar orqali oldi, undan an'analar avlodlar osha rivojlanib bormoqda.

Ona kelinni tanlagani ajablanarli emas, bu ayol o'zi va o'g'li bilan bir uyda yashaydi, uy ishlarini qiladi va uning nazorati ostida nevaralarini tarbiyalaydi. Uning kelini ham o'z qizining o'rnini bosadi, u turmushga chiqadi, boshqa uyga ko'chib ketadi, boshqa ayolga kelin bo'ladi. Bu sodir bo'lganda, qaynona butun uyni boshqarishi mumkin edi. U har bir kichik va har bir katta narsaga aralashish va nazorat qilish qudratiga ega edi. Agar uning bir tom ostida bir nechta turmush qurgan o'g'illari bo'lsa, u ko'pincha kelinlar o'rtasida ijobiy muhit yaratib, qaynonani rozi qilish va duosini olish uchun tarbiyalardi.

Yaqinda arab mahalliy ommaviy axborot vositalarida o'tkazilgan tadqiqotga ko'ra, oilaviy muammolarning 50 foizi kelinlar va ularning qaynonalari o'rtasidagi notinch munosabatlardan kelib chiqar ekan. Shu bilan birga, ajralishlarning 3% qaynona tufayli sodir bo'ladi, deyiladi tadqiqotda.

Qirol Abdulaziz universiteti professori Xolud Nasr tadqiqotga to'xtalar ekan, qaynonalarning 40 % o'g'illarining xotiniga hasad qilishini aytdi. Tadqiqotga ko'ra, turmushning birinchi besh yilida bu qizg'anish avjiga chiqar ekan, qaynona o'g'lining xotini yoshroq yoki go'zalroq ekanini his qilib, umrini bag'ishlagan o'g'lini olib ketganida.

Tadqiqotchining aytishicha, bunday rashkning psixologik sabablari bor, jumladan, o'g'ilning yangi oilasiga e'tibor qaratishi va onasidan asta-sekin chekinishi, uning g'azabini keltirib chiqaradi.

Bu itoat etishi kerak bo'lgan ona va e'tibor, mehrga loyiq bo'lgan xotin o'rtasida murosaga kelishni talab qiladi, lekin qaynona-kelinlar bilan muomala qilish mahoratini va emotsiyani nazorat qilishni talab qiladi, deydi tadqiqotchi.

Sotsiolog Xolid Al-Dosning aytishicha, qaynonalar ko'pincha kelinlarining hayotida hukmronlik qilishni xohlashadi, ajralishlarning 40 foizini ijtimoiy va oilaviy omillar tashkil qiladi.

Oila maslahatchisi Abdulkarim Al-Qarning aytishicha, jami ajralishlarning 3 foizi qaynona hukmronligi bilan bog'liq.

Advokat Ahmad Al-Jitaylining aytishicha, sudlar qaynona rashki bilan bog'liq ko'plab ajralishlarni ko'rmoqda, ayniqsa ona o'g'lining oilasi bilan yashasa.

Arablar o'z qiz farzandlariga avloddan avlodga o'tib keladigan qoidalar, o'g'ilar asosida tarbiyalashadi. Ular uydagi tinchlik kalitining qadimiy oltin qoidalarini ko'rsatib o'tishadi:

✓ boshqalar sizga nima qilishlarini xohlasangiz, ularga ham shunday qiling.



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## DARSDAN TASHQARI MASHG‘ULOTLARDA XALQ GEOGRAFIK TERMINLARNI O‘RGANISH METODIKASI

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### ANNOTATSIYA

azkur maqolada geografiya ta’limida darsdan tashqari mashg‘ulotlarda xalq geografik terminlaridan foydalanishning ahamiyati keltirib o‘tilgan bo‘lib, bunda o‘quv jarayonlarida toponimik ma’lumotlardan to‘g‘ri foydalanish geografiya fanining asosiy tarkibiy qismi ekanligiga alohida e’tibor qaratilgan. Xususan, geografiya fanida joy yoki geografik obyekt nomi bog‘lanmasdan bilim berish mumkin emasligi, har bir joy tabiatining bir-biridan farqli jihatini qiyoslash uchun ham joylar nomini bilish zarurligi yoritilgan.

**Kalit so‘zlar:** geografik obyekt, termin, toponim, atama, “Tosh” va “Kent”, Timchi, Tuzun, Emchi, modulli ta’lim texnologiyasi, makromodul, mezomodul, mikromodul.

### ABSTRACT

This article emphasizes the importance of using folk geographical terms in extracurricular activities in geographical education, with particular emphasis on the fact that the correct use of toponymic information in the educational process is a key component of geographical science. In particular, geography emphasizes that knowledge cannot be given without reference to the name of a place or geographical feature, and that it is necessary to know the names of places in order to compare the various aspects of the nature of each place.

**Keywords:** geographical feature, term, toponym, term, “Tosh” and “Kent”, Timchi, Tuzun, Emchi, modular learning technology, macromodule, mesomodule, micromodule

### KIRISH

Geografiya fanining rivojlanishida mukammal o‘rganilgan va ilmiy asoslangan xalq geografik terminlarning ahamiyati benihoyat katta. Xalq geografik terminlar yordamida voqea-hodisalarning sabab va oqibatlarini aniq va tez ilg‘ab olish mumkin, chunki terminlarda ularning ixcham tavsifi mujassam. Geografiya fanida biror hodisa yoki voqeani tushuntirishda albatta joy nomi bilan bog‘lab ma’lumot beriladi. Aslini olganda,



geografik nomlar orqali yer yuzini geografik o'rganish tarixini ham aniqlash mumkin. Shuningdek, ko'pgina geografik nomlar yer yuzasi relyefini, o'simliklari va hayvonot dunyosini, tabiiy hodisa va tarixiy voqe'liklarni, aholining urf-odatlarini hamda mashg'ul bo'lgan kasb-korlarini o'zida aks ettiradi.

## ADABIYOTLAR TAHLILI VA METODOLOGIYASI

Geografik nomlar to'g'risida eng qadimgi ma'lumotlar ham dastlabki geografik bilimlar kabi Gerodotning "Tarix", Strabonning "Geografiya" asarlarida berilgan. Dunyo fanida toponimik ma'lumotlarga ilmiy yondashuv dastlab buyuk allomalarimiz Abu Rayhon Beruniy, Yusuf Xos Xojib, Mahmud Koshg'ariy, M.Narshaxiy, Mirzo Ulug'bek, Zahiriddin Muhammad Boburning asarlarida kuzatiladi. Mahmud Qoshg'ariyning "Devonu lug'atit turk", deb ataluvchi asari uch tomdan iborat. Uning muallifi qoldirgan izohga ko'ra har uchala tom hijriy hisob bilan 469 yilgacha yozib bitirilgan .

Xorijda joy nomlarining nazariy va mintaqaviy xususiyatlari bilan shug'ullangan olimlardan fransuz tilshunosi Albert Dauzat alohida keltirish mumkin. Fransuz tili tarixi bilan shug'ullangan bu olim joy nomlarining etimologiyasiga ham katta e'tibor qaratgan. Ingliz tilidagi joy nomlariga oid adabiyotlarda A.Room, G.B.Adams, M.Gelling kabilarni sanab o'tish mumkin.

Modulli o'qitish bo'yicha pedagogika fanlarida mavjud nazariy ishlar N.N.Azizxodjaeva, R.X.Djuraev, G.V.Lavrentev, N.B.Lavrenteva, I.B.Sennovskiy va boshqalar, amaliy ishlar esa, X.B.Alimova, E.I.Ananeva, S.E.Korsheva, T.V.Kurbanova, L.G.Semenova, L.A.Suxanova, T.S.Suxovalar tomonida olib borilgan bo'lib, mazkur ishlar tahlilining ko'rsatishicha, modul o'quv fanining alohida tashkiliy-metodik tuzilmasi sanaladi va u o'z tarkibiga didaktik maqsad, mantiqiy tugallangan o'quv materialini birligini, fanlararo, kurs, bo'lim va mavzulararo uzviyligi asosida tashkil etilganligini, didaktik ta'minot asosidagi uslubiy rahbarlik hamda nazorat tizimini qamrab oladi.

Terminlar umumiy iste'mol so'zlaridan aniq bir ma'noni ifoda etishi, emosionallik xususiyatga ega emasligi kabi belgilar bilan farqlanadi. Ular qisqa, ixcham, aniq ma'noli, jarangdor, talaffuzda osonligi bilan alohida ajralib turadi. Shu sababdan, geografik terminlar ko'p qo'llaniladi va uzoq muddat saqlanib qoladi.

Bu borada geografiya fani kesimida darsdan tashqari mashg'ulotlarda Mahmud Koshg'ariyning "Devonu lug'atit turk" asaridan foydalanish ham o'rinli. Chunki asarda keltirilgan xalq geografik terminlar asosida shakllangan joy nomlarini o'rganish orqali o'quvchilarning fanga bo'lgan qiziqishi hamda xarita bilan ishlash ehtiyoji yanada



ortishiga sabab bo'ldi. O'quvchilarga avval ishni eng sodda va o'zi bilgan o'zakli toponimik atamalarning mazmunini ochib berishdan boshlab, uning qiziqishini uyg'ota olish lozim. Masalan, Vatanimiz poytaxti, Toshkent shahrining mazmuni "Tosh" va "Kent" – ya'ni toshdan yasalgan shahar mazmunini anglatadi [3, 91-b.]. Har bir geografik nomning mazmuni bilan o'quvchilarni tanishtirib borish imkoniyati dars vaqtining chegaralanganligi tufayli muammoligicha qoladi. Shunday holatlarda Mahmud Koshg'ariyning "Devonu lug'ati-t-turk", Zahiriddin Boburning "Boburnoma" asarlariga, S.Qorayevning "Geografik nomlar ma'nosi" kabi toponimik lug'atlarga murojaat qilish va shu orqali darslikdan tashqari qo'shimcha adabiyotlardan foydalanishni o'quvchilarga o'rgatib borish yaxshi natija beradi. Masalan, Timchi [1, 11-b.] – ichimlik tayyorlovchi (Samarqand viloyati Kattaqo'rg'on tumanidagi Timchi qishlog'ining nomlanishi), Tuzun [1, 380-b.] — buloq suvini qishloq axllilariga taqsimlovchi, Emchi [1, 11-b.] — davolovchi tabib kabi atamalarning mazmunini o'rganish esa, qadimda avlodlarimiz shug'ullangan kasb-korlari bilan yosh avlodni tanishtirishga xizmat qiladi. Aynan shu xalq terminlari Mahmud Koshg'ariyning "Devonu lug'atit turk" asarida keltirib o'tilgan. Zero, bunday kasb turlari zamonamizda asta sekin kam uchramoqda yoki unutilib bormoqda. Shu boisdan ularning ma'no-mazmunini o'rganish juda muhim. O'zbekistonda Oltintog', Oltinqazg'an, Tillatog', Zarmitan kabi nomlar uchraydi. Bu joylardan esa bir zamonlar oltin qazib olinganligi ma'lum bo'lgan [6, 4-b.]. Joy nomlarining kelib chiqishi, shakllanishiga qiziqadigan o'quvchilar bilan maxsus ravishda sinfdan tashqari mashg'ulotlar davomida qo'shimcha tarzda shug'ullanib, ularning qiziqishini yanada oshirish mumkin. Chunki ushbu asar turli nodir so'zlar, xalq geografik terminlariga shunchalar boy-ki, ularning barchasini o'rganish orqali zamonamizda mavjud bo'lgan ko'pgina ilmiy toponimik muammolarga yechim topish mumkin [4, 71-b].

Xususan, geografik nomlarning tarbiyaviy, ilmiy, siyosiy ahamiyati ham juda katta. Mamlakat siyosiy hayotida ro'y berayotgan o'zgarishlar uning xaritasida aks etib turadi. Misol uchun, mamlakatimiz o'z mustaqilligini yo'lga kiritgandan keyin uning xaritasida ham ko'plab o'zgarishlar yuz bergani barchamizga ma'lum. Mustamlakalik davridagi o'sha vaqtning siyosatini ifodalovchi, o'sha davr uchun xizmat qiluvchi geografik nomlar o'zgardi, o'z o'rnida istiqlolimizni, milliy qadriyatlarimiz va an'alarimizni ulug'lovchi geografik nomlar shakllandi hamda qayta tiklanishiga sabab bo'ldi.

Darsdan tashqari mashg'ulotlarda o'quvchilarga xalq geografik terminlarning mazmunini yoritish uchun modulli ta'lim texnologiyasini qo'llash maqsadga muvofiqdir. Bu texnologiya



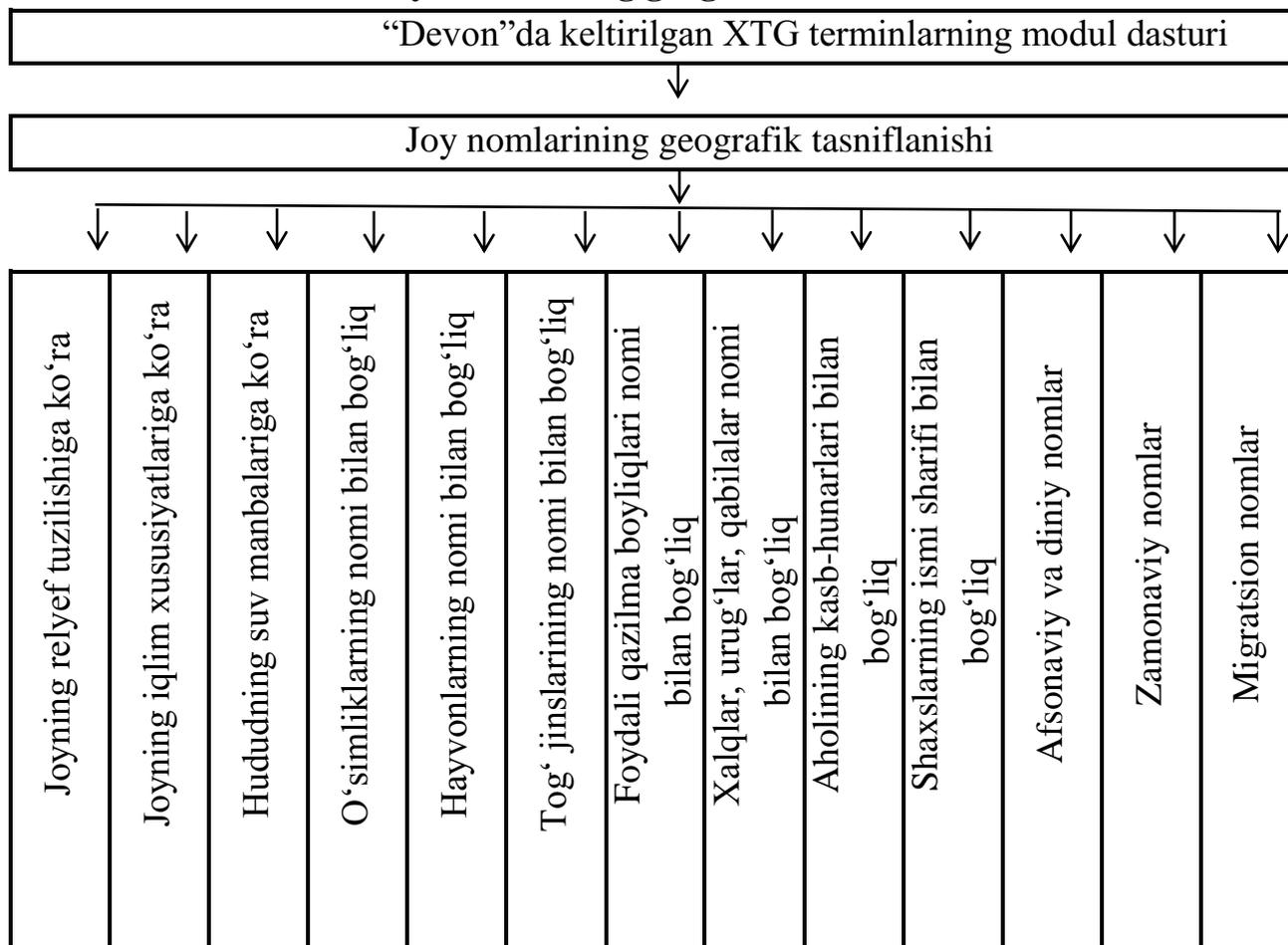
modullarga asoslanib o'rganiladi hamda o'quvchilar blokli-modulli tuzilish loyihasi orqali reja asosida ish olib boradi. O'qituvchi tomonidan o'rganiladigan ma'lumotlarning loyihasi tuzib beriladi, o'quvchi esa darsliklar, qo'shimcha adabiyotlar, xaritalar hamda axborot vositalari yordamida ma'lumotlarni mustaqil to'playdi. Modul ta'limning asoschilaridan bo'lgan J.Russell modulga shunday ta'rif beradi: "U o'quv paketi bo'lib, o'quv materiali konseptual birligi sifatida o'quvchilarni harakatga chorlaydi" [5, 3-b].

Darsdan tashqari ishlarni olib borishda modulli ta'lim texnologiyalaridan foydalanish borasida biror bir tanlangan mavzu yo'nalishi mantiqiy tugallangan fikrli qismlarga, ya'ni modullarga ajratiladi va har bir qismni o'quvchilar mustaqil o'zlashtirishlari uchun o'quv topshiriqlari tuziladi. Mazkur texnologiyani boshqa fanlar qatori geografiya fanlarida ham qo'llash samaralidir, chunki modulli ta'lim texnologiyasi o'qituvchi va o'quvchilarning birgalikdagi faoliyatini yengillashtiradi. Bunga sabab, bu metodika o'quvchilarning salohiyatiga xos tarzda, ularning o'rganishi qulay bo'lishi inobatga olgan holda rejalashtirib ishlab chiqiladi. Darsdan tashqari mashg'ulotlarda bu metodikani qo'llash uchun Mahmud Koshg'ariyning "Devonu lug'atit turk" asarida keltirilgan xalq geografik terminlarni modul sifatida oladigan bo'lsak, uni bitta makromodul, 13 ta mezomodul hamda bir nechta mikromodullarga ajratib o'rganish mumkin. Bunda albatta, makromodullar - mezomodullarga, mezomodullar - mikromodullarga ajratiladi. Har bir shakllangan joy nomlarining paydo bo'lishida muayyan sabablar ishtirok etadi. Aynan o'sha joy nomlarini shakllantiruvchi sabablar, geografik nomlarni guruhlariga ajratib o'rganishga imkon yaratadi. Shuning uchun xalq geografik terminlarni guruhlariga bo'lib o'rganishni, ya'ni joy nomlarning tasniflanishini mezomodullarga ajratiladi. Quyida (1-rasmga qarang) "Devonda" keltirilgan xalq terminlari orqali shakllangan joy nomlarining modulli tuzilish loyihasi berilgan.

Joy nomlarining geografik tasniflanishining har birini mezomodullar orqali mikromodullarini ishlab chiqish maqsadga muvofiqdir (2-rasmga qarang). Bu rasmda faqat joyning relyef tuzilishiga bog'liq holda shakllangan joy nomlarining mikromoduli ko'rsatilgan. Shu yo'nalish orqali joy nomlarining geografik tasniflanishini davom ettirish mumkin.

“DEVON”DA KELITIRILGAN XTG TERMINLAR ORQALI  
SHAKLLANGAN  
JOY NOMLARINING MODULLI TUZILISHI  
LOYIHASI

**1-rasm. Joy nomlarining geografik tasniflanish mezomoduli**



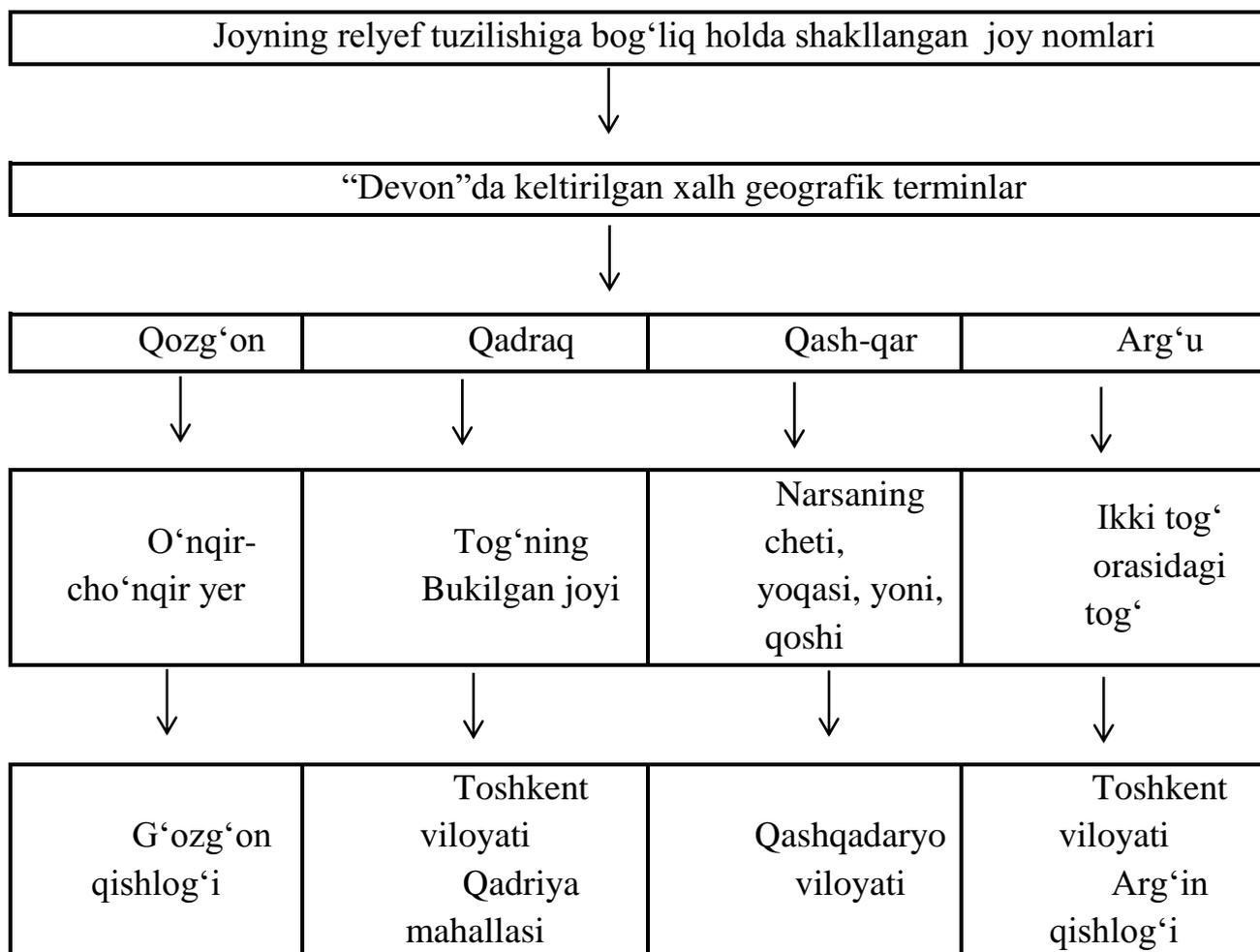
Geografiya ta’limining sinfdan tashqari mashg‘ulotlarida bunday rejalashtirib o‘rganishning mohiyati shundan iboratki, bunda dasturiy materiallar yirik mavzu bloklariga bo‘linadi. O‘z navbatida modullarning har bir turi o‘zining kichik turlariga bo‘linadi. Natijada bu modul orqali o‘quvchilar xalq geografik terminlar asosida shakllangan joy nomlarini aniqlaydi va qiziqish bilan reja asosida mustaqil o‘rganadi.

Demak blokli-modul ta’limi:

- birinchidan, mavzuni blokli-modul ta’limida o‘rganish orqali o‘quvchi darslik ma’lumotlari bilan yanada yaqindan tanishadi hamda amaliy ishlarni reja asosida mustaqil bajaradi;

- ikkinchidan, har bir o'quvchida joy nomlarining mazmunini bilishga katta qiziqish uyg'otadi, ushbu qiziqish esa o'quvchining fanga bo'lgan e'tiborini kuchaytiradi.

## 2-rasm. Joyning relyef tuzilishiga bog'liq holda shakllangan joy nomlari mikromoduli



### XULOSA

Xulosa o'rnida aytish mumkinki, modulli ta'limning asosiy mohiyati - o'quvchilar modul dasturlari yordamida mustaqil ishlashga asoslangan o'quv-bilish faoliyati orqali belgilangan maqsadga erishadilar. Chunki toponimik terminlarni o'rganish ushbu fanning kaliti sifatida uning predmet va o'rganish obyektlarini, maqsad va vazifalarini to'laroq ochib berish uchun xizmat kiladi.

Shu o'rinda aytish joizki, Mahmud Koshg'ariyning “Devonu lug'atit turk” asarida keltirilgan xalq geografik

terminlarini maktabda sinfdan tashqari mashgʻulotlar orqali oʻrganish, oʻquvchi yoshlarni buyuk allomalarimizning ijod namunalaridan bahramand boʻlishdagi omillardan biri hisoblanadi.

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## VAYRONKOR G‘OYALARNING IJTIMOIIY OQIBATLARI

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### ANNOTATSIYA

Maqolada buzg‘unchi g‘oyalarning mazmun-mohichti, ularning keng tarqalishi sabablarini va unga muvofiq mafkuraviy poligonlar hamda turli mafkuraviy kuchlarning faollashuvi, postindustrial muhitdagi ijtimoiy ziddiyatlarni keltirib chiqarishi va boshqa ijtimoiy oqibatlari tahlil qilingan. Shuningdek, buzg‘unchi g‘oyalarning turli davr olimlari tomonidan o‘rganilishi, ularga tasnif berilishi, ularni o‘rganishga bo‘lgan turlicha yondashuvlarning shakllanishi hamda bugungi globallashuv sharoitida milliy taraqqiyotimizga ko‘rsatayotgan salbiy ta’siri o‘rganilgan.

**Kalit so‘zlar:** buzg‘unchi g‘oyalar, ijtimoiy oqibatlar, globallashuv, davlat, jamiyat, milliy manfaat, milliy taraqqiyot, milliy g‘oya, texnologiyalar.

### SOCIAL CONSEQUENCES OF A DESTRUCTIVE IDEA

#### ABSTRACT

The article analyzes the content and environment of destructive ideas, the reasons for their wide distribution, the activation of ideological testing grounds and various ideological forces, social conflicts in the post-industrial environment and other social consequences. The study of breakthrough ideas by scientists of different eras, their classification, the formation of various approaches to their study, the negative impact that they have on our national development in the light of modern globalization have also been studied.

**Keywords:** subversive ideas, social consequences, globalization, state, society, national interest, national development, national idea, technologies.

**Kirish.** Bugun dunyoda buzg‘unchi g‘oyalarning keng tarqalishi va unga muvofiq mafkuraviy poligonlar hamda turli mafkuraviy kuchlarning faollashuvi, postindustrial muhitdagi ijtimoiy ziddiyatlarning keskinlashuvi kuzatilmoqda. Zamonaviy



texnologik inqilob sharoitida ommaviy axborot va kommunikatsiya muammolarining avj olishi jahonning aksariyat mamlakatlarida milliy o'zlikni anglashga bo'lgan tahdidlarning ko'lami va ta'sir kuchining ortib borishi bilan bog'liq masalalarni kun tartibiga qo'yimoqda. Bunday sharoitda har bir suveren davlat, jumladan, O'zbekiston ham o'zini muayyan tamaddun egasi sifatida saqlab qolishga harakat qiladi. Shu bois, fuqarolarda bugungi dunyodagi voqea-hodisalarga befarq bo'lmaslik, jamiyatdagi islohotlarga daxldorlik va milliy o'zlikni anglash tuyg'usini shakllantirish muammosini ijtimoiy-falsafiy tahlil qilish muhim nazariy va amaliy ahamiyatga molik.

Har qanday millat jahon sivilizatsiyasida o'zining munosib o'rnini egallashga intilar ekan, ushbu millatning g'oyasi umuminsoniy qadriyatlarga ham suyanishi shart. Har bir xalqning tarixiy, madaniy va ma'naviy merosida umuminsoniy qadriyatlar ham o'ziga xos shakllar va ko'rinishlarda ifoda etilgan bo'ladi. Shu bilan birga, boshqa millatlar, davlatlar, dinlar va sivilizatsiyalarning xos qadriyatlari va ijobiy tajribalaridan foydalanish ham jahon taraqqiyotining hozirgi bosqichida ma'lum ahamiyat kasb etadi. Shu ma'noda, mafkuraviy jarayonlar jadallashgan davrda kuchli jamiyat qurish uchun xalqimizning milliy ma'rifiy qarashlarimizni yanada chuqurlashtirishga ehtiyojlar sezilmoqda. Chunki, biz qurayotgan jamiyat g'arbdan yoki sharqdan ko'r-ko'rona ko'chirib olinmagan, balki bir necha ming yillik tarixiy tajribalarimizga asoslanadi. "Koronavirus infeksiyasining mintaqa davlatlari hududiga kirib kelishi, uning oqibatlarini yumshatish maqsadida joriy etilgan qat'iy karantin choralari natijasida ko'plab aholi qatlamlari asosiy vaqtini o'z uylarida, Internet va ijtimoiy tarmoqlarda o'tkazishga majbur bo'ldi. Buning natijasida aholi orasida tarmoqdagi buzg'unchi g'oyalar ta'siriga tushish holatlari sezilarli ravishda ortgan, taqiqlangan diniy oqimlar a'zolari esa o'z "jamoati" yig'ilishlarini sharoitga moslagan holda, mobil ilovalar orqali o'tkazish yo'liga o'tgan[1.404].

**Mavzuga oid adabiyotlarning tahlili (Literature review).** Ko'plab mahalliy va xorijiy olimlar vayronkor g'oyalarning mohiyati va tasnifini aniqlashga bag'ishlangan tadqiqotlar olib borishgan. Bu tadqiqotlarda antik davrdan boshlab hozirgi globallashuv sharoitigacha bo'lgan davrlarda vayronkor g'oyalarning nazariy, tashkiliy va amaliy masalalarini o'rganish, umumlashtirish amalga oshirilgan. Jumladan, buzg'unchi g'oyalarning ko'rinishlari, turlari va ijtimoiy oqibatlari Avesto, Tripitaka, Vedalar, Bibliya, Qur'oni Karim kabi diniy manbalar, Suqrot, Aflotun, Arastu, Konfutsiy, Mao Szi, Lao Szi kabi allomalar, Forobiy, Beruniy, Ibn Sino, G'azzoliy, Aziziddin Nasafiy, Jaloliddin Rumiy, Ahmad Yassaviy, Naqshband, Nizomulmulk, Boqirg'oniy, Alisher Navoiy, Abdulla Avloniy kabi ajdodlarimiz asarlarida,

muammoning ijtimoiy-falsafiy va gnoseologik jihatlari G'arb faylasuflari R.Dekart, Sh.Monteske, T.Gobss, I.Kant, G.Gegel, F.Nitshe, M.Veber, M.Kagan, K.Mangeym, I.Kon, N.Berdyayev, V.Vundt, Z.Freyd, E.Fromm tadqiqotlarida ochib berilgan.

Mamlakatimizda T.Jo'rayev, Q.Nazarov, Sh.Paxrutdinov, M.Quronov, M.Yuldasheva, A.Muminov, R.Samarov, B.To'ychiyev, A.Begmatov, I.Saifnazarov, A.Qodirov, O'.Abilov, Z.Qodirova, D.Norqulov, A.Muxtorov, A.Ochildiyev, N.Shermuxamedova, Sh.Madayeva, N.Jo'rayev, O.Yusupov kabi olimlarning asarlarida mafkuraviy ko'rinishdagi buzg'unchi g'oyalar va ular bilan bog'liq muammolar tahlil qilingan. Globallashuvning salbiy jihatlari, ma'naviy inqirozlar davrida milliy o'zlikni saqlab qolishning ayrim jihatlari S.Otamurotov, A.Ochildiyev, I.Xo'jamurodov, Sh.Qahhorova, U.Saidovlar tomonidan o'rganilgan.

Bugungi global o'zgarishlar sharoitida mafkuraviy tahdidlar, vayronkor g'oyalarni tasniflash va ularning milliy taraqqiyota salbiy ta'siri muammolari turli soha olimlari tomonidan o'rganilgan bo'lsa-da, tanlangan mavzu ijtimoiy-falsafiy jihatdan maxsus tadqiq etilmagan.

**Tadqiqot metodologiyasi (Research Methodology).** Zamonaviy mahalliy va xorijiy adabiyotlarda vayronkor g'oyalar va ularning oldini olish, qarshi kurash mexanizmlari muammosining o'rganilish darajasini sarhisob qilsak, ushbu maqola mavzusi gumanitar fanlarda anchagina keng doirada tahlil qilingan. Ularni hal qilish uchun tadqiqot quyidagi usullardan foydalangan, jumladan: muammoli - xronologik – vayronkor g'oyalarga qarshi kurash, ularning oldini olishda xavfsizlik faoliyatining muayyan shakllari va usullarining paydo bo'lishining kelib chiqishini aniqlash qaratiladi. Qiyosiy-tarixiy uslub asosida vayronkor g'oyalarning murakkablashib borishi, ularga qarshi turishdagi qiyinchiliklarning ortib borishini ta'kidlash mumkin. Konkret-sotsiologik tadqiqotlar usuli esa shaxs, jamiyat va davlat manfaatlariga qarshi yo'naltirilgan vayronkor g'oyalarni, ular bilan aloqador tendensiyalar va o'zgarishlarni aniqlashni ko'zda tusa, mantiqiy usul - vayronkor g'oyalar bilan bog'liq hodisa va jarayonlar o'rtasida aniq munosabatlarni aniqlash imkonini beradi. Mavzu maqolada ushbu usullardan birgalikda foydalanish mavjud muammoni aniqroq va chuqurroq tekshirishga imkon berdi.

**Tahlil va natijalar (Analysis and results).** Buzg'unchi g'oyalar qayerda va qanday vujudga kelgani, faoliyati xarakteri va boshqa belgilaridan qat'i nazar, ularda ma'lum bir umumiy qonuniyatlar kuzatiladi: umumqabul qilingan qonunlarni, axloqiy me'yorlar, madaniy va ma'naviy qadriyatlarni rad etish, o'z dunyoqarashini, siyosiy xohish-irodasini jamiyatning qolgan qismiga tiqishtirishga intilish, terror, ma'naviy va axborotga oid zo'ravonlik yoki nayrangbozlik usullaridan foydalanish va boshqalar shular



jumlasidandir. O'zbekistonning taraqqiyot strategiyasi milliy taraqqiyot modelida aniq ifodalangan bo'lib, mamlakatimizni taraqqiy etgan davlatlar qatoriga qo'shilishi bilan birga o'zlikni anglash, xalqning ma'naviy uyg'onishini rag'batlantirishni ham o'z oldiga maqsad qilib qo'yib, o'zaro hamkorlik va birdamlikka asoslangan milliy va ijtimoiy siyosatning amaliy rivojini ta'minlashga qaratiladi. Mazkur vazifalarni amalga oshirishda keskinlik va xavf-xatarlarning tobora o'sib borishi, geosiyosiy qarama-qarshiliklar, ta'sir doirasi kengayib borayotgan mafkuraviy kurash, radikalizm, terrorizm va ekstremizm kabi tahdidlarga ham duch kelmoqdamiz.

Bu insoniyatni XX asrda totalitar mafkuralarning beayov tajriba maydonida sinalgan, sayyoramizni bir necha marta yo'qotishga yetadigan yadro qurollarining tahdidi, «sovuq urush» azoblarini tortib katta tajriba orttirgan bo'lsa-da, XXI asrga yetarli darajada aql-idrokli bo'lib qadam qo'ymadi. Insoniyatga tahdid solgan vayronkor g'oyalar zavol topmasdan, balki yangi ko'rinishlarda qayta bosh ko'tarib chiqmoqda. Xalqaro sotsiologlar assotsiatsiyaning XVII Kongressining (Iokogama, 2014 yil iyul) nufuzli qatnashchilari bergan baholarga ko'ra, hozirda alohida jamiyatlar emas, balki butun insoniyat tobora o'sib borayotgan ijtimoiy-madaniy tengsizliklar va uning hayot faoliyatining barcha jabhalaridagi xavf-xatarlar dunyosi sifatida ifodalanmoqda[2]. Turli mamlakatlar va mamlakatlar guruhlarini (shu jumladan, turli alyanslar, bloklar), global biznes tuzilmalarining bir-biriga qarama-qarshi iqtisodiy va geosiyosiy manfaatlarining ta'siri ostida insoniyat madaniylashgan holatning tobora yo'qotilayotgani va uning nomadaniylashgan holatga qaytishi mumkinligidek katta tahdid oldida qoldi. Homo sapiens(aqlli odam)ning saqlanishiga haqiqiy xatarlar yuzaga keldi, bular: yadroviy urushning bo'lishi mumkinligi, iqlimning isishi va boshqa ekologik xavflar. Ko'plab tahlilchilar kelib chiqish ehtimoli mavjud bo'lgan uchinchi jahon urushining asosiy sabalaridan biri sifatida gegemonlikka asoslangan buzg'unchi g'oyalarni sabab qilib keltirishmoqda. Zamonaviy jahon urushi gibrid tarzda, ya'ni qarshi tomon o'z ta'sirini o'tkazishni istagan barcha hududlarda unga zarar yetkazishning har qanday imkoniyatlarini qo'llash orqali amalga oshadi. Buni iqtisodiyotni parchalash, terroristik harakatlar, partizan otryadlar va xususiy harbiy kompaniyalarning amaliyotlari qo'llanilish orqali amalga oshirish mumkin[3].

Ekspertlarning xulosalariga ko'ra, sunggi 10 yil ichida diniy ekstremizm va terrorizm tufayli dunyo iqtisodiyoti 583 trillion AQSH dollari miqdorida zarar ko'rgan bo'lsa, 15 yil ichida 100 mingdan ziyod begunoh insonlar terrorchilik hujumlari oqibatida halok bo'lgan. Faqatgina 2019 yilning o'zida dunyo bo'yicha zo'ravonlik, ekstremizm va terrorizmning umumiy salbiy global ta'siri - shunga e'tibor bering - 14,1 trillion

AQSH dollarini yoki jahon YAIMning 11,2 foizini, iqtisodiy zarar - 33,19 milliard AQSH dollarini tashkil etgan[4.399].

Demak, insoniyatning bugungi sivilizatsiyasi disfunktsional bo‘lib qolmoqda, kishilar jamiyati turmush tarzi usulining o‘zgarishiga, insoniyatning yangi sivilizatsiyaga oid tanloviga ehtiyoj sezilmoqda. “Hozirgi vaqtda insoniyatda birlashtiruvchi g‘oya, umumiy axloqiy chegara yo‘q, - deydi A.A.Guseynov. Mening fikrimcha, aynan kuch ishlatmaslik g‘oyasi ana shunday g‘oya bo‘lib xizmat qiladi. Kuch ishlatmaslik insoniyat zabt etishi lozim bo‘lgan yangi ma‘naviy-amaliy cho‘qqidir. Bu shuning uchun ham kerakki, u yashashi va sivilizatsiya erishgan yutuqlarni asrab-avaylashi lozim. Buning hech qanday muqobil yo‘li yo‘q”[5.12].

Mana shunday muammolarning girdobi tomon borayotgan turli davlatlar, jamiyatlar, xususan bizning mamlakatimizda ham buzg‘unchi g‘oyalarning oldini olish, ularning milliy o‘zlikni anglashga salbiy ta‘sirini bartaraf qilishning samarali yo‘llari, usullari va vositalarini izlab topish, ijtimoiy-falsafiy muammo sifatida tahlil qilish bugungi gumanitar fani oldidagi muhim vazifalardan biri bo‘lib qolmoqda.

Bunday tahdidlarga qarshi kurashda milliy ma‘navitimiz, milliy g‘oyaning imkoniyatlaridan samarali foydalanish muhim. So‘nggi paytlarda jahonda, jumladan muayyan darajada bizda ham millat, uning ma‘naviy borlig‘i, rivojlanishi muammosini yetarli darajada falsafiy tafakkurdan o‘tkazmaslik bu boradagi tadqiqotlarning izdan chiqishiga olib keldi. Chunki tadqiqotlarning tarkibiy qismi toraydi, nazariy qoidalari esa siyosiyashtirildi. Milliy o‘ziga xoslik muammolarini kelgusida har tomonlama batafsil ishlab chiqishmasdan xususiy tadqiqotlarni rivojlantirish qiyin kechishi yaqqol ko‘rinib qoldi. Mamlakatimiz gumanitar fani milliy ma‘naviyat, milliy o‘zlikni anglashning tabiati, mohiyati, tuzilmasi, darajalari, amal qilish mexanizmlari hamda rivojlanish qonuniyatlarini tadqiq qilish bo‘yicha ishlanmalarga ehtiyoj sezmoqda.

Zamonaviy jamiyatni rivojlantirishning oqilona yo‘llari nafaqat novatorlik uslubidan foydalanish, balki milliy ma‘naviyat asoslarining tahliliga, shakllangan arxetiplarga asoslangan jamiyat qurilishi borasidagi o‘z tajribasini o‘rganishga tayanishi lozim. Ammo milliy ma‘naviyatning ayrim “eskirgan” jihatlari milliy rivojlanishni cheklab qo‘ymoqda, milliy mahdudlikka sabab bo‘lmoqda. Shu bois, an‘anaviy qadriyatlarni qayta baholash hamda milliy ma‘naviyat qadriyatli tuzilmasi bo‘g‘inlarini yangilash yuz bermoqda. Zamonaviy jamiyat milliy ma‘naviyatning aksiologik modeli uchun millatning ijtimoiy tajribasini hamda yangi ijtimoiy voqelikka mos keluvchi umuminsoniy qadriyatlarni aks ettiruvchi an‘anaviy qadriyatlar umumlashuvi xususiyatlidir.

Milliy uygʻonish, milliy tiklanish, milliy taraqqiyot konsepsiyasining ijtimoiy yoʻnaltirilgan bozor munosabatlariga oʻtish davrida milliy oʻzlikni anglash bilan sintezlashuvi va uning bugungi turmush tarzimiz hamda tafakkurimiz taraqqiyotida namoyon boʻlishi sivilizatsiya yoʻlidir. U — milliy taraqqiyotning yangi bosqichi boʻlib, insonning shakllanish jarayoni, shaxsiy fazilatlarini hayotiy maqsadlar va qadriyatlar haqidagi tasavvurlarini oʻzgartiradi. Xususan, oʻsib kelayotgan yosh avlod uchun taʼlim-tarbiya tizimi sifat jihatdan yangicha talablarni qoʻyadi. Oʻz navbatida, milliy oʻzlikni anglashning oʻzi gʻoyaviy immunitet vazifasini oʻtaydi. Chunki unda xalqimizning, millatimizning tub manfaatlari mujassamdir.

Mafkuraviy immunitet kishining oʻzi yashab turgan yurt qadriyatlarini, tarixiy-madaniy boyliklarini asrash, ularni koʻpaytirish tuygʻusidir. Bugun kishilarda «biz boy tarixga egamiz» degan quruq shiorlar bilan mafkuraviy immunitetni shakllantirish qiyin. Albatta, mafkuraviy immunitetni shakllantirish ular ongida bir xil gʻoyani zoʻr berib tiqishtirish emas, balki odamlarda oq-qorani ajratish, zararli gʻoyalarga qarshi hushyor va ogoh boʻlish xususiyatlarini tarbiyalash demakdir. Jamiyat, millat oʻz gʻoyasida mustahkam tursa gʻoyaviy tahdidlardan qoʻrqmasa, bunday millatni yengish mumkin emas. Aksincha, jamiyat ichida gʻoyaviy parokandalik, boʻlinishlar dushmanlarga, ularning yot mafkuralariga yoʻl ochib beradi. Bunday millatni yengish, mustamlaka qilish oson kechadi. Shuning uchun barqarorlik va xavfsizlik jamiyatning ongligiga, anglangan toʻgʻri tushuncha va bilimlarga faol amal qilishga, fikriy, gʻoyaviy birligiga, bular esa mafkuraviy immunitet mustahkamligiga tayanadi.

Prezidenti Sh.Mirziyoyev taʼkidlaganidek: “Mamlakatimiz aholisining yarmidan koʻpini yoshlar tashkil etishini inobatga olsak, bu naqadar jiddiy masala ekani yanada yaqqol ayon boʻladi. Shu oʻrinda farzandlarimizning qalbi va ongida mafkuraviy immunitetni kuchaytirish bilan bogʻliq vazifalarga qisqacha toʻxtalib oʻtsak. Avvalambor, “ommaviy madaniyat” koʻrinishida kirib kelayotgan turli tahdidlar, gʻiyohvandlik, diniy ekstremizm, missionerlik kabi balo-qazolardan yoshlarimizni asrashga, ularning taʼlim-tarbiyasiga har birimiz masʼul ekanimizni hech qachon unutmasligimiz kerak. Bu borada biz asrlar mobaynida shakllangan milliy anʼanalarimizga, ajdodlarimizning boy maʼnaviy merosiga tayanamiz [6.9].

Hozirgi sharoitda buzgʻunchi maqsadlarga qaratilgan gʻoyaviy xurujlar jamiyat hayotining iqtisodiy, siyosiy, maʼnaviy, oila-turmush hamda milliy munosabatlar kabi sohalarida amalga oshirilmoqda. Jamiyatdagi ommaviy ong hamisha uning ichida sezdirmay boshqarish mexanizmlari taʼsiri ostida, shuningdek, tashqi taʼsir mexanizmlari ostida turadi. Aksariyat mamlakatlarda sezdirmay boshqarishning turli koʻrinishlari, shakllari va usullari



OAV orqali – matbuot anjumanlari, anjumanlar, taqdimotlar matbuot safarlari, OAVdagi turli nashrlar (qiziqarli maqolalar, keys-hikoyalar, sharh-maqolalar, intervyu), mish-mish tarqatish, televideniye va radio, Internet tarmog‘i ta’siridan foydalanilmoqda.

Ommaviy axborot vositalarini ikkiyoqlama: birinchidan, axborot iste’mol qiluvchilarning ongiga ta’sir ko’rsatuvchi fenomen; ikkinchidan, nutq muloqoti va axborot uzatish harakati sifatida qarab chiqish mumkin. OAV zamonaviy insonning intilishi va maxfiyligiga mo’ljallangan bo’lib, ko’pincha insonning ongsiz hissiyotlarida ko’rinadigan ehtiyojlarni qondirish uchun mo’ljallangan. Tarqatilyotgan ma’lumotlar ommaviy muhitda imkon qadar munosabatga kirishi uchun tomashabop va samarali bo’lishi, shuningdek, ommaning afsonaviy ongiga xos bo’lgan arxitiplariga ta’sir ko’rsatishi lozim. Masalan, aqidaparast guruhlar OAVdagi o’z xabarlarida aynan shunday usullardan foydalanadilar. OAVda berilyotgan axborot ommaviy ongga ta’sir ko’rsatadi va uni sezdirmay boshqaradi, binobarin, aqidaparastlikka qarshi harakatlarning vazifasi sezdirmay boshqarish texnologiyalaridan foydalanish hisobiga aynan shunday usullarni qo’llayotgan aqidaparastlikka qarshi turishda imkon qadar samara va natijaga erishishdir.

Axborot urushi vositalarining siyosiy-harbiy va ilmiy doiralardan tez o’rin olish omillarini misol sifatida keltiradi. Ular, harbiy qurolli to’qnashuvlarga qaraganda kamxarajat talab etilishi va samarali natijani berishi, dushmanga sezdirmaganda holda o’z maqsadlarini amalga oshirish imkoni mavjudligi, zamonaviy axborot kommunikatsiya texnologiyalarining rivojlanishi qurol ishlab chiqarishga nisbatan tez va arzonroq kechishi va «qattiq kuch» (harbiy, moliyaviy-iqtisodiy kuch) har doim ham samarali emasli va muqobil kuch topish zarurligini taqozo etishi [7.112-113].

Hayotning yangi tarzlari, ularning eski tarzlar bilan raqobati borasidagi munozaralar muammoning negizidir. Oila instituti, muhabbat muammosi — bular faqat individuallashuvning yangi tendensiyalari namoyon bo’layotgan lakmus qog’oz, xolos. Mazkur muammo milliy doiralardan allaqachon chiqib ketdi, jahon hamjamiyatini tashvishga solmoqda. Masalan, E. Giddens asarlaridan birida “siyosiy hukmronlik uchun kurash hayot tarzlari uchun kurashga o’z o’rnini bo’shatib berganligi” haqida yozadi[8.347]. Shu asnoda u o’zgarishlar sharoitida hayotning an’anaviy tarzlariga o’ta ijobiy sifatlar berilishi va bu esa haqiqatga to’g’ri kelmasligiga e’tibor qaratadi.

Har bir insonning ma’naviy-axloqiy qadriyatlarini o’ziga xos tizim bo’lib, ular o’zaro birikib, yaxlit va yagona olamga aylansa, butun bir xalq, millat va jamiyatning ma’naviy-axloqiy



qadriyatlari bunyod bo‘ladi. Bu ma’naviy-axloqiy qadriyatlari yuksalgani sari xalq va millatning kuch-qudrati ham ortib boraveradi, yengilmas kuchga aylanadi. G‘arb tajribasi shuni ko‘rsatmoqdaki, shaxsdagi egoistik, individulistik intilishlar oxir-oqibatda egotsentrizmni vujudga keltiradi. Egotsentrizm hamma narsani o‘zi va o‘z manfaati bilan bog‘lab yashashni anglatadi. Bunday tushunchaga ega bo‘lgan shaxs faqat o‘zining shaxsiy maqsad va manfaatlarini, boshqalarning o‘ziga xos tabiiy intilishlarini xolisona qabul qila olmaydi. Ya’ni, bunday mafkurali odam faoliyati bilan bog‘liq barcha jarayonlar markazida shaxsiy manfaat yotgani yaqqol ko‘zga tashlanadi.

Bizningcha, inson tabiatidagi buzg‘unchilikni bartaraf etishning asosiy mexanizmi sifatida ta’lim-tarbiya konsepsiyasi namoyon bo‘ladi. U jamiyatning aksiologik sohasiga ta’sir ko‘rsatish mexanizmi sifatidagi ahamiyati katta. Shuningdek, u bilan “fikrlar xilma xilligi – bag‘rikenglik – ijtimoiy hamkorlik” modeli ham shakllantiriladi. Umummillat ishi va yagona g‘oyani shakllantirish murakkabligi jamiyatning parchalanishga moyilligida ko‘rinadi. Demak, umummillat ishini his eta olishga dushman qiyofasini yaratish orqali emas, balki o‘z o‘rnini belgilash hamda ko‘pfikrlilik orqali o‘zini solishtirishga qodir bo‘lgan erkin shaxs mavjud bo‘lgandagina “fikrlar xilma xilligi – bag‘rikenglik – ijtimoiy hamkorlik” bo‘lishi mumkin.

**Xulosa:** Birinchidan, buzg‘unchi g‘oyalarni bartaraf etish mexanizmlarini yaratishdagi asosiy vazifa insonning erkin ijodiy fikrini shakllantirish, uning o‘z ichki hissiyotlariga murojat qilishga majbur etish, ommaviy insondan o‘z shaxsiyatining o‘rnini belgilashga o‘tish imkonini beradigan rag‘batlar va omillarni ishlab chiqishdan iboratdir. Ko‘rinib turganidek, bu maqsadlarga erishishda hech qanday zo‘ravonlik usullari ish bermaydi, chunki ular buzg‘unchilik instinktlarini yanada kuchaytirishi mumkin. Binobarin, shaxsning o‘ziga emas, balki uning atrofidagi omillarga – yangicha qadriyatlarni shakllantirishga, axborot siyosatini shakllantirishga, kinoya, yolg‘onchilik tili singari nutqiy ta’sirga qarshi turish texnikasini yoyishga ta’sir o‘tkazish zarur. Biroq buzg‘unchilikni bartaraf etishning asosiy usuli yangicha ta’lim bo‘lishi lozim.

Ikkinchidan, buzg‘unchi g‘oyalarga qarshi milliy g‘oyani kishilar ongi va qalbiga singdirishda “fikrlar xilma xilligi – bag‘rikenglik – ijtimoiy hamkorlik” modeli samarali bo‘ladi. Bunda, kishilarning umummillat ishini his eta olishda dushman qiyofasini yaratish orqali emas, balki hayotdagi o‘z o‘rnini to‘g‘ri belgilash hamda ko‘pfikrlilik orqali o‘zini anglashga qodir bo‘lgan erkin shaxsni shakllantirish orqali erishish imkoni yaratilishi muhim ahamiyat kasb etadi.

Uchinchidan, bugun yaxlit jamiyatini shakllantirishga bo'lgan ijtimoiy ehtiyojga qaramasdan, o'zligimizni anglash jamiyatdagi turli masalalar yuzasidan kelishuv yoki murosaga kelish natijasi emas, balki milliy g'oyamizni mamlakatning obyektiv va subyektiv butunligini, uning madaniyatini ham makonda, ham zamonda shakllantirishni ta'minlaydigan darajadagi muvozanatini vujudga keltirish omili deb tasavvur qilishimiz kerak. Bundan kelib chiqadiki, o'zlikni anglashga erishish, vayronkor g'oyalarga qarshi turish - milliy g'oyamizning zamonaviy jamiyatga muvofiqligini ko'rsatuvchi boshqa shakllarini ham ochib berishning muhim sharti sifatida yuzaga chiqadi. Bundan tashqari, aynan milliy o'zlik orqali milliy g'oyaning salohiyati va uning o'ziga xosligi ochiladi.

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## JAMIYAT TARAQQIYOTINING YANGI BOSQICHIDA YOSHLAR MA'NAVIY MADANIYATINI YUKSALTIRISHNING IJTIMOIIY-FALSAFIY MASALALARI

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### ANNOTATSIYA

Ushbu maqolada O'zbekiston taraqqiyotining yangi bosqichi – uninchi renessans davrida yoshlar ma'naviy madaniyatini rivojlantirish va yuksaltirishning strategik vazifalari, ta'lim va tarbiya siyosatining ijtimoiy mo'ljallari hamda yoshlar ta'lim-tarbiyasi, ongi va tafakkuri masalasi globallashuvning bugungi chegarasida o'ziga xos hal qiluvchi nuqtalardan biri ekanligi, shu bilan birga yoshlarda ma'naviy madaniyatni yuksaltirishning hozirgi vaqtdagi dolzarb muammolari va ularning yechimi haqida so'z yuritiladi.

**Kalit so'zlar:** uchinchi renessans, globallashuv, taraqqiyot, jamiyat, ma'naviyat, madaniyat, yoshlar.

**Kirish.** Dunyo bo'yicha innovatsion raqamli texnologiyalar rivojlangan holda, insoniyat tafakkuriga ta'sir qilib boruvchi kiber aloqa axborot vositalarining ko'lami kengayib borayotgan bir davrda yoshlarning ma'naviy madaniyatida insoniylik g'oyalarini, xususan, ezgulik, do'stlik, bag'rikenglik, yaxshilik, oqibat, vafo kabi ma'naviy-axloqiy tamoyillarini saqlash va asrash muhim ahamiyatga ega bo'lib bormoqda. Inson tirik mavjudotlardan tafakkuri va ma'naviyati bilan farqlanishi bois, ushbu tafakkur imkoniyatlarini jamiyatga xizmat qilishini ta'minlashga, uning ma'naviy madaniyatida insoniylikni saqlashga erishish uchinchi ming yillikda zaruriyatga aylandi. Axborot xuruji avj olayotgan, dunyoni bo'lib tashlash va hukmronlik qilishga da'vogar mamlakatlar orasida ziddiyatlar keskinlashayotgan bir vaziyatda dunyo ilm ahlining diqqat markazida insonni inson bo'lishiga o'rgatishga ehtiyoj har qachongidan ham dolzarb ahamiyat kasb qilmoqda.

Mamlakatimiz taraqqiyotining yangi bosqichi hisoblanayotgan uchinchi renessans davrida amalga oshirilayotgan keng qamrovli islohotlar va yangilanishlar jarayoni, yoshlar ma'naviy madaniyatini takomillashtirish kun tartibidagi dolzarb vazifalardan biridir. Respublikamizda islohotlarning asosiy yo'nalishlaridan biri "Yoshlarga oid davlat siyosati" doirasida yoshlar, ularning huquq va erkinliklarini ta'minlash bo'lib, bunda nafaqat yoshlarning iqtisodiy, balki ijtimoiy individual ongining







har tomonlama kafolatlanishi shart qilinadi. Xususan ma'naviy madaniyati ham o'z o'rnida insonning ham ma'nan, ham jismonan va moddiy jihatdan yuksalishini ta'minlovchi muhim omil bo'lib xizmat qiladi. Bu borada ma'naviy madaniyat jamiyatning barcha sohalari va tarmoqlarini rivojlantirishga hissa qo'shish birga ulardan ma'naviy kuch oladi, ijobiy ma'noda ta'sirlanadi.

O'zbekiston taraqqiyotining hozirgi bosqichi jamiyatning tobora huquqiy davlat va fuqarolik jamiyati qurish sari intilishidagi asosiy muammolaridan biri bu mustaqil shaxsga muhtojligidir. Bu o'rindagi asosiy jihat inson tashqi ijtimoiy kuchlar tomonidan majburlanmasdan va ongning ichki sharoitlari, ruhiy dunyosi orqali manipulyatsiya qilinmasdan erkin rivojlanishidir. Bugungi talab ham inson o'zini o'zi o'zgartirishi, o'zini o'zi tarbiyalashi orqali erkin bo'la olishi, o'z hayotini va atrofini o'zgarishlarga olib kirishidir. Bu borada haqiqiy o'zgarish ideal, ma'naviy o'zgarishdan boshlanadi. Ichki va tashqi uyg'unlikda shaxsning ma'naviy madaniyati muammolari ko'plab olimlar tomonidan ishlab chiqilgan bo'lib, ular falsafada keng qo'llaniladigan dialektik determinizm tamoyiliga alohida e'tibor qaratdilar. Bunda tashqi sabablar juda murakkab tizimlarning ichki sharoitlari orqali harakat qiladi. Biz kelgusida shaxsning ichki va tashqi dialektikasi nuqtai nazaridan jamiyatdagi ma'naviy, axloqiy va madaniy holatining murakkab muammolarini hal qilishga e'tibor qaratishimiz lozim. Ayniqsa, bu borada yoshlar ma'naviy olamining ijtimoiy-madaniy avtonomiyasini o'rganish yanada samarali mezon bo'lib xizmat qilishi mumkin. Yoshlar madaniyatining ichki va tashqi jihatlari bir-biriga qarshi emas, garchi ular bir-biriga o'xshash bo'lmasa ham. Ularning qarama-qarshi birligining sharti – bu insonning o'zini o'zi belgilashi. Tashqi madaniyatni o'zlashtirgan kishi o'z ichki madaniyatini ham rivojlantiradi. Inson va madaniyat tashqi va ichki yoki obyektiv va shaxsiy birlikdir.

Madaniyatning ichki yoki shaxsiy turi ma'naviy borliq prinsipiga muvofiq tashkil etiladi. Bunda insonning o'zi va uning atrofidagi g'oyalari, maqsadlari, g'ayratlari va harakatlari muhim rol o'ynaydi. Madaniyat jamiyatning ajralmas belgisidir, shuning uchun u ijtimoiy ahamiyat kasb etadi. Hayot jarayonida inson madaniy-tarixiy mavjudot sifatida shakllanadi. Yoshlar ma'naviy madaniyatini shakllantirishda til, ong, dunyoqarash, ma'lumot muhim o'rin tutadi va nafaqat uning keng qamrovli mohiyatini, insonning ichki va tashqi birligining asosiy prinsipini mustahkamlashga xizmat qiladi. Inson ijtimoiy mavjudot sifatida o'zining ma'naviy madaniyatining yaratuvchisidir va bu o'z-o'zini rivojlantirish, o'zini takomillashtirish orqali amalga oshiriladi. Bilim, ong, aql va sabab bir butunning bir tomonini – shaxsning ma'naviy olamini anglatadi, uni obyektiv mazmun va shaxsning tashqi hayot faoliyati uchun ahamiyati nuqtayi nazaridan tavsiflaydi. Umuman ma'naviy



madaniyat nafaqat voqelikni inson ongida obyektiv-mazmunli aks ettirish bilan, balki hissiy, baxtsiz idrok, ushbu tarkibni anglash bilan ham bog'liqdir.

Darhaqiqat, har bir mamlakatda aholining ijtimoiy-siyosiy faolligi ma'naviy intellektual salohiyati jamiyat taraqqiyotini belgilovchi muhim omillardan biridir. Davlat va jamiyat boshqaruvida fuqarolarning ayniqsa, yoshlarning ishtiroki ularning obyektiv voqelikka munosabatida to'la namoyon bo'ladi. Boshqaruv jarayonidagi bunday munosabat har bir insonning jamiyat siyosiy hayotida o'z o'rniga ega bo'lishi, ijtimoiy, siyosiy, iqtisodiy maqsad va manfaatlarini qondirishi hamda ularni amalga oshirish yo'lidagi harakatlari asosida yuz beradi. Jamiyatda yangicha munosabatlar tarkib topayotgan hozirgi davrda yoshlarning ijtimoiy-siyosiy hayotda ishtirok etish imkoniyatlari kengayib bormoqda. Bizga ma'lumki, hozirgi kunda dunyodagi har qanday davlatning obro'si va nufuzi, kuch-qudrati, uning moddiy boyliklari, iqtisodiy taraqqiyoti, harbiy quvvati bilan emas, balki avvalo, yuksak ma'naviy salohiyati bilan ham belgilanadi. Xalqning, millatning ma'naviy-ma'rifiy boyligi esa har tomonlama yetuk iste'dodli va qobiliyatli, axloqli va bilimli yoshlar tomonidan rivojlantiriladi. Lekin masalaning yana bir tomoni – hozirgi tez sur'atlar bilan dunyo hamjamiyatida rivojlanib borayotgan davlatlarning barkamol avlod tarbiyasida ularga salbiy ta'sir qilishi mumkin bo'lgan omillardan doimiy ravishda himoyalash dolzarb masaladir. Ma'lumotlarga qaraganda, O'zbekistonda aholining o'rtacha yoshi 24 yoshni tashkil etadi. Biz uchun hech qachon kun tartibidan tushmaydigan yana bir o'ta muhim masala borki, unga alohida to'xtalib o'tish zarur. U ham bo'lsa, unib-o'sib kelayotgan yosh avlodimiz, farzandlarimiz tarbiyasi bilan bog'liqdir. Buyuk bobomiz Abdulla Avloniy aytganidek, bu masala biz uchun haqiqatan ham yo najot, yo halokat, saodat, yo falokat masalasidir va o'z dolzarbligi va ahamiyatini hech qachon yo'qotmaydigan, ta'bir joiz bo'lsa, masalalarning masalasidir [2, 195-b.]. Demak, mamlakatimizda yoshlarning jamiyat taraqqiyotiga nisbatan ongli munosabati, undagi ishtiroki va faolligisiz milliy taraqqiyotni tasavvur qilish qiyin. O'zbekiston sharoitida yoshlarga ijtimoiy taraqqiyotning muhim "katalizatori" sifatida qaralishining eng muhim sabablaridan biri ham ular tarkibi, ongi va dunyoqarashi bilan bog'liq. Negaki, yoshlar dunyoqarashi bugungi yangilanishlar jarayonida shakllanib bormoqda. Shu sabab ham davlat siyosatida bu masalaga alohida yondashilmoqda.

Huquqiy demokratik davlat va fuqarolik jamiyati sharoitida siyosiy faollik ko'proq yoshlar tashkilotlari, ma'naviyat va ma'rifatga daxldor jamoat tashkilotlari, ta'lim muassasalari, mahalla, oila kabi fuqarolik jamiyati institutlari o'rtasida o'zaro mustahkam aloqa bog'lanishini talab etadi. Umuman, bugungi demokratik jarayonlar chuqurlashayotgan, fuqarolik jamiyati institutlari shakllanayotgan



sharoitda har qanday masalaning yechimida davlat va jamiyat o'rtasida uyg'unlik ta'minlanmas ekan, islohotlarda kerakli natijalarni qo'lga kiritish qiyinchilik bilan amalga oshishi aniq. Demak, islohotlar va ularning samarasi avvalo aholiga, O'zbekiston sharoitida esa yoshlarga, ularning davlat va jamiyat boshqaruvidagi ishtirokining, ya'ni siyosiy faolligining darajasiga bog'liqdir. Ayni masalada, ya'ni, jamiyat taraqqiyotida inson omili xususida dunyo tajribasiga to'xtalsak, ikkinchi jahon urishidan keyingi xonavoyran bo'lgan Germaniya va Yaponiya kabi bir qator ijtimoiy-iqtisodiy taraqqiyoti ziyon ko'rgan, bugungi kunda esa, taraqqiyotda katta tajribaga ega bo'lgan davlatlar milliy taraqqiyoti ham jamiyatning yuksak darajadagi faolligi asosida amalga oshganligini ko'rsatadi. Nemis va yapon jamiyati urushdan keyingi och-nahorliklarga, muhtojliklarga qaramay, barcha topganlarini yoshlar kamolotiga, ularning ta'lim va tarbiyasi uchun sarflagan. Buning ustiga g'olib davlatlar ko'rgan zararlarni ham ana shu xalqlar to'lashi kerak bo'ldi. Ana shunday og'ir sharoitda Yaponiyada siyosiy, iqtisodiy inqirozga uchragan mamlakatni tushkunlikdan olib chiqishning birdan-bir yo'li sifatida xalq milliy ruhiyatini tiklash, ta'lim tizimini yangi asosda yo'lga qo'yishga e'tibor qaratildi. "Xalqning qornini to'ydirish uchun, avvalo uning miyasini to'ydirish kerak" degan o'ziga xos shior va g'oya ilgari surildi. Bu g'oya "miyasi to'ygan xalqning qorni o'z-o'zidan to'yadi" degan tamoyil asosida amalga oshirila boshlangan. "Miyasi to'ygan" xalqning e'tiqodi, mamlakat istiqboliga ishonchi, vatanparvarlik va millatparvarlik tuyg'usi, ilmiy, madaniy saviyasi, kasbiy mahorati, mamlakat oldidagi burch va mas'uliyatini anglash tuyg'usi qanchalik yuqori va mustahkam bo'lishini nemis va yapon xalqlarining tarixiy tajribasi tasdiqlamoqda. Demak, jamiyat taraqqiyotning qaysi bosqichida bo'lmasin, uning rivoji yuksak darajadagi ijtimoiy-siyosiy faollik hamda fuqarolarning ma'naviy kamoloti orqali amalga oshadi.

Ma'naviy madaniyat – bu ma'naviy qadriyatlarning ma'lum bir tizimi, inson u yoki bu tarzda ma'naviy boyligni egallaydi va shu tariqa shaxs sifatida namoyon bo'ladi, shuning uchun ma'naviyatga erishish inson hayotining asosiy vazifasidir. Biror kishi nimani o'zlashtirishi mumkinligi va undan yordam so'rashi kerakligi haqida qiyin savol tug'iladi. Masalan, ekzistensializm har qanday shaklda ta'limni rad etadi, uni insonga nisbatan zo'ravonlik yoki hech bo'lmaganda uning erkinligini cheklaydi. Biroq inson ma'naviyatini til, ta'lim, aloqa, sotsializatsiya orqali boyitib borishi aniq. Hisob-kitoblar, qadriyatlar, tabiatni, vaqtni, ideallarni idrok etish usullari hayot jarayonida an'analar va ta'lim orqali inson ongiga joylashtirilgan. Jamiyat tarixi davomida, tabiat va o'zining tarixi davomida, boshqa odamlarga o'tish va o'z-o'zini harakat qilish jarayonida insoniyat tabiatidir. Boshqa tomondan, inson haqiqatan ham o'z mohiyatini – haqiqatni yaratadi, bilishning qiyin yo'lini tugatadi,



o'zida yangi chinakam insoniy fazilatlarni rivojlantiradi, qobiliyatlarni ko'paytiradi, ehtiyojlarni oshiradi, yangi kuchlarni shakllantiradi. Inson ichki dunyosi tashqi sharoitlar va ularni o'ziga xos aks ettirish ta'siri ostida shakllanadi, ya'ni bu ta'lim jarayonida va o'z-o'zini tarbiyalash jarayonida amalga oshadi. Ikkinchisi shaxsning ichki faoliyati natijasi, u uchun foydali, orzu qilingan deb hisoblanadigan fazilatlarni rivojlantirishga qaratilgan bo'ladi. Insonning shaxsiy o'sishi bilan uning ichki dunyosida ham, tashqi qismida ham o'zgarishlar bo'ladi.

Dunyo tajribasi shuni ko'rsatmoqdaki, qachonki demokratik tamoyillar ko'proq quyidan yuqoriga qarab takomillashib borsa, u o'ziga xos qadriyat darajasiga ko'tariladi. Zero jamiyat a'zolari kundalik hayotida aks etmaydigan demokratiya turmush tarzimizning tarkibiy qismiga ham aylana olmaydi. Bu esa uzoq muddatli jarayon. Jamiyat siyosiy hayotini erkinlashtirish va demokratlashtirish shoshma-shosharlik bilan amalga oshiriladigan jarayon emas. Agar ushbu holat bosqichma-bosqich muntazam amalga oshirilmaydigan bo'lsa, turli xavfli, noxush oqibatlarni keltirib chiqarishi mumkin. Shu bois ham davlatimiz rahbari, bir ijtimoiy tuzumdan, ikkinchisiga o'tish muqarrar ravishda kuchli ijtimoiy-siyosiy faollik asosida amalga oshishini ta'kidlab, bu jarayonga tabiiy holat sifatida qaramoqda. Ana shu tabiiylik jamiyat a'zolarini ayniqsa, ongi, tafakkuri hali to'la shakllanib ulgurmagan yoshlarning hayotida birmuncha qiyinchilik bilan amalga oshadi. Yoshlar ijtimoiy-siyosiy ongini o'stirish va yangicha dunyoqarashini shakllantirish masalalari ma'naviy yetuklikka asoslangan hamkorlik, hamjihatlilik, hamfikrlilik omillari turli inqirozli holatlar, to'qnashuvlarning oldini olish jarayonida namoyon bo'ladi. Bu esa taraqqiyotning tadrijiyligiga olib keladi. Mamlakatning ijtimoiy-siyosiy, ijtimoiy-iqtisodiy, ma'naviy-mafkuraviy barqarorligi jamiyatdagi ma'naviy salohiyat va intellektual omilning natijasi ekanligini ko'rsatmoqda. Bunda ijtimoiy-siyosiy faollik va milliy birlikning ta'minlanishini ikki xil aspektida ko'rish mumkin: 1) Bu jarayon jamiyat siyosiy tizimi, ya'ni kuchli davlat va uning ijro hokimiyatining amaliyoti bilan bog'liq bo'lgan. (Milliy taraqqiyotning bunday yo'lini Amerika Qo'shma Shtatlari va Angliyaning 1930-1940-yillardagi siyosiy tizimi va ijtimoiy hayotidagi o'zgarishlarda ko'rish mumkin); 2) xalq ijtimoiy-siyosiy faolligi, millatning o'z-o'zini anglashi, ta'lim tizimiga alohida e'tibor, milliy taraqqiyot sari g'oyaviy-mafkuraviy birlikka intilishi bilan bog'liq bo'lgan. Germaniya va Yaponiyaning ikkinchi jahon urushidan keyingi milliy taraqqiyoti va unda nemis va yapon xalqlarining milliy birligining aks etganligi misolida ko'rish mumkin. Agar ana shunday vaziyatda xalqning ruhan tetikligi, g'oyaviy birligi bo'lmasa, jamiyat siyosiy tizimi amaliyotda hech qanday samara bermasligi mumkin edi. Aslida, o'tish davrida jamiyatning barcha sohalaridagi muammolar bir qalqib yuzaga chiqadi. Ana shunday



dolzarb muammolarning yechimida aholi (Mamlakatimiz sharoitida aholining 60% dan ortig'ini tashkil qiladigan yoshlar)ning ijtimoiy-siyosiy faolligi, ongi va dunyoqarashi belgilovchi ahamiyat kasb etadi. Mavjud muammolarning ko'lami, xalqning maqsad manfaatlari tizimi bilan bog'liqlik darajasi ommaning jamiyat taraqqiyoti bilan uyg'unlashuviga hamda shu asosda siyosiy dunyoqarashning, yangicha tafakkurning shakllanishiga olib keladi.

Yuqoridagi berilgan faktlardan ma'lum bo'ladiki, har qanday mamlakatda ham har qanday avlod texnikada, texnologiyada, ishlab chiqarishda, farovonlik darajasida, ma'naviy madaniyatda olg'a siljishga qulay sharoitga ega bo'lavermaydi. Biroq barkamol avlod meros qilib oladigan ishlab chiqarish munosabatlari ishlab chiqarish kuchlarining o'sishiga olib kelsa va o'zi ham hech bo'lmasa ushbu tuzum doirasida takomillashadigan bo'lsa, yangi avlod ishlab chiqarishni, texnikani, texnologiyani, fanni, ta'limni, madaniyatni rivojlantirish masalalarini o'zi muvaffaqiyatli hal etgan bo'lardi. Bunda, aslida, inson muammosi, uning ehtiyojlarini qondirish, qobiliyatini namoyon etish, jismoniy, madaniy va intellektual jihatdan kamol topish, ijtimoiy hayotning turli sohalarida faol ishtirok etish uchun sharoit yaratish muammosi global nuqtayi nazardan diqqat markazida turadi. Turli ijtimoiy-iqtisodiy tuzumlarning tarixiy ustuvorliklari ko'p jihatdan ularda aynan shu masalalar qanchalik muvaffaqiyatli hal etilayotgani bilan belgilanadi. Shaxs ma'naviy madaniyatiga salbiy ta'sir ko'rsatadigan eng katta tahdidlardan biri bu korrupsiyadir. Bugun dunyo tajribasi shuni ko'rsatadiki, davlat doirasidagi yirik korrupsion jinoyatlardan ko'ra maishiy korrupsiya katta yo'qotishlarga olib keladi. Jumaladan, ta'lim tizimidagi oddiygina sessiyadagi "baho olish" jarayoni kelgusida katta-katta ijtimoiy larzalarga sabab bo'lishi mumkin. Janubiy Afrika Respublikasi Stellenboss universiteti peshtoqiga quyidagi ibora yozib qo'yilgan. "Har qanday millatni yo'q qilish uchun atom bombasi yoki uzoq masofali raketa shart emas. Buning uchun ta'lim sifatini tushirib, imtihonlarga aldov aralashirishning o'zi kifoyadir. Bu tarzda ta'lim olgan shifokorlar qo'lidan bemorlar o'lim topadi, quruvchilar qurgan uy va binolar vayron bo'ladi, iqtisodchi va hisobchilar qo'lida moliyaviy resurslar sovuriladi, adolat ham shunday huquqshunos va sudyalar qo'lida zavol topadi". Taasufki, oliy ta'lim tizimida asosan talabalik safiga qabul qilish, o'qish jarayonida topshiriladigan turli sinovlar, talabalarning bitiruv malakaviy ishi yoki magistrlik dissertatsiyasini tayyorlash va himoya qilish, magistraturaga qabul, shuningdek, talabalarning o'qish joyini ko'chirish, o'qish yo'nalishini o'zgartirish hamda o'qishga qayta tiklashda korrupsiya holatlari kuzatilmoqda.

Xullas, an'anaviy qadriyatlarimizni ilm-fan va taraqqiyot yutuqlari bilan boyitib borish, o'zligimizni chuqurroq anglash, milliy g'oya va istiqbol mafkurasi tamoyillarini xalqimizning qalbi



va ongiga singdirish, muqaddas dinimiz va tariximizni soxtalashtirish, ulardan siyosiy maqsadlarda foydalanishga yo‘l qo‘ymaslik – bu boradagi asosiy vazifalarimizdandir.

Shuningdek, yana boshqa qator vazifalarni amalga oshirish lozim. Ular,

Birinchidan, xalqimizni milliy yuksalish va islohotlar jarayonining faol ishtirokchisiga aylantirish, ularning kuchi va salohiyatlarini ijtimoiy hamkorlik va millatlararo totuvlik, diniy bag‘rikenglik kabi ezgu maqsadlarga safarbar etish. Bu ma’naviyatning kuch-qudratidan ezgu maqsadlar yo‘lida samarali foydalanish, ijtimoiy munosabatlarni insoniylik g‘oyalari asosida rivojlantirish demakdir.

Ikkinchidan, turli qarash va fikrga ega bo‘lgan ijtimoiy qatlamlar, siyosiy kuch va harakatlarning o‘ziga xos orzu intilishlarini uyg‘unlashtiruvchi – “Milliy tiklanishdan milliy yuksalish sari” g‘oyasini xalqimiz uchun bosh maqsadga aylanishiga erishish.

Uchinchidan, ota-bobolarimiz dinining asl mohiyatini keng jamoatchilikka tushuntirish borasidagi ishlarini davom ettirish. Toki, bu din xalqimizning ming yillik tarixi, bugungi ma’naviy hayotimizning ham asosi ekani xalqimizning ongiga singdirib borish shu ma’noda, buyuk ajdodimiz Bahouddin Naqshbandning “Dil ba yor-u, dast ba kor” degan hikmati biz uchun muhim hayotiy tamoyil bo‘lib qolaveradi.

To‘rtinchidan, O‘zbekistonni rivojlantirish bo‘yicha Harakatlar strategiyasini amalga oshirish borasidagi ishlarni izchil davom ettirish, ta’lim-tarbiya tizimini zamon talablari asosida muttasil takomillashtirib borish.

Beshinchidan, O‘zbekistonda yashayotgan barcha millat va elatlarning qadriyatlarini, diniy e’tiqodi, urf-odat va an’analarini hurmat qilish, ularni asrab-avaylash va rivojlantirishni qo‘llab-quvvatlash.

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## ANATOMIC VARIATION OF THE RENAL BLOOD SUPPLY (MAIN RENAL ARTERY AND ACCESSORY RENAL ARTERY) AND ITS EFFECT ON HUMAN HEALTH

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### ABSTRACT

Information of the vascular anatomy of the kidney is important not only for Anatomist, Surgeons and medical doctors (cause of HTN) nonetheless also specifically to the surgeons to prevent surgical accidental injuries during partial nephrectomy, kidney transplantation, interventional radiological procedures, kidney surgeries and donor nephrectomies, urological and renal vascular operations more carefully and professionally. Specifically, an Inferior accessory renal artery located on the right side. This anatomical variation is the least common of all identified Reno vascular variants and has little previous documentation in existing literature. During the kidney surgery in the Nangarhar Regional hospital Jalalabad in the department of General surgery. We detected a variation in the vascular supply to the kidney on the right side of (18-20) years male Patients. We detected accessory renal artery to supply inferior segment of the right kidney and directly coming from abdominal aorta. Our current research was done in Nangarhar Regional Hospital General Surgery Department from 2020-Jan to 2020-july.

### INTRODUCTION

The kidneys are paired retroperitoneal organs that receive 20-25% of cardiac output and function in the filtration of blood and maintenance of fluid homeostasis. In the majority of the population, each kidney is perfused by a single renal artery that branches from the abdominal aorta at the level of the L1-2 vertebrae just a little under the origin of superior mesenteric artery. And enters the renal hilum. The left renal artery is usually little higher than right one, it passes posterior to left renal vein and then enters left kidney. Near the hilus of renal artery divides in to anterior and posterior partitions which intern divides in to different segmental arteries and supplies the respective segments of the kidney being they the end arteries [Saluja, S., Kumar, D., & Kalita, B. (2016)].

So, the presence of a single hilar renal artery has been shown to vary deeply in different studies, with prevalence ranging from 63-97%. In the remainder of these cases, the blood supply to the kidney includes accessory or aberrant renal arteries. Accessory renal arteries are auxiliary to the main renal artery and generally travel together with the renal artery through the hilus into the kidney. Alternatively, accessory renal arteries are the single source of kidney perfusion and typically branch directly from the abdominal aorta, entering the kidney outside of the hilum [Gray, H., Standring, S].

### CASE REPORT

Amongst 60 Patients who admitted to Nangarhar Regional Hospital for kidney Stone Open Surgery, we observed 2 cases of the aberrant renal artery during the dissections of kidney form other adjacent structures, the



patients were young (18-22years old), The flank pain was most often practiced during the later hours of the day, especially after ingestion of large quantities of fluid. They had been treated at OPDs in the past for urinary tract infection with right flank pain and weakness. Physical examination revealed blood pressure of 110/80 mmHg and the presence of costovertebral-angle tenderness. Urinalysis were within normal limits (WBC 0-1/HPF, RBC 0-1/HPF). Biochemical analysis revealed BUN level of 11.0 mg/dl and serum creatinine level of 0.8 mg/dl. Kidney ultrasound showed a marked dilatation of the right pelvicalyceal system and right proximal ureter. Nevertheless, the left kidney showed normal appearance.

Excretory-urogram exposed a marked right hydronephrosis with dilated calyces due to ureteropelvic junction obstruction (Figure 1).



**Figure 1**

Excretory urogram after 35 mins. shows massive dilatation of the right pelvo-calyceal system with cortical thinning and smooth obstruction of the right ureteropelvic junction.

(Nangarhar Regional hospital Jalalabad Afghanistan, 2021)

The patient endured surgical exploration via an anterior approach which exposed a slightly ptotic, mobile, right kidney which was normal in size, with a marked hydronephrotic pelvis accessory renal artery and vein crossing the ureteropelvic junction, going on to the inferior pole and squeezing the ureteropelvic junction against the inferior pole of the kidney. The inferior segment was dissected carefully and taken photographs. Figure. 2



**Fig. 2:**

Inferior segmental artery, Ureter retracted by suction tube and inferior pole of the right kidney compress with the Gauze swab (Nangarhar Regional hospital Jalalabad Afghanistan, 2021)

## RESULTS

### Left kidney:

Length- 9cm, width at upper part- 5cm, width at lower part- 3.5 cm, thickness- 2.8cm.



**Main renal artery:**

Originated from aorta just under the level of right kidney artery and it run towards the left kidney. It has separated in to superior and inferior branches 4cm from aorta 3cm from hilus.

Superior division has given branch to superior Segment and constant as artery for middle segment and supplies to it by dividing in to two lobar arteries 8mm from hilus.

Lower division run obliquely downwards and towards the inferior pole and supplied to the inferior segment by dividing in to second lobar arteries 15mm from the hilum.

Each renal artery gives off the following branches:

1. Inferior suprarenal, which ascends to the suprarenal body.
2. Capsular or peri-renal branches to the capsule of the kidney and peri-renal fat.
3. Ureteral branch to the upper end of the ureter.

**Right kidney:**

Length- 8.4cm, width at upper part-7.5cm, width at lower part- 3cm, thickness- 3 cm.

Right renal artery arises from aorta directly above the level of left renal artery, it has given lower anterior and upper posterior divisions 5cm from aorta. Lower Anterior branch run obliquely downwards and towards the hilum and 15mm from hilum divided in to middle and inferior segmental arteries and they have supplied to the respective segments. These arteries for middle and lower segments lie in front of the renal vein.

Upper anterior division arise from renal artery around 5.3cm from aorta, 3.6 cm from hilum and it divides in to apical and superior segmental arteries about 1.5 cm from hilum and supplied corresponding segments.

The continuation of right renal artery runs vertically down downwards along the hilum as posterior segmental artery and giving many lobar arteries along its course to the posterior segment.

Types of anomalies of the renal artery include:

Superior polar artery arising from the main renal artery.

1. Inferior polar and Superior polar artery from the aorta.
2. Inferior polar artery from the main renal artery.
3. Inferior polar arising from the common and internal iliac arteries. Furthermore, may ascend from the middle sacral or even inferior mesenteric arteries.

**Accessory renal artery:** It ascended from aorta just below and behind the main kidney artery and course to the right kidney just under and the main kidney artery near the kidney it has crossed the right ureter (just beneath the Pelvio-ureteric junction). It has given branch to the lower segment as Inferior renal polar artery about 3.1cm from the aorta and for supplying the lower segment and it is present in between pelvis of ureter lower part of the kidney. Figure : 3

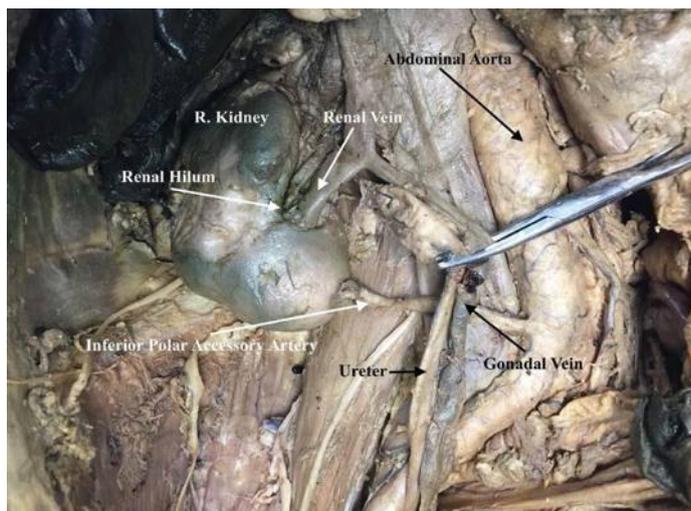


Fig. 3.

An image of the unilateral lower polar aberrant renal artery recognized in an 82-year-old female cadaver. The accessory renal artery branches of the abdominal aorta at the L4 spinal level just prior to the aortic divergence, and runs posterior to both the ureter and gonadal vein as it enters the inferior pole of the right kidney. Furthermore, the segmental branches of the primary kidney artery enter the kidney hilum Patel, K., Gandhi, S., & Modi, P. (2016)..

## DISCUSSION

The kidney ascends and reaches the iliac fossa after crossing the pelvic edge, here it gets blood supply from common iliac arteries. Finally, it appears on the under surface of diaphragm where its ascent is arrested by adrenal gland which has in the meantime developed in this region. Here kidney receives the blood supply from lowest adrenal artery and this branch persists after birth as permanent renal artery. Aberrant renal artery is remnant of degenerated mesonephric artery [Datta AK (2013)].

Accessory renal arteries with an aortic derivation are frequent vascular variations, representing the persistence of the embryonic vessels, the lateral branches of the mesonephros, within the kidney ascent [Larsen's human embryology, 1996] Fig. 2.

We discover the aberrant renal artery originated from the aorta just lower the origin of main renal artery.

Bremer states that the anomalies of the renal artery depend on vessels present in the embryo before the aorta and its larger branches develop mesodermal coats. There are no "late branches." certain anomalies are due to the persistence of the early kidney blood supply most frequently seen with pelvic kidneys, that is the renal artery as a branch of the iliac, inferior mesenteric or middle sacral.

Familiarity to the existence of aberrant renal arteries is important because they may be

Accidentally damaged during renal surgery and their presence must be considered in evaluating a donor kidney for renal transplantation. Persistence of certain of the cephalic mesonephros vessels, however, may result in the arterial abnormalities [Cerny JC, Karsch D 1973].

Simple division and ligation of accessory vessels causing hydronephrosis has cured the condition in the majority of cases reported. The Mayo Clinic in 1909 reported twenty-seven cases of surgically treated hydronephrosis. 20 of these were associated with aberrant blood vessels. In order to prove the causative relationship, in 13 out of 20 cases the vessels were merely severed and ligated and a cure of the condition obtained. In 1922 Kummer collected fifty-six cases in which an operation (ligation) upon the aberrant obstructing arteries had cured the condition. In the author's case division and ligation of the accessory inferior polar artery causing hydronephrosis gave complete relief from symptoms (intermittent pain).

Quinby cautions against division of the larger accessory arteries to the

kidney pointing out the danger of degeneration of that part of the kidney supplied by it, since there are no arterial anastomoses. Belt and Joelson have demonstrated by experimentation in dogs the degenerative process and scar formation in the kidney parenchyma happening to blockage of the blood supply. Kummer (cited by Belt) did not observe any evidence of necrosis of the kidney following the vascular section in fifty-six reported cases.

Different origins of the renal arteries and its frequent variations are explained in various literatures owing to the development of mesonephric arteries. These mesonephric arteries extend from C6 to L3 during the development. Most cranial vessels disappear while the caudal arteries form a network, the rete arteriosum urogenital that supplies in future the metanephros. The metanephros in future develops into adult kidney deriving its blood supply from the lowest adrenal artery which gives out a permanent renal artery. Persistent roots of the network form these segmental arteries of the adult kidney having variations at their point of origin. The kidney grafts with multiple arteries resulted in post-transplant morbidity and graft loss following the ligation of the polar arteries. The transplantation of the kidney with the single renal artery is technically easier compared to the kidney with multiple arteries [Patel, K., Gandhi, S., & Modi, P. (2016)].

We suggested that the accessory renal artery ligation or damage during surgery will cause Segmental necrosis and Ischemia to supplied segment of kidney. Therefore during surgery of the kidney we must be careful for the variation of accessory renal artery from the different part of the other arteries.

The terminology of the variations of the renal arteries is still not clear as different authors described them as additional, accessory, hilar, inferior and superior polar arteries. We named our renal arteries as aberrant renal arteries [Shashikala, P, et al (2012)].

In research done by Bordei et al. found 54 double renal arteries mainly originating from the aorta in 272 kidneys (20%); six of them were bilateral (2,2%) and other was Unilateral [Shashikala, P, et al (2012)].

In last years, interest in the surgical and medical aspects of accessory renal arteries has been high because during renal surgical procedures, besides bleeding and loss of renal parenchyma, arterial lacerations may induce segmental ischemia followed by hypertension. The presence of accessory renal arteries increases the complexity of kidney transplantation; kidneys with accessory arterial supply being involved in a higher percentage of transplant failures than kidneys showing no variation [Shashikala, P, et al (2012)].

In study done by Satyapal et al. showed double renal arteries in 31.3% of the African population in their study, 30.9% of the white people, 18.5% of the half-case people and 13.5% of the Indian people [Bordei, P., Şapte, E., & Iliescu, D. (2004)]

There were early divisions in 67 (8%) patients, 32% of which occurred on the right side, 25% on the left, and 22% on the both sides [Satyapal, K. S, et al, (2001)].

We Detected 2 cases of aberrant renal artery in 60 patients suffering for renal surgery in Nangarhar regional hospital General surgery ward. Both was young and fit Patients and they suffer from history of intermittent Pain of right flank and also there was stones in the right kidney and with hydronephrosis.

Also reported double renal arteries, first renal artery arise from aorta at the level of L1 vertebra, whereas second renal artery arise from same 5.1 cm

under the first one. Both renal artery run laterally and entered the kidney through the hilum with their anterior and posterior divisions. One branch (superior polar artery) of 1st renal artery arise from 0.5 cm away from main origin, course supero-laterally to reach the upper pole of the kidney and supplied it. Anterior division of 1st renal artery divided into four segmental arteries (1 apical, 1 upper, 2 middle) having intra renal course, while second renal artery give second segmental arteries (one middle and one lower). Posterior division of first renal artery gave second (apical) whereas that of second gave six (2 upper, 2 middle, 2 lower) segmental arteries [Özkan, U, et all, (2006)].

Had reported that the accessory right renal artery originated at the level of inferior border of L1 vertebra along with the origin of the normal right renal artery. This aberrant renal artery had a equivalent course with that of the right renal artery lying superior to it. The trunk of the Accessory renal artery entered the kidney from its anterior surface through its capsule giving off branch to the upper pole called superior polar artery. Additionally, this artery gave a posterior branch that was entering the capsule of the right kidney from its posterior surface almost close to its medial border behind the hilus. This Accessory artery gave a branch to the right adrenal gland, the inferior adrenal artery instead of the main renal artery supplying it. We also saw an extra-capsular branch given off by the main right renal artery to the anterior surface in front of the hilus [Shashikala, P, et all, (2012)].

Had reported that an uncommon variation of double left renal arteries one below the other. The upper left renal artery was higher wider than the lower left renal artery. The diameter of the left renal artery was smaller compared to the right renal artery. On the right side, the renal artery and vein were normal [Rao, T. R. (2011)].

Such a morphological appearance is important due to these branches being incorrectly interpreted as being additional arteries in diagnostic imaging studies and determines surgical complications in kidney transplants; since the first 15 mm of the kidney artery can be used for anastomosis with the receiver's iliac artery. It should also be emphasized that early ramification of the main renal artery and the presence of added arteries represent exclusion criteria in laparoscopic kidney surgery [Vishal, K., Vinay, K. V., & Remya, K. (2014), Holden, A, et all (200)].

Conferring to study by Gümü<sup>o</sup> H., et al. Kidney artery originating from the level of L1-L2 intervertebral disc was found in 37.0% and 38.9% of patients on the right and left sides, respectively. Kidney artery dissimilarities, including extra renal artery, were found in 27% and early division in 26.7% of the patients [Arora, A. et all, 2012].

The position of the kidney artery according to origin from abdominal aorta was assessed as origin of right kidney artery above the origin of left kidney artery 30 cases (60%), at the same level 14 cases (28%) and right kidney artery lower to left renal artery 6 cases (12%). So origin of Right kidney Artery is slight higher than Left kidney Artery in maximum cases [Gümü<sup>o</sup>, H et all (2012)].

Also the thought of systemic hypertension due to renal ischemia is well accepted. <http://ahajournals.org> by on June 25, 2021

## CONCLUSION

A comprehensive knowledge of the anatomy and variation of the kidney arteries such as its origin, extent, caliber, number, course, branching patterns, structures present at hilus and their relations is very

important to Clinical doctors to planning and performing procedure for safe attempt of kidney transplants, vascular reconstructions, while using non-angiographic, noninvasive methods for investigating kidney artery stenosis, the kidneys in trauma management and various surgical and radiological techniques Early division of kidney arteries may establish a danger in nephrectomy and in the partial resection of the kidney. The purpose of present Article is modest effort to bring awareness to the clinical doctors about the variation in the vascular pattern near its origin course and ramification at hilus for the safe and effective surgical procedures without vascular damage.

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## BO'LAJAK JISMONIY TARBIYA O'QITUVCHILARIDA INNOVATSION KASBIY PEDAGOGIK FAOLIYATNI RIVOJLANTIRISH IMKONIYATLARI

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### ANNOTATSIYA

Ushbu maqolada pedagogik ta'lim innovatsion klaster yondashuvida maktab-laboratoriya tajribasining tarmoqlararo o'zaro hamkorligi asos sifatida ko'rsatilgan. Shuningdek, jismoniy madaniyat ta'lim yo'nalishi va umumiy o'rta ta'lim maktablari o'rtasida nafaqat o'qitishga qaratilgan pedagogik ta'lim innovatsion klasterini shakllantirish va rivojlantirish, balki mintaqaning kelajakdagi professional kadrlarga bo'lgan ehtiyojlari nuqtayi nazaridan talabalar hamda o'quvchilarning ilmiy va ijodiy salohiyatini rivojlantirishga qaratilgan.

**Kalit so'zlar:** Pedagogik ta'lim innovatsion klaster, maktab-laboratoriya, innovatsion faoliyat, tarmoqlararo o'zaro hamkorlik, mintaqa, model, jismoniy madaniyat ta'lim yo'nalishi, tajriba, kompetentlik.

### ABSTRACT

This article outlines the inter-sectoral interaction of school-laboratory experience as the basis for the innovative cluster approach of pedagogical education. Also, physical culture is aimed not only at the formation and development of an innovative cluster of pedagogical education aimed at teaching between the educational direction and schools of general secondary education, but also at developing the scientific and creative potential of students and students from the point of view of the region's needs for future professional personnel.

**Keywords:** Pedagogical educational innovation cluster, school-laboratory, innovation activity, inter-industry cooperation, region, model, educational direction of physical culture, experience, competence.

## KIRISH

Sh.M.Mirziyoyev prezidentlik lavozimiga kirishgan dastlabki kunlaridan boshlab yurtimizda innovatsion va kreativ fikrlaydigan zamonaviy kadrlar tayyorlash, yoshlarni vatanparvarlik ruhida, yuksak ma'naviyat egalari etib tarbiyalash, shu maqsadda ta'lim tizimini takomillashtirish masalalariga jiddiy e'tibor qaratib kelmoqda. Mamlakatimizda ta'lim-tarbiya tizimini yangi bosqichga ko'tarish, pedagog kadrlar tayyorlash sifatini ilg'or xalqaro standartlar asosida takomillashtirish va oliy pedagogik ta'lim bilan qamrov darajasini oshirish borasida izchil chora-tadbirlar amalga oshirib kelinmoqda.

Ta'limda pedagog – o'zining ijodkorligi, faolligi, individualligi, tanqidiy fikrlashi, kasbiy pedagogik kompetentligi, ya'ni kompetentliklar majmui hamda innovatsion ta'lim texnologiyalarini joriy etish orqali pedagogik mahorat darajasini doimiy ravishda rivoj-lantirib borishga intilishi bilan ajralib turadi.

Kasbiy mahoratga ega bo'lish uchun pedagogik yo'nalish, kasbiy jihatdan ahamiyatli shaxsiy sifatlar, asosiy pedagogik qobiliyatlar, kasbiy kompetentlik, uzluksiz o'z-o'zini takomillashtirish, malaka oshirish, pedagogik ijodkorlik va innovatsiyalar zarur.

## ADABIYOTLAR TAHLILI VA METODOLOGIYA

Bugungi kunda oliy ta'lim muassasalarida ko'plab muammolarga yechim izlashda, o'qitish metodikasini takomillashtirishda klaster usuliga murojaat qilinmoqda. Xususan, ta'lim klasteri pedagogikamizda integratsiya va uzluksizlik bilan bog'liq yangi innovatsion yo'nalish hamda uning amaliyotga tatbiq qilinishi pedagogik ta'limda raqobatbardosh kadrlar tayyorlash omili ekanligi G'.I.Muhamedov, Sh.Q.Mardonov, Sh.Botirova, X.Sultonov, S.Toshtemirova, N.Koshanova, Q.Mahmudovlarning tadqiqotlarida muayyan darajada yoritilgan[1].

## NATIJALAR

Klaster siyosati mintaqaviy iqtisodiy rivojlanish strategiyasining asosi bo'lib xizmat qiladi va ta'lim tizimiga nisbatan klasteri mintaqa ehtiyojlarini hisobga olgan holda o'qitish masalasini hal qilish uchun professional kuchlarni sintez qiluvchi innovatsiya markazi sifatida ko'rsatish mumkin.

Ta'lim murakkab tizim bo'lib, unda ko'plab mustaqil to'ldiruvchi va o'zaro bog'liq qismlar mavjud. Har qanday tizim faqat teskari aloqa mavjud bo'lsa, samarali ishlaydi.



Shuning uchun maktab va institut hamkorlik shakllarini rivojlantirishni o'rganishi kerak. Bunday hamkorlikni amalga oshirish uchun ta'lim jarayonini tashkil etishda klaster modelidan foydalanish maqsadga muvofiqdir.

Pedagogik ta'lim innovatsion klaster – bu shartnomalar asosida o'zaro hamkorlik qiluvchi va ta'lim mutaxassislarini tayyorlash bo'yicha ilmiy, o'quv va innovatsion maqsadlarni amalga oshirishda ishtirok etuvchi jug'rofik mahalliyashtirilgan tashkilotlar guruhidir.

Pedagogik ta'lim innovatsion klasterini amalga oshirishning eng asosiy sharti va shakli sifatida “Maktab-laboratoriya” innovatsion tajriba maydonchalarini olish mumkin. Pedagogik ta'lim innovatsion klasteri ChDPU “Jismoniy madaniyat” ta'lim yo'nalishining strategik tadqiqot yo'nalishi bo'lib, “Maktab-laboratoriya” uning yadrosi – amaliyotga tatbiq etish shakli hisoblanadi. “Maktab-laboratoriya”lar ilmiy-pedagogik innovatsion loyihalarni yaratish va tajriba-sinovdan o'tkazish bilan bog'liq muhim vazifalarni bajaradi.

## TAHLIL VA NATIJALAR

Bugungi kunda Toshkent viloyatining Chirchiq shahridagi umumiy o'rta ta'lim maktablarida shunday 4 ta “Maktab-laboratoriya” innovatsion tajriba maydonchalari tashkil etilgan. Bu boradagi ishlarni tizimli va muayyan reja asosida olib borish maqsadida “Jismoniy madaniyat” ta'lim yo'nalishi va Chirchiq shahar xalq ta'limi bo'limining 24-25 umumiy o'rta ta'lim maktablari o'rtasida hamkorlik shartnomalari hamda chora-tadbirlar rejasi ishlab chiqilgan. “Maktab-laboratoriya” innovatsion tajriba maydonchalarining maqsadi uzluksiz ta'lim jarayonida ta'lim turlari o'rtasidagi ilmiy, uslubiy va ta'lim vositalarini rivojlantirish, pedagogik ta'lim innovatsion klasterini amaliyotga tatbiq etish bilan bog'liq ilmiy-pedagogik loyihalarni tajriba-sinovdan o'tkazishdan iborat.

## XULOSA

Pedagogik ta'lim innovatsion klasterini jismoniy madaniyat ta'lim yo'nalishi va maktablarni hamkorlik qilish vositasi sifatida amalga oshirish muhimdir. Pedagogik ta'lim innovatsion klasterini tashkil etish zamonaviy o'qituvchi kasbiy tayyorgarligining eng muhim vazifasi – mutaxassislarni reproduktiv ishlab chiqarishdan ularning individual va ijodiy tayyorgarligiga o'tish, o'qituvchining ijodiy raqobatdosh shaxsini shakllantirishga ham yechim topadi.



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## SEMANTIC PROBLEMS OF TRANSLATING ISLAMIC DISCOURSE LEXICON FROM UZBEK INTO ENGLISH

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### ABSTRACT

The research is related to semantic problems of translating the terms of Islamic discourse which include sacred texts that are the core of universal culture. One of the most usual and important problems of translating Islamic lexicon is semantic one. The article highlights semantic problems of translating Islamic lexicon and suggests possible solutions for them. The main aim of this article is to study the problems of translating lexicon of Islamic discourse from Uzbek into English as well as to give possible solutions for them.

**Keywords:** Islamic discourse, translation problems, semantic problems, lacunae, semantic gap, polysemic words, general lexicon, religious lexicon, religious texts.

### INTRODUCTION

This investigation is devoted to the investigation of semantic problems of English translations of religious texts. In our independent Uzbekistan, as in all spheres, “the situation with religious freedom has dramatically improved. Further strengthening inter-ethnic harmony and inter-religious tolerance is a constant task for us” (Mirziyoyev, 2020).

The Government lead by President Shavkat Mirziyoyev, country stepped over the new level of religious reforms. In particular, Shavkat Mirziyoyev in his speech at the first Summit of Organization of Islamic Cooperation’s on Science and Technology in Kazakhstan on September 10, 2017, spoke about the wide-ranging religious reforms implemented in our country (Mirziyoyev). He noted the ongoing efforts to develop science and technology in the country, adding that today’s Muslim world is lagging behind on this spheres. Researches in the field of linguistics also play an important role in fulfilling these tasks. In our country today, a number of scientific studies are being conducted to study the relationship between linguistics and religion.

The topicality of the research which is determined by the following factors:

1) Religion is the most ancient cultural symbol in human society. The study of processes, changes and developments in this field is very interesting in linguistics, however, it is a topical phenomenon in all periods. The research is related to the problems of translation of religious texts, especially Islamic religious texts which include sacred texts that are the core of universal culture;

2) Insufficient study of this problem in the world linguistics;

3) High demand for the adequate translation of Uzbek religious scholars' valuable works which have great importance in the world of Islam.

4) Islamic religious texts are considered canonical, so even mistranslation of a word can cause a big problem. So defining problems of translating religious texts and giving possible solutions is one of the problematic issues in linguistics. The methodological basis of the work is represented by the existing linguistic knowledge about the translation theory. It is possible to consider followings as fundamental work on this direction: Peter Newmark, "Approaches to translation" (Newmark P. Approaches to translation – London: Prentice Hall, 1988), I.G'afurov, O.Mo'minov, N.Qambarov "Tarjima nazariyasi" (G'afurov I.& Mo'minov O.&Qambarov N., 2012), Peter Newmark "A Textbook of Translation", Zoya Proshina "Theory of translation", Ernst R. Wendland, "Survey of translation studies: From the Perspective of Bible Translation Theory and Practice" (E., 2015).

The first scientific-theoretical ideas on theolinguistics are reflected in the researches of linguists such as D.Crystal, E.Kucharska and A.K.Gadomsky, J.Noppen, W.Samarin, N.Ivoylova and others. Studies in Theolinguistics have mainly been conducted by European and Russian scholars on the basis of the Christian religion and aimed at investigating the peculiarities of the Christian religious language and communication.

M.F.Althuwaini (Althuwaini, 2006), from American University in Sharjah, did his thesis on the subject "Ideology in translating religion relating discourse" in 2006. In this thesis, the importance of equivalence in the translation of religious discourse was discussed and the role of ideology in translation was analyzed. That year A.Chebbo (Ann, 2006), from the same university, did his research which is the subject of work "Arabic to English translation of Islamic religious texts". This thesis investigates discourse strategies adopted in the translation of religious texts from Arabic into English. Another research that is related to translation problems of religious texts was done in Sabha University by A. Mohammed and H.Ibrahim (H., 2019) in 2019. The subject of the work is "Exploring some problems in translating some religious expressions from Arabic to

English encountered by 7<sup>th</sup> semester students of English department in Sebha University”.

In 1997 professor N.M.Ulukov did his PhD dissertation work on the analysis of exotic vocabulary in religious texts. N.M.Ulukov’s work on the subject “Exotic lexicon of Uzbek religious texts” was the first serious work on the subject in Uzbekistan. Sh.M.Sultonova showed the basics of linguocultural analysis of the category of time in sacred texts in her work on “Linguocultural features of the category of time in sacred texts”. M.R.Galieva (Galieva, 2019) did her scientific research on the subject “The reflection of mythological-religious consciousness in the linguistic world picture” in 2019. Sh.A.Yodgorov did the dissertation work on the subject “Research on lexico-semantic issues of the word equivalency in the English translations of the religious texts” in order to get Master’s degree in 2020. Sh.T.Yusupova kizi studied the linguopragmatic features of religious texts and described religious texts in linguistic point of view in her work “Linguopragmatic investigation of religious texts” in 2021. Her PhD research is devoted to the study of formation and development of theolinguistics as a new direction, the issues of textlinguistics and religious texts and religious functional style.

There are enough works done on the problems of translating religious texts in linguistics. They are of great importance that they help to solve some encountered problems while translating religious texts. Nearly all of them focus on studying translation problems of religious texts from Arabic into English. But there is not the same work aimed to give possible suggestions for translating lexical and semantic problems of religious texts from Uzbek to English.

Polysemy refers to “a lexical item which has a range of different meanings” (D., Oxford). For instance, *plain* means *level*, *undecorated*, *pure*, *unobstructed*, *obvious*, *clear*, *common* and *ordinary*. The numerous meanings a word acquires may be a result of the metaphoric or abstract context in which it is used, thus giving it a metaphoric or abstract sense in addition to its original (literal) meaning. Moreover, the different meanings contained in polysemic words have the same etymological origins and are related to one another. While translating religious texts polysemic words may also cause translation problems. There are such words that meaning differs in general lexicon from religious one. For example, there is such definition of the word *faqir* in Uzbek definition dictionary:

1. Moddiy jihatdan nochor, kambag‘al, qashshoq; muhtoj.
2. esk. Birinchi shaxs o‘rnida yoki “men”, biz olmoshlari bilan birlikda ishlatilib, so‘zlovchining kamtarlik qilayotganini ifodalaydi.



3. ko‘chma Nochor, bechora, chorasiz.

There is such definition in the Encyclopaedia of Islam of the word *faqir*:

*Faqir-kambag'al, moddiy va ma'naviy jihatdan muhtoj odam. Faqir deyilganda darvish va sufiylar tushuniladi. Zohidlik va sufiylik kambag'allik – "faqr" va "fuqr" ni keng targ'ib qilgan. Shoirlar, mualliflar va hattotlar o'zlarini kamtarlik bilan faqir deb atashgan (Z., 2004).*

According to Macmillan English dictionary *Fakir* means *a Hindu or Muslim holy man who lives by begging (=asking people for money and food).*

*The fakir, or faqir, derived from faqr, is a Muslim Sufi ascetic in the Middle East and South Asia. The Faqirs were wandering Dervishes teaching Islam and living on alms. The term has become a common Urdu, Bengali, and Hindi byword for "beggar". The term has also been used to refer to Hindu and Buddhist ascetics. These broader idiomatic usages developed primarily in the Mughal era in India. Calanus, a Hindu Naga sadhu of the 4th Century B.C., is often called a fakir by historians. There is also a distinct caste of fakirs found in North India, descended from communities of fakirs who took up residence at Sufi shrines.*

It is obvious from the example meanings of dictionaries that they differ from each-other. So translator should be careful while translating as he or she shouldn't choose the meanings of the word from general lexicon.

Moreover, translator should be careful to choose the word, he/she can't choose any synonyms from synonymic line. For instance, *faqir, kambag'al, miskin, bechora* and *muhtoj* are synonyms in general lexicon. They may be used instead of another in non-specialized texts, it doesn't cause problem. But from the religious point of view they differ from each-others, each of them has category of being poor, so translator can't use one instead of another. If translator do so, that mistranslation may cause a big problem, as Islamic religious texts are usually scientific and has a function of law of sharia'h for muslims.

It is not linguists task to differentiate these words from religious point of view, as we cannot do so. This is the task of Islamic scholars, the piece from the article that study the difference between *fakir* and *miskeen* is cited in this work, so as to prove that how important choosing the right word while translating religious texts, as they cannot be used instead of each other as synonyms in religious texts.

The UN Refugee Agency has published online article on the theme "Al Fuqara and Al Masakeen". According to the article the majority of Muslim scholars consider that the two terms "fakir" (singular form of "fuqara") and "miskeen" (singular form of "masakeen") have different meanings. They rely on the verse to say that, if there was no

difference between the two, then why would they be both mentioned in the verse? It would not make sense to say that Zakat has to go to the fakir and the miskeen if the terms meant the same thing.

1) *The fakir is more in need than the miskeen. This is the opinion of the Shafi'i and Hanbali schools. One of their arguments is the order between the two in the verse.*

2) *The miskeen is more in need of the fakir. This is the official opinion of the Maliki and Hanafi schools.*

So, translator should be very careful to choose the right word, as he cannot choose any synonym from the synonymic line while translating religious texts.

Determination is the transition of terms into the general lexicon according to various semantic changes due to various factors. This also can cause semantic problem of translating religious texts. Here the example of terms such as *munofiq, umra, mo'jiza, karomat* that determined to general lexicon. *Fakir* also can be the example of determination. Translator should be careful working with also such kind of words. Translator should choose the meaning of these kind of words from the religious dictionaries, not from the general definition dictionaries.

Another serious translation problem from Uzbek into English is met while translating translated words from Arabic into Uzbek which are considered cultural gaps or culture-bound items as “*namoz*”, “*tahorat*” and “*ro'za*”. It is recommended to translate such words as transliteration or transcription. But translator can't transliterate or transcript these words from Uzbek translated variant. If translator did so, reader in English would feel difficulty to find original word in Arabic. So, translator should find these kind of words from Arabic and transliterate, transfer or transcript from original Arabic word. In order to do this translator can read Arabic at least and he/she can work with Arabic-Uzbek and Uzbek-Arabic dictionaries. We made a list of cultural-bound words that translated from Arabic and their Arabic and English variants with the help of Uzbek-Arabic dictionary (Jo'rayev, 2020):

Uzbek	Arabic	English
Namoz	الصلاة	Salat
Tahorat	الوضوء.	Wuzuu
Ro'za	الصوم.	Sovm

Misvok	السواك.	Suvak
Betahoratlik	الحدث.	Hadas
Joynamoz	السجادة	Sajjada
Saharlik	السحور.	Suhaar

There aren't many translated cultural-bound words in Uzbek, because more of them have been translated in transcription or transliteration methods. So translator of Islamic religious texts should remember the translation of such words.

There is a list of words which may cause translation problems while translating and the way of translation by the author in the book "Open letter":

The words in Uzbek	Translation variant in English	The way of translation
Mazammat	Blameworthy	Literal equivalent
Bayyina	Clear proof	Literal translation of meaning
Nasihah	Nasiha	Transference
Istita'a	Istita'a	Transference
Ijmo'	Ijma'	Transference
Taqvo	Piety (taqwa)	Religious equivalent with transcription
Ixtilof	Difference of opinion	Literal translation of meaning
Takfir	Declaring people disbelievers (takfir)	Definition with transcription
Alayhissalom	Alayhissalam	Transference
Munofiq	Munafiq (hypocrite)	Transcription with paraphrasing
Tahorat	Ablution	Literal equivalent
Allah	Allah	Loan word
Jin	Jinn	Loan word
Islam	Islam	Loan word
Nabiy	Prophet	Literal translation
Rasulalloh	Messenger	Literal translation
Zakot	Zakaat	Transliteration

Oxirat kuni	Last day	Literal translation
Ramazon	Ramadan	Loan word
Jihod	Jihad	Transliteration

Translator uses different ways of translation while translating, many of them successful and easy to understand for the reader. But choosing the analogue substitution translation for the word “tahorat” as “ablution” doesn’t make sense. Because “ablution” can’t be equivalent for the word “tahorat” and it is culture-bound term which may called semantic void. It is better to translate it in transcription with the definition, like “wuduu” (washing some part of a body in a special sequence as ordered), transcription with partial equivalent, like wuddu (ablution) or transcription with footnote, like wuduu and footnote like this

*Wuduu is the ritual washing performed by Muslims before praying that have special sequence. Washing hands up to the wrists thoroughly three times, rinsing mouth three times, washing face three times, from the hairline to the chin and from ear to ear, making sure the whole face, eyebrows, under the nose and lips are washed. A man should wash the hair of his beard, washing arms and hands from your fingertips up to elbows three times, wiping head starting with hands at the front of head, bringing them to the back of your head and then back to the front again. Wiping ears by putting your index fingers in your ears and wiping the back with your thumbs. Its preferable to use fresh water for this. Washing feet three times up to the ankles, making sure to wipe in between your toes with your little finger.*

Islamic expressions have a special meaning that differs from any other expressions. This is because they evoke the language and the heart together. This really sounds as a big obstacle for translator to consider the meaning completely and perfectly. As Uzbek Islamic religious texts are rooted from Arabic and describe Arabic culture in itself, so Arabic and English languages are two different cultures where Islamic expressions are connected mainly with Arabic language and nations’ culture so the task of the translator is to produce simple and concise translation that is easily understood by non-Arab Muslims.

## CONCLUSION

Religious texts are the type of texts connected to religious traditions and reflect central notions and concepts of any religion as well as collect all religious tasks. Religious texts can reflect scientific and publicistic features at the same time.



Translation problems of religious texts are one of the topical issues in linguistics. There is high demand for the adequate translation of Uzbek religious scholars' valuable work which have great importance in the world of Islam. In order to translate in a good way translator should study translation problems and possible solutions for them. In this work semantic problems of translating Islamic religious texts and possible solutions have been analyzed.

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## ARTISTIC IMAGE OF LIFE REALITY IN THE ALCHEMIST BY PAULO COELHO

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### ABSTRACT

This article is dedicated to one of the most famous works of Paulo Coelho - The Alchemist, and the artistic images of the composition of the work are analyzed. The issue of the relationship between real life and fiction in this novel was reviewed and the author's skill in painting was assessed. Also, the novel is considered from a psychological point of view.

**The key is:** Paulo Coelho, Alchemist, Santiago, image, imagery, artistic image, language of artistic work, translation, analysis, characters of the work, psychology.

### INTRODUCTION

In the work of the alchemist, the textile image tells about the shepherd boy Santiago and his journey.

The writer described his thoughts through the dialogues of the characters of the work. For example, let's take the conversation between King Salim and Santiago. According to the king, there is one great truth on this planet: regardless of who you are and what you do, when you truly want something, you will achieve it, because such a desire is also wounded in the Heart of the Universe. This is your lot on Earth. Even if we turn to theological (religious) theories, they say that a person should always have good intentions, work tirelessly and ask the Creator, as a result, he can achieve his dream. Through this conversation, the writer recommends to continue moving towards your dream.

In order to understand, study and interpret the works of Paulo Coelho, first of all, it is necessary to be aware of Torah, Injil, Zabur, Koranic truth, signs, symbols and philosophies. Growing up under the influence of Jorge Borges and Henry Miller's books from his youth, he took up tourism as a profession in order to understand the world more deeply, and was engaged in magic and sorcery.

### LITERATURE ANALYSIS AND METHODOLOGY

There are two views on the social role of fiction: a) a work of art is created for the public and b) it is created for individuals.

The works published in the long history of world literature show these two principles. Let's say, it is not a matter of the average reader, after reading a few pages of Franz Kafka's work "The Process", to put it aside without understanding - this putting aside, of course, has nothing to do with the value of "The Process" as a work of art. For example, as much as "Anna Karenina" or "Days of the Past" are readable for lovers of interesting events, for supporters of the principle "Art for Art's sake" there is a deep meaning in these works. Paulo Coelho's works meet the needs of both categories of readers.

While reading the novels "The Alchemist", "The Devil and Lady Prim", "The Witch of Portobello", such thoughts arise:

- these novels, first of all, are traditional, not monologic;
- special training is needed to understand the symbols and signs in the inner layers of the text of the novel, to put it simply, it is difficult for any student to "get through" correctly;
- theology - being aware of theology, various religions, as well as Sufism helps to understand the essence of the work;
- also, being aware of the philosophical teachings created in India, China, Europe and the East serves as an opening for novels;
- from the general pathos of the works, it is not difficult to attach the influence of "One Thousand and One Nights", the spirit of the truth-legends about Jacob, Joseph, Jesus Christ, especially the tone and style of the literary-philosophical school of the Colombian writer GG Marquez.

These works are not classic realist novels. They do not have a traditional system typical of epics. It is not an exaggeration to say that these novels, full of interesting plots, unexpected coincidences, supernatural events and magic, are puzzles like "Think, search, find" in a simpler language. To put it in Uzbek, these are magical novels that force you to take off your hat for reflection.

The lifeblood of Paulo Coelho's works, the leitmotif is the eternal problem of humanity: life and death, war and peace, fate and prophecy, jabar (man's inability to change the fate given by God) and zatar (possibility to change his fate with effort, effort, and math).

These very complex and outstanding problems are revealed against the background of spiritual and spiritual aspirations of the owners of a unique destiny.

One of the three authors of the "Alkimyogar" translation, the clever linguist Ahmed Atabai, also highlighted many questions in the novel's abstract: "What are the things that a person does in the middle of

his life on earth?" What is the most necessary thing for a person to walk on the path of his destiny and realize his dreams?"

The analysis of the novel "The Alchemist", which deals with such eternal problems, shows that someone is deeply aware of himself and finding himself in life, and someone is a treasure-seeking goat - Santiago, someone else is Fatima, a porcelain seller, someone is a hoof maker, an elder, an Alchemist, in my opinion.

Although Paulo Coelho is inclined to peace by nature, he has been in European and African countries with different social systems. A reader who is aware of his biography will find the mood of social discontent embedded in his works, the truths and symbols in his thoughts.

We know that any kind of art is against oppression, cruelty, violence and lack of will. This resistance lives secretly in the pathos of a true work of art, whether it is an idea, thought, rebellion or any other form.

Paulo Coelho penetrates deeply into the spiritual world of each character in "The Alchemist". The novel itself, with its many mentions of magic, has its own charm - it will involuntarily captivate you.

If we approach the work of Paulo Coelho from the point of view of psychology and semiotics, we suggest that the author's ability of spiritual influence transferred to the text is felt in the characters. This influence is like a beacon for the reader, leading to the realization of his dreams, following his thoughts and strengthening his confidence in his own strength. The librarian also begins to take a serious and critical look at himself, a rebellion against depression and failure awakens in his heart, he strives for depth... He involuntarily begins to read this novel with great pleasure.

## RESULTS

As Coelho's critics point out, it is not difficult to notice the disorganization in the development and description of the events of the novel. But the interesting plot will surely captivate you. Of course, this impression is difficult. Because a novel requires constant attention to one place, even a momentary distraction like a person sitting at the wheel can be costly: neglecting any detail, detail or symbol will force you to read this place again. It is difficult to catch the ideas hidden under the symbols, signs and text in the novel in one reading.

The author sometimes overcomplicates the plot. It comes from a unique artistic synthesis of real and magical events in the novel.

The spiritual and educational importance of Coelho's novels is that they call for goodness, high human ideals, and warn that behind every aggression, stubbornness, evil, there is a fixed

punishment and immense suffering. These works are reminiscent of Alexander Dumas and Charles Dickens, Mikhail Bulgakov and Franz Kafka, Antoine de Saint-Exupéry and Gabriel García Márquez.

The writer makes the reader interested in the events of the work with only one riddle, a mysterious dream and its interpretation. Philosophical ideas matured in the writer's worldview are skillfully embedded in the essence of mysterious events. Coelho's greatness lies in the fact that he was able to fit the global processes into one work - the microcosm.

The artistic experiments of Paulo Coelho, who creates a new style in literature with his novels, can be explained by the opinion of the famous English writer John Galsworthy: "Experience in art is as important as in science. It helps to move forward and often brings results. However, one obvious situation should not be forgotten: a writer can create a lifelong work only if the subject itself strictly requires experimentation. Those who do everything but experiment with the desire to "be unique" can gain the attention of undemanding fans for a while, but their writings evaporate in the sun in a short time, like dew, or in the language of contemporary poetry, "From the lips because of a kiss." "disappears like faded paint".

We live in such a tense age that there are many experiences in the field of literature and art, as in all fields. Which of them will be blown by the wind of time, which of them will take place on the axis of eternity - time will tell. That is why it is more difficult than ever for a talented writer. In his work, he must artistically synthesize the most meaningful, instructive, influential, artistically high, interesting and universal, unique edges of the precious works created in the world. If we turn to John Galsworthy again, "Literature is like a coral reef made of precious stones, none of these stones are like the others."

At first glance, Coelho's works resemble a popular scientific-artistic treatise on magic, and sometimes a psychological microanalysis. But we do not have the right to forget the stable standards of literature. No matter what type or genre of art you create today, it is not easy to capture the attention of many people and get a label from the world. Because many ways have already been discovered in literature and art. But the original creator's imagination, imagination and thinking are always capable of creating something new.

If we approach the works of Paulo Coelho with these standards and requirements, his work is distinguished by its uniqueness. His artistic findings are like gold particles scattered in the sand. They need to be collected, sorted and polished. If another comparison is allowed, Coelho's novels are semiotic abstract pictures developed in our century.

Accept and interpret until the mind, thinking, and imagination are strong. In order to fully understand Coelho's artistic world, the experience of a reader who reads traditional works is lacking. Paulo Coelho To be a book reader requires special intelligence, ability and talent.

## DISCUSSION

Paulo Coelho expresses the goal-setting, philosophical basis of "The Alchemist" as follows: "There is a great truth on our planet: if you really dream of something, you will definitely achieve it. Indeed, this dream is born in the heart of the world, and this is the confirmation of your existence on Earth, your destiny." This ideological content found its expression in the prism of the spiritual evolution, inner and outer world, the images of Santiago and the Alchemist, of a person who is following the path of fate, struggling, striving for his dream - a symbolic treasure, realizing himself, his heart.

At the beginning of his letter to "Alkimyogar", the writer points out four obstacles that a person faces on the way to his dream. These four obstacles are familiar to all of us, the fact that we face deprivation and opportunity depends on our attitude towards these four obstacles.

At the core of the novel, there are questions such as whether the part of humanity is in one's own hands or fate, whether a person can change his destiny through effort and hard work or not. What is fate really? Concepts such as "destiny", "destiny", "accident", "judgment of the Creator", "if there is on the forehead", "what is written on the forehead will be" are important in our religion. Especially, if we face any misfortune, divorce, failure, if we are left helpless, we immediately blame it on fate, on our forehead. But if we think deeper, we realize that we are the cause of this trouble, but we don't want to admit it. "If you can't escape from fate", we will keep the blame away from ourselves.

Paulo Coelho, among many thinkers of the world, is a supporter of the view that the destiny of a person is in his own hands. This idea is revealed in the novel "The Alchemist" from the beginning to the end through the adventures of Santiago in the style of magical realism. This fate is the supreme truth given by God, the great idea that a person should not deviate from the path of a clear goal - an ideal in order to reach this truth, the essence. But essence, happiness, perfection cannot be achieved by itself. No matter who the person on the way to the goal is, no matter what kind of work he does, he must be fair, truthful, open-minded, have pure intentions, unbending faith, and unbreakable will. It is necessary to be clear about the ideal-higher goal and the path leading to it, to







After all, even a hangman cannot walk on the gallows all at once, those who achieve success in life are the ones who overcome the first obstacle first. This obstacle is doubt, lack of faith in oneself and one's own strength. The great scientist K. Bowie says: "Most of our failures are due to our lack of self-confidence." V. Shakespeare, one of the great poets of Western literature, says: "Doubt is a traitor: it scares us from trying and often deprives us of the good things we can achieve."

In "The Alchemist" as well, in the first events around Santiago, the eternal barrier - fear - is stable. But Bozbola tries to overcome this obstacle, first of all, with the dream interpretation, the prophecy of Loli old woman, as well as with his inner relatives. The development of events shows that in this world there are many things that hinder the achievement of goals.

The path, that is, the goal, must be clear and the reins must be in the hands of the leader. According to the novel, the goal was the treasure, and the reins were in the hands of the goat. And he moves forward on the path to the treasure-house with dream interpretation and Pir's advice. The great Firdawsii, in "Shahnoma", "Even if you are the Alexander of the times, don't go into battle without an old man", Paulo Coelho added the essence of "The Alchemist".

It is no exaggeration to say that literature is a tool, an example, a school of influence and a source for creating the true history of mankind, and works such as "The Alchemist" by Paulo Coelho fulfilled this task completely.

As a conclusion, it can be said that the work is closely related to the philosophy of life and is rich in content. In the work, the truths of life are expressed through artistic images.

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## РАЗРАБОТКА АВТОМАТИЗИРОВАННОЙ ИНФОРМАЦИОННОЙ СИСТЕМЫ СЕРВИСНОГО КОМПЬЮТЕРНОГО ЦЕНТРА

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### АННОТАЦИЯ

Объект работы – заявки на ремонт и обслуживание ИТ.

Целью работы является повышение эффективности работы ИТ-инфраструктуры путем создания и внедрения автоматизированной информационной системы (АИС).

Предмет исследования – автоматизированные информационные системы.

Теоретическое исследование проводилось методом анализа литературы и нормативных справочников, положений предприятия, функциональных обязанностей. Практическое обследование объекта проводилось на основе системного анализа.

Разработан общий проект информационной системы объекта, обеспечивающий авторизованный вход для администраторов сайта; вывод списка заявок на ремонт и обслуживание. Система позволяет осуществлять редактирование заявок, а также пользователей, включая также возможность редактирования информации о заявке.

Разработанную АИС можно использовать на всех организациях, занимающихся информационными технологиями.

**Ключевые слова:** сервис, веб, интернет, база данных, сайт, информационные технологии

## ВВЕДЕНИЕ

В современном мире тенденции развития интернет-технологий являются весьма перспективными. Роль интернет-технологий в процессах функционирования предприятий значительно возрастает. Интернет и реализующие его технологии являются неотъемлемым атрибутом информационного общества и его базовым основанием.

Интернет-технологии – это инструменты, позволяющие взаимодействовать с потенциальными клиентами и пользователями, получать от них обратную связь. При этом практически сводятся на нет факторы физической удаленности [1].

В настоящее время также наблюдается повсеместное внедрение автоматизированных информационных систем (АИС) в сферу управления предприятием. Это вполне понятно, так как автоматизация управления приносит наиболее ощутимый эффект.

Современное предприятие – это сложная социально-экономическая система. Структура такого предприятия насчитывает десятки и сотни подразделений, что обуславливает разветвленную систему информационного взаимодействия. Происходит постоянное расширение и усложнение задач и функций предприятия. Все это влечет за собой создание инфраструктуры, которая включает в себя создание информационных технологий (ИТ).

Актуальность данной работы заключается в необходимости осуществления следующих преобразований:

изменение управленческих технологий в связи с новыми возможностями обработки и обмена информацией;

внедрение и поддержка современных программно-технических средств;

настройка программных систем на всю совокупность информации, взаимосвязей, управленческих механизмов, алгоритмов обработки данных, отражающих специфику предприятия;

обучение персонала новым технологиям в процессе внедрения системы.

В итоге можно сформировать следующие проблемы:

отсутствие достаточных механизмов оперативного взаимодействия с потенциальными клиентами и пользователями;



- большие затраты времени на обращение с бумажными носителями;
- трудоемкость выполняемых операций;
- высокая вероятность ошибок;
- отсутствие оперативного доступа к необходимой информации.

Целью работы является повышение эффективности работы информационных технологий сервисного компьютерного центра путем создания и внедрения автоматизированной информационной системы.

Для достижения поставленной цели нужно решить следующие задачи:

- провести анализ предметной области;
- разработать требования на проектирование;
- построить функциональную модель;
- разработать структуру БД;
- разработать алгоритмы системы;
- реализовать систему.

## **Технологическое обеспечение разработки АИС**

### **Техническое задание для разработки**

В нынешнее время все компании от малого до крупного размера нуждаются в информационных технологиях для того, чтобы выдерживать конкуренцию в условиях повсеместного использования высокотехнологичных решений. Поэтому организациям необходим комплексный подход к созданию ИТ инфраструктуры, который включает в себя создание системы. В связи с этим необходимо постоянная поддержка пользователей и клиентов. Внедрение автоматизированной информационной системы позволяет решить данную проблему.

### **Функциональное предназначение АИС**

Для пользователей, которым необходимо обратиться в ИТ, система предоставляет доступ для отправки, и ожидания решения необходимого обращения. Все это, не отходя от рабочего места, что позволяет сэкономить время. Все проводимые операции система производит автоматически, что является неоспоримым преимуществом [14].

### **Дерево функций АИС**

Функциональные возможности системы – это то, что может делать система, т.е. то, что нужно будет реализовать в программном коде. Функциональные возможности

разрабатываемой системы должны быть определены еще до начала написания какого-либо программного кода [15].

Основные функции:

- авторизация пользователя;
- главная страница системы;
- отправка обращения;
  
- просмотр открытых обращений;
- просмотр закрытых обращений;
- просмотр профиля пользователя;
- просмотр и печать нужного обращения;
- поиск обращения;
- панель администратора;
- отдельное меню для сотрудников Сервисный центр;
- матрица доступа;
- простой чат для пользователей.

### Границы разрабатываемой АИС

Предполагается, что администраторы системы будут добавлять новых пользователей, новые типы обращений, удалять обращения, удалять аккаунты пользователей, просматривать обращения. А сотрудники сервисного центра будут просматривать отправленные обращения, и закрывать при решении возможных проблем.

### Средство разработки базы данных

База данных phpMyAdmin представлена на рисунке 2.1. Здесь расположена база данных всей АИС «Сервисный центр». Она названа как «winlevel» и имеет 7 таблиц, где хранится вся основная информация.

Для доступа в панель phpMyAdmin так же необходимо вводить пароль и логин. Здесь есть возможность изменить и добавить практически любую информацию, учитывая соответствие с кодом php для этой базы.

Эта панель является универсальной заменой админ панели в отношении к базе данных MySQL.

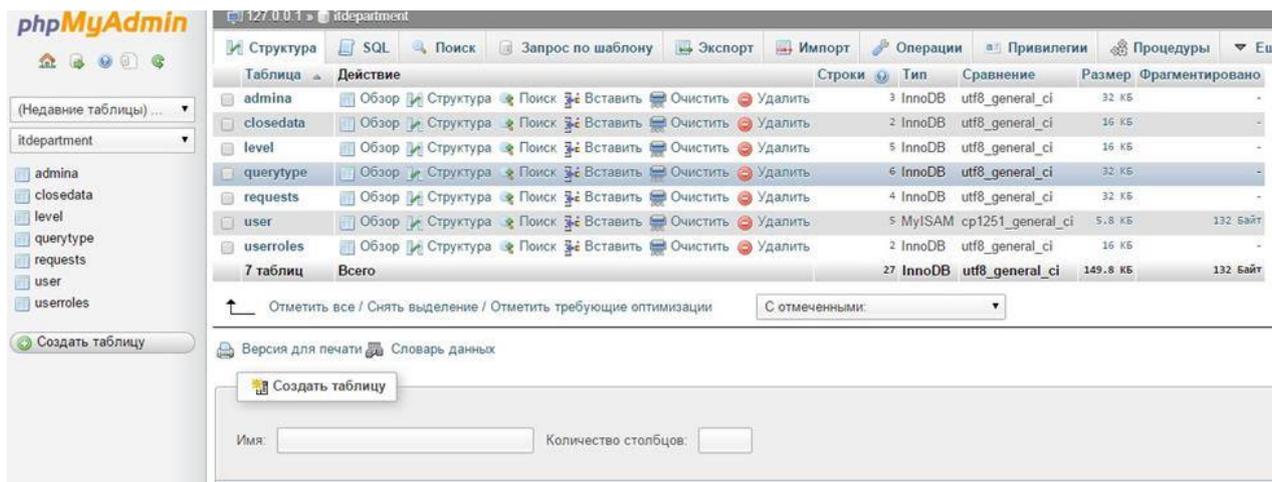


Рисунок 1 - Панель phpMyAdmin

### Модель базы данных ER

Для описания структуры АИС была разработана ER-модель системы, которая представлена на рисунке 10. Она содержит в себе сущности и их связи.

Система в контексте ER-модели содержит 6 сущностей:

- таблица Admin. Данная сущность содержит атрибуты: id – администратор, login, fam - фамилия;
- таблица User. Данная сущность содержит атрибуты: id - пользователь, avatar, name, sname, post, role, email, tel, pass. Она имеет связь с сущностью «Requests» типа «один к одному» и с сущностью «Userroles» типа «один к одному»;
- таблица Closedata. Данная сущность содержит атрибуты: id, reqid, performer, closedate, closecomm. Она имеет связь с сущностью «Request» типа «один к одному»;
- таблица Level. Данная сущность содержит атрибуты: id, name. Она имеет связь с сущностью «Request» типа «один к одному»;
- таблица Querytype. Данная сущность содержит атрибуты: id, prname. Она имеет связь с сущностью «Request» типа «один к одному»;
- таблица Requests. Данная сущность содержит атрибуты: id, userlogin, user, contacts, crdate, reqtypeid, levelid, title, description, status, filename. Она имеет связь с сущностью «User» типа «один к одному», с сущностью «Level» типа «один к одному», с сущностью «Querytype» типа «один к одному».
- таблица Userrole. Данная сущность содержит атрибуты: id, name. Она имеет связь с сущностью «User» типа «один к одному».

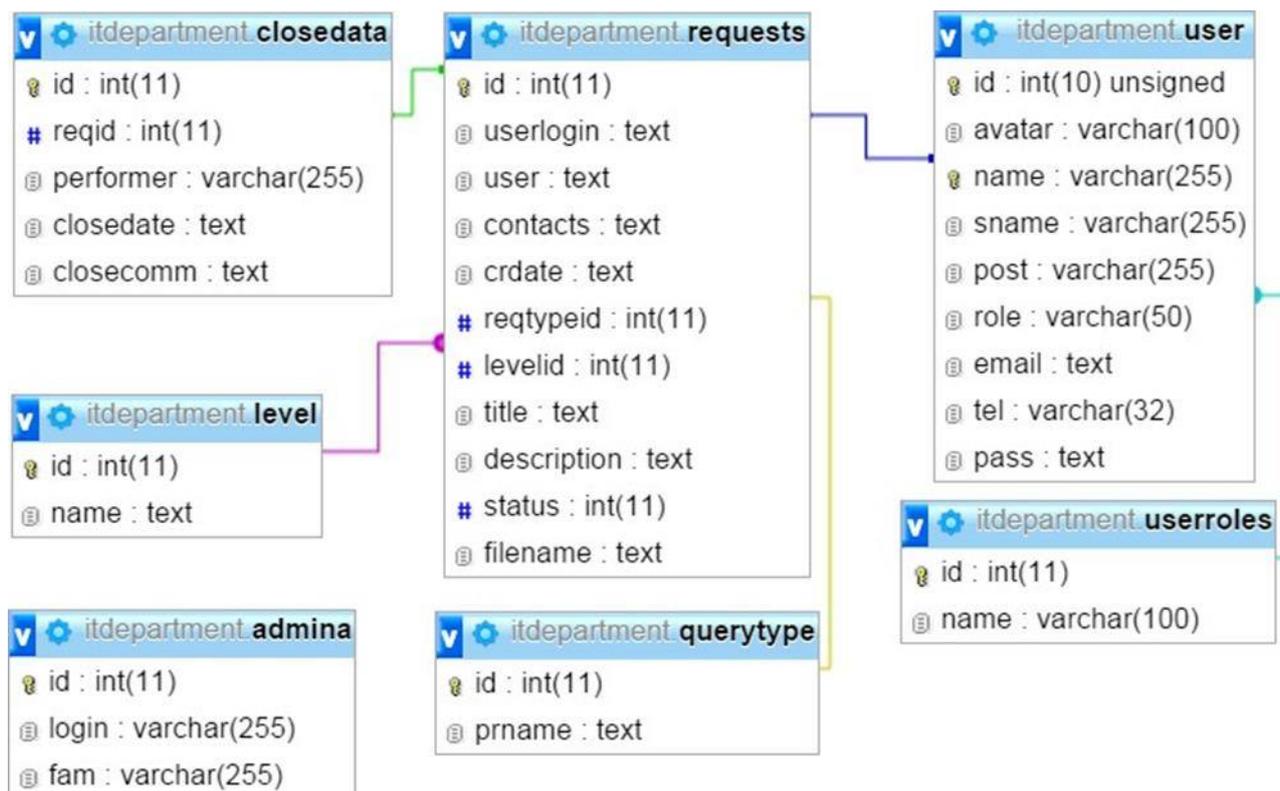


Рисунок 10 – ER-модель системы АИС

## ЗАКЛЮЧЕНИЯ

Для описания структуры АИС была разработана ER-модель системы. Для описания функциональности была разработана более подробная модель прецедентов.

Разработка веб-приложений – это общий термин для процесса создания веб-страниц или сайтов. Веб-страницы создаются с использованием HTML, CSS и JavaScript. Эти страницы могут содержать простой текст и графику, напоминая собой статичный документ. Страницы также могут быть интерактивными или отображать меняющуюся информацию. Создавать интерактивные страницы немного сложнее, но они позволяют создавать вебсайты с богатым содержанием. Сегодня большинство страниц интерактивны и предоставляют современные интерактивные услуги, такие как корзины интернет-магазинов, динамическая визуализация и даже сложные социальные сети.

Разработка веб-приложений — это не просто создание сайтов. Это системы электронных платежей и интернет-банкинг; корпоративные порталы, включающие в себя документооборот, почту, календарь и множество других функций.



Современные веб-приложения уже сопоставимы по своим возможностям с классическими приложениями (desktop applications). Но при этом могут быть доступны в любом месте и в любое время на компьютере, планшете или мобильном устройстве и зачастую имеют меньшую совокупную стоимость владения. Эти особенности делают веб-технологии очень привлекательными для решения широкого спектра бизнес-задач.

АИС для Сервисного центра готова к работе. Была создана понятная и удобная структура сайта. Пользователь может с легкостью обратиться к сотрудникам Сервисного центра, оставив обращение по вызванной проблеме. Удобная форма отправки, поиска и слежения обращений. Для администратора создана понятная панель регистрации и удаления пользователей, удаления обращений, добавления и удаления типов обращений, а также добавление нового администратора.

В ходе разработки были решены такие проблемы как:

- затрата времени обращения в ИТ в бумажной форме;
- оптимизация эффективности работы Сервисного центра;
- возможность обратиться в ИТ, не отходя от рабочего места и следить за решением проблемы.

Результатом проведенных работ являются диаграммы IDEF0, диаграмма прецедентов, функциональная модель, ER-модель.

Проект выполнен на базе языков программирования PHP и HTML, были использованы CSS и JavaScript. База данных выполнена на MySQL.

В ходе решения проекта были учтены и выполнены все требования заказчика.

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## YANGI BUG'DOY NAVLARINING URUG'INI LABORATORIYA SHAROITIDA ISSIQQA, QURG'OQCHILIKKA VA SHO'RGACHIDAMLILIGINI ANIQLASH

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### ANNOTATSIYA

Laboratoriya sharoitida yangi bug'doy urug'larini qurg'oqchilikka, issiqqa va sho'rga chidamliligini tekshirish natijasida aniqlandi.

Qurg'oqchilikka chidamliligini tekshirish natijasida Nurafshon, O'ITI-1, IK-33, BUM-BA, Antanina, Obod, Barqaror, K-38, Yangi hayot, Yuksalish va CSAPLO bug'doy navlari yuqori darajali ko'rsatkichga ega (75-100%) bo'ldi. ODARE va STIL navlari qurg'oqchilikka chidamasiz hisoblanib (15-10%) ni ko'rsatdi.

Issiqlikka chidamliligini tekshirilgan tajribada ko'p yillik bug'doy navidan boshqa hamma bug'doy navlari issiqlikka chidamliligini yuqori ko'rsatkich darajasi 85-98% gacha ega bo'ldi. Hamma bug'doy navlari sho'rga chidamlilik yuqori ko'rsatkich darajasi nazoratga nisbatan 95-100% ni tashkil qildi.

**Kalit so'zlar:** Yangi bug'doy nav urug'lari, issiqqa, qurg'oqchilikka va sho'rga chidamlilik ko'rsatkichi.

### KIRISH

So'nggi yillarda Respublikamizda ekologik holatlar bilan bog'liq bo'lgan ekinlarni sug'orish tanqisligi, sug'oriladigan yerlarning sho'rlanish, obu havoning normadan tashqari ko'p isib ketishining natijasida yerlarning qurib qolishi fermer xo'jaliklarining yetishtirilgan ekinlariga kata zarar yetkazib hosildorlik haddan tashqari pasayib ketmoqda.

Tajribada sodir bo'layotgan iqlim o'zgarishlar ma'lum bir qisqa vaqt ichida bo'ladigan noqulay holat o'simliklarning yosh barglarini quyosh ta'sirida so'lib qolishi va qattiq qurib ketishiga sabab bo'lmoqda. Anomal sharoitda o'sayotgan o'simliklarning o'sish va rivojlanish holatini o'rganish va ularning noqulay sharoitlarga moslashuvini (adaptatsiya), ya'ni shu noqulay sharoitlarga moslashuvi o'simlik hujayralarining tuzilishi va fiziologik jarayonlarining o'zgarish yo'li bilan amalga oshadi.

## ADABIYOTLAR TAHLILI VA METODOLOGIYASI

Olimlarimiz tomonidan o'simliklar fiziologiyasi va immuniteti fanining rivojlanishi o'tgan asrning boshlaridayoq ilmiy ishlar olib borilgan va kata yutuqlarga erishilgan [1,2.] va boshqalar. Ko'pchilik olimlarning [3,4] izlanishi natijasida har xil tashqi omillarga bardosh beradigan qishloq xo'jalik ekinlarining samarali raqobatbardosh yangidan-yangi madaniy navlari yaratildi va ularning hosildorligiga alohida e'tibor berildi. Hozirgi kunda yuqorida aytilgan hamma yangi navlar qishloq xo'jalik ekinlarning hamma sohasida o'z samarasini bermoqda [5,6].

Fiziologiya va ekologiya olimlarining ilmiy tadqiqot ishlariga ko'ra tashqi muhitga chidamli yangi nav yaratishda quyidagi ilmiy ishlarga ahamiyat berishni tavsiya etadi, ya'ni immuniteti kuchli bo'lgan yangi nav yaratishda ilmiy xodimlar asosan o'simliklarning umumiy morfologik holatiga va ikkinchi turli xil bilim darajasiga ega molekulyar, submikroskopik, mikroskopik, hujayra, to'qimalar hamda butun o'simlik tanasida o'tayotgan jarayonlarni o'rganishni lozim deb hisoblaydi [5].

Genkel P.A. va uning shogirdlari [7] fiziologik va bioximyaviy jarayon-larining intensivligi o'rtasidagi normal muvozanat og'ir sharoitlarda sezgirligi pasayadi. Buning natijasida o'simlik zarar yetkazuvchi omilga o'zida immunitet hosil bo'lishini tasdiqlaydi. Bu qarshilik genetik irsiy xususiyatga ega bo'lib, noqulay muhit omillariga ontogenez fasl davomida namoyon bo'ladi.

Antipova N.I.[8] va boshqalar [9] tajriba kuztuvlarida o'simliklar o'sish mavsumining oxirigacha haddan tashqari namlik va aksincha namlik yetishmaslik ta'sirini boshdan kechiradi. Shu sababli alohida e'tiborga olishimiz kerakki o'simliklar kserofitlar, mezofitlar, gigrofitlar va sukulentlarga bo'linadi va ularda suv tanqisligiga moslashish reaksiyasi ma'lum fiziologik, morfologik xususiyatlarda namoyon bo'ladi, ya'ni kserofitlar quruq dasht o'simliklari chuqur ildiz tizimiga va protoplazmning sezilarli suv almashinuviga berdosha berish qobiliyatiga ega; mezofitlar; madaniy o'simliklar so'rilishi uchun keng ildiz tizimga ega bo'ladi va protoplazma suv tanqisligiga sezgir gidrofitlar; ho'l yashil o'simliklar, xususan guruch, doimo suvga botgan holda tuproqda o'sadi va nihoyat sukulentlar bo'lgan cho'l o'simliklar kiradi.

O'simliklarning yuqoridagi ko'rsatilgan xususiyatlarini e'tiborga olib kelgusida ilmiy tadqiqot ishlarida yangi faktlar va qonuniyatlarni o'rnatish balkim zarurdir. Bundan tashqari olimlar fikricha [10,11] o'simliklarning tashqi muhit qarshiligiga chidash va o'zida immunitet hosil qilgan holda hosildorligining oshganligi nimaning hisobiga ekanligining asosiy sababini ilmiy izlanishlar oqibatida aniqlash kerak bo'ladi [12].

O'simliklarning membranasida moslanish va struktraviy o'zgarishlar jarayonida sodir bo'ladi, metabalizimining qayta tashkil etilishi hujayralarning butun tarkibi o'rganilmagan va bu borada chuqur tadqiqot ishlariga keng amalli faoliyat sohalari ochiladi.

Tajriba o'tkazilgan bug'doy navlari to'g'risida ma'lumot.

Institutimizdagi olimlar tomonidan yaratilgan hamda xorijiy davlatlardan olib kelingan yangi bug'doy navlarini, laboratoriya sharoitida tajriba va usullardan foydalanib sun'iy omillar ta'sir qilgan holda issiqqa, qurg'oqchilikka hamda sho'rga chidamliligini aniqlash maqsadida bir qancha ilmiy tadqiqot ishlari olib boriladi.

Tajriba o'tkazilgan bug'doy navlarining sertifikat ma'lumot qisqacha quyidagilardan iborat, ya'ni:

1. NURAFSHON navi kuzgi yumshoq bug'doy. O'simlikshunoslik ilmiy tadqiqot institutida yaratilgan. Nav o'rtapishar 212-216 kunda pishadi, o'rta bo'yi (89,0-95,0 sm). Sariq va qo'ng'ir zang kasalliklariga, issiqlikka hamda yotib qolishga chidamli 1000 dona urug' vazni 42,8-43,8 gr. Boshog'i silindrsimon, zichligi o'rtacha qiltiqli. Hosildorligi 69,3-72,5 st/ga tashkil etadi.

2. BARQAROR navi o'simliklar genetik resurslari ilmiy tadqiqot institutida yaratilgan. Umumiy tavsifi: nav o'rtapishar 212-214 kunda pishadi, past bo'yi (79,8-83,7 sm). Sariq va qo'ng'ir zang kasalliklariga, issiqlikka va yotib qolishga chidamli, sho'rga o'rtacha chidamli, 1000 dona vazni 40,3-40,9 gr. Boshog'i Boshog'i silindrsimon, zich joylashgan, o'rtacha uzunlikda qiltiqli. Hosildorligi 69,7-72,5 st/ga.

3. OBOD-yumshoq bug'doy. O'simliklar genetik resurslari ilmiy tadqiqot institutida yaratilgan, nav o'rtapishar bo'lib 213-214 kunda pishib yetiladi. 1000 donasi 42,3-43,2 gr tashkil etadi. Oqsil miqdori 14,4%, kleykovina miqdori 32,4 %, yaltiroqligi 81,9%.

4. ANTANINA yumshoq bug'doy, boshog uzunligi 10 smli qiltiqli, hosildorligi 1 ga 100 st/ga, sifati yuqori non mahsulotida ishlatiladi.

5. KRUGA-KPCHA-qattiq bug'doy, hosildorlik yuqori 1ga-105 st/ga, yuqori sifatli makaron mahsulotlariga ishlatiladi.

6. STIL-18 navi yumshoq bug'doy, hosildorlik yuqori 1ga-120 st/ga sifati kuchli bug'doy non ishlab chiqarishda ishlatiladi.

7. ODARI-ODASY-qattiq bug'doy. Hosildorlik yuqori 110 st/ga. Yuqori sifatli makaron mahsulotlariga ishlatiladi.

8. BUMBA kuzgi yumshoq bug'doy o'rtapishar 38-44 sm, yuqori hosildorlikka ega 93,3 st/ga.

9. O'ITI-1 navi o'simliklar genetik resurslari ilmiy tadqiqot institutida yaratilgan, kuzgi bug'doy nonbop, qimmatbaho oqsil miqdori 30,1 %.
10. CESARLO- kelib chiqishi Fransiya. Bo'yi 80 sm, hosili 42,2 st/ga.
11. K-38-O'TII-1
12. IK-33---IK-335/2018-2022. Hosildorlik 68,2. Kelib chiqishi Turkiya.
13. Ko'p yillik-qattiq bug'doy.
14. YUKSALISH-qattiq bug'doy yuqori sifatli makaron mahsulotlariga ishlatiladi.
15. Yangi hayot-kuzgi yumshoq bug'doy. O'simlikshunoslik ilmiy tadqiqot institutida yaratilgan. O'rtapishar hosildorligi 66,4-68,6 st/ga, oqsil miqdori 14,6 , kleykovina miqdori 30,2%.

## NATIJAR VA MUHOKAMA

Qishloq xo'jaligi ekinlari navlarining urug'larini tekshirish uchun fiziologiya va immunitet laboratoriyasida institutida saqlanayotgan genofondagi hamda institute olimlari tomonidan yaratilgan turli xil qishloq xo'jaligi ekinlarining yangi nav urug'larini ob havoning noqulay sharoitiga chidamliligini saqlash va hujayraalrdan organellalarining har xil o'zgarishi natijasida o'simlikda immunitetning kuchayishi maqsadida bir necha marta o'rganilgan usullar yordamidan foydalaniladi. O'simlik immunitetini o'rganishda olib borilgan ilmiy ishlar, ya'ni laboratoriya sharoitida o'simlik urug'lariga sun'iy har xil stress omillar ta'sir qiladigan pribor uskunalardan foydalanadi. O'simlikka ta'sir qiladigan har xil omillar o'zgarish uchun alohida uslublar mavjud. Bu uslublardan foydalanib laboratoriya sharoitida issiqqa, sho'rga, qurg'oqchilikka va sho'rga chidamliligini aniqlashda o'simlik tanasida imunitetning paydo bo'lganligi o'rganiladi. O'tkazilgan tajriba va uslublar natijasida olingan hamma hisobotlarni o'rganib undan umumiy xulosa chiqariladi.

Tajribamizni boshlashdan avval bug'doy urug'larining unuvchanligini o'sish va rivojlanishini bir-biridan farqini bilish zarur. Buning uchun bug'doy urug'larini stakanlarga bir vaqtida 80 donadan sanab, ustiga distillangan suv quyiladi va 24 soat davomida ushlab turiladi. Ertasiga urug'larni suvdan olib, 20 donadan filtr qog'ozdan to'shalgan chashka Petriga joylashtiriladi.

*Eslatma.* Har doim filtr qog'oz ustiga bug'doylarni qorni bilan joylashtirish zarur. Har bir chashka Petriga 7 ml distillangan suv quyib 22 °C li temperaturada termostatga joylashtiriladi va 7 kundan keyin o'sgan urug'larni sanab hamda poya ildizining uzunligi o'lchab olinadi. O'tkazilgantajribada bug'doy navlarining unuvchanlik qobiliyati 96 % dan kam bo'lmasligi kerak.

Yuqori yuqorida ko'rsatilgan umumiy ma'lumotda bug'doy urug'larini o'sish qobiliyati me'yorida ekanligiga ishonch hosil qilinib, sho'rga chidamliligi aniqlanadi.

1. Qurg'oqchilikka chidamlilikni o'rganish usullari:

Bunda 100 ml distillangan suvga 17,6 gr SAXAROZA eritmasini aralashtirib umumiy eritma tayyorlab olinadi. Bu eritmani yaxshi sifatli bo'lishini uchun 5 minut qaynatib olinadi va suv sovigandan keyin urug' mog'or zamburug'I hosil qilmasligi uchun 2-3 tomchi formalin tomiziladi. Tayyorlab qo'yilgan sterillangan chashka Petrilarga filtr qog'oz to'shaladi va 50 dan bug'doy urug'i joylashtiriladi. Tajriba o'tkazish usuli bo'yicha nazorat variant ikki takror, ya'ni 2 chashka Petrida 50 donadan bug'doy urug'idan 100 dona ekiladi. Qurg'oqchilikka chidamliligini aniqlanayotgan variantlar 4 takrorda ekildi. Jami tajribaga 250-300 dona bug'doy urug'i ishlatiladi. Tajriba variantiga 5 ml distillangan suv quyiladi va ustuni yana filtr qog'oz bilan yopib 5 kun davomida 22<sup>0</sup> C li temperaturada termostatga joylashtiriladi. Bu vaqt ichida tajribada o'sishga yaroqli urug'largina o'sib ildizi 1-3 sm uzunlikda bo'ladi va keyinchalik o'sishdan to'xtaydi. Ungan urug'larning soniga qarab, foiz aniqlanadi va quyidagi formula bilan hisoblanadi:

1. Ungan urug' foizi-P

2. Nazorat variantidagi ungan urug' soni 100% deb hisoblanadi,

3. Saxaroza eritmasidagi ungan urug'-A. Urug' soniga qarab foizi ifodaladi. Ungan urug' ya'ni ushbu formula bilan ifodaladi:

$$P=A*100/B$$

O'suvchanlik foizi qancha katta bo'lsa shuncha qurg'oqchilika shuncha chidamli hisoblanadi.

2. Issiqlikka chidamliligini aniqlashda quyidagilardan foydalaniladi.

Saralangan bug'doy urug'larini 250-300 donasini olib tajriba o'tkaziladi. Bu tajribaga 7 sm x 11 sm lik bo'z matodan tikilgan haltachalar kerak bo'ladi. Nazorat variantiga 50 donadan ikki haltachaga bug'doy urug'lari solib tayyorlab qo'yiladi. Tajriba variantiga uchta haltachaga esa 50 donadan urug'ini solib va oldindan tayyorlab qo'yilgan 54<sup>0</sup> C li temperaturadagi issiq suvga tushiriladi. 20 minut issiq suvda saqlangan urug'larni qopchiqlardan olib oldingi tajribalaridagidek chashka Petri ichidagi filtr qog'ozlarga joylashtiriladi. Nazorat variant issiq suvga solingan holda filtr qog'ozi bor chashka Petriga 7 ml suv solib o'suvchanligini o'rganishga termostatga 5 kunga joylashtiriladi. 5 kundan keyin hamma variantlarning o'suvchanligining hisobi aniqlanadi va quyidagi formula bilan issiqqa chidamliligini aniqlanadi.

P-issiq suvda ushlangan tajriba varianatlari.

N<sub>1</sub>-urug' soni issiqda ushlangan.

N-urug' soni nazorat variantidagisi.

100% - nazorat variantdagi ungan urug' soni hisoblanadi.

$$P = N_1 * 100 / N.$$

3. Sho'rga chidamliligini aniqlashda yuqoridagi o'rganilgan tajriba usullari singari 250-300 dona bug'doy urug' navlari saralab olinib, filtr qog'oz joylahshtirilgan chashka Petriga 7 ml distillangan suv quyiladi. Tajriba o'tkazilayotgan urug' variantiga 1 %lik NaCl eritmasi quyiladi va hamma variantlarni termostatga 26 °C li temperaturada joylashtiriladi. 5 kundan keyin qo'yilgan tajribalarni termostatdan olib, hammasini unuvchanligini o'lchab olinadi va nazorat variantiga taqqoslab urug'larining sho'rga chidamliligi aniqlanadi. Tuz eritmasidagi o'sgan bug'doy urug'larini sho'rga chidamliligining farqini quyidagi formula bilan hisoblab chiqariladi:

P- sho'rga chidamlilik o'rganilayotganurug'lar.

N<sub>1</sub>-sho'r eritmasida yashab qolgan nihol soni.

N-distillangan suvda o'sgan nixol soni.

100%- nazorat variantidagi ungan urug' soni hisoblanadi.

$$P = N_1 * 100 / N$$

*Eslatma.* Yuqoridagi ko'rsatilgan 3 ta jadvalda tajriba variantlariga nisbatan o'suvchanlik foizi, ildiz soni va poya uzunlik sonlarining bir-biridagi farqlarining belgilari, ya'ni:

Lim-eng kichkina va katta son.

X-10 ta o'simlikning foizi va uzunligining o'rtacha soni.

Shu bilan birgalikda tajriba va usullarining qo'llagan holda qilingan laboratoriya sharoitidagi olib borilgan ilmiy tadqiqot ishlarini yuqorida aytilgan har xil faktorlarga quyidagicha baho beriladi, ya'ni foizi 0-25% gacha bo'lsa chidamsiz, 26-50% bo'lsa gacha o'rtacha chidamli, 50-75 % bo'lsa chidamli, agarda 75-100 % gacha bo'lsa yuqori chidamli hisoblanadi.

Laboratoriya sharoitida o'tkazilgan tajribalarga asosanib yangi bug'doy urug'lariga har xil sun'iy omillar qo'llagan holda quyidagi natijalarga erishildi. Eslatib o'tish lozimki, ya'ni olib borilayotgan har bir yangi navlar variant bilan nazorat variantidagi bug'doy urug'lari bir xil bo'lib undan olingan 7 kunlik yosh kurtaklarning o'suvchanlik foizining soniga qarab bir-birining farqini taqqoslash natijasida aniqlandi.

1. Bug'doy navlarining urug'larini qurg'oqchilikka chidamliligini tekshirganimizda, 1-jadvalda ko'rinib turganidek 17,6% lik saxaroza eritmasida 7 kunlik urug'larning unib chiqishi, ya'ni Nurafshon, O'ITI-I, IK-33, BUM-BA, Antanina, Obod, Barqaror,



K-38, Yangi hayot, Yuksalish va CSARLO navlari yuqori darajani ko'rsatishga ega (75-100%) bo'ladi. Bunda IK-30 bug'doy navi chidamlilik darajasi 69%ga ega bo'ldi, ya'ni qurg'oqchilikka chidamli deb hisoblandi, ODARE va STIL navlari esa qurg'oqchilikka chidamsiz hisoblanib, atigi (15-10%) ni ko'rsatdi.

**Bug'doy navlarining qurg'oqchilikka chidamliligini aniqlash (saxaroza).**

**1-jadval**

№	Bug'doy navlari	Urug'ning unib chiqishi		Ildizning unib chiqish,soni		Ildizning uzunligi, sm		Poya uzunligi, sm	
		lim	x	lim	x	lim	x	lim	x
1.	Nazorat Nurafshon	96-96	98	3-4	3,2	3-5	4,4	3-5	3,6
			96	3-4	3,1	2-6	3,5	2-5	3,0
2.	Nazorat O'ITI-1	96-96	98	3-5	4,5	7,8	7,0	4-5	4,3
			96	3-6	3,6	3,5	3,9	2-3	3,0
3.	Nazorat IK-33	58-60	94	3-5	4,3	5-7	6,1	3-5	4,3
			69	1-3	2,2	1-2	1,6	1-2	1,7
4.	Nazorat BUM-BA	84-90	98	3-5	4,7	6-8	7,6	4-5	4,6
			87	2-4	3,1	1-3	1,7	1-2	1,4
5.	Nazorat ANTANINA	66-88	100	3-5	4,3	5-8	6,3	4-5	4,5
			77	1-3	2,7	1-2	1,7	1-2	1,5
6.	Nazorat Obod	94-94	100	4-6	5-0	5-7	6,2	4-6	5,3
			94	3-3	3-0	1-3	2,0	1-2	1,3
7.	Nazorat Barqaror	66-84	96	3-5	4,1	4-7	5,7	4-5	4,5
			75	3-5	3,2	1-3	1,9	1-2	1,6
8.	Nazorat K-38	92-96	100	5-6	5,1	6-8	7,5	5-5	5,0
			94	3-5	4,1	3-5	3,5	2-3	2,9
9.	Nazorat Yangi hayot	82-94	100	4-5	4,7	6-7	6,9	4-5	4,7
			88	2-3	2,9	1-2	1,3	1-2	1,1
10.	Nazorat STIL	12-8	98	3-3	3,0	3-3	3,0	3-3	3,0
			10	3-3	3,0	2-3	2,3	1-1	1,0
11.	Nazorat ODARE	20-10	92	3-3	3,0	3-3	3,0	3-2	2,9
			15	3-2	2,8	2-1	1,5	1-1	1,0
12.	Nazorat CSARLO	96-98	96	3-3	3,0	5-3	3,9	4-3	3,3
			97	3-3	3,0	2-2	2,0	2-1	1,7
13.	Nazorat Krucha qat-tiq bug'doy	48-68	96	5-3	3,4	4-3	3,4	5-3	3,4
			58	3-3	3,0	2-2	2,0	2-1	2,1
14.	Nazorat Yuksalish qat.bug'.	90-98	100	3-3	3,0	4-3	3,8	5-3	3,5
			94	3-3	3,0	2-1	2,0	2-1	2,6
15.	Nazorat Ko'p yillik	80-92	80	3-5	3,4	3-5	4,2	4-5	4,3
			92	1-4	2,8	2-3	2,4	2-3	2,4

2. Ikkinchi jadvaldagi issiqlikka chidamliligini bug'doy urug'larining tajriba uslublarida ko'rsatilganidek hamma bug'doy urug'larini alohida qopchiqlarga solib, 54 °C issiq suvga 20 minut saqlab va undan keyin hamma bug'doylarni alohida filtr qog'oz to'shalgan Petriga

qorni bilan joylashtiriladi. Bu yerda ham har bitta bug'doy navi o'ziga alohida nazorat varianti bo'lib issiq suvga solinmagan holda sovuq suv ishlatilmaydi. Tajribaning 7- kunida urug'kurtakalrning unuvchanlik xususiyati faqat ko'p yillik navida 74% ni tashkil qilib issiqlikka chidamliligini ko'rsatdi va bundan boshqa hamma bug'doy navlari yuqori yuqori ko'rsatkichni tashkil qilib ko'pchilik bug'doy navlari 85-98% gacha issiqlikka yuqori chidamlilikning darjasini ko'rsatdi.

3. Bug'doy urug' navlarining sho'rga chidamliligini aniqlash uchun 1% NaCl eritmasi ishlatildi. Bunda ham tajriba variantiga tegishli bug'doy urug'larini 1%li NaCl eritmasiga solinadi va solishtiriladigan nazorat variantiga oddiy suv ishlatiladi. 3-jadvalda urug' unuvchanlik ko'rsatkichi foizga nisbatan 7- kuni deyarlik hamma bug'doy navlari sho'rga chidamlilik darajasi yuqori ko'rsatkichlarga ega bo'lib, ya'ni hamma bug'doy navlari nazorat variantiga taqqoslaganda (95-100%)ni tashkil qildi.

### Bug'doy navlarining issiqlikka chidamliligini aniqlash.

2-jadval.

№	Bug'doy navlari	Urug'ning unib chiqishi		Ildizning unib chiqish,soni		Ildizning uzunligi, sm		Poya uzunligi, sm	
		lim	x	lim	x	lim	x	lim	x
1.	Nazorat Nurafshon	96-98	100-97	3-5 3-5	4,2 3,9	6-8 5-10	7,4 6,7	4-6 4-6	5,0 4,7
2.	Nazorat O'ITI-1	74-82	98-78	4-5 3-5	4,7 4,8	6-9 5-8	7,7 5,8	3-6 4-5	4,7 4,7
3.	Nazorat IK-33	98-100	100-98	3-3 3-5	3,0 3,5	5-7 5-7	6,6 6,0	4-6 4-5	4,5 5,0
4.	Nazorat BUM-BA	84-94	100-89	5-5 3-4	4,9 3,5	5-6 3-4	5,6 4,0	4-6 2-5	5,0 4,0
5.	Nazorat ANTANINA	100-100	100-100	3-5 3-3	4,7 4,2	6-8 4-8	7,3 6,1	4-5 4-8	4,6 5,0
6.	Nazorat Obod	94-96	96-95	4-5 3-5	4,7 4,3	4-8 3-7	6,8 4,8	4-8 3-5	4,7 3,8
7.	Nazorat Barqaror	88-92	98-90	4-5 3-5	4,6 4,7	5-8 4-7	6,6 6,2	3-6 4-6	3,5 4,8
8.	Nazorat K-38	98-98	100-98	4-3 3-3	3,2 3,0	8-6 5-3	7,2 4,1	5-4 5-3	4,8 3,5
9.	Nazorat Yangi hayot	96-74	96-85	5-3 5-3	3,0 3,9	3-3 7-5	3,0 4,9	3-2 5-4	2,0 4,3
10.	Nazorat STIL	100-92	92-96	3-4 5-3	3,3 4,3	3-4 7-5	3,6 5,1	3-2 5-3	2,7 4,1

11.	Nazorat ODARE	98- 100	98- 99	3-4 5-3	3,2 3,7	5-3 6-3	4,3 3,9	5-3 5-3	2,0 4,3
12.	Nazorat CSARLO	98-98	100 98	5-3 5-3	3,2 3,4	7-5 5-4	5,8 4,1	5-4 4-3	4,5 3,3
13.	Nazorat Krucha qat-tiq bug'doy	100- 92	92 96	3-4 5-3	3,3 4,3	3-4 7-5	3,6 5,1	3-2 5-3	2,7 4,1
14.	Nazorat Yuksalish qat.bug'.	98- 100	98 99	3-4 5-3	3,2 3,7	5-3 6-3	4,3 3,9	5-3 5-3	3,7 3,7
15.	Nazorat Ko'p yillik	68-80	92 74	3-5 3-5	3,4 4,0	4-6 4-6	5,0 5,2	4-5 3-5	4,5 4,4

## Bug'doy navlarining sho'rga chidamliligini aniqlash.

## 3-jadval.

№	Bug'doy navlari	Urug'ning unib chiqishi, %		Ildizning unib chiqish, soni		Ildizning uzunligi, sm		Poya uzunligi, sm	
		lim	x	lim	x	lim	x	lim	x
1.	Nazorat Nurafshon	96-98	100 97	3-5 3-5	3,5 3,7	3-5 3-6	3,9 4,0	3-4 4-5	3,7 3,7
2.	Nazorat O'ITI-1	94-96	96 95	4-5 3-5	5,0 4,5	7-11 4-6	8,1 4,8	4-6 4-5	5,0 4,0
3.	Nazorat IK-33	90-92	98 91	3-5 3-5	3,6 3,2	6-8 3-6	6,9 4,3	4-5 3-5	4,7 3,9
4.	Nazorat BUM-BA	92-94	94 93	3-5 3-5	3,3 3,6	6,9 3-5	7,1 3,8	4-6 3-5	5,0 3,6
5.	Nazorat ANTANINA	94-98	98 96	3-5 3-5	4,5 4,4	6-9 3-4	7,4 3,6	4-6 3-5	4,6 3,6
6.	Nazorat Obod	98-100	96 99	2-5 3-5	4,1 4,1	5-9 3-5	7,4 3,8	4-6 3-5	4,9 3,5
7.	Nazorat Barqaror	100-100	96 100	3-5 3-5	3,5 4,3	5,8 3-5	7,0 4,3	4-6 3-5	4,7 3,8
8.	Nazorat K-38	100-100	100 100	4-5 4-5	4,5 4,5	5-7 4-6	6,2 4,7	4-5 4-5	4,8 4,2
9.	Nazorat Yangihayot	100-100	100 100	4-5 3-5	4,9 3,9	5-7 3-5	5,8 4,2	4-8 3-4	4,5 3,9
10.	Nazorat STIL	100-96	100 98	3-3 3-3	3,0 3,0	5-3 4-3	4,1 3,3	4-2 4-2	3,2 2,5
11.	Nazorat ODARE	94-100	100 97	5-3 5-4	3,3 3,2	4-3 4-3	3,8 3,2	4-3 2-3	3,4 2,3
12.	Nazorat CSARLO	100-100	100 100	4-3 3-3	3,1 3,0	8-6 4-3	7,0 3,4	5-4 3-2	4,3 2,5

13.	Nazorat Krucha qattiq bug'doy	96-92	98 94	5-3 4-3	4,4 3,2	5-3 4-3	4,5 3,2	5-3 4-2	4,2 2,5
14.	Nazorat Yuksalish qattiq bug'doy	96-100	100 98	3-3 3-3	3,0 3,0	5-3 4-3	3,6 3,7	4-3 4-2	3,2 3,1
15.	Nazorat Ko'p yillik	88-90	94 89	3-3 3-3	3,0 3,0	5-8 4-8	5,9 5,3	4-5 4-5	4,4 4,4

## XULOSA

Laboratoriya sharoitida olib borilgan yangi bug'doy nav urug'lari bilan qilingan ilmiy tajribalar asosida, ya'ni qurg'oqchilikka, issiqlikka hamda sho'rga chidamliligini tekshiruvlar natijasida olingan hisobotlardan xulosa chiqarildi:

1. Qurg'oqchilikka chidamliligini tekshirilganda Nurafshon, O'ITI-1, IK-33, BUM-BA, Antanina, Obod, Barqaror, K-38, Yangi hayot, Yuksalish va CSARLO bug'doy navlari yuqori darajali ko'rsatkichga ega (75-100%) bo'ladi. IK-30 bug'doy navi chidamlilik darajasi 69% ga ega bo'lib, ODARE va Stil navlari esa ko'proq qurg'oqchilikka chidamsiz hisoblanib atiga (15-10%)ni ko'rsatdi.

2. Issiqlikka chidamliligini tekshirilgan tajribada faqat bitta ko'p yillik bug'doy navi 74% ni tashkil qilib issiqlikka chidamliligi degan ko'rsatkichga ega bo'lib, qolgan hamma bug'doy navlari issiqlikka yuqori ko'rsatkich darajasiga ega bo'lib (85-98%) ga ega bo'ldi.

3. Urug' unuvchanlik ko'rsatkichlari sho'rga chidamliligini aniqlangan tajribalarda hamma bug'doy navlari ko'rsatkich darajasiga ega bo'lib nazorat varinatiga solishtirilganda (95-100%) ni tashkil qildi.

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## YERYONG‘OQ (*ARACHIS HYPOGAEAE* L.) O‘SIMLIGINING BIOLOGIK XUSUSIYATLARI

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### ANNOTATSIYA

Ushbu maqolada yeryong‘oq (*Arachis hypogaeae*) turi tarkibida ozuqaviy ko‘rsatkichlarining darajasi, vitamin, makro-mikro elementlarga hamda oqsil, moy, uglevodlarga boyligi, o‘simlikning ozuqaviy ahamiyati haqida ma‘lumot berilgan. Ayniqsa, oziq-ovqat sanoati hamda tibbiyot sohasida turli maqsadlarda ishlatilib kelinishi, yeryong‘oqning tarkibi inson tanasi uchun foydali xususiyatlarga egaligi, ushbu mahsulotni muntazam o‘z me‘yorida iste‘mol qilish, organizmda yetishmayotgan ozuqa moddalarni o‘rnini bosishi hamda ichki organlar va tizimlarda foydali o‘zgarishlarga olib kelishi yoritilgan. Shuning bilan birga yeryong‘oq yetishtirishning iqtisodiy jihatlari ham muhimligi ushbu o‘simlik o‘rtasida duragaylash tadqiqotlari olib borilishiga, serhosil va biokimyoviy jihatdan ko‘rsatkichlari yuqori bo‘lgan hamda turli abiotik omillarga chiqdamli, ertapishar navlarni yaratish, xorijiy namunalarni respublikamizga introduksiyalash ahamiyatligi ta‘kidlangan.

**Kalit so‘zlar:** *Arachis hypogaeae*, dukkak, geokarpiya, kleystogam gul, ginofor, fitosterol, flavonoid, tokoferol, antioksidant.

### KIRISH

Dunyo aholisi oshib borar ekan, inson ehtiyojlari ham mos ravishda ortib boradi. Bu esa biologik muammolardan biri bo‘lgan oziq-ovqatga bo‘lgan talabning ham oshishiga olib keladi. Xususan, dukkakli va moyli ekinlarga, shuningdek, ozuqaviy qiymati yuqori bo‘lgan o‘simliklar sanoat miqyosida keng foydalaniladi. Misol uchun, kungaboqar, zig‘ir, kinjut, soya, yeryong‘oq o‘simliklaridan olingan va tayyorlaniladigan mahsulotlar (moy va boshqalar) katta ahamiyatga ega. Chunki jahon miqyosida ham inson organizmga foydali, sifatli, mineral va makro-mikroelementlarga, vitaminlarga, organik birikmalarga boy bo‘lgan, va eng muhimi tabiiy mahsulotlar va ulardan tayyorlangan oziq-ovqatlarga talab yuqori va keng ko‘lamda savdoda ham, qishloq xo‘jaligi va sanoatda ham o‘z o‘rniga ega. O‘zbekiston Respublikasi Prezidentining 2022 yil 28 yanvadagi PQ-106-son “Qishloq xo‘jaligi ekinlari urug‘chiligini

yanada rivojlantirish bo'yicha qo'shimcha chora-tadbirlar to'g'risida"gi farmonida qishloq xo'jaligi ekinlari urug'chiligini tubdan modernizatsiya qilish, sifatli va raqobatbardosh urug'lik mahsulotlarini ishlab chiqarishni kengaytirish, urug'chilikda qo'shilgan qiymat zanjirini shakllantirish, sohani raqamlashtirish, ilm-fan, ta'lim va ishlab chiqarishni o'zaro integratsiya qilish va kooperatsiya munosabatlarini rivojlantirish hamda innovatsion texnologiyalarni keng joriy etish maqsadida muhim vazifalardan biri etib belgilangan. Qarorga asosan, sabzavot, poliz, dukkakli, ozuqa va moyli ekinlarning mahalliy seleksiya navlari urug'chiligini yo'lga qo'yish alohida belgilab berildi. Moyli ekinlar qatoriga kiruvchi hamda hozirgi kunda ko'p tarmoqlarda foydalaniladigan va eksport qilish ko'rsatkichlari ortib borayotgan o'simliklardan biri yeryong'oq (*Arachis hypogea*) hisoblanadi.

### ADABIYOTLAR TAHLILI VA METODOLOGIYA

Yeryong'oqning vatani Janubiy Amerika (Peru) hozirgi kunda ham yeryong'oqning yovvoyi ko'p yillik turlari Urugvay, Braziliyaning janubiy qismlarida, Amazonkaning sohil bo'ylarida o'sadi.

Hindiston, Pokiston, Rossiya, Turkiya, Yaponiya, Xitoydan respublikamiz xududig kirib kelgan [6]. Respublikamiz hududida tumanlashtirilgan navlari ekib kelinmoqda. Misol uchun, "Qibray-4", "Toshkent-112", "Salomat", "Mumtoz" kabi navlaridir. O'zbekistonda hozirgi kunda bu o'simlikka e'tibor hamda uni yetishtirish va eksport qilish ko'rsatkichlari ham yildan-yilga ortib bormoqda. O'tgan yilgi statistik ko'rsatkichlar bo'yicha ekin maydoni 34,189 gektar ni tashkil qilgan va asosiy va takroriy ekin sifatida ekilgan bo'lib, 86,434 tonna hosil rejalashtirilgan. 2022 yil yanvar-oktyabr oylarida 15 ta davlatga 15,6 ming tonna yeryong'oq eksport qilingan (2021 yilga nisbatan 211 tonnaga oshgan). Yeryong'oq ishlab chiqarishning asosiy qismi, ya'ni 2/3 qismi Osiyo mamlakatlariga tog'ri kelib, Xitoy, Hindiston, Indoneziya, AQSH, Senegal, Braziliya, Nigeriya eng yirik yeryong'oq ishlab chiqaruvchi davlatlar hisoblanadi.

Biologik klassifikatsiyasi: bo'lim - Magnoliya toifa, sinf - ikki urug'pallalilar, oilasi dukkakdoshlar (*Fabaceae*), turkum - yeryong'oq (*Arachis*), tur - *Arachis hypogaeae* L.

*Arachis hypogaeae* L. - bir yillik geokarpik tur o'simlik bo'lib, bo'yi 25-50 sm, poyasi o'tsimon, shoxlangan, yer bag'irlab o'sadi, tuksiz yo tukli. Ildizi o'q ildiz, 30-60 sm li asosiy ildiz va ko'p lateral ildizlardan iborat bo'lib, azotni to'plovchi tugunaklar hosil qiladi. Barglari och, to'q yashil rangli, murakkab, juft patsimon yoki teskari tuxumsimon, 4-10 smli, navbat bilan

joylashgan, har bir banddagi barglar soni 4 ta bo‘lib, barg chiqishida va kechqurunlari qarama-qarshi holatda yopiladi [5].

Gullari zigomorf, sariq, zarg‘aldoq, 2 jinsli, kapalaksimon, gulkosachabarglari 5 ta bo‘lib, barg qo‘ltig‘ida 4-7 tagacha joylashadi. Urug‘chi va changchilari oqish pardali qobiq bilan o‘ralgan. Gullash davri vegetativ siklning 80% ni tashkil qiladi. Iyun-iyul oylarida boshlanadi. Poyasining ostidagi kleystogamli gullari ochilmaydi, yer ustki gullari o‘zidan changlanadi va urug‘lanishdan so‘ng gulbandi - ginofor hosil qiladi. U 5-6 kun yuqoriga qarab o‘sgach, pastga qarab egiladi va tuproqqa 10 smgacha kiradi. Tuproq ostida meva hosil qiladi. Bu jarayonga geokarpiya deyiladi. Ginofor tuproq ostida dukkak hosil qiluvchi o‘simta [5].



1-rasm. Yeryong‘oq (*Arachis hypogea* L.)

Mevasi dukkak, 2-5 smli, ipak qurti pillasiga o‘xshaydi, meva ichida 1-5 tadan urug‘ bo‘ladi. Dukkaklash davri o‘rtacha 2 oy. Dukkak chatnamaydi, tashqi tomoni to‘rli qobiqli bo‘lib, perikarpli loviya deb ataladi. Urug‘lari ham qizg‘ish tusli yupqa qobiq bilan o‘ralgan. Bir tup yeryong‘oqda o‘rtacha 700 tagacha dukkak bo‘ladi. 1000 ta urug‘ vazni 200-1500 gr ni tashkil qilishi mumkin [5]. Mevasi sentyabr-oktyabr oylarida pishadi. O‘sinh davri 150-160 kunni tashkil qiladi (1-rasm).

O‘zbekiston hududida janubiy viloyatlarda asosan aprel oyining 10 kunligida, Toshkentda ikkinchi yoki uchinchi haftalarida, boshqa shimoliy viloyatlarda may oyining birinchi haftasida ekiladi. Chuqur uzunligi tuproq holatiga qarab, 4-5-6 sm chuqurlikda qobiqlaridan ajratilgan holda ekiladi.

Yeryong‘oq - madaniy, issiqsevar, qisqa kun o‘simligi, quyosh va namlikni yaxshi ko‘radi, yer bag‘irlab o‘sadi, kuniga 13 soat quyosh nurini talab qiladi. Qumli, yengil, serhosil, yaxshi qurigan tuproq, qumlarda yaxshi rivojlanadi. Urug‘i 12-15 C<sup>0</sup> da unadi, maysalari havo harorati -1 C<sup>0</sup> bo‘lganda nihollari zararlanadi. Fosforli va azotli o‘g‘itlarga



nisbatan talabchan, 4-6 marta sug'orish ishlari amalga oshiriladi. Me'yoridan ortiqcha miqdorda sug'orish o'simlikning nobud bo'lishiga, yong'oqlarning qorayib qolishiga olib kelishi mumkin.

Yeryong'oq o'simligining dunyo bo'ylab asosiy zararkunandalari 90 dan ortiq ro'yxatga olingan [4].

Yeryong'oq oziq-ovqat oqsilining imkoniyat manbai va energiyaga boy mahsulot [2]. Biokimyoviy jihatdan mevasi tarkibida 48-66 % gacha moy, 23-38 % gacha oqsil va 18-22 % gacha uglevod to'playdi. Yong'oq ozuqa moddalari normal o'sish va metabolism uchun zarur bo'lgan yigirma ta, shu bilan birga 9 ta muhim aminokislotalar mavjud [1]. Yeryong'oq moyi tarkibida 50% mono to'yinmagan yog'li kislotalar (MUFA), 33% ko'p to'yinmagan yog'li kislotalar (PUFA) va 4% to'yingan yog' kislotalari mavjud [3]. Uning yuqori ozuqaviy qiymati fitosterollar, flavonoid va tokoferollar kabi faol birikmalarga bog'liq [7]. Shuningdek tarkibida A, B, E vitaminlariga, shuningdek, asab tizimining normal faoliyati, DNK, RNK sintezi, miyaning to'g'ri ishlashi uchun zarur bo'lgan B<sub>9</sub> vitaminlariga boy. K, Mg mineral elementlariga boy. Urug'i sof holatda yoki qovurib iste'mol qilinadi. Oziq-ovqat sanoatida sun'iy margarin uchun zararsiz aralashma sifatida, konservalar tayyorlashda, sovun mahsulotlarini tayyorlashda, shuningdek, kosmetika – parfyumeriya sanoatida, bo'yoq olishda, dori, insektitsid, bosma siyoh, kraxmalli un tayyorlashda ham foydalaniladi. Birgina qandolatchilikda 60 dan ortiq mahsulotlar, misol uchun, shokolad, iste'mol uchun moy, shirinliklar tarkibida va boshqa mahsulotlar ishlab chiqarishda asosiy xom-ashyo hisoblanadi. Yeryong'oq asosan moyi uchun yetishtiriladi, moyi tarkibidagi antioksidantlarning va vitaminlar miqdori ko'pligi teri hamda soch holatlarini ham yaxshilaydi. Yeryong'oq suti oshqozon-ichak traktiga ijobiy ta'sir qilsa, yeryong'oq pastasi tanani energiya bilan ta'minlaydi.

Barglari va poyasi hayvonlar uchun to'yimli ozuqa bo'lib, urug'idan ajratib olingan po'stloqlari ham qishda hayvonlar uchun zax o'tkazmaslikda foydalaniladi. Sanoatda po'stloqlaridan qurulish mahsulotlari ishlab chiqarishda ham foydalanish mumkin [8]. Tibbiyotda bodom moyi bilan birga parenteral dozajda ham foydalaniladi. Yurak-qon tomirlari bilan bog'liq kasalliklarda profilaktika maqsadida, muntazam iste'mol orqali xotira va e'tiborni yaxshilash, o'sma kasalliklarini oldini olishi mumkin. II-toifali qandli diabet bilan kasallangan bemorlarning ovqat ratsionlariga qo'shiladi. Parhez qilishda to'yimliliigi bilan ajralib turadi. Shuningdek ba'zi insonlarda yeryong'oqqa nisbatan allergiyalar kuzatiladi. Bundan tashqari me'yoridan ortiq iste'mol qilish ovqat hazm qilish sistemasining buzilishiga ham olib kelishi mumkin, xom yeryong'oq ham bunga sabab bo'ladi.

## XULOSA

Adabiyot tahlillari shuni ko'rsatadiki, moyli o'simlik hisoblangan yeryong'oq (*Arachis hypogaea*) turi tarkibida ozuqaviy ko'rsatkichlarining yuqoriligi, vitamin, makro-makro elementlarga hamda oqsil, moy, uglevodlarga boyligi o'simlikning ozuqaviy ahamiyatini ham oshirib beradi. Shu bilan birga jahon sanoat tarmog'ida o'z o'rniga ega bo'lib, mahsulotlarni ishlab chiqarishda ham asosiy xom-ashyo sifatida foydalanilmoqda. Ayniqsa, oziq-ovqat hamda tibbiyotda turli maqsadlarda ishlatilib kelinmoqda. Yeryong'oqning tarkibi inson tanasi uchun foydali xususiyatlarga ega bo'lib, ushbu mahsulotni muntazam o'z me'yorida iste'mol qilish, organizmda yetishmayotgan ozuqa moddalarni o'rnini bosadi hamda ichki organlar va tizimlarda foydali o'zgarishlarga olib keladi. Shuning bilan birga yeryong'oq o'simligining iqtisodiy jihatlari ham muhimligi ushbu o'simlik o'rtasida duragaylash tadqiqotlari olib borilishiga, serhosil va biokimyoviy jihatdan ko'rsatkichlari yuqori bo'lgan hamda turli abiotiklarga chiqdamli, erta pishar navlarni navlarni yaratish, xorijiy namunalarni respublikamizga introduksiyalash ahamiyatli hisoblanadi.

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## МОДЕЛЬ ПОСТРОЕНИЯ ОБЩЕЙ И СПЕЦИАЛЬНОЙ ФИЗИЧЕСКОЙ ПОДГОТОВКИ ГАНДБОЛИСТОВ ВЫСШЕЙ КВАЛИФИКАЦИИ В ГОДИЧНОМ ЦИКЛЕ

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### АННОТАЦИЯ

Физическая подготовка является одной из важных видов подготовки гандболистов высшей квалификации. Годичный цикл учебно-тренировочного процесса необходимо строить с учетом значимости ведущих базовых и специальных физических качеств.

Необходимо уделять больше времени на развитие и совершенствование наиболее важных качеств - ведущих базовых и специальных физических. На обще подготовительном этапе необходимо уделять основное внимание развитию и совершенствованию ведущих базовых физических качеств, а на специально подготовительном - специальной физической подготовке, т.е. осуществлять воздействие на ведущие специальные качества. В соревновательном периоде воздействие должно быть направленно на развитие и совершенствование ведущих специальных физических качеств, а средства общей физической подготовки должны быть направлены на поддержание на должном уровне ведущих базовых физических качеств.

**Ключевые слова:** общая и специальная физическая подготовка, физические качества, ведущие базовые и специальные физические качества.

### ВВЕДЕНИЕ

В целях дальнейшего развития профессионального и массового гандбола, воспитания нового поколения спортсменов, повышения авторитета отечественного гандбола на международной арене была утверждена программа развития физической культуры и массового спорта в Узбекистане на 2017-2021 гг. Приняты Указ Президента Республики Узбекистан УП-2821 от 9 марта 2017г. «О подготовке спортсменов Узбекистана к XXXII Олимпийским и XVI Параолимпийским играм в городе Токио (Япония) 2020 года» Указ Президента Республики Узбекистан УП-5368 от 5 марта 2018 г. «О мерах по коренному совершенствованию системы государственного управления в области физической культуры и спорта» [1,2].



## ЛИТЕРАТУРА И МЕТОДОЛОГИЯ

Гандбол - весьма эффективное средство для укрепления здоровья. Все движения в нем носят естественный характер, основывающийся на беге, прыжках и бросках по воротам, что способствует развитию силы ловкости выносливости и гибкости. Игра вызывает качественные изменения в двигательном аппарате, мышечно-связочную и костную систему укрепляют прыжковые упражнения. В игровых действиях более подвижными становятся суставы, повышается сила и быстрота реакции, эластичность мышц.

Физическая подготовка - это процесс воспитания физических качеств. Физическая подготовка гандболиста должна решать две главные задачи: всесторонне развивать всю двигательную систему игрока и совершенствовать специфические двигательные способности, от которых зависит успех в достижении высоких результатов именно при игре в гандбол [5].

Физическая подготовка имеет большое значение в процессе игровой деятельности гандболистов, т.к. они постоянно сталкиваются с необходимостью решения задач, связанных с быстрой и точной оценкой игровых ситуаций, прогнозированием возможных действий партнеров и соперников, а также анализом и коррекцией своих действий в условиях высоких физических нагрузок и дефицита времени [7].

В.Я. Игнатьева тоже придерживается мнения, что физическая подготовка - это процесс воспитания физических качеств, укрепления систем организма гандболиста для эффективного овладения навыками игры и соревновательной деятельностью. Физическая подготовка гандболиста должна решать две главные задачи: всесторонне развивать всю двигательную систему игрока, а также совершенствовать специфические двигательные способности, от которых зависит успех в достижении высоких результатов именно при игре в гандбол [5].

Принято физическую подготовку подразделять на общую и специальную [4, 7, 8]. Общая физическая подготовка в отличие от специальной физической связана с процессом специализации не прямо, а косвенно: она не вооружает спортсмена навыками избранного вида спорта, не развивает и способностей, специфичных для данного вида спорта. Ее назначение заключается в другом - она создает базу спортивной специализации путем овладения разнообразными двигательными навыками как сходными с двигательными навыками избранного вида спорта, так и отличными от них и этим обеспечивает такое физическое развитие, которое необходимо в качестве условия спортивной специализации [4].

Различия общей физической подготовки и специальной физической подготовки состоит в том, что специальные упражнения развивают лишь определенные группы мышц, а упражнения из системы общей физической подготовки разнообразнее [4].

В.Я.Игнатьева так же связывает специальную физическую подготовку с характером игровой деятельности гандболиста. Для ее осуществления необходимо подбирать упражнения так, чтобы их структура и динамика соответствовали действиям, выполняемым игроком во время соревнования [6].

В настоящее время появляется много публикаций, обобщающих опыт физической подготовки в различных видах спорта. В гандболе существует много спорных вопросов, не только в определении оптимального соотношения общей и специальной физической подготовки, но и в содержании и направленности этих видов физической подготовки.

Ошибки в определении соотношения могут привести к снижению результатов, а определение неверного содержания и направленности влияет на развитие не характерных для гандбола физических качеств, которые в свою очередь приводят к снижению результатов. Вследствие этого мы и пришли к выводу, что эта проблема актуальна и требует изучения.

**Цель исследования** - совершенствование физической подготовки гандболистов высшей квалификации.

Исследование проводилось в рамках программы подготовки Ташкентской команды «РКОР», к участию в чемпионате Узбекистана по гандболу среди мужских команд высшей лиги.

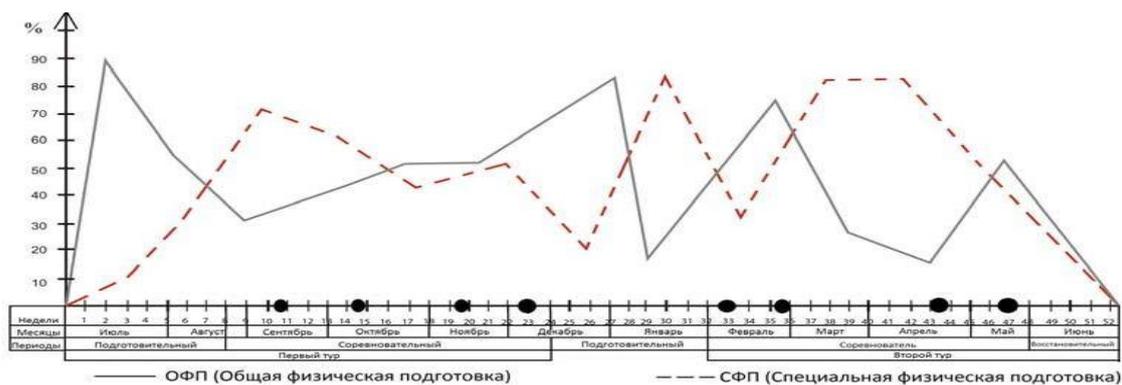
## РЕЗУЛЬТАТЫ

Основная идея исследования заключалась в выявлении ведущих базовых и ведущих специальных физических качеств и их места в годичном цикле спортивной тренировки, а также взаимосвязь всех видов подготовки. На основе проведенного исследования (выявления ведущих базовых и специальных физических качеств гандболистов) была разработана модель построения общей и специальной физической подготовки гандболистов высшей квалификации в годичном цикле спортивной тренировки.

На рис. 1 показана, разработана модель построения физической подготовки, которая заключается в том, что в начале каждого подготовительного периода (обще-подготовительный этап) осуществляется воздействие на весь спектр базовых физических качеств и лишь после создания общей

функциональной базы (специально- подготовительный этап) начинается преимущественное развитие ведущих базовых физических качеств. А в последующие соревновательные периоды следует дальнейшее совершенствование этих ведущих базовых физических качеств.

В начале соревновательного периода физическая подготовка должна быть направлена на развитие и совершенствование ведущих специальных физических качеств.



**Рис. 1.** - Модель построения годичного цикла общей и специальной физической подготовки гандболистов высшей квалификации

В это время общая физическая подготовка должна быть направлена на поддержание должного уровня развития ведущих базовых физических качеств. Остальные виды подготовки велись по ранее используемой схеме. Приняв во внимание и соединив техническую, тактическую и психологическую подготовки гандболистов высшей квалификации в годичном цикле спортивной тренировки, складывается полная картина совокупности всех видов подготовки и их места в годичном цикле.

## ВЫВОДЫ

Основная идея исследования заключалась в оптимизации физической подготовки гандболистов высшей квалификации, в которую входило определение ведущих базовых и ведущих специальных физических качеств и их места в годичном цикле спортивной тренировки, а также взаимосвязь всех видов подготовки. Но физическая подготовка не является единственным видом подготовки гандболистов. В статье показано соотношение всех видов подготовки и отдельно акцентированно внимание на физической подготовке, показав ее часть в годичном цикле подготовки гандболистов высшей квалификации.

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## ПРОБЛЕМЫ И ПЕРСПЕКТИВЫ РАЗВИТИЯ МАССОВОГО СПОРТА В ВУЗАХ РЕСПУБЛИКИ УЗБЕКИСТАН

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### АННОТАЦИЯ

В статье рассматриваются проблемы, сложившиеся в университетах республики по внедрению массового спорта в активную студенческую жизнь. Наряду с регулярными соревнованиями студенческого спорта. Отмечается, что открытие и развитие студенческих спортивных клубов позволило молодежи включиться в спортивную жизнь без ограничения мастерства спортивного уровня. Показывается, что такой подход к расширению количества участников студентов в массовых соревнованиях позволит решить поставленные задачи принятой правительством концепции развития физической культуры и массового спорта в Республике Узбекистан.

**Ключевые слова:** проблемы, университеты, массовый спорт, студенческие спортивные клубы, спортивные мероприятия, концепция, развитие, физическая культура, физическое воспитание.

### ВВЕДЕНИЕ

В 2023 году заканчивается один из этапов реализации большой национальной концепции по развитию физической культуры и массового спорта в Республике Узбекистан, которая была принята в 2019 году правительством после обсуждения на совместном заседании Кабинета Министров при Президенте РУз по развитию физической культуры и массового спорта. Главной целью концепции было признано создание условий, обеспечивающих возможность всем гражданам республики вести здоровый образ жизни и систематически заниматься физической культурой и спортом [1]. Поставлена задача увеличения общей численности населения, регулярно занимающегося физической культурой и спортом, до 30 процентов, а молодежи, занимающейся в спортивных организациях и учреждениях, до 20 процентов [2].

Задачи массового развития физической культуры и спорта в республике силами только штатных физкультурных





работников вряд ли успешно решаемы. Для этого необходим широкий физкультурно-образованный и физически подготовленный общественный актив. Таким квалифицированным и динамичным слоем общества является многомиллионная интеллигенция - инженеры, врачи, педагоги. Поэтому в процессе обучения в ВУЗе каждый студент должен получить в минимально достаточном объеме основы специальных физкультурных знаний, организационно-методические умения и навыки по физкультурно-спортивной работе [6].

Для студенческой молодежи заявлена цель - увеличение доли обучающихся и студентов, систематически занимающихся физической культурой и спортом до 70-80 %. Очевидно предполагалось, что большинство молодежи в этом возрасте обучаются, имеет достаточное здоровье для регулярного посещения занятий по физическому воспитанию и, хотя бы два раза в неделю, регулярно выходит на спортивные площадки и в спортивные залы. Этот параметр и входил в определение «систематически». По текущим предварительным итогам 2023 года прошло заседание министерства по физической культуре и массовому спорту, на котором подведены итоги реализации «концепции». В своем отчете министра развития спорта РУз отмечает, что не все цели достигнуты, хотя количество занимающихся спортом жителей в целом по стране увеличилось в полтора раза, остаются проблемы в координации работы системы массового спорта и образования. Для ВУЗов эта проблема становится особенно актуальной в связи с постоянными реформами и новыми стандартами.

Вместе с тем одного только осознания общественной необходимости в физическом совершенствовании общества недостаточно. Поэтому в республике установлены положения, нормы права, законы, которые стимулируют и обеспечивают развитие физической культуры и массового спорта на всех уровнях: на предприятиях, в организациях, в местах жительства, отдыха, в семье, в учреждениях образования [3].

Повышению массовости физической культуры и спорта в Узбекистане будет способствовать расширение физкультурной и спортивной работы, улучшение ее организации по месту жительства, трудовой деятельности и учебы [4].

**Целью работы** является рассмотрение вопроса развития массового спорта среди студенческой молодежи в вузах и привлечения студентов к регулярным занятиям физической культурой и спортом вне учебного расписания.



## ОБСУЖДЕНИЕ РЕЗУЛЬТАТОВ

Большинство студентов предпочитают активно заниматься спортом в рамках спортивных секций, встречаются молодёжь которые не рассматривают физическую культуру, как необходимую часть высшего образования. Конечно, большинство студентов хотели бы заниматься спортом в соответствии со своими возможностями физического здоровья и расписанием свободного времени. Большинство студентов занимаются только в рамках учебного расписания, в том числе и скептически настроенные, то есть один раз в неделю. К сожалению, по новому стандарту кредитной системы образования, практические занятия по физическому воспитанию переведены на свободное посещение на практические занятия количество часов уменьшилось и остановилось на уровне 1,2 часов в неделю для первого курса. Это показатель, конечно, не являлся целью национальной концепции.

Так спортивно-массовая и физкультурно-оздоровительная работа проводится вне сетки расписания учебных занятий и ведётся по трем направлениям: работа отделений спортивного совершенствования (по видам спорта), организация и проведение спортивно-массовых общеуниверситетских мероприятий; широкая пропаганда здорового образа жизни, привлечение учащейся молодежи к занятиям физической культурой и спортом [5].

Тем не менее, массовый спорт во многих вузах остается приоритетным направлением по привлечению молодежи к занятиям физическими упражнениями и повышения двигательной активности. Уже давно общество стало искать новые формы стимулирования молодежи к активным занятиям спортом в параллельном к основному расписанию времени. Сложившаяся форма привлечения к спорту через спортивные секции всегда ограничивала количество участников некоторыми квалификационными требованиями. Для не имеющих спортивного опыта стали проводиться различные массовые мероприятия - забег «Yangi Nafas» или «Тошкент марафони», собиравшие большое количество участников, одновременно по всей республике и целью проведение мероприятий по продвижению и реализации культурного потенциала спортивных соревнований. Однако комплексных соревнований с неограниченным количеством желающих не проводилось, даже в регионах или в отдельных университетах.

В 2018 году по постановлению Кабинетов Министров РУз были внедрены в структуры университетов студенческие спортивные клубы, которые должны были организовывать массовые соревнования среди студентов, не ставя задачи достижения

серьезных спортивных результатов, но, тем не менее, позволяли включить в молодежную среду соревновательный мотивационный фактор. Новые студенческие соревнования стали финансироваться через молодежные организации, а не через физкультурно-спортивные.

С этого времени развитие студенческого спорта получило новый вектор в направлении привлечения широких масс студентов к занятиям массовыми видами спорта. Деятельность спортивных клубов, как структурных подразделений, должна была тоже измениться. Формально спортивный клуб и студенческий спортивный клуб одна организация, но студенческий спортивный клуб это сообщество активных студентов, которым интересно работать в сфере массового спорта и развивать это направление в своем университете. Уже 7 лет университет реализует массовые соревнования среди студентов в виде различных кубков, соревнований по видам спорта, открытых турниров с привлечением всех желающих. Соревнования на Кубок Ректора по видам спорта и в открытых первенствах проводятся по системе «Создай команду своей мечты». Команды собираются в свободном порядке, с одним условием от организаторов с лимитом по числу членов сборных команд по видам спорта. Данное условие помогает сбалансировать спортивное мастерство всех команд и дополнительно привлечь большее количество участников. Ежегодно эти мероприятия собирают большое количество команд и участников. К примеру, в нашем вузе, в 2021 году на соревнованиях по мини-футболу собралось более 10 команд (150-170 участников), по волейболу 15 команд (170-220 участников), по настольному теннису 18 команд (более 70 участников), по шахматам более 20 команд (60-80 участников). Студенческие спортивные клубы, объединившись в Ассоциацию, получили широкую поддержку по всей республике.

## ЗАКЛЮЧЕНИЕ

На примере проведения подобных массовых комплексных мероприятий при объединении усилий заинтересованных организаций, как из системы спорта, так и системы образования можно надеяться, что такая форма развития массового спорта в образовательных учреждениях может реально увеличить процент вовлеченности молодежи к систематическим занятиям массовым спортом в ВУЗах по республике.

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## ФИЗИЧЕСКАЯ КУЛЬТУРА И СПОРТ КАК ОСНОВА ЗДОРОВОГО ОБРАЗА ЖИЗНИ УЧАЩЕЙСЯ МОЛОДЁЖИ

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### АННОТАЦИЯ

На сегодняшний день реформирование системы образования - одна из основных, а лучше сказать, актуальных проблем педагогической науки, направленное, в частности, и на укрепление и сохранение здоровья учащейся молодёжи. В уставе Всемирной организации здравоохранения записано, что «Здоровье - это состояние полного физического и социального благополучия».

**Ключевые слова:** спорт, культура, здоровый образа жизни

### ВВЕДЕНИЕ

Отсутствие эффективной системы координации профилактических мероприятий по охране здоровья населения не позволяет принимать согласованные меры по поддержке физической активности граждан к ведению здорового образа жизни. В итоге остаётся низкой степень медицинской и санитарно-гигиенической культуры населения, и основное внимание уделяется не профилактике заболеваний, а борьбе с ними. Эти проблемы были особо отмечены в постановлении Президента Республики «О мерах по профилактике неинфекционных заболеваний, поддержке здорового образа жизни и повышению уровня физической активности населения» от 18 декабря 2018 г. Согласно опубликованным статистическим данным Министерства Здравоохранения Республики Узбекистан совместно ВОЗ за 2018 г. говорится, что 46% населения страдает от высокого уровня холестерина в крови, а 31% от проблем, связанных с высоким артериальным давлением, наивысший показатель зафиксирован по уровню смертности от неинфекционных заболеваний переходит отметку в 78% [1].

### ЛИТЕРАТУРА И МЕТОДОЛОГИЯ

Выступая в проекте «Шаг за шагом» Международного пресс-клуба, министр здравоохранения Узбекистана высказал свои взгляды на ситуацию в мире и Узбекистане по влиянию коронавируса, а также важности правильного питания и

движения для поддержания здоровья человека и проблеме ожирения. Министр здравоохранения отметил, что сейчас ожирение наблюдается и у молодых людей. «Раньше его не отмечали отдельно. Говоря об ожирении, мы привыкли приводить зарубежную статистику и полагаться на нее. На сегодняшний день по республике провели многочисленные исследования в сотрудничестве с Всемирной Организацией Здравоохранения. В результате этих исследований (за 2019-2020 гг.) специалистами и учеными научными методами доказали, что 51 процент населения Республики Узбекистан имеет избыточный вес, а 28 процентов страдают ожирением» подчёркивая, что ситуация ухудшается год за годом.

Сложившаяся тревожная ситуация связи с пандемией (2019-2020 гг.), а также с физическим и духовным здоровьем нации, её демографической перспективой во многом обусловила подписания Указа Президента Республики Узбекистан от 30 октября 2020 года №УП-6099 «О мерах по широкому внедрению здорового образа жизни и дальнейшему развитию массового спорта». Где говорится что возникшая ситуация сегодня от всех нас требует сделать серьезные выводы, избавиться от вредных привычек, регулярно заниматься массовым спортом, соблюдать принципы правильного питания, в частности воздерживаться от чрезмерного употребления продуктов с высоким содержанием соли, сахара и жиров, а также мучных блюд, сладостей и хлебной продукции, - одним словом, внедрить здоровый образ жизни в нашу повседневность. А также в целях обеспечения формирования у каждого гражданина стойкой иммунной системы против заболеваний путем регулярных занятий физической культурой и массовым спортом и формирования навыков здорового образа жизни, отказа от вредных привычек, соблюдения принципов правильного питания, системной и эффективной организации работ по восстановлению и реабилитации, массовых мероприятий по физической активности, создания соответствующей инфраструктуры и других необходимых условий в республике [3].

Поэтому возникает потребность в поиске новых действенных средств и методов для решения проблем привлечения и заинтересованности молодежи к академическим занятиям по физическому воспитанию. На наш взгляд, именно использование фитнес программ в практике физического воспитания предусматривает обращение к личности студента с учетом его мотивов, интересов и предпочтений. Отличительной особенностью такого занятия являются не только целенаправленное формирование двигательных навыков и развитие физических

качеств, но и совокупность мер, направленных на увеличение физической дееспособности, на формирование свойств и качеств личности, обеспечивающих комплексное удовлетворение социальных и личностных потребностей студента [7].

Создание эффективной системы здорового образа жизни, должно кардинальным образом содействовать оздоровлению нации и переходу Узбекистана к устойчивому развитию, так как здоровый образ жизни является предпосылкой для развития разных сторон жизнедеятельности человека, достижения им активного долголетия и полноценного выполнения социальных функций, для активного участия в трудовой, общественной, семейно-бытовой, досуговой формах жизнедеятельности.

Развитие физической культуры и спорта может проходить успешно, если органами государственного и общественного управления, организациями, их руководителями, специалистами, учеными этой сферы, избрана правильная стратегия действий. Если бы удалось добиться четкого понимания большинством людей того, что физическая активность и спорт, например, для студентов, являются необходимым условием нормального развития их ума и тела, что абсолютное большинство физических и психических заболеваний, так или иначе связаны с обездвижением и ожирением, что физическая активность снимает стрессовые состояния, повышает работоспособность, снижает уровень агрессивности и, этим удалось бы, не только приостановить физическую деградацию людей, но и значительно поднять их уровень здоровья.

Вместе с тем одного только осознания общественной необходимости в физическом совершенствовании физически культурном обществе жизни недостаточно. Поэтому в республике установлены положения, нормы права, законы, которые стимулируют и обеспечивают развитие физической культуры и массового спорта на всех уровнях: на предприятиях, в организациях, в местах жительства, отдыха, в семье, в учреждениях образования.

Законодательство о физической культуре и спорте в Республике Узбекистан в целом регулирует общественные отношения в этой области, создает правовые условия для удовлетворения потребности личности в гармоническом развитии, достижения высокого уровня работоспособности, формирование необходимых знаний, двигательных навыков, физических и нравственно волевых качеств, профессионально-прикладной подготовки, профилактики вредных привычек и правонарушений.

В ней подчеркивается необходимость повышения социальной значимости физической культуры и спорт как

универсального средства в формировании всесторонне и гармонично развитой личности с высокой степенью готовности к социально-профессиональной деятельности. В физкультурно-спортивной сфере через многообразие ее организационных форм максимально сбалансированы и приближены личные и общественные интересы, способствующие формированию здорового морально-психологического климата в различных социально-демографических группах.

Реформы в деле воспитания физически здоровой и духовно богатой молодежи осуществляются на системной, поэтапной основе в неразрывной связи с другими сферами нашей жизни. Сегодня во взрослую жизнь уверенной поступью вступают юноши и девушки, мыслящие по-новому, связывающие свое будущее с будущим республики. Наш народ по праву гордится своими талантливыми детьми, их большими успехами на международных предметных олимпиадах, мировых спортивных аренах, в сфере культуры и искусства. Отрадно что, несмотря в условиях пандемии, наша молодежь принимала активное участие в международных предметных олимпиадах и занимала призовые места. В частности, в 2020 году на олимпиадах 28 наших одаренных учащихся завоевали 2 золотые, 8 серебряных, 15 бронзовых медалей и 3 диплома. В нашей республике в центре постоянного внимания находятся вопросы своевременного выявления, поддержки и раскрытия способностей и талантов каждого [2].

Физическая культура может значительно влиять на состояние организма, психики, статус человека.

Исторически физическая культура складывалась, прежде всего, под влиянием практических потребностей общества в полноценной физической подготовке подрастающего поколения и взрослого населения к труду. Вместе с тем по мере становления систем образования и воспитания физическая культура становилась базовым фактором формирования двигательных умений и навыков.

Воспитательная задача физической культуры состоит в развитии духовных (воля, целеустремленность, настойчивость, взаимопонимание) и двигательных (сила, быстрота, выносливость и других) качеств.

К общественным ценностям физической культуры считается накопленные человечеством специальные знания, спортивную технику, технологии спортивной подготовки, методики оздоровления, лучшие образцы моторной деятельности, спортивные достижения все то, что создано людьми для физического совершенствования, оздоровления и организации здорового



образа жизни.

Личностный уровень освоения ценностей физической культуры определяется знаниями человека в области физического совершенствования, двигательными умениями и навыками, способностью к самоорганизации здорового стиля жизни, социально-психологическими установками, ориентацией на занятия физкультурно-спортивной деятельностью.

## ОБСУЖДЕНИЕ РЕЗУЛЬТАТОВ

Особое значение для личности имеет освоение мобилизационных ценностей физической культуры. Именно они помогают человеку выжить в экстремальных ситуациях, которые не столь редки в жизни современного общества: болезни, травмы, экологические кризисы, аварии - вот тот неполный перечень ситуаций, когда человеку особенно нужны высокоразвитые двигательные качества и способности. Физкультурно-спортивная деятельность помогает мобилизации функциональных, психологических и физических возможностей организма, опосредованно влияя на создание «запаса», своеобразного резерва для ответа на «нештатные» внешние воздействия, требующие срочной мобилизации функциональных сил человека.

Теоретические исследования последних лет показывают, что слабый уровень теоретических знаний в области физической культуры и спорта во многом определяет пассивное отношение людей к самоорганизации здорового образа жизни, реальному включению в физкультурно-спортивную деятельность. Вклад физической культуры в образование должен состоять в обеспечении всеми аспектами знаний о жизнедеятельности человека, о его здоровье и здоровом образе жизни, а также научить его владеть всем арсеналом практических умений и навыков, обеспечивающих сохранение и укрепление здоровья, развитие и совершенствование его психофизических способностей и качеств личности. Знания, полученные при освоении обязательного минимума содержания программного материала по физической культуре, должны составить базис представлений о здоровом образе жизни и обеспечить теоретическую основу для формирования навыков и умений по физическому самосовершенствованию личности в течение всей жизни. А интеллектуализация, ориентирующая на расширение и углубление знаний в области физической культуры, участвует в усилении знаний общей образовательной направленности. Так, образованность в сфере физической культуры оказывается одним из



ведущих факторов, формирующих как физическую, так и общую культуру личности.

Содержание ценностей физической культуры и спорта во многом едино. Тем не менее, следует учитывать их функциональное несовпадение. Физическая культура возникает и развивается как один из первых и наиболее существенных способов социализации, а спорт - как средство и форма выявления социального признания высших способностей человека. Говоря о ценностном потенциале спорта, нельзя не отметить значение накопленного в спорте опыта познания резервных способностей человека. Осваивая все новые, не изведенные ранее рубежи, раздвигая границы человеческих возможностей, спортсмены наглядно демонстрируют реализацию этих возможностей и намечают ориентиры своих будущих рекордов. Таким образом, спорт выполняет функцию познания человеческих возможностей. При характеристике социальной ценности спорта важно иметь в виду его немалого экономического значения. Материальные вложения общества в развитие спорта многократно окупаются, начиная со здоровья нации и кончая финансовыми доходами от коммерческой стороны спорта.

Основные показатели физической культуры как свойства и характеристики отдельного человека следующие: забота человека о поддержании в норме, усовершенствовании своего физического состояния, различных его параметров (здоровье, телосложение, физические качества и двигательные способности); многообразии используемых для этой цели средств, умение эффективно применять их; уровень знаний об организме, о физическом состоянии, о средствах воздействия на него и методах их применения; степень ориентации на заботу о своем физическом состоянии; готовность оказать помощь другим людям в их оздоровлении, физическом совершенствовании и наличие для этого соответствующих знаний, умений и навыков.

Роль физической культуры заметно возросла в эпоху научно-технического прогресса. Нарастающее ограничение подвижности противоречит самой биологической природе человека, нарушая функционирование различных систем организма, снижая работоспособность и ухудшая состояние здоровья. Чем больше прогресс освобождает человека от физического труда и излишних движений, тем больше растет необходимость компенсации двигательной активности.

В этих условиях очевидна роль развития массовых форм физической культуры. Приобщение к физической культуре



очень важно для женщин, от здоровья которых зависит качество потомства; для детей и подростков, развитие организма которых крайне нуждается в высоком уровне подвижности; для лиц пожилого возраста с целью сохранения бодрости и долголетия.

Влияние неблагоприятных факторов на здоровье человека настолько велико, что внутренние защитные функции самого организма не в состоянии справиться с ними. Как показывает опыт, лучшим противодействием неблагоприятным факторам оказались регулярные занятия физической культурой, которые помогли восстановлению и укреплению здоровья людей, адаптации организма к значительным физическим нагрузкам. Чем дальше идет человечество в своем развитии, тем в большей степени оно будет зависеть от физической культуры.

Научно-техническая революция наряду с прогрессом внесла в жизнь современного человека и ряд неблагоприятных факторов. К ним следует отнести гиподинамию, нервные и физические перегрузки, а также стрессы профессионального и бытового порядка и как следствие нарушение обмена веществ, избыточный вес, предрасположение к сердечнососудистым заболеваниям, а иногда и сами эти болезни.

## ВЫВОДЫ

Подводя итог можно сказать, что в укреплении здоровья и гармоничном развитии личности, в подготовке молодежи к труду возрастает значение физической культуры, внедрения их в повседневную жизнь. Надо поставить дело так, чтобы учащиеся молодёжь заботились о своем физическом совершенствовании, обладали знаниями в области гигиены и медицинской помощи, вели здоровый образ жизни [5], где формируется здоровая, физически развитая личность с активной гражданской позицией, обладающая социально ценностными нравственными качествами и потребностями в здоровом образе жизни с развитым творческим потенциалом и способностью к саморазвитию [6].

Сегодня стало ясно, что в прошедший период пандемии было выявлено и стало особенно очевидным, что в республике недостаточно научных знаний в области физической культуры, спорта и здравоохранения, как и в других сферах. Исходя из вышесказанного руководители вышестоящих инстанций и заинтересованные лица, должны сделать из этого соответствующие выводы, что даст толчок к повышению массовости физической культуры в Республике Узбекистан и

будет способствовать расширению физкультурно-оздоровительной и спортивно-массовой работы и улучшение ее организации по месту жительства, трудовой деятельности и учебы.

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## ПЕРЕКРЕСТНЫЕ АЛЛЕРГИЧЕСКИЕ РЕАКЦИИ К РАСТИТЕЛЬНЫМ ПИЩЕВЫМ АЛЛЕРГЕНАМ

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### АННОТАЦИЯ

Пищевая аллергия является глобальной проблемой общественного здравоохранения, клинические проявления заболевания охватывают широкий спектр заболеваний желудочно-кишечного тракта, кожи и дыхательных путей. Для каждого региона характерны растительные пищевые аллергены, которые зависят от традиций питания и климатогеографических условий. Гомологичные белки, содержащиеся в растительных продуктах, могут вызывать аллергические реакции у сенсibilизированных лиц. Основным принципом диеты при пищевой аллергии является устранение аллергенов и компонентов аллергенов, характерных для региона и индивидуально для каждого больного.

**Ключевые слова:** пищевая аллергия, пищевые аллергены, иммуноглобулин E, перекрестно-реактивные углеводные детерминанты (CCD).

### ABSTRACT

Food allergy is a global public health problem, the clinical manifestations of the disease cover a wide range of diseases of the gastrointestinal tract, skin and respiratory tract. Each region is characterized by plant food allergens, which depend on food traditions and climatic and geographical conditions. Homologous proteins found in plant foods may cause allergic reactions in sensitized individuals. The main principle of the diet for food allergies is the elimination of allergens and allergen components that are specific to the region and individually for each patient.

**Keywords:** food allergy, food allergens, immunoglobulin E, cross-reactive carbohydrate determinants (CCD).

### ВВЕДЕНИЕ

Распространенность пищевой аллергии (ПА) увеличивается с большой региональной изменчивостью. Несколько пищевых аллергенов охватывают большинство пищевых реакций (коровье молоко (КМ), куриные яйца (КЯ), пшеница, соя, рыба, ракообразные, орехи и арахис) [17, 18]. Во многих странах эти аллергены составляют около 90% всех IgE-опосредованных ПА. Следует отметить, что география и диета также играют роль в возникновении ПА, к примеру, ПА на арахис часто встречается в США, тогда как ПА на кунжут - на Ближнем

Востоке. Продукты, ферментируемые в микробиоме, с высоким содержанием сахарозы или фруктозы, такие как безалкогольные напитки, хлеб, печенье, пирожные, крекеры, бананы и сухие завтраки обычно вызывают симптомы, связанные с ПН [6].

## МАТЕРИАЛЫ И МЕТОДЫ

В развитии ПА генетика играет важную роль либо непосредственно, либо наряду с факторами окружающей среды. В качестве мультифакторного заболевания несколько генов и генетических локусов вносят свой вклад в риск развития ПА. Идентификация вовлеченных генов должна внести свой вклад в область ПА в отношении патогенеза, прогнозирования, распознавания, профилактики и лечения [19].

Резкий рост распространенности и тяжести пищевая аллергия во многих странах мира диктует разработки эффективных стратегий. Часто пищевая аллергия возникает в результате нарушения механизмов иммунной толерантности, которая модулируется функцией и структурой кишечной микробиоты, в свою очередь, дисбиоз способствует развитию пищевой аллергии. Низкий уровень клетчатки и высокий уровень жиров в рационе среднестатистического человека, а также отсутствие грудного вскармливания, частое использование антисептических средств, особенно в условиях коронавирусной инфекции, лекарственные препараты могут быть связаны с развитием пищевой аллергии [1, 5].

Здоровый образ жизни зависит от характера питания, тесное взаимодействие факторов наследственности и фенотип способствуют формированию этого процесса с детства [3]. Индивидуальный подход к ведению пациентов с ПА является необходимым, особенно в зависимости от методов диагностики и фенотипов [4].

ПА как важная проблема общественного здравоохранения, часто затрагивает детей и взрослых, имеет тенденцию к росту, симптомы ПА могут варьироваться от легких до крайне тяжелых. Более того, неаллергические пищевые реакции, такие как ПН, часто ошибочно принимают за ПА [10].

Следует отметить, что на сегодняшний день изучаются эпигенетические, генетические и экологические факторы риска, они влияют на улучшение тактики с целью профилактики и лечения больных с риском ПА. Основным фактором патофизиологии является сложное взаимодействие слизистой оболочки, эпителиального барьера и системного иммунного ответа, а также варианта воздействия и кишечной

микрофлоры, что в дальнейшем приводит к ПА или пищевой непереносимости. Диагноз ПА в основном зависит от анамнеза, определения сенсibilизации с помощью современных методов компонентной диагностики [16]. Следует акцентировать основное внимание профилактике аллергии в антенатальном и постнатальном периодах, так как атопический статус начинает формироваться в антенатальном периоде развития [2].

В последнее время изменение климата, характер питания населения повлияли на эпидемиологию аллергических реакций на пищевые продукты, что способствовало появлению новых синдромов ПА. Изменения характера питания, образа жизни людей во всем мире стало причиной появления новых фенотипов ПА. [8, 9]. Лучшее понимание прогностических факторов и фенотипов ПА в дальнейшем определяет стратегию профилактики и лечения ПА [7].

Своевременное определение факторов риска, а также недостаточность витамина D, нарушение кожного барьера, микробиом, воздействие аллергена, в свою очередь способствует к разработке эффективных тактик профилактики на государственном уровне. За последние годы изучение компонентов аллергенов улучшило возможности диагностики, одним из актуальных проблем является определение факторов и их роли в возникновении анафилаксии на мясо млекопитающих, которая связана с сенсibilизацией к молекуле сахара, вызванной укусами клещей [13]. На сегодняшний день известно, что синдром альфа-гал вызывается sIgE, направленными против сахара галактозы- $\alpha$ -1,3-галактозы, в составе мяса млекопитающих, КМ и продуктах, полученных из него, что может привести к анафилаксии, в качестве возможных виновников были выявлены лекарства и медицинские изделия, полученные из млекопитающих. Однако укусы клещей остаются основной причиной специфического альфа-gal-sIgE [11]. Кроме того, исследователями обсуждаются сходства и различия между иммунных реакций на  $\alpha$ -Gal и на перекрестно-реактивные углеводные детерминанты (CCD) [15].

Проблема в том, что пациентам с подозрением на ПА врачи обычно рекомендуют исключить из рациона все продукты, потенциально вызывающие аллергические реакции, без надлежащей диагностики. Такая практика часто вызывает стресс у больных и их семьях, а также сложности с приобретением заменителей пищи. Таким образом, возникает острая необходимость в проведении точной диагностической оценки ПА, для правильной тактики диетотерапии [14]. Кроме того, затраты на ПА обходятся очень дорого, так как ПА способствует

повышению личных расходов, таких как покупка продуктов питания, не содержащих аллергенов, принятии специальных мер по уходу за детьми, смены школы и посещении специальных летних лагерей [12].

С целью выявления растительных и животных пищевых аллергенов нами были исследованы сыворотки 107 больных с аллергопатологией, получивших лечение в Республиканском научно-специализированном аллергологическом центре и Республиканском научно-специализированном центре дерматовенерологии и косметологии, в частных клиниках Medik-as, TTD, из них 42 мужчин, 65 женщин, средний возраст которых составил  $24,75 \pm 16,44$  года. Больных разделили на 2 малые группы, в основной группе было 28 мужчин и 38 женщин, а в контрольной группе – 14 мужчин и 27 женщин.

У больных основной группы выявляли sIgE к пищевым аллергенам. Для установления перекрёстных и истинных аллергических реакций, в каждом анализе определяли количество перекрестно-реактивных углеводных детерминант CCD. Данный маркер является показателем перекрёстных аллергических реакций и очень информативен для диагностики истинных реакций, в том числе при ПА на растительные продукты питания. В наших исследованиях данный маркер был положительным у 17,2% обследованных.

Среди больных основной группы ПА наблюдались sIgE на аллергены персика (3,96% и 7,92%), яблок (3,96% и 2,97%), клубники (4,95% и 3,96%), абрикоса (8,91% и 14,85%) у мужчин и женщин соответственно из семейства Розоцветные. Кроме того, аллергические симптомы развились после употребления апельсина из семейства цитрусовых у 5,94% у мужчин и 8,91% женщин. Средний возраст больных -  $25,61 \pm 12$  лет.

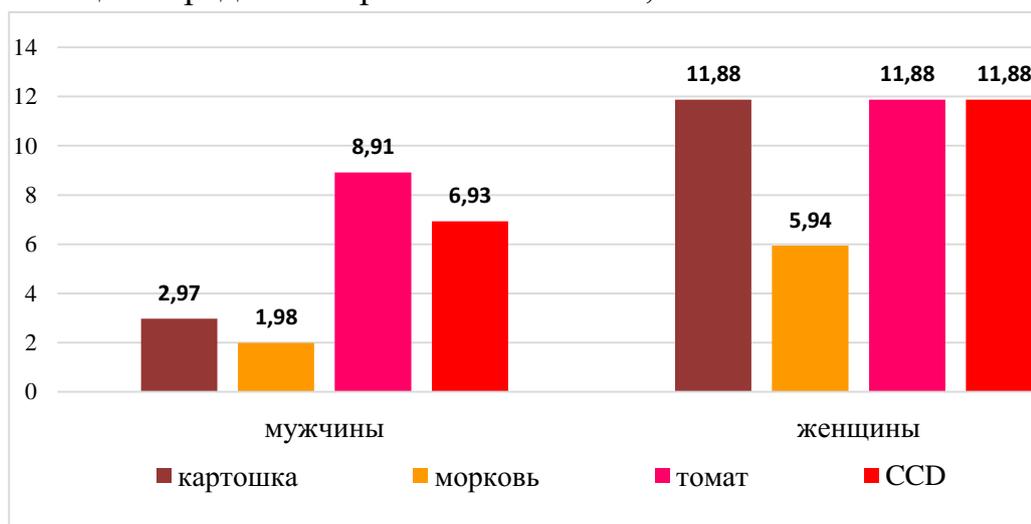
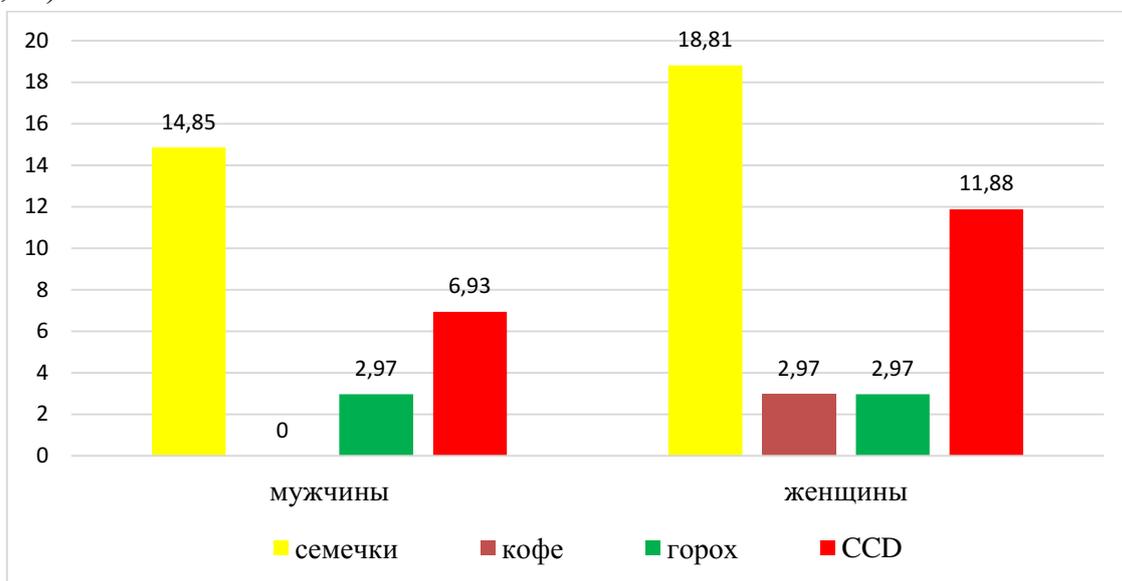


Рис. 1. Сенсibilизация к крестоцветным и карбогидратному антигену CCD (n=107).

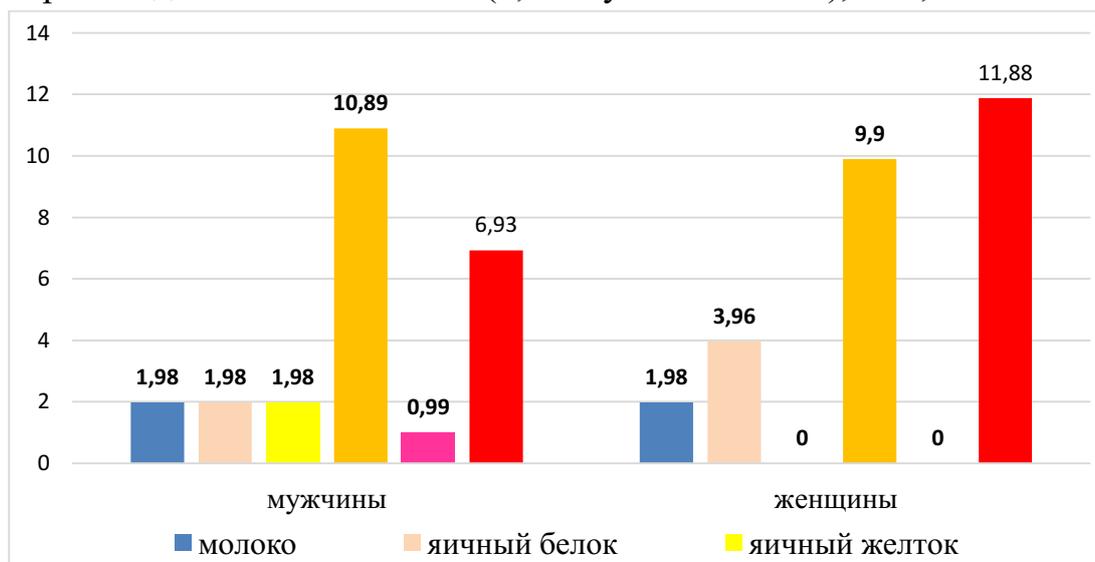


Картофель (2,97% и 11,88%), томат (8,91% и 11,88%) и морковь (1,98% и 5,94%) вызывали ПА в виде респираторных и кожных симптомов. Как показали анализы, у больных женского пола преобладали sIgE на овощи и углеводный антиген (у мужчин в 6,93%, у женщин 11,88% случаев), ( $P < 0,05$ ).



**Рис. 2. Сенсibilизация к бобовым и углеводному антигену CCD (n=107),  $P < 0,05$ .**

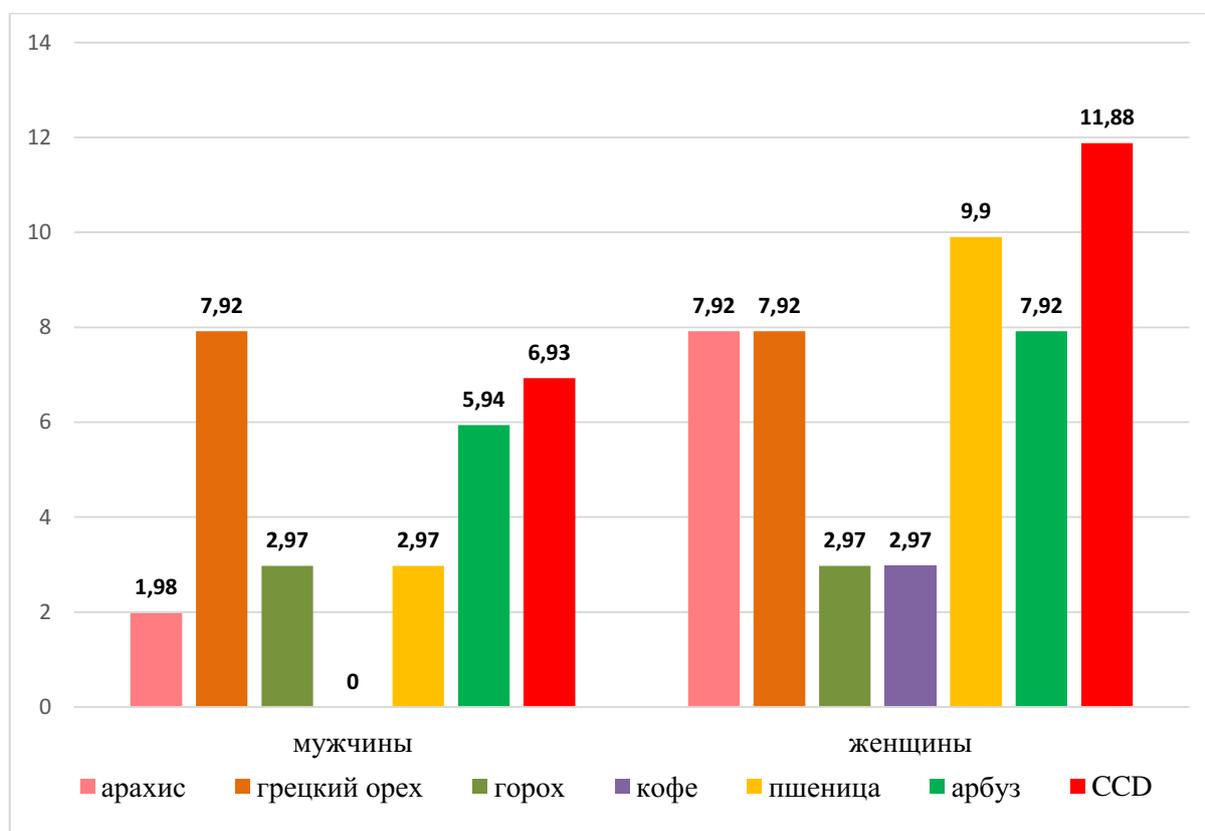
Аллергические реакции у большинства больных вызывали семечки подсолнуха (у 14,85% мужчин и 18,81% женщин), на кофе выявляли sIgE только у 2,97% женщин. Из семейства бобовые sIgE выявили у больных на горох с одинаковой частотой (2,97% у обоих полов),  $P < 0,05$ .



**Рис. 3. Сенсibilизация к пищевым аллергенам животного происхождения и CCD (n=107),  $P < 0,05$ .**

Аллергические реакции на мёд преобладали у мужчин (10,89%) по сравнению с женщинами (9,9%), у мужчин 1,98% выявляли sIgE на молоко, яичный белок, яичный желток, у женщин 1,98%, 3,96% и 0% соответственно ( $P < 0,05$ ). sIgE на CCD выявляли у 6,93% мужчин и 11,88% женщин. Как показал анализ sIgE животных аллергенов, только с мёдом имелась положительная корреляция с CCD.

У больных женского пола преобладали sIgE на растительные аллергены, относящиеся к бобовым: на арахис 1,98% мужчин и 7,92% женщин, на горох и кофе 2,97% у обоих полов, на грецкий орех (с одинаковой частотой 7,92%) и бахчевым: на арбуз реагировали 5,94% мужчин и 7,92% женщин ( $P < 0,05$ ).



**Рис. 4. Сенсibilизация к растительным аллергенам и CCD (n=107).**

У 14,95% больных отмечали моносенсибилизацию, т.е. наблюдали sIgE антитела к одному пищевому аллергену, тогда как у 40,19% больных наблюдали полисенсибилизацию, т.е. чувствительность к двум и более пищевым аллергенам. Из обследованных у 44,86% отсутствовали sIgE на пищевые аллергены.

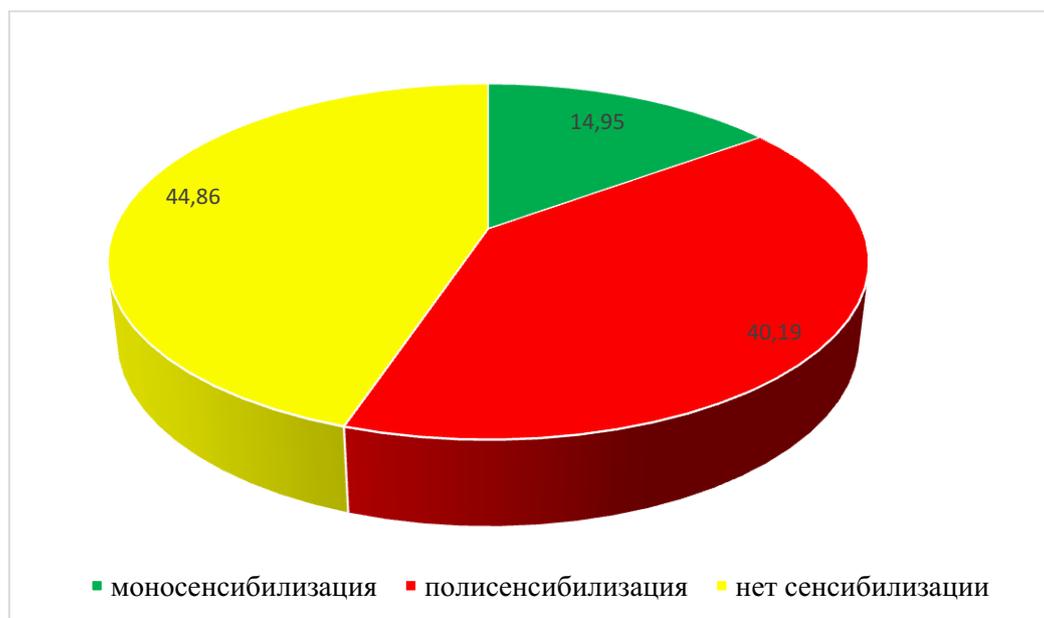


Рис. 5. Сенсibilизация больных к пищевым аллергенам (1 подгруппа, n=107)

Источниками аллергенов могут быть пищевые продукты или ткани, организмы, которые спровоцируют аллергические реакции, в некоторых случаях симптомы аллергии возникают на бытовые аллергены (кошачья перхоть, клещи домашней пыли).

Из 107 взрослых пациентов (в возрасте 1–75 лет), обратившихся к аллергологам, у 0,99% мужчин наблюдали аллергические реакции на куриное мясо, у 1,98% мужчин была ПА на КМ, на белок и желток КЯ, среди женщин у 1,87% - на КМ и у 3,74% - на белок КЯ (1,9%), не выявлены побочные реакции на желток КЯ и куриное мясо среди женщин. На мёд реагировали 10,28% мужчин и 9,35% женщин, реакция на углеводный антиген была выше у женщин (11,21%) по сравнению с мужчинами (6,54%), что показало отсутствие корреляции с животными аллергенами, ( $P < 0,05$ ).

Контрольную группу составили 41 (38,32%) пациентов, у которых были получены отрицательные результаты, группу исследования составили 66 больных. 42,42% составили мужчины, а 57,58% – женщины. Среди 107 протестированных симптомы ПА наблюдали у 55,14% была обнаружена сенсibilизация к одному или нескольким пищевым аллергенам, а у 44,86% был получен отрицательный результат на иммуноблотинге.

При наличии у больных ПА к растительным аллергенным продуктам питания мы часто выявляли ССД. Однако у таких больных не отмечался рост sIgE к пищевым аллергенам животного происхождения.

## ВЫВОДЫ

Таким образом, перекрестно-реактивные углеводные детерминанты CCD являются показателем наличия перекрёстных аллергических реакций. Выявление данного маркера информативно для диагностики аллергических реакций, протекающих по типу гиперчувствительности немедленного типа, особенно для выявления скрытой чувствительности к аллергенам растительного происхождения. Создание новых моделей профилактики и инновационные стратегии лечения, диктуют найти новые направления для персонализированного подхода больным с пищевой аллергией.

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## ВОЛЕЙБОЛ КАК ЭФФЕКТИВНЫЙ ВИД СПОРТА И СРЕДСТВО ОЗДОРОВЛЕНИЯ СТУДЕНЧЕСКОЙ МОЛОДЁЖИ

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### АННОТАЦИЯ

Статья посвящена проблеме оздоровления студенческой молодёжи средствами волейбола. Систематические занятия волейболом всесторонне воздействуют на личность. Во время учебно-тренировочных занятий и соревнований волейболист привыкает подчинять свои личные интересы интересам команды. Практическое значение занятий волейболом заключается в укреплении здоровья, в увеличении возможностей, обучающихся в выборе профессии, в самоопределении, самоутверждении и участии в общественно полезной трудовой деятельности.

**Ключевые слова:** физическое воспитание, средства, волейбол, личность, здоровье, всестороннее развитие, студенческая молодёжь.

### ВВЕДЕНИЕ

Научно-техническая революция наряду с прогрессом внесла в жизнь современного человека и ряд не благоприятных факторов. К ним следует отнести гиподинамию, нервные и физические перегрузки, а так же стрессы профессионального и бытового порядка и как следствие нарушение обмена веществ, избыточный вес, предрасположение к сердечнососудистым заболеваниям, а иногда и сами эти болезни [4].

Физическая культура и спорт являются мощным оздоровительным фактором, средством повышения физических возможностей человека, стимулирующих к отказу от вредных привычек и пристрастий. В Республике уделяют особое внимание проблеме укрепления здоровья молодежи.

Цель учебного предмета «Физическая воспитание» в высших образовательных учреждениях – привить знания по физической культуре, развивать двигательные навыки и умения в соответствии с требованиями Государственного физкультурно-оздоровительного комплекса Республики, формировать у обучающихся убеждение в том, что забота человека о своем здоровье и физическом развитии является не только его личным делом, но и общественным долгом.

**Цель исследования** - определение значимости занятий волейболом в общеобразовательных учреждениях.

## РЕЗУЛЬТАТЫ ИССЛЕДОВАНИЯ И ИХ ОБСУЖДЕНИЕ

Занятия волейболом занимают одно из важных мест в решении задач, стоящих перед физической культурой в высших образовательных учреждениях.

Совершенствование волейбола в соответствии с требованием программы по физической культуре для высших образовательных учреждений предусмотрено в течение четырёх годичного цикла. Студентам предстоит совершенствовать свои физические качества, овладеть приёмами техники игры, усвоить эффективные тактические комбинации. Занятия по волейболу направлены также на физическое развитие и самосовершенствование, воспитание у них силы воли, настойчивости, дисциплины, коллективизма, чувства дружбы и товарищества.

Волейбол как один из наиболее увлекательных и массовых видов спорта получил всенародное признание. Он отличается простотой правил и оборудования, высоким оздоровительным эффектом, эмоциональностью и увлекательностью.

Относительно минимальный объём перемещений, отсутствие непосредственного контакта с соперником позволяет использовать бесконтактные игры даже для лиц с ослабленным здоровьем. При соответствующей организации игры можно максимально снизить количество и длину передвижений по площадке, прыжков, выпадов [3].

Широкий диапазон физиологического воздействия игры в волейбол на организм занимающихся в сочетании с несложными правилами и мощными игровыми приемами позволяют в высших образовательных учреждениях заниматься этой доступной игрой, в течение четырёх годичного образовательного цикла.

Игра в волейбол характеризуется богатым и разнообразным двигательным содержанием. Чтобы играть в волейбол, необходимо уметь быстро бегать, мгновенно изменять движения по направлению и скорости, высоко прыгать, обладать силой, ловкостью и выносливостью. Выполнение движений с мячом сопровождается эмоциональным напряжением играющих, вызывает активизацию деятельности сердечно-сосудистой и дыхательной систем [1].

Качественные изменения происходят и в двигательном аппарате занимающихся. В результате выполнения большого

количества прыжков при передачах мяча, нападающих ударах и блокировании укрепляется костная система, суставы становятся более подвижными, развивается сила и эластичность мышц.

Постоянные упражнения с мячом способствуют улучшению глубинного и периферического зрения, точности и ориентировки в пространстве.

Развитие физических способностей, новые формы двигательной деятельности вносят функциональные изменения в организм, повышают его возможности. Однако, как известно, процесс достижения физического совершенства влияет на развитие не только физических качеств организма. Физическое совершенство помогает формированию духовных богатств человека. Значение физкультурно-спортивной деятельности в формировании гармонически развитой личности очевидно. Занятия волейболом помимо всего предусматривают формирование положительных личностных качеств, необходимых каждому молодому человеку.

Систематические занятия волейболом всесторонне воздействуют на личность. Во время учебно-тренировочных занятий и соревнований волейболист привыкает подчинять свои личные интересы интересам команды. Кроме того, волейбол не бывает без публичности, зрелищности, без организации, контроля и управления.

Деятельность в волейболе, как самого спортсмена, так и преподавателя (тренера, инструктора), судьи, зрителя имеет свои характерные особенности. Цели, задачи, действия, средства в каждом отдельном случае неодинаковы, как неодинаковы и формы их психического отражения. Студент может выступать как спортсмен, судья, инструктор-общественник.

Главная особенность физической культуры и спорта учащихся вытекает из ее воспитательных функций. Эти функции и определяют целевые установки и задачи, которые ставит наше общество: формирование личности, воспитание социальной направленности взаимоотношений учащихся в коллективе, их приобщение к общественно полезной деятельности, к решению общественно важных задач [2].

## ЗАКЛЮЧЕНИЕ

Таким образом, преподаватель физического воспитания должен вести учебно-тренировочный процесс так, чтобы занимающиеся осознали поставленные перед ними цели и задачи, активно стремились к их осуществлению. Когда обучающиеся намечают конкретные жизненные цели, к ним приходит более



правильное понимание социальной полезности физкультурно-спортивной деятельности. Занятия волейболом развивают, помимо физических, такие важные качества, как дисциплинированность, исполнительность, коммуникабельность, чувство долга, товарищества, коллективизма и взаимопомощи. Занимающиеся ясно представляют практическое значение занятий волейболом в укреплении здоровья и совершенствовании навыков игры, в увеличении их возможностей в выборе профессии, в самоопределении, самоутверждении и участии в общественно полезном труде.

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## ФАН ВА ДИН МУНОСАБАТЛАРИДА ИШОНЧ-ЭЪТИҚОД МУАММОСИНИНГ НАМОЁН БЎЛИШИ

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### АННОТАЦИЯ

Мазкур мақолада фан ва дин муносабатларида ишонч-эътиқоднинг ўрни ва аҳамияти ижтимоий-фалсафий нуқтаи-назардан таҳлил қилинган. Шунингдек, “ишонч” ва “эътиқод” ҳодисаларининг фалсафий мазмун-моҳияти мамлакатимиздаги ва хориждаги бир қатор файласуф олимларнинг мустақил тадқиқот объекти бўлганлиги ҳамда анча вақтдан буён батафсил ўрганиб келинаётганлиги илмий асосланган. Шунингдек, мақолада илмий ва диний эътиқодлар олдида турган муаммоларга муносабат масаласи назарий ва эмпирик контекстда очиқ берилган.

**Калит сўзлар:** фан, дин, ишонч, эътиқод, модда, энергия, ҳодиса, хулқ-атвор, мулоқот, шубҳа, фикр, қараш, фалсафий компонент.

### ABSTRACT

This article analyzes the role and significance of faith in the relationship between science and religion from a socio-philosophical point of view. It is also scientifically substantiated that the philosophical content of the phenomena "faith" and "belief" has long been the subject of independent research by a number of philosophers in our country and abroad and is studied in detail. Also in the article, in a theoretical and empirical context, the question of attitude to the problems faced by scientific and religious beliefs is revealed.

**Keywords:** science, religion, faith, belief, substance, energy, phenomenon, behavior, communication, doubt, thought, vision, philosophical component.

### КИРИШ

Бугунги кунда фан ва техника тараққиёти туфайли инсон учун дастлаб хаёлий даражада тасаввур қилинган янги кашфиётлар очилмоқда, ҳатто ўтмишдаги энг моҳир илмий фантастика ёзувчилари ҳам бунга эриша олмаган. Модда ва энергия ва ҳодисалар сирларини ўзлаштириш, уларнинг чуқур тузилмаларини кашф қилиш, вакуум ва физик майдон ҳақида янги тушунчаларга эга бўлиш,

энергиянинг янги турларини кашф этилиши, юқори самарали лазер технологияларидан фойдаланиш, космосни ўрганиш, ДНКнинг очилиши, генетика сирларини тушуниш, тирик хужайралардаги механизмлар, компютер тизимларида сунъий интеллектдан фойдаланиш, дунё миқёсидаги интернетни яратиш ҳақиқатга айланиб бормоқда. Бироқ бугунги кунда инсон зоти илм-фаннинг ана шундай улкан ютуқлари ва илм-фаннинг ўз-ўзидан шиддатли рақобати олдида омон қолиш масаласини унутиб қўйганга ўхшайди, бу эса бизни мазкур муаммо ҳақида фикр юритишга ундайди. Мисол учун, Америка Қўшма Штатларидаги Брукхавен миллий лабораторияси кварк-глюон плазмасини олиш учун тажрибалар ўтказди. Бу нимани англатади? Кўпгина олимларнинг фикрига кўра, бизнинг дунёмиз Катта портлашнинг натижасидир. Ушбу "Катта портлаш" дан кейинги биринчи лаҳза кварк-глюон плазмасидан ташкил топган деб ишонилади. Шу боисдан ҳам янги лабораториядаги тажрибалар дунё илк бор пайдо бўлган ҳозирги ҳолатни ўрганишга қаратилган. Бугунги кунда кўплаб олимлар бундай тажрибалар натижалари назоратсиз занжирли реакцияга олиб келиши мумкинлигидан қўрқишади. Шу боисдан ҳам бундай илм-фан ютуқлари асосида амалга оширилаётган цивилизациявий ўзгаришларни ишонч ва эътиқод тушунчалари орқали қиёсий таҳлил қилиш муҳим ҳисобланади. Зеро, илм-фандаги ҳар бир ютуқ ишонч ва эътиқодга асосланади.

## АДАБИЁТЛАР ТАҲЛИЛИ ВА МЕТОДОЛОГИЯ

Ишонч - бу инсон психикасининг алоҳида ҳолати бўлиб, у ўзида маълум бир маълумотни, ҳодисаларни, фикр ва қарашларни, фикрларни шубҳасиз қабул қилиши ва тан олишда яққол намоён бўлади. Е.А. Серебрякова ишонч инсоннинг ўз куч ва имкониятларидан юқори даражада фойдаланишни таъминловчи маънавий-ахлоқий фазилатларидан бири сифатида муносабат билдириб шундай деб ёзади: “Ишонч инсоннинг атрофдаги воқелик талабларига мувофиқ ўз куч ва имкониятларини тўғри баҳолаш қобилиятига асосланади. Ўзига бўлган ишонч нафақат инсоннинг ижобий тажрибаси натижасида пайдо бўлади, балки унинг ўзи ҳам муаммоларни муваффақиятли ҳал қилишга ёрдам берадиган омилдир”.

Ишонч - бу маълум тушунчалар бўйича инсон эҳтиёжларини қондириш тизимидир. Инсон ўз эҳтиёжларини қондириш учун дунёқараш, табиат ва жамият қонунларини тушуниш, ҳаётий тажриба асосида ҳаракат қилади. Инсоннинг ҳалоллигига ишониш ва айти шу фазилатга мувофиқ хурмат қилиш одоб намунаси. Худди

шундай, бутун дунёнинг яхшилигини ўйлаш инсоннинг шахсий маънавий-ахлоқий қиёфасига боғлиқ. Ўз-ўзига ишонч - бу даъволар даражаси (ҳаракат мақсади) бирлаштирилган, уни амалга оширишда муваффақиятга эришиш учун мўлжалланган интеграл ҳиссий-интеллектуал ҳолат (тажриба), унга эришиш эҳтимолининг оптимал даражаси билан инсон онгида акс этишидир. Бундай ишонч инсонни ўзига хос қобилияти, тайёрлиги, билимлари, психомотор фаолиятнинг ички таҳлилига асосланган ҳаракат мақсади, ҳаракат ва фаолиятнинг реал шароитларида мақсадни (муваффақиятни) амалга оширишни белгилайди. Ўзига ишончни бундай тушуниш ўзига ишонч ҳиссиётлари доимо инсон психикасининг интеллектуал ва иродавий кўринишлари билан бевосита боғлиқлигини кўрсатади. Ишончнинг интеллектуал хусусиятларига ўз имкониятларини таҳлил қилиш ва баҳолаш, ҳаракат мақсадини амалга ошириш шартларини баҳолаш, ҳаракат мақсадини белгилаш киради. Иродавий хусусиятларга - қийин шароитларда мақсадни сақлаш, ҳаракат мақсадига эришиш учун психомотор фаолиятни юқори даражада ушлаб туришни киритишимиз мумкин.

Ишонч хулқ-атвор, мулоқот ва фаолият ҳолатларида яққол намоён бўлади, унинг динамик жиҳатини акс эттиради. У (ишонч) миқдорий жиҳатдан ҳам, ҳам тавсиф шаклида, оғзаки ифода шаклида ифодаланиши мумкин. Вазиятларда шахсият ҳам ўзини намоён қилади. Ишонч - бу одамлар ўртасидаги ҳамкорлик муносабатларини соддалаштиришдир. Ижтимоий фанларда ишонч қарамлик муносабати сифатида қаралади. Ишончли шахслар ёки гуруҳлар сиёсат, ахлоқ кодекси, қонунлар ва олдинги мажбуриятларини бажаришга интилишларини англатади. Ўзаро боғлиқлик деганда икки томон ўртасида айирбошлаш муносабатлари мавжудлиги тушунилади. Бундай ўзаро муносабатнинг мазмуни қандай бўлишидан қатъи назар, бу икки томоннинг ҳеч бўлмаганда маълум даражада манфаатдор бўлиши ва ўз манфаатларини иккинчи томон амалга ошириши зарурлигини билдиради. Ишонч - бу ўз хоҳиш-истаклари ёки умидлари амалга ошишига ишонишдир. Ишончсиз ҳеч нарсага эришиб бўлмайди. Ишонч ҳам ижобий, оптимистик ва юқорига қаратилган муносабатдир. Ишонч пулдан муҳимроқдир.

Инсон ўз олдига мақсад қўйиб, унинг самарали амалга оширилишига ишониб, ҳаракат қилсагина юксак натижаларга эриша олади. Ишонч - инсоннинг ақл-заковати, куч-қудрати, эркинлиги ва қобилиятини оширадиган ижобий туйғу. Ишонч – инсоннинг эртанги кунга бўлган иштиёқини оширадиган ҳодиса (келажакка ишониш, меҳнатга, яқинларига ишониш, динга ишонч ва ҳ.к.). Ишонч

умид билан бошланади. Ишонч инсоннинг мақсадига, дунёқарашининг ҳаёт билан боғланишига аниқ ишончдан келиб чиқади. Бу инсоннинг ҳақиқий ҳаракатлари ва тажрибасига боғлиқ.

## НАТИЖАЛАР ВА МУҲОКАМА

"Имон" сўзи мақсадга эришишда ишонч ва эътиқод маъносида ҳам ишлатилади. "Эътиқод" сўзи эса арабча "иътақода" феълидан олинган бўлиб, "ишонч", "комил ишонч", "иймон", "иймонли бўлиш" маъноларини англатади. Эътиқод соғлом мантиққа асосланади. Бу иймонни мустаҳкамлайди. Чунки ишонч жуда кучли ва ишончли бўлсагина у эътиқодга айланади. Шу боисдан ҳам Н.Г.Чернышевский "Тирик жон кучли эътиқодга эга бўлмаслиги мумкин эмас... Калтафаҳм одамлар ёки виждонсиз одамларгина эътиқодсиз бўладилар" деб таъкидлайди. Эътиқодсиз маънавият бўлмайди. Эътиқод маънавиятнинг энг асосий устунларидан биридир. У маънавиятга муштараклик ва жипслик бағишлайди. Унинг турли таркибий қисмларини ўзаро бирлаштиради ҳамда маънавиятни амалиётга боғлайди. Эътиқод маънавиятнинг моҳиятини очиб берувчи тушунчалардан биридир.

Эътиқод, ўзининг энг кенг таърифи билан, бу психологик ҳолат бўлиб, унда одам интуитив (хиссиёт) маълум бир даъво ёки тахминни "ҳақиқий" ёки "нотўғри" деб қабул қилади. Эътиқодга асосланган мияга эга бўлган шахс учун эмпирик ёки илмий исбот муҳим эмас. Эътиқодни аниқлашнинг яна бир усули шундаки, у ҳақиқат бўлиш эҳтимолига ижобий муносабатда бўлган муносабатнинг ақлий ифодаси сифатида қаралади. Ишонч - бу инсоннинг атроф - муҳитга ва воқеликка муносабатини белгилайдиган тушунча, билим, иллюзия, ғоя ҳисобланади. "Эътиқод — дунёқараш негизида акс этувчи ижтимоий-фалсафий, ҳуқуқий, маънавий-ахлоқий, эстетик иқтисодий ва экологик билимларнинг такомиллашган кўриниши; муайян ғояга бўлган ишонч. Эътиқод — дунёқараш шахс, жамоа, гуруҳ ва жамият аъзоларини маълум бир ғоя, таълимот, ёки динга қатъий ишониш асосида уни ҳақ деб билиб, шу таълимот тўғрисидаги тасаввур ва билимларни ташкил қилади. Инсон шу ғояни ёки динни ўзининг фаолият дастури деб ҳисоблайди".

Ўзбек тилида ишонч тушунчаси қуйидаги тўрт маънони билдиради: Биринчи маъноси: ишонч – бу инсоний фазилат, инсонга хос хусусият бўлиб, у кишиларнинг масъулият ва барқарорлигини, садоқат ва куч-қувват, матонатни ифодалайди. Ишонч бу ерда эзгулик, гўзаллик, ҳақиқат ва эзгулик каби умумлаштирилган анъанавий ва замонавий қадриятларнинг зарурий шarti сифатида шахснинг фикр ва



ҳаракатларининг ўзига хос ифодаси сифатида намоён бўлади. Иккинчи маъно эса, ишонч – ҳар қандай шубҳани йўқ қилиш, маълум бир таълимотга, “изм”га, илмий, диний ёки афсонавий ишончга бир хил билим ва қадриятларни миҳлаб қўйган ҳолда доимий содиқликдир. Жаҳон тарихида мустақил таълим тизимининг йўқолиши айрим миллий давлатларнинг барбод бўлиши сабабларидан бири сифатида тилга олинади. Яъни, халқнинг, мамлакатнинг келажаги, унинг маънавий-интеллектуал тараққиёт йўналиши таълим тизими, таълим сифати, таълим муассасаларининг аҳволига боғлиқ.

Имон ва қалбдан эътиқод ўртасидаги фарқ ҳам ўзига хос. Баъзан одамнинг илмий ва мантиқий далилларга рози бўлиши мумкин, аммо қалби хотиржам бўлмайди. Аммо у иймони бўлса, бу иймон уни қалбини хотиржам қилади. Бундай ҳолда, ҳеч қандай тушуниш ва ақлий тасаввур унга ўзини англашига тўсқинлик қилмайди. Масалан: Биз ҳаммамиз биламизки, биз ўлган одамдан ҳеч нарса кута олмаймиз. Биз бунга далил билан ишонамиз, лекин у бизнинг қалбимизга кирмаган. Чунки тунда ўлган одамдан кимдир қўрқиши мумкин. Аммо баъзи одамлар ҳеч қачон бундай қўрқувга эга эмаслар, чунки улар шундай қилишади. Шундан келиб чиқиб айтиш мумкинки, инсон шухуд (қўриш, кузатиш) босқичига етганида қалби хотиржам бўлади.

## ХУЛОСА

“Ишонч” категорияси олдинги даврдаги фалсафий тафаккур тузилмасида ошқора шаклда мавжуд бўлмаган. Яқин кунларга қадар “ишонч” категорияси соғлом фикрнинг кундалик маконида илдиз отган эди. Кундалик соғлом фикрни издан чиқарга кундалик ҳаётни издан чиқарди ёки ҳеч бўлмаганда унинг маъно мажмуини заифлаштириб қўйди. Ҳозирги вақтда “ишонч” категорияси кундалик ҳаёт унсуридан фалсафий билим соҳасининг бир қисмига айланиб бормоқда. Шундай қилиб, “ишонч” ва “эътиқод” ҳодисаларининг мазмуни муаммоси мамлакатимиздаги ва хориждаги бир қатор муаллифларнинг мустақил тадқиқот объекти бўлганлиги ҳамда анча батафсил ўрганилганлигини таъкидлаш жоиз. Ю.В.Карпова таъкидлашича, “Эътиқоднинг иккита асосий жиҳати бор: гносеологик ва маънавий-ахлоқий, иккинчиси диний ва фалсафий компонентлар билан ифодаланади. Уларни танлаб олишнинг асоси, биринчидан, эътиқод объектнинг чекланган мавжудотга мансублиги ёки мансуб эмаслиги, иккинчидан, когнитив жиҳатнинг субъект ва ҳақиқат муносабатига, маънавий-ахлоқий муносабатларга асосланганлигидир”.

Дин ва фан ўртасидаги муносабатлар классик даврлардан бери файласуфлар, илоҳиётчилар, олимлар ва бошқалар томонидан ўрганилаётган мавзу бўлиб келган. Турли географиялар, маданиятлар ва тарихий даврларнинг фикрлари жуда хилма-хил бўлиб, баъзилар буни зиддият сифатида кўришади, бошқалари буни уйғунлик деб таърифлайдилар. Фан ва дин, одатда, коинот ҳақидаги билимга бўлган ёндашувида фарқланади. Илм ақл, тажриба ва далил ҳақида бўлса, дин ваҳий, имон ва илоҳий нарсалар ҳақидадир. Ақл, тажриба ва далиллар ваҳий, имон ва илоҳийни асосли билим манбалари сифатида тан олмайди. Бундан ташқари, ваҳий, эътиқод ва илоҳий ( диний догма мисолида) умумэътироф этилган далилларга қарама-қарши илмий қарашларни қабул қиладиган эмпирик даъволардир.

Инсон онги объектив дунёни тўғри англаши ва акс эттира олишига ишониш керак, акс ҳолда ҳар қандай илмий иш маъносиздир. Кўриниб турибдики, математика ҳам, фан ҳам пировардида эътиқодга асосланади. Агар сиз эътиқодни бутунлай инкор қилсангиз, илмни ҳам инкор қиласиз. Демак, моҳиятан илм ҳам, дин ҳам эътиқодга асосланади ва фарқи йўқ. Олимлар материянинг ҳақиқий эканлигига, насронийлар еса материянинг ҳақиқий эканлигига ишонишади ва ҳақиқий материя ҳақиқий манбага эга бўлиши керак, шунинг учун Худога ишониш янада ҳақиқийдир. Иккаласини солиштирсак, қайси бири тўлиқроқ ва оқилона? Нютон ва Кеплер каби одамлар илмий кашфиётларини умумий қонунларга (масалан, тортишиш қонунига) боғлаганларида, уларнинг эътиқоди Худога бўлган ишончига асосланган еди. Улар бир хил келиб чиқишига, яъни Худонинг бир хил ижодига ишонишади. Муқаддас Китобга кўра, ҳамма нарсанинг яратувчиси тартибни яхши кўради ва тартибсизликни ёқтирмайди, шунинг учун улар коинотда ягона, ўзгармас универсал қонун борлигига ишонишади. Айрим олимлар худога ишонмайдилар, лекин улар ҳам худди шундай эътиқодни “коинотнинг умумжаҳон қонуни”га қабул қилишлари керак, шундай экан, уларнинг эътиқоди нимада?

Одамлар эътиқод асосида ҳуқуқ тушунчасини ўрнатгандан сўнг, уни кенгроқ доирада текширадилар ва амалиётда қўллайдилар. Агар одамлар кутилган натижаларни олса ва ҳеч қандай номувофиклик топилмаса, одамлар қонун тасдиқланган деб ўйлашади. Кейинчалик, улар барча маълум фактларни умумлаштириш учун янги қонун тушунчаларини таклиф қиладилар ва текширишни давом эттирадилар. Фан ҳам шундай ривожланади. Албатта, дин фақат эътиқод билан чекланмайди. Одамлар Худога ва Муқаддас диний



китобларга бўлган ишончларини ўрнатганларидан сўнг, улар буни ҳақиқий ҳаётда ҳам бошдан кечиришлари ва текширишлари керак бўлади. Табиийки, илмни текшириш ва динни текшириш ҳам ҳар хил мақсадни кўзлайди. Илмни текшириш моддийдир, диний эътиқодни текшириш эса материя билан чегараланиб қолмай, ақлни ҳам ўз ичига олади. Одамлар ақлни жуда мавҳум ва тушуниб бўлмайдиган деб ўйлашлари мумкин, аммо улар ақлнинг мавжудлигини инкор эта олмайдилар.

Диний эътиқоднинг фанга зид бўлиши мумкин. Мисол учун, диний эътиқодлар томонидан қўллаб-қувватланадиган геоцентрик назария Коперник томонидан таклиф қилинган гелиоцентрик назарияга зид келади. Чунки диний эътиқодлар асосан эътиқод, анъана ва ваҳийга асосланади, фан эса эмпирик далиллар, мулоҳазалар ва кузатишларга асосланади. Диний эътиқодлар эмпирик даъволар қиладими ёки йўқми ҳар доим ҳам аниқ эмас, чунки диний матнлар ва анъаналар кўпинча тажрибавий ва эмпирик бўлмаган элементларни ўз ичига олади. Шу боисдан ҳам О.В.Ивановская “Эътиқод онгнинг муайян ҳодисаларни идрок этишга маълум бир олдиндан тайёргарлиги ва унинг ўзига хос ҳолати сифатида мавжуд. Имон ёрдамида онгни у ният қилган ўзгарган рамзий тизим асосида қайта йўналтириш мумкин. Эътиқод онгни яхши шаклда, экзистенциал кескинликда сақлайди, бу бизга уни қасдан трансценденция сифатида ва инсонни ижтимоийлаштириш ва маданиятлаштиришнинг универсал усули, унинг маънавий салоҳиятини актуаллаштириш, шунинг учун маданиятнинг инсонийлаштирувчи ҳодисаси сифатида кўриб чиқишга имкон беради” деб таъкидлайди.

Динда ғоялар ёки эътиқодлар шубҳа остига олинса, у кўпинча илмий соҳа билан бир хил даражадаги текширувга қаршилик кўрсатади. Аксинча, бу эътиқод, шахсий тажриба ёки диний матнларни талқин қилиш орқали оқланади. Аксинча, эмпирик далилларга қарамай, қарашларнинг ўзгаришига қаршилик кўрсатиши мумкин.

Илмий ва оқилона нуқтаи назардан, айниқса, диний эътиқодлар эмпирик даъволарни билдирганда, бу даъволар уларнинг асослилигини аниқлаш учун илмий жиҳатдан синовдан ўтказилиши керак.

Илмий ва диний эътиқодлар олдида турган муаммоларга муносабат жуда бошқача бўлиши мумкин. Фанда савол бериш муаммоси кўпинча ўрганиш ва тушунишни ошириш имконияти сифатида қаралади. Олимлар ўзларининг ва бошқаларнинг ғояларини шубҳа остига қўйиш ва текширишга ўргатилади ва муаммо ва танқид илмий жараённинг муҳим қисмлари эканлигини тан олади. Илмий



муаммоларга муносабат одатда қизиқувчанлик ва янги ғоялар ва далилларга очиқликдир.

Динда эътиқодни шубҳа остига қўйиш инсоннинг эътиқоди ва шахсий ўзига хослигига таҳдид сифатида қаралиши мумкин. Баъзилар учун диний эътиқодларни шубҳа остига қўйиш ёки эътироз билдириш хурматсизлик ёки ҳатто шаккоклик сифатида қаралиши ҳам мумкин. Бошқалар учун эса, диний эътиқодга қарши курашиш сизнинг эътиқодингиз ҳақидаги тушунчангизни чуқурлаштириш учун имконият бўлиши мумкин. Фикрича, “Эътиқодга герменевтик, феноменологик, экзистенциал ва персоналистик ёндашувлардан фойдаланиш ўрганилаётган ҳодисанинг моҳиятини конкретлаштириш имконини беради. Эътиқоднинг ташаббускор, тарбиявий, йўналтирувчи, намунали, вақтиз, рамзий, индивидуаллаштирувчи, акс эттирувчи, коммуникатив, ҳиссий, ижро этувчи, бирлаштирувчи, ижодий ва бошқа функциялари унинг шахсий ва ижтимоий-маданий механизмларини очиб беради”.

Умуман олганда, илмий эътиқод ва диний эътиқодларга бўлган муаммоларга муносабат бир қатор омиллар, жумладан, маданий ва шахсий эътиқодлар, тажрибалар ва дунёқарашлар таъсирида бўлиши мумкин. Аммо умуман олганда, илмий қарашлар далиллар ва сўровларга устунлик беради, диний қарашлар эса эътиқод ва шахсий тажрибага кўпроқ эътибор беради.

Илмий нуқтаи назардан қараганда, ахлоқ фақат диний эътиқодга боғлиқ эмас. Баъзи одамлар ўзларининг ахлоқи уларнинг эътиқодлари ёки диний эътиқодлари билан боғлиқ деб даъво қилишлари мумкин бўлса-да, ахлоқ бошқа омиллар, масалан, ижтимоий ва маданий меъёрлар, ҳамдардлик ва рационаллик билан ҳам шакллантирилишига далиллар мавжуд. Тадқиқотлар шуни кўрсатдики, турли хил маданий ва диний келиб чиқиши бўлган одамлар кўпинча ахлоқий қадриятларга эга бўлиб, ахлоқ фақат эътиқод билан белгиланмайди. Бундан ташқари, психология, неврология ва эволюцион биология соҳаларида олиб борилган тадқиқотлар ахлоқий қарорлар қабул қилишнинг биологик ва когнитив механизмларини очиб берди ва бу ахлоқ фақат эътиқодга боғлиқ эмаслигини янада кўрсатди.

Фан ва диннинг тажрибага ёндашувидаги фарқ кўп баҳс-мунозараларни келтириб чиқарди. Фан ва математика - жуда мавҳум тажриба - бир-бирига чамбарчас боғланган. Дин кундалик ҳаёт тажрибаси билан чамбарчас боғлиқ. Тажриба талқинига келсак, фан тавсифий, дин эса нормативдир. Агар илм-фан ва математика дунёни дин каби тартибга солса, милoddан аввалги VI асрдаги Пифагор

шогирдлари каби табиат оламига баъзи атрибутларни юклаш нотўғри бўлар эди.

Томас Кун илм-фан парадигмалардан ташкил топган ва улар дунёвий нуқтаи назардан диний қарашга жуда ўхшаш маданий анъаналардан иборат деб ҳисоблайди. Майкл Поланининг таъкидлашича, универсалликка содиқлик фандаги шахсий ажралиш ҳақидаги кўплаб тушунчалардан фарқли ўларок, субъективликдан сақланишга ёрдам беради. Полани яна барча билимлар шахсий эканлигини ва илмий тадқиқот билан шуғулланувчи олимнинг роли субъектив бўлмаса ҳам, албатта у шахсий эканлигини таъкидлайди. Унинг қўшимча қилишича, олимлар кўпинча фақат “интеллектуал гўзаллик, симметрия ва “эмпирик консенсус”га амал қилишади.” У илм билан шуғулланиш ахлоқий чекловни талаб қилади, деб таъкидлайди.

Хуллас, ишонч инсон онгига хос ўзига хос ўлчов бўлиб, уни инсон бўлиш, яшашнинг ягона дахлсиз ички тамойилига айлантиради. Бундай ишонч бирор нарсага содиқлик ҳолати бўлиб, у шахсдаги ижтимоий мафкуранинг ифодасини ифодалагани учун уни мафкуравий ишонч, яъни эътиқод сўзи билан ҳам умумлаштириш мумкин. Учинчи маъноси: ишонч – инсоннинг иродаси, ҳис-туйғулари ва тасаввурлари жиҳатидан ўзига хос бирлиги; кўзланган мақсад йўлида очиқ ва эркин, шаффофликка эришишдир. Шунингдек, ишонч бу ерда қалб ва тана қудратининг тўлиқлигидан, унинг инсоний фазилатлар жиҳатидан бирлигидан туғилган ижодий матонат, софдиллик, жиддийлик, эҳтиёткорлик сифатида ҳам намоён бўлади. Тўртинчи маъно: ишонч – ботиний нурнинг уйғониши; шахснинг ўзига хос ҳис-туйғулари, иродаси, ақл-идроки ва ҳаракатлари мураккаб, ўзаро боғлиқ ва юксак маънавий уйғунликка эришиш демакдир.

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**ANNOTATSIYA**

O'zbek folklori va milliy marosimlarda nikoh to'yi katta ahamiyatga ega. Qadimda ham, hozirda ham birdek o'z o'rniga ega bo'lgan bu marosim o'z ichida ancha ko'p kichik marosimlarni qamrab oladi va ular orasida kelin salomlar e'tiborga sazovordir. Maqolada ayni kelin salomlardagi qaynona obrazi va uning xususiyatlari, unga berilgan o'zgacha ta'riflar ochib berilgan.

**Kalit so'zlar:** folklor, to'y, marosim, kelin salom, qaynona, kelin, o'g'il, kuyov, parallellizm, dasturxon, ulug'lik, momo.

**ABSTRACT**

Wedding has high value among Uzbek folklore and its national ceremonies. Wedding has a great significance both in past and now; covers a lot of small rituals within itself, and among them the bridal greetings are noteworthy. The article reveals the role of the mother-in-law, her features in the greetings, special definitions given to her.

**Key words:** folklore, wedding, ceremony, bridal greeting, mother-in-law, son, bridegroom, parallelism, tablecloth, sanctity, grandmother.

O'zbek folklorida to'y marosimlari orasida nikoh to'yi eng yirik va e'tiborli marosim bo'lib hisoblanadi. Nikoh to'yidan keyin o'tkaziladigan marosimlar orasida "kelin salom" alohida o'ringa ega. O'zbek oilasida kelin olib kelish eng ko'p qaynonalar uchun faxrli va sevimli hodisadir. Ayni shu sababdan, kelin salomlarda qaynonalar o'zgacha ta'riflanadi:

Suv kechgani eringan,

Og'il tug'ib kerilgan,

Yor-u yor-u, chahor yor-u,

Qaynonasiga bir salom.

Ushbu kelin salomda qaynonaning ayni bolasining tug'ilganidanoq xursandchiligi va o'sha paytlardanoq kelin



qilishni orzu qilganligi ifodalangan. O`g`il farzandi dunyoga kelgandayoq to`ylar qilaman deb xursand bo`lgan onalar qaynonalikni qabul qilganda kerilib, faxrlanib turishi hammaga ayon.

Ko`zlari qora-ola,  
Og`zi bolli payola  
Qaynonasiga salom.

Yuqoridagi misralarda yashiringan ijobiy ma`no orqali qaynonaning sifatlari ochib berilgan. Uyiga kelin kelganda barcha yumushlardan qo`li bo`shab, kelinning qo`lidan “bir payola” choy ichib mehri jo`shgan qaynona qo`ni- qo`shnilarga “kelinim” deya maqtanadi. Bir tarafdin, kelinning qaynonasiga salomi paytida bu jumlaning aytish bilan unga “bolli payola”, ya`ni shirinso`zlik va muloyimlik bilan muomala qilish va shu orqali qaynonasining ko`ngliga yo`l topishiga ishora berilyapti.

Qaqrasidan qaragan,  
Zuvalasin sanagan,  
To`y uyining bekasi  
Qaynonasiga salom.

Bu matndan anglanadigan ma`no shuki, qaynonalar, ya`ni onalar to`yga ancha tayyorgarlik ko`rishadi. Xususan, kuyov tomon to`y berganligi sababdan ularda tashvishlar ko`proq bo`ladi. O`zbek oilasida to`y uchun maxsus nonlar yopilishi hammaga ma`lum. Bunday namunalarni o`tgan asrlardagi to`ylarda ko`proq ko`ramiz. Chunki u paytlarda to`y marosimida dasturxonga tortiladigan ne`matlar uyda ayollar tomonidan tayyorlangan. Boshqa tomondan, kelinning uyiga sovchilikka borilganda ham kuyovning onasi o`z qo`llari bilan tandirda patir va nonlar yopib olib borishi ma`nolari ifodasini ham ko`rish mumkin.

Oq saqichday eshilgan,  
Mahallada kerilgan.  
Yor-u yor-u, chahor yor-u,  
Qaynanasiga salom.

To`y boshlangan xonadonlarni hamma qutlaganda “-Endi sizga yengil bo`ladi, keliningiz yumushlaringizni qo`lingizdan oladi, endi bu uying qirolichasi bo`lasiz”, -deya unga havas qiladigan qo`ni-qo`shnilar, amma-xolalarning bu gaplaridan qaynonalar yanada g`ururlanishadi. Aytilgan yuqoridagi kelin salom ham buning yaqqol dalili bo`lib, unda eshilmok va kerilmok so`zlari bir-biriga parallel sifatida ishlatilgan. Bundan maqsad esa

qaynonaning ba`zi sifatlari oq saqichga o`xshatish va uning salbiy jihatlarini ochib berishdir.

Oppoq unning urvog`i,  
Dasturxonning qurog`i,  
Qaynonasiga bir salom,  
Assalom, kelin salom.

Qaynona oppoq un, dasturxon tushunchalari bilan bog`lanmaydi, dastur va sochiqlar oilada unga tegishli bo`lgani sababdan va keyin u bularni keliniga meros qilib qoldirishi nazarda tutilgan. Xuddi shu ma`no quyidagi kelin salomda ham o`z aksini topgan:

Tandirda pishgan patirday,  
Qozonda qotgan qatirday  
Qaynonasiga salom.

Bu kelin salomni ikki xil ma`noda tushunish mumkin: biri kelin kelgach butun ro`zg`orni unga topshirish va bu bilan oilani unga ishonish bo`lsa, ikkinchisi qaynonaning yillar davomida mashaqqatlar bilan “tandirda pishib” o`g`il o`stirgani va oilasi uchun kurashganligidir.

Ayrim kelin salomlarda esa qaynonaning go`zalligi va jozibadorligiga urg`u qaratiladi:

Yuzi qizil anorday,  
To`lib turgan qanorday,  
Qaynonasiga salom.

Bu kelin salom qaynonaning ko`nglini olish uchun va uning keliniga bo`lgan munosabatini shu orqali yaxshilash uchun ijobiy ma`noda qo`llangan.

Agar kelin qaynona bilan til topa olsa, ular sirdosh va yo`ldosh bo`la oladi. Bu esa kelinning shu oilada o`z o`rnini topishi uchun yaxshi xizmat qiladi. Quyidagi kelin salom buni isbotlaydi:

Uyga kirs sirdoshi,  
Yo`lga tushsa yo`ldoshi,  
Qaynonasiga salom.

Demak, xulosa qilinsa, kelin salomlarda qaynonaning ham ijobiy, ham salbiy xatti-harakatlari hamda turli xil xususiyatlari ifoda etiladi.

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## O‘ZBEK TILIDA NEOLOGIZMLAR

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### ANNOTATSIYA

Ushbu maqolada bugungi kunda o‘zbek tili leksikasiga kirib kelgan va so‘zlashuv jarayonida faol ishlatilayotgan neologizmlar hamda ularning tasnifiga qaratilgan mulohazalar haqida fikr yuritiladi.

**Kalit so‘zlar:** leksika, birikma, o‘z va o‘zlashgan qatlam, leksema, sheva, semantik o‘zlashma, til boyitish, o‘zlashgan neologizmlar.

### NEOLOGISMS IN UZBEK LANGUAGE

#### ABSTRACT

This article discusses the neologisms that have entered the lexicon of the Uzbek language today and are actively used in conversation, as well as comments on their classification.

**Keywords:** lexicon, combination, own and acquired layer, lexeme, dialect, semantic acquisition, language enrichment, acquired neologisms.

#### KIRISH

Leksika eng harakatchan, doim rivojlanuvchi komponent hisoblanadi. Jamiyatda yuz bergan yangiliklar, rivojlanish va o‘zgarishlar leksikada o‘z ifodasini topadi. Leksikaning rivojlanishi ikki yo‘nalishda boradi. Bir tomondan, leksika o‘z taraqqiyoti jarayonida jamiyat taqqiyotida yuz bergan tarixiy o‘zgarishlarni, yangiliklarni ifodalash orqali boyiydi. Leksika boshqa tillarda qabul qilingan so‘zlar, yaratilgan yangi so‘zlar, yangicha atamalar, yangicha iboralar so‘zlarning o‘z ma‘nolarini o‘zgartirishlari hisobiga boyiydi. Leksikada yuz bergan o‘zgarishlar til sistemasiga bog‘liq bo‘lmaydi. Yuqorida aytib o‘tilgan jarayon til sistemasi (grammatikasi) bilan bevosita bog‘liq bo‘ladi. Til sistemasi bilan bevosita bog‘liq bo‘lmagan tarzda leksikaga kirib kelgan so‘zlar o‘zlari shakllangan ma‘lum bir davrni, jamiyatni qisman ifodalaydi.





## ADABIYOTLAR TAHLILI VA METODOLOGIYA

O‘zlashtirish, ya’ni o‘zlashtirilayotgan til tomonidan so‘z boyligini yanada oshirish, o‘zlashma neologizmlarni yanada mukammal, jarangdor bo‘lishiga, ya’ni o‘zlashtirgan tilning qoidalariga tayanib boyitiladi. O‘z qatlam deganda aslan shu tilniki bo‘lgan so‘zlar va shular asosidagi yasalishlar, shuningdek o‘z affiks bilan boshqa til so‘zlaridan yasashlar tushuniladi. O‘z qatlamga xos so‘zlar bilan o‘zlashgan qatlamga xos so‘zlarni o‘zaro farqlash hamma vaqt yengil bo‘lavermaydi. Bularni o‘zaro farqlashda so‘zning semantik, morfologik, fonetik belgilarini hisobga olib ish ko‘riladi.

Semantik belgilari: umumturkiy so‘zlarning aksariyati ko‘p ma’nodir:

Bosh -

- 1) “odamning boshi”;
- 2) “ko‘chaning boshi”;
- 3) “ishning boshi”.

Morfologik belgilari:

- 1) umumturkiy so‘zlar hozirgi o‘zbek tilining barcha so‘z turkumlarida uchraydi;
- 2) turlanadi va tuslanadi;
- 3) o‘zak va affiks morfemalar erkin va standart bo‘ladi: ko‘zim, ko‘zing, ko‘zi;
- 4) so‘z tarkibida prefikslar qo‘llanmaydi.

Fonetik struktura jihatdan o‘z qatlamiga xos so‘zlarning asosiy belgilari deb quyidagilarni ko‘rsatish mumkin:

- 1) o‘zbekcha tub negizlar asosan bir bo‘g‘inli va ikki bo‘g‘inli bo‘ladi; uch bo‘g‘inli tub negizlar juda oz.
- 2) bir bo‘g‘inlilarda “undosh+unli+undosh” tipi asosiy o‘rinni egallaydi. Ikkinchi o‘rinda “unli+undosh” tipi turadi. “Undosh+unli” tipi esa juda oz.
- 3) ikki bo‘g‘inli so‘zlar ko‘pincha ochiq bo‘g‘inlardan tuzilgan bo‘ladi.
- 4) o‘zbek so‘zlarida “h” bo‘g‘iz tovushi qatnashmaydi.(undov va mimemalardan tashqari)
- 5) so‘z oxiri e, o‘ tovushi bilan tugamaydi (undov va mimemalardan tashqari).
- 6) o‘zbek so‘zlarida odatda sof cho‘ziq o unlisi bo‘lmaydi.
- 7) birinchi bo‘g‘indan keyingi bo‘g‘inlar hech vaqt unli bilan boshlanmaydi.
- 8) Bo‘g‘in boshlanishida, ko‘pincha, bo‘g‘in oxirida ham, ikki va undan ortiq undosh qatorasiga kelmaydi (ost, ust kabi bir nechta so‘z bundan mustasno).

Yuqorida sanalganlarning aksi o'zlashgan so'zlarning asosiy belgilari deb qaraladi.

## MUHOKAMA

O'zlashgan qatlam - o'zbek tili leksikasining boshqa tillardan o'zlashtirilgan leksemalardan iborat qismi. Masalan, *maktab* (arabcha), *daraxt*, *gul* (fors-tojikcha), *bahodir* (mo'g'ulcha), *afandi* (turk), *ravshan* (so'g'dcha), *avtobus* (ruscha) va boshqalar. Bu qismda arab, fors-tojikcha va rus tilidan o'zlashtirilgan so'zlar ko'pchilikni tashkil etadi. Hozirgi o'zbek tilida fors-tojik tillaridan o'zlashtirilgan so'zlar orasida otlar (sartarosh, bazm, barg), sifatlar (badbo'y, badjahl, ozoda), ravishlar (banogoh, do'stona, tez), bog'lovchilar (chunki, yoki, agar), yuklamalar (xo'sh, xuddi), modal so'zlar (chunonchi, binobarin), undovlar (balli, dod) uchraydi. Shuningdek, fors-tojik tilidan o'zbek tiliga bir qator prefiks va suffiks o'zlashgan: Prefikslar -be-, ba-, no-, ham-, kam-; suffikslar: -kor, -zor, -xo'r, -parvar, -kash, -paz va boshqalar. Ular dastlab fors-tojik so'zlari tarkibida qo'llangan, keyinchalik o'zbek tilining so'z yasovchi affikslarning qatoridan o'rin olib, yangi so'zlarning yasalişida ishtirok etgan: kamsuqum, bebosh, barkamol, hamyurt.

Yangilik bo'yog'iga ega bo'lgan so'zlar tilshunoslikda o'zlashma neologizmlar ham deb ataladi. Kundalik turmushdagi yangicha munosabatlarni, yangi narsalar va ularning belgilarini, yangi hodisalar, tushunchalarni ifodolovchi lug'aviy birliklardir. Bunday so'zlar xususiyatiga ko'ra ikki turga bo'linadi:

1. Leksik o'zlashma neologizmlar.
2. Semantik o'zlashma neologizmlar.

Leksik o'zlashma neologizmlar tilga tamoman o'zlashib ketmagan o'zbek tilining o'zida yasalgan yoki boshqa tillardan o'zlashib butunlay iste'molga kirmagan so'zlardir. Masalan, *zovut*, *zamin studiyasi*, *sarhad*, *kollej*, *menejment*, *bakalavriat*, *magistratura*, *dastur*, *bar*, *bojxona*, *aksiya*, *bandargoh*, *tuman* kabilar.

Semantik o'zlashma neologizmlar tilda oldindan mavjud bo'lgan va hozirda yangi ma'noda ishlatilayotgan so'zlardir. Masalan, *tuman* (rayon), *viloyat* (oblast), *do'kon* (magazin), *anjuman* (konferensiya) va boshqalar.

## NATIJALAR

Mustaqillik yillarida hayotimizda katta o'zgarishlar ro'y berdi. Yangi yangi tushunchalar vujudga keldi. Yangi tushunchalar ko'proq tilning ichki imkoniyatlari:

a) shevalardan soʻz olish;

b) soʻz yasash imkoniyatidan foydalanish asosida yuzaga keladi. Baʼzan yangi tushunchalar boshqa tillardan soʻz olish yoʻli bilan ham ifodalanadi.

Bunday soʻzlar olinma soʻzlar hisoblanadi.

Dunyoda boshqa tillardan soʻz olmaydigan bironta ham til yoʻq. Kurash, yonbosh, chala, halol soʻzlari dunyoning barcha tillariga kirib borayotgani bizning

tilimiz ham turmushimizga kirib kelgan bir qator yangi tushunchalarni ifodalovchi olinma soʻzlar hisobiga boyib bormoqda. Oʻzbek tili leksikasi turmushimiz uchun keraksiz boʻlib qolgan tushunchalarni bildiruvchi soʻzlarning isteʼmoldan chiqib ketishi, yangi paydo boʻlgan tushunchalarni ifodalovchi soʻzlarning esa kirib kelish hisobiga oʻzgarib, rivojlanib boradi. Oʻzbek tili leksikasi bir qancha manbalar asosida boyib rivojlanib boradi. Ularni, eng avvalo, ikki katta guruhga ajratish mumkin:

1) oʻz ichki imkoniyatlari asosida;

2) boshqa tillardan soʻz olish asosida.

Ularning birinchisi ichki manbalar, ikkinchisi esa tashqi manbalar sanaladi.

Oʻzbek tilining birinchi yoʻl bilan boyib borishi imkoniyatlari juda kengdir. Masalan: ilgari qoʻllanilib, keyin isteʼmoldan chiqib ketgan soʻzlardan yangi tushunchalarni ifodalash uchun foydalanish: vazir, hokim, viloyat, shirkat, noib, tuman kabi; yasovchi qoʻshimchalar yordamida yangi soʻz yasash: uyali telefon, omonatchi, pudratchi, bojxona, auditchi va boshqalar; dialektal (shevadagi) soʻzlarni faollashtirish: mengzamoq (Xorazm) “oʻxshatmoq”, “tenglashtirmoq”, “qiyoslamoq” maʼnosida.

## XULOSA

Oʻzbek tili leksikasi tashqi manbalar asosida ham boyib bormoqda. Dunyoda boshqa tillardan soʻz olmasdan faqat oʻz ichki imkoniyatlari asosidagina rivojlanadigan birorta ham til yoʻq. Bundan oʻzbek tili ham mustasno emas. Faqat maʼlum zarurat tufayli yangi tushunchani ifodalovchi oʻz tilimizning ichki imkoniyatlari asosida ifodalab boʻlmagandagina tashqi manbalarga murojaat qilish foydalidir. Neologizmlar nutqda toʻgʻri qoʻllanilishi kerak. Ularni yaratishda adabiy til meʼyorlariga amal qilish zarur. Nutqning evfoniyasi, estetikasi buzilgan neologizmlar talablarga javob bermaydi. Odatda ular allaqachon maʼlum soʻzlarni takrorlaydilar, ular kerak emas. Soʻz birikmasini ifodalovchi neologizmlar faqat kinoya yoki satira bilan kontekstda, masalan, feleton yozishda ishlatilishi mumkin.



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# ШИРИН МАККАЖЎХОРИ ЎСИМЛИГИНИНГ ЭКИШ ЗИЧЛИГИ ВА ЎҒИТЛАШ МЕЪЁРЛАРИНИНГ БИТТА СЎТАДАГИ ДОНЛАР СОНИГА ТАЪСИРИ

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## АННОТАЦИЯ

Ушбу мақолада Қашқадарё вилоятининг суғориладиган майдонлари, очтусли бўз тупроқ шароитларида ширин маккажўхорининг «Замон» ва «Мазза» навларини асосий экин сифатида экилганда экиш зичлиги (110.000, 75.000 ва 55.000 ўсимлик/га) ва ўғит меъёрининг (соф холда 60 кг, 90 кг, ва 120 кг N/га) битта сўтадаги донлар сонига таъсири ўрганилган. Тадқиқотлар давомида экиш зичлиги ва ўғит меъёрининг 75.000 ўсимлик/га ва 120 кг N/га қўлланилганда ширин маккажўхори ўсимлигининг битта сўтадаги донлар сони ортиши аниқланди.

**Калит сўзлар:** Дон, ширин маккажўхори, маккажўхори навлари, асосий, вариант, экиш зичлиги, ўғит меъёри, донлар сони.

## ABSTRACT

In this article, the planting density (110,000, 75,000 and 55,000 plants/ha) and the rate of fertilizer (60 kg, 90 kg in pure form) when sweet corn varieties "Zamon" and "Mazza" are planted as the main crops in the irrigated areas of Kashkadarya region, in light gray soil conditions, and 120 kg N/ha) on the number of grains in one pod was studied. During the research, it was found that the number of grains in one cob of sweet corn plant increased when planting density and fertilizer rate of 75,000 plants/ha and 120 kg N/ha were used.

**Keywords:** Grain, sweet corn, corn varieties, basic, variant, planting density, fertilizer rate, number of grains.

## КИРИШ

Республикада аҳоли сонининг кўпайиши ва ижтимоий-иқтисодий ўсиш туфайли (ширин) маккажўхорига талаби ортиб бормоқда. Ҳозирда маккажўхоридан консерва,



нон ва нон махсулотлари, ёрма, бодрок ҳамда кондитер махсулотлари ишлаб чиқариш кенгайтирилмоқда. Шу сабабли, Республикамизда ширин маккажўхори етиштириладиган майдонларини кенгайтириш, тупроқ ва иқлим шароитидан келиб чиққан ҳолда ширин маккажўхори навларини маҳаллийлаштириш долзарб масалалардан бири ҳисобланади.

## АДАБИЁТЛАР ТАҲЛИЛИ ВА МЕТОДОЛОГИЯ

Экиш меъёрларини тўғри танлаш маккажўхори етиштиришнинг интинсив технологиясининг асосий элементи бўлиб, ҳосилни 30% га ошириш имконини беради. [1]. Маккажўхори четдан чангланувчи ўсимлик. Шунинг учун уни сунъий равишда ҳам чанглангириш мумкин.

Маккажўхори уруғлангандан сўнг 15-20 кун ўтгач, сут ва 22-25 кун ўтгач, мум пишиш даври бошланади ва ундан 5-10 кун ўтгач, дон тўлиқ пишиб етилади.

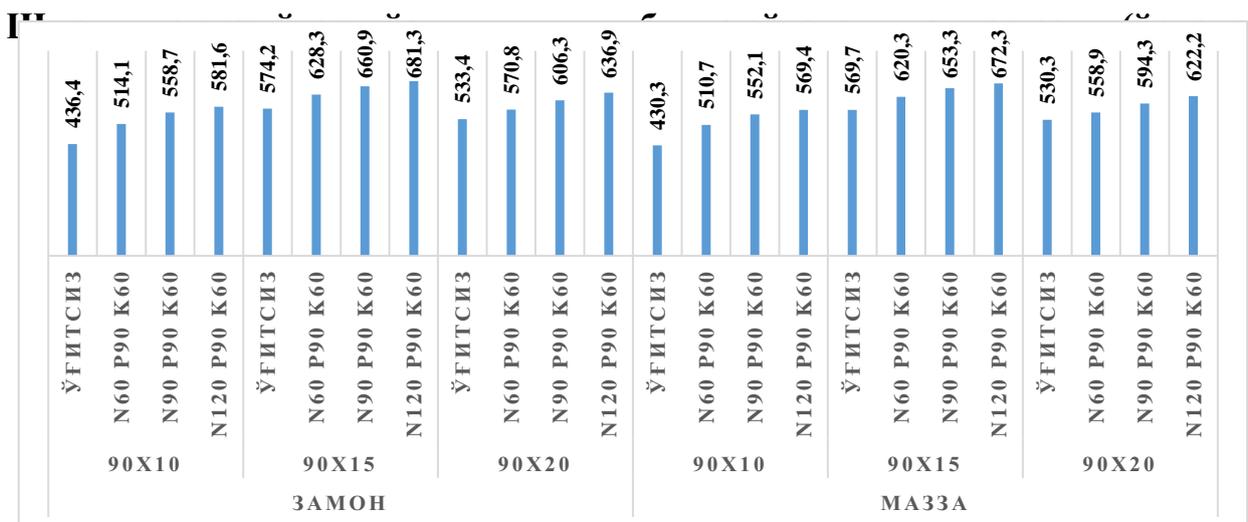
Маккажўхорининг ўсиш даври унинг навига қараб 90-140 кунни ташкил қилади. Даврлар оралиғи навни хусусиятларига қараб об-ҳаво шароити ва ишлов берилишига қараб ўзгариб боради. Маккажўхори биринчи даврда секин ўсади. Лекин бу даврда унинг илдиз системаси ўсиши тезлашади ва ривожланади. Гуллагандан кейин ўсиши тўхтади [2, 3, 4].

Маккажўхори дони шакли ва ранги бир неча кўринишда бўлади. Думалоқ, овалсимон, тишсимон, гуручсимон шаклда, ранги оқ, қаймоқ ранг, бинафша, сарғиш ва турлича тусда бўлади 1000 дона дон вазни кенжа турлари, нав ва дурагайларига қараб ўзгаради. 100-150, 250-300 ва 300-350 г миқдорда ўзгариб боради. [5].

Ортиқча пишган бошоқлардаги шакар тезда крахмалга айланади. Кейин маккажўхори ўзининг гастранимик қийматини юқотади. Шунинг учун ўрим-йиғимдан кейин ширин маккажўхори иложи борича тезроқ истеъмол қилиниши ёки консерваланган ёки музлатилган бўлиши керак. [6].

## НАТИЖАЛАР

Жанубий деҳқончилик илмий тадқиқот институти тажриба даласида ширин маккажўхорининг «Мазза» ва «Замон» навларини асосий экин сифатида экилганда экиш зичлиги 110.000, 75.000 ва 55.000 ўсимлик/га ва ўғит меъёрининг соф ҳолда 60 кг, 90 кг, ва 120 кг N/га қўлланилганда битта сўтадаги донлар сонига боғлиқлиги аниқланди.



Тадқиқод натижаларига кўра, битта сўтадаги донлар сони Замон навининг 90x10 экиш схемасида ўғитсиз вариантларда ўртача 436,4 дона бўлган бўлса, Мазза навида 430,3 дона, N<sub>60</sub> P<sub>90</sub> K<sub>60</sub> вариантларда Замон навида ўртача 514,1 дона, Мазза навида 510,7 дона бўлганлиги кузатилди. N<sub>90</sub> P<sub>90</sub> K<sub>60</sub> вариантда Замон навида ўртача 558,7 дона, Мазза навида 552,1 дона бўлган бўлса, N<sub>120</sub> P<sub>90</sub> K<sub>60</sub> вариантларда Замон навида 581,6 дона Мазза навида 569,4 дона бўлганлиги қайд этилди. Замон навининг 90x15 экиш схемасида ўғитсиз вариантларда ўртача 574,2 дона бўлган бўлса, Мазза навида 569,7 дона, N<sub>60</sub> P<sub>90</sub> K<sub>60</sub> вариантларда Замон навида ўртача 628,3 дона, Мазза навида 620,3 дона бўлганлиги кузатилди. N<sub>90</sub> P<sub>90</sub> K<sub>60</sub> вариантда Замон навида ўртача 660,9 дона, Мазза навида 653,3 дона бўлган бўлса, N<sub>120</sub> P<sub>90</sub> K<sub>60</sub> вариантларда Замон навида 681,3 дона Мазза навида 672,3 дона бўлганлиги қайд этилди. Замон навининг 90x20 экиш схемасида ўғитсиз вариантларда ўртача 533,4 дона бўлган бўлса, Мазза навида 530,3 дона, N<sub>60</sub> P<sub>90</sub> K<sub>60</sub> вариантларда Замон навида ўртача 570,8 дона, Мазза навида 558,9 дона бўлганлиги кузатилди. N<sub>90</sub> P<sub>90</sub> K<sub>60</sub> вариантда Замон навида ўртача 606,3 дона, Мазза навида 594,3 дона бўлган бўлса, N<sub>120</sub> P<sub>90</sub> K<sub>60</sub> вариантларда Замон навида 636,9 дона Мазза навида 622,2 дона бўлганлиги қайд этилди.

Олинган натижаларга кўра, экиш зичлиги 110.000, 75.000 ва 55.000 ўсимлик/га ва ўғит меъёри 120 кг N/га қўлланилган вариантларда битта сўтадаги донлар сони бошқа вариантларга нисбатан юқори бўлганлиги аниқланди. Экиш зичлиги 110.000 ўсимлик/га ва ўғит меъёри 120 кг N/га қўлланилган вариантларда битта сўтадаги донлар сони бошқа 120 кг N/га қўлланилган вариантларга нисбатан кўрсаткичлари кам бўлган бўлса, экиш зичлиги 75.000 ўсимлик/га ва ўғит меъёри



120 кг N/га қўлланилган вариантларга битта сўтадаги донлар сони юқори бўлганлиги аниқланди.

### ХУЛОСА

Олиб борилган тадқиқод натижаларига кўра, экиш зичлиги 75.000 ўсимлик/га ва ўғит меъёри 120 кг N/га қўлланилганда битта сўтадаги донлар сони ширин маккажўхори ўсимлиги Замон навида 681,3 дона, Мазза навида 672,3 дона бўлганлиги аниқланди. Хулоса қилиб шуни айтиш мумкинки, ширин маккажўхори ўсимлиги 75.000 ўсимлик/га экилганда ва ўғит меъёри 120 кг N/га қўлланилганда битта сўтадаги донлар сони бошқа вариантларга нисбатан юқори бўлганлиги қайд этилган.

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## ТЕОРИЯ ВАЛЕНТНОСТИ

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### АННОТАЦИЯ

Изучения слова в речи, её возможность сочетаться с другими словами, составление семантических синтагм, что связано с требованиями сочетания определенных слов и словоформ для раскрытия лексической семантики – все это легло в основу теории валентности.

Валентность слова как субстанциально-семантический факт связана со значением слова и реализацией его значения в конструкциях предложения.

Объективность, актуальность, научно-практическая значимость теории валентности определяется лексико-семантическим потенциалом слова.

Теория валентности, непосредственно связанная с мало изученными аспектами семасиологии, семантического синтаксиса и др., полностью раскрывает общественный характер, сущность структуральных элементов речи, акт коммуникации, симметрию в форме и плане содержания таких синтаксических конструкций, как словосочетание, предложение и текст.

**Ключевые слова:** валентность, валентность слово, семантическое отношения, синтаксическое отношения, валентность глагола.

### ВВЕДЕНИЕ

Семантика, являющаяся «душой», «духом» слова, обеспечивает соединение, сочетание с другими словами. Словосочетания, предложения как единицы речи должны рассматриваться через семантическую возможность слова соединяться в речи с другими словами как отношение валентности, что подчеркивает большое научно-теоретическое значение теории валентности для языкознания.

### МЕТОДИКА И АНАЛИЗ ЛИТЕРАТУРЫ

В языкознание теорию валентности ввели в конце 40-х годов прошлого столетия [1]. В теории валентности обобщаются особенности определенного слова соединять в себе одно, два или более слов [2]. Общественно-практическая, научная ценность языка как средства связи вытекает из обладания плана содержания,



благодаря выражению определенного понятия его единиц [3].

## РЕЗУЛЬТАТЫ

Валентность оценивается при субстанциональном подходе к слову, как внутренняя возможность слова быть. распространенным в речи, как определенная семантико-синтаксическая особенность, присущая слову. Как единицы речи, выражающие сложные понятия, так и единицы речи, выражающие определенную мысль, непосредственно связаны с валентностью слово. Следует учитывать, что соединение слов в речи не абсолютное явление, а относительное, так как слова соединяются в предложении не со всяким словом предусмотренным грамматической моделью, а с некоторыми из них [4]. Возможность соединения слов между собой ограничена, что находится в зависимости от семантической потенции каждого слова. В составе сем семем соединяющихся слов существуют семантические компоненты (классемы), присущие (общие) для обеих семем, которые имеют способность соединять эти семемы. Семемы семантических синтагм соединяются между собой через эти семы, вступая в логические отношения [5]. Таким образом, слова, семантически соединяясь с определенными словами, образуют синтаксические конструкции, в то время как с другими имеют общность только как номинативная единица не а находятся между с ним в логическом отношении.

Соединение слов, логическая связь между ними осуществляется, прежде всего семантической возможностью (субстанциальной особенностью) единиц языка. Семантическая связь слов (лексем) непосредственно выявляет семантические отношения их семем, поэтому проблема взаимоотношения является одно из центральных и важных в современном языкознании (семасиологии). Таким образом, сочетание определенных слов осуществляется их семантической возможностью. В этом проявляется проблема семантического отношения между требующим и требуемым словами. В свою очередь, семантическое отношение между словами непосредственно выявляет синтаксическое отношение, что закрепляется в образовании семантических синтагм, синтаксических конструкций, так как семантические отношения существуют на основе синтаксических. Этим определяется проблема диалектического единства между семантикой и синтаксисом, и, как подчеркивал В.Г.Гак, «в естественных языках синтаксис семантичен, то есть категории и элементы соотносятся определенным образом с внешними объектами, а семантика-синтаксична, то есть отражает отношения между



символами – обозначениями"[6].

Семантика синтаксических единиц, взаимоотношения их компонентов, возможность соединения в речи глагольной лексемы с другими единицами речи и др., характеризующие семантический синтаксис, являются наименее изученным аспектом языкознания[7].

Семантика словосочетания и предложения является одним из основных и важных сторон семантического синтаксиса, непосредственно связанной с валентностью слова (глагола). В этом аспекте валентность как семантико-синтаксический факт заслуживает особого внимания, так как изучение проблемы валентности слова неразрывно связано с семантическим синтаксисом. Изучение валентности слова в широком смысле означает изучения семантики слова, словосочетания и предложения.

## ОБСУЖДЕНИЕ

Так как валентность слова в качестве субстанционального явления является особенностью слова, его семантической способностью, то из этого логично вытекает понятие семантической валентности. Семантическая валентность слова является потенциальной семантической возможностью, присущей слову, которая исходит из его лексического значения и считается основным критерием отличия слова от других единиц языка, его дискретности и конкретности. Она является самостоятельной благодаря своему избирательному характеру [8], обеспечивает синтаксические связи между словами.

Таким образом, семантика синтаксические взаимосвязи слов, являющихся единицей языка и речи, в сущности, аккумулятивных в самих словах, в их субстанции в «форме» валентностной потенции. Следует подчеркнуть, что валентность слова в качестве субстанционального факта является постоянной внутренней способностью слова, которая не создается в процессе речевой деятельности, во взаимосвязи слов, а существует, «живет», сохраняется как потенциальная возможность до речи, так как в языке – в семантической структуре слова в качестве «единицы языка». В речи данная возможность, субстанциональный факт «приходит в движение», реализуется, находит свое конкретное выражение в различных речевых единицах.

Таким образом, валентность, с одной стороны, обеспечивает взаимосочетание слов, синтаксическую связь между ними – живую речь, во-вторых, валентность

реализуется, переходит на воздействующую «силу», приобретая внешнюю «форму» в данной синтаксической связи между словами, во взаимосвязи слов. Следовательно, валентность не исходит из синтаксической связи, а синтаксическая связь основана на валентности.

Если валентность – внутренняя возможность, потенция, то синтаксическая связь – ее реализация.

Если валентность – «единица» языка, то синтаксическая связь – «единица» речи.

Если валентность – сущность то синтаксическая связь – явление.

Если валентность – общее, то синтаксическая связь – единичное.

Если валентность – необходимость, то синтаксическая связь – случайность.

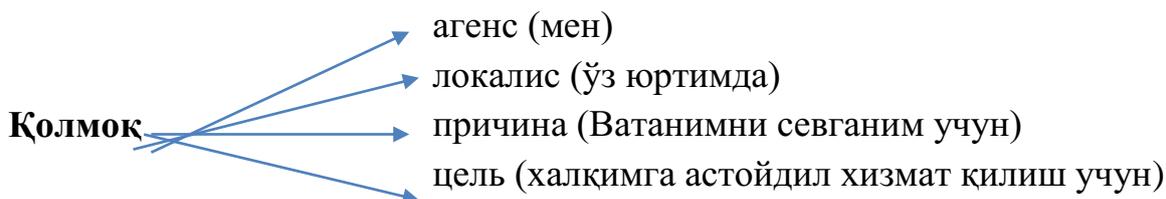
Таким образом, валентность слова является семантической способностью, готовой к проявлению, скрытой возможностью, существующей в слове, в его субстанции, которая реализуется в процессе речи. Поэтому С.Н. Иванов пишет: «В этом плане грамматическая форма как нечто, имеющее отдельное бытие, представляет собой вещь, предмет (в философском смысле), обладающий определенными свойствами (значения грамматической формы), которые проявляются в отношениях данной вещи, (синтаксической функции грамматической формы)» [9], или «... грамматическая форма (предмет) и вне конкретной реализации обладает своими свойствами, т.е. значениями» [10].

Характерно, что валентность слова, какой бы она ни была – ведущей, первичной, основной по сравнению с синтаксическими связями слова она только в речи, во взаимоотношении между словами, в синтаксической взаимосвязи единиц речи, превращается в реальную силу в процессе коммуникации. Поэтому синтаксическая связь между словами как форма проявления реализации, перевода на «видимое» положение скрытой способности (валентности) слова имеет важное значение. Следовательно, в валентности слова существование двусторонней связи является естественной (онтологической) и в то же время обязательной. Поэтому валентность не является односторонним явлением, она – двусторонняя – и семантическая, и синтаксическая.

Таким образом, на основе синтаксической связи слов лежит валентностная способность слова. Синтаксическая связь показывает обладание словом определенной валентностной способностью. Проявление валентностной особенности

слова в речи, в различных связях между словами – в сущности идентично с «...проявлением диалектики общего и единичного, сущности и явления» [11].

Из сказанного стало известно, что валентность слова требует двусторонней связи. Валентность определяется не только господствующим, управляющим словом (например, глаголом), но и подчиняющим, управляемым словом (например, имя существительное). Она определяется во взаимоотношений, взаимосвязи господствующего и подчиняющего слов. Потому что в семантической структуре господствующего слова (глагола) потенциально, скрыто существуют подчиняющее слово (имя существительное). В речи данное слово (существительное), «приходя в движении», употребляется в определенной грамматической форме, активно участвует в составлении конструкции. Ср.: Семантические валентности глагола қолмоқ, т.е. слова и словоформы, с которыми данный глагол входит в непосредственное синтаксическое отношение, которые реализует его семантические валентности: Мен ўз юртимда Ватанимни севганим учун, халқимга астойдил хизмат қилиш учун қолдим.



Таким образом, глагол қолмоқ под валентностной субстанциональной особенностью имеет валентности агенса, локалиса, причины, цели и входит в семантико-синтаксические связи с их реализаторами. В данном предложении логические компоненты семантики глагола, т.е. семантические участники (актанты), служат для реализации денотативного значения глагола.

В выше рассматриваемой конструкции с глаголом қолмоқ, т.е. в номинативных единицах произошло согласование подчиняющего компонента (реализатора валентностей) с господствующим компонентом (глаголом), формирование, проявление его (реализатора) в определенной словоформе. Это случилось непосредственно по требованию господствующего компонентом (глаголом), т.е. его способностью иметь «притяжательной силы», а формы подчиняющих компонентов обладают способностью «притягаемости».

Исходя их вышесказанного, хотелось бы подчеркнуть, что сущность семантической валентности слова, которая реализуется в синтаксической

связи слов, в том «...что слова (в качестве носителей валентности) требуют определенных контекстных партнеров с определенными семантическими признаками и исключают других контекстных партнеров с иными семантическими признаками. Она регулирует заполнение открытых позиций классами партнеров, отобранных по смыслу по определенным семантическим признакам. Отбор подходящих контекстных партнеров и исключение недопустимых контекстных партнеров осуществляется на основе совместимости или несовместимости семантических признаков обоих контекстных партнеров (с лингвистической точки зрения), которые в свою очередь мотивированы явлениями действительности (экстра лингвистически) [12].

При раскрытии семантической валентности слова определенным видом считают валентность глагола, а сама теория валентности складывается, формируется на базе изучения особенностей управления глагола с учетом возможностей его употребления в конструкциях предложений [13]. Глагол как подчеркивал В. Виноградов «...наиболее конструктивен по сравнению со всеми другими категориями частей речи. Глагольные конструкции имеют решающее влияние на именные словосочетания и предложения» [14]. Следовательно, самой важной особенностью глагола является то, что он занимает, как правило, центральное положение в семантической структуре предложения [15]. Специфика глагольной валентности состоит в том, что глагол (точнее – предикат, носитель валентности) определяет структуру предложения [16]. Определения структуры предложения через специфику глагола, по нашему мнению, является его потенциальной семантической возможностью. Это важная особенность выделяет глагол среди других частей речи. Это подтверждается мнением С.Д. Кацнельсона, что «в содержательном плане глагольный предикат – нечто большее, чем просто лексическое значение. Выражая определенное значение, он в то же время содержит в себе макет будущего предложения» [17].

Потенциально глагол способен называть не только само действие, состояние, но и всю ситуацию целом, предсказывая участников (актантов) этого действия и состояния – ситуации. Данная способность глагола определяется как его семантическая валентность [18]. Глагол через семантическую валентность выражает акты движения, действия, состояния, речи, зрительного восприятия, слуха, а также отношения между обязательными актантами этих актов. По мнению С.Н. Иванова, «по количеству возможных связей, что

определяется семантикой глагола, глаголы оказываются как бы «разновалентными». Ср.: читал (кто, что, где, когда): шел (кто, где, куда (откуда), когда): спал (кто, где, когда): беседовал (кто, с кем, где, когда): напоил (кто, кого, чем, где, когда)» [19].

Итак, глагол имеет потенцию валентности, а проявление этой потенции, его утверждение осуществляется в речевой деятельности. Глагол в предложении выступает в качестве носителя валентности, основной конструктивной единицей, способной присоединять к себе другие слова.

## ВЫВОДЫ

1. Валентность слова как субстанциально-семантический факт связана со значением слова реализацией его значения в конструкциях предложения.

2. Как единицы речи, выражающие сложные понятия, так и единицы речи, выражающие определенную мысль, непосредственно связана с валентностью слова.

3. Семантическая связь слов непосредственно выявляет семантические отношения их семем. Семантические отношения между словами непосредственно выявляет синтаксическое отношение.

4. Определенным видом семантической валентностью слов является валентность глагола.

5. Самой важной особенностью глагола является то, что он занимает, как правило, центральное положение в семантической структуре предложения. Глагол определяет структуру предложения.

6. Глагол в предложении выступает в качестве носителя валентности, основной конструктивной единицей, способной присоединять к себе другие слова.

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## DIGITAL EDUCATIONAL ENVIRONMENT AS AN OPEN SITE TO PROVIDE VARIOUS TASKS OF THE EDUCATIONAL PROCESS

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### ABSTRACT

The article discusses the need for further improvement of the education system in a digital educational environment, focuses on the fact that the modern digital transformation of education is based on scientific, technical, technological progress, and also considers the main trends in the development of the education system aimed at forming a knowledge society, digital educational environment, developed information and communication infrastructure, which make up the technological basis for solving modern problems of education.

**Keywords:** education, knowledge, educational environment, modernization, digitalization, information technology, innovative education, humanization.

### INTRODUCTION

To solve the problems of building a democratic social state in New Uzbekistan, it is of fundamental importance to train personnel of a new formation, brought up on national, universal values and capable of realizing large-scale tasks of modernizing the country, building a modern democratic society.

Practice shows that only that country, that nation can achieve a great future, prosperity and well-being, which will be able to prepare knowledgeable, professionally literate and energetic individuals, true patriots of their country, enrich them with a huge spiritual heritage of a great national culture, introduce them to the treasuries of world culture. The path to national revival passes through high education, high culture. That is why the level of education, the degree of professional training should become a measure of the progress of our social development in the 21st century. This is the best guarantee of the successful implementation of the planned course of reforms, this is the direction that, over time, will give the greatest dividends from the invested funds.

The educational policy of domestic education today faces a difficult problem: the result of the ongoing reforms should not only be the preservation of the achievements of the national education system, but also ensure its adequate entry into the world educational



system. This circumstance determines the extreme interest of the state and society in a deep understanding of modern domestic educational policy, making it conceptually the most important among modern problems solved within the framework of the philosophy of education. That is why, at the initiative of the President of the Republic of Uzbekistan, 2023 has been named the Year of Care for a Person and Quality Education.

As you know, on January 28, 2022, the Decree of the President of the Republic of Uzbekistan Sh.M. Mirziyoyev "On the development strategy of the new Uzbekistan for 2022-2026" was issued. The fourth priority area of this Strategy is the implementation of a fair social policy, the development of human capital.

In particular, in solving problems for the further development of this area, it is planned to improve the quality of education in schools and raise the knowledge and qualifications of teaching staff to the international level by: determining domestic or international certification requirements for each subject for conducting activities at school; diagnosing the knowledge and skills of school teachers who do not have a category; optimization of district divisions of the public education system through the full digitalization of their activities, etc.

## FEATURES OF LEARNING IN THE DIGITAL EDUCATIONAL ENVIRONMENT

Currently, information technology is one of the central places in education: the emergence of various online courses, educational resources and platforms that complement and compete with traditional educational organizations. Government subsidies and support amount to billions for the creation and support of digital educational platforms, as well as the development and adaptation of legislative and technical policies and initiatives. Digital tools in higher education are becoming an inseparable part of domestic and global politics and the economy.

The basis of the modern digital transformation of education is scientific, technical, technological progress and the transition to the era of the information society. The key trends of this new era are the formation of a knowledge society, a digital economy, a developed information and communication infrastructure, a new technological basis for solving management problems, the social sphere. International principles for the development of the information society and are defined by the Okinawa Charter of the Global Information Society (2000), the Declaration of Principles "Building the Information Society - a Global Challenge in the New Millennium" (2003), the Tunis Commitment Action Plan (2005) [2].



Today, in the context of a rapidly developing information society, information and communication technologies (ICT) have become an important component of the integral system of national education, carrying out a wide variety of functions of the so-called information (or digital) educational environment.

A digital educational environment is an open set of information systems designed to support various tasks of the educational process.

At the beginning of the appearance of ICT in education, they were considered as an instrumental component of the classical pedagogical process. Today, it is an indisputable fact that ICT has been significantly integrated into the actual educational process. This created a synergistic effect and significantly transformed education. In the context of digitalization, new requests for education have appeared in terms of the formation of a person who is able not only to adaptively exist in the world of new technologies, but also to effectively develop them.

In academia, digitalization is having an impact. The modern system of higher education has passed an extremely important stage of computerization and informatization. It can be noted that the mechanisms of changes in the information space were complex, dependent on funding, on the level of higher educational institutions, on the level of readiness of the teaching staff, etc.

An important area of work remains the stimulation of research and innovation activities, the creation of effective mechanisms for introducing scientific and innovative achievements into practice, the creation of scientific and experimental specialized laboratories, high technology centers, technology parks at higher educational institutions and research institutes.

The implementation of these strategic tasks will ensure the progressive development of the entire system of continuous education as a single educational, scientific and industrial complex based on state and non-state educational institutions, the formation of a competitive environment in the field of education and training, the openness of the system of continuous education of the republic in the market of educational services, the exchange of information and specialists, strengthening the international authority of the educational system of Uzbekistan.

## **DIGITALIZATION OF EDUCATION AND NEW INFORMATION PROFESSIONAL AND PEDAGOGICAL COMPETENCES**

Digital transformation has given rise to the need for new information professional and pedagogical competencies associated with the ability to create complete electronic educational resources that optimally fit into the blended learning model.



There are proven digital platforms for their creation. It is enough for the teacher to perform the traditional initial function - to design the main components of the training course, the learning process and learn how to convert them into an electronic format with the help of IT specialists.

Thus, a modern teacher, especially in higher, additional professional education, is required to master a wide arsenal of ICT technologies for the qualitative solution of didactic tasks in traditional education, the tasks of organizing the educational process and their own professional activities.

It should be noted that the introduction of distance learning is actively promoted in domestic education due to its current advantages such as flexibility (learning in a convenient place at a convenient time), the possibility of learning at a distance [1].

The next requirement for the ICT competencies of modern teachers is the ability to design and implement a holistic educational process (training course, curriculum) in a digital environment.

If earlier the teacher used ICT as tools for the implementation of individual didactic tasks (visibility, archiving and systematization of educational resources), now we are talking about designing a complete training course and a holistic learning process in a digital environment.

In this regard, it is worth recalling that the classical educational process includes consistently implemented stages, the main of which are goal-setting, the implementation of the content of education using methods, forms, teaching aids for organizing educational activities, monitoring and evaluation.

Thus, when a teacher transfers the teaching of a course to a digital environment, the goals associated with the results of education should be clearly presented in it, the content should be implemented within the framework of the forms, means, methods of teaching the digital environment, control and evaluation should be carried out. [4]

Another feature of learning in the digital environment is independent learning activities. Obviously, in vocational education, completely independent development of the field of professional activity is impossible, except for additional vocational training as part of advanced training, professional retraining. Therefore, in domestic higher education, in the last decade, the assumption of blended learning has been established, combining traditional face-to-face learning (offline education in the framework of direct contact with teachers during classes, sessions and extracurricular time) and e-learning (in other words, e-learning, online learning, distance learning using the Internet in

real time, when the student accesses the available course, independently plans the time, place and duration of classes). As a rule, within the framework of e-learning, training courses are implemented aimed at mastering general cultural, some general professional competencies.

In the conditions of digital reality, there has been a change in cognitive processes - perception, memory, attention, thinking, etc. This significantly affected the psychological and pedagogical conditions of education, its quality and, together with the obvious progress of certain aspects of education, gave rise to negative phenomena.

The contradictory consequences of digitalization are largely due to the fact that the invasion of ICT into the actual pedagogical process occurred spontaneously, without serious scientific, pedagogical and methodological, psychological, pedagogical, socio-cultural justifications. Today, the question arose of correcting pedagogical approaches in the context of digital learning, and the issues of the relationship between ICT and classical pedagogical technologies, the patterns of the learning process in a digital educational environment are important areas of research in the field of psychology and pedagogy. [3]

Among the most popular conclusions of researchers and practitioners is the thesis that the use of digital technologies should not change the essence and meaning of education, the cultural mission of education. In this regard, the task of the next decades will be the creation of a new digital didactics that wisely integrates the new digital learning environment and its humanitarian purpose.

## MODEL OF INNOVATIVE EDUCATION

At the same time, today the issues of modernization of education also deserve special attention, the implementation of which could ensure the transition to a new type of social development, which is also worthwhile for Uzbekistan.

As you know, modernization is a process of transformation that involves the movement of society towards the most effective model of sustainable development, overcoming economic backwardness, political instability, the development of innovation, the process of creating new technologies, a new system of spiritual values and ideological attitudes.

The modernization of education is a complex multifaceted process, so its implementation should be based on the results of deep theoretical research. One of the important issues of modernization of vocational education, requiring philosophical analysis, is the understanding of the problem of the correlation of various aspects in the theory and



practice of training specialists in the new socio-economic conditions. To do this, it is important to analyze the socio-philosophical foundations for the modernization of education associated with a new picture of the world, as well as the place of a person in the modern world. This will make it possible to identify areas for the development of vocational education and to reach educational technologies that can turn the education sector into a sphere of reproduction of a creative personality.

It is quite obvious that this cannot be done without studying the current educational situation, the basic principles of the evolution of modern education, analyzing new trends and understanding the ways of transition from the philosophical foundations of the development of education to the practice of reforming it.

One of the main characteristics of the modernization of domestic vocational education today is its humanistic orientation, where the focus of attention of society and the state is a person as a creatively developing personality.

The main features of modernization in this area are associated with updating the status, goals, content, forms and means of education.

The process of modernization of a professional school involves the creation and implementation of a model of innovative education.

The model of innovative education differs from traditional ones in the following ways:

- ***the goals of education***: the goal of the former model is the training of specialists in the national economy, the new one is ethically rich professional and personal development of a person, preparation for life in a problematic world;

- ***the content of education***: restructuring is associated with an emphasis on the ethical aspects of professional activity, new technologies, reflection and development of creative abilities, the activity aspect of learning;

- ***teaching methods and technologies***: the transition from the traditional model to the model of innovative education, which implies the use of active teaching methods and developing design and management skills;

- ***forms of education***: the transition from institutional forms of organization of education to the integration of institutional and non-institutional forms that provide different needs and opportunities for students and take into account the educational potential of knowledge functioning in society.

All characteristics of such a model of education have an ethical and humanistic orientation. Its guideline is the harmonization of the individual-personal and social in a person's professional career.

The initial goal of the humanization of education is the formation of a humanistic worldview of young people, relevant

knowledge and skills. It serves as a prerequisite for the implementation by future citizens of the ideas and values of humanism in various spheres of human activity.

## CONCLUSION AND DISCUSSIONS

A characteristic feature of the growth of the spiritual potential of the youth of Uzbekistan is its high educational level. The problem of universal literacy of the population has been completely solved in the republic, compulsory general secondary education has been legally fixed, which can be obtained through a wide network of general education schools, lyceums, secondary vocational schools.

The processes of modernization of the educational system of Uzbekistan, training of highly qualified personnel also involve the development and implementation of effective organizational, pedagogical forms and means of spiritual and moral education of the younger generation, based on rich national cultural and historical traditions, customs of the people and universal values.

That is why the task of education is - the formation of the personality of a person capable of empathy; ready for a free humanistic ally oriented choice, individual intellectual effort, independent, competent, responsible action in political, economic, professional and cultural life, self-respecting in others, tolerant of representatives of other cultures and nationalities, independent in judgment, open to different opinions and unexpected thoughts.

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## KALSINIRLANGAN SODA ISHLAB CHIQRISHDA HOSIL BO'LADIGAN DISTILLER SUYUQLIK TARKIBIDAGI NATRIY VA KALSIY IONLARI MIQDORINI ANIQLASH

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### ANNOTATSIYA

Ammiak usulida kalsinirlangan soda ishlab chiqarish jarayonida ko'p miqdorda chiqindi mahsulot bo'lgan distiller suyuqligi hosil bo'ladi. Har bir tonna soda ishlab chiqarishda  $8\div 10$  m<sup>3</sup> distiller suyuqligi hosil bo'ladi. Ushbu maqolada distiller suyuqligining tarkibi o'rganildi. Distiller suyuqligi – tarkibida kalsiy va natriy xloridlari, kalsiy sulfat va kalsiy gidroksidlarini tutgan eritma bo'lib, komponentlarning umumiy miqdori 15- 16 % ni tashkil qiladi. Distiller suyuqlik tarkibidagi natriy va kalsiy ionlarining miqdori alangali fotometriya yordamida aniqlandi. Soda ishlab chiqarishning yirik tonnali chiqindilarini utilizatsiya qilishning zamonaviy usullari, shuningdek, hozirgi vaqtda ushbu chiqindilardan foydalanishning eng dolzarb yo'nalishlari ko'rib chiqildi.

**Kalit so'zlar:** Kalsinirlangan soda, distiller suyuqlik, chiqindi mahsulot, kalsiy ioni, natriy ioni, alangali fotometriya, kalsiy sulfat, natriy xlorid.

### ABSTRACT

During the production of soda ash by the ammonia method, a large amount of waste product, distillate liquid, is formed. Each ton of soda produces  $8\div 10$  m<sup>3</sup> of distiller's liquid. In this article, the composition of the distillate liquid was studied. Distillation liquid is a solution containing calcium and sodium chlorides, calcium sulfate and calcium hydroxides, the total amount of components is 15-16%. The amount of sodium and calcium ions in the distiller liquid was determined using flame photometry. Modern methods of disposal of large-ton wastes of soda production, as well as the most relevant directions of using these wastes at the present time, were considered.

**Keywords:** calcined soda, distillate liquid, waste product, calcium ion, sodium ion, flame photometry, calcium sulfate, sodium chloride.



## KIRISH

Soda ishlab chiqarishdagi ekologik muammolarning istiqbolli yechimlaridan biri -chiqindilarni qayta ishlash orqali yuqori sifatli mahsulotlar, jumladan, xalq xo'jaligining turli sohalarida qo'llaniladigan yuqori samaradorlikka ega bo'lgan mahsulotlarni ishlab chiqish dolzarb masalalardan biri hisoblanadi.

Kimyo sanoatining deyarli har qanday ishlab chiqarish siklida ba'zi moddalar ushbu texnologiyada keyingi foydalanish imkoniyatiga ega emas. Ushbu moddalarning miqdori nafaqat ishlab chiqarishdagi ekologik xavfsizlikni belgilaydi, balki korxonaning o'zi va sanoatning iqtisodiy farovonligiga ham sezilarli ta'sir ko'rsatadi. Turli xil sanoat chiqindilarini joylashtirish va utilizatsiya qilish muammosi hozirgi vaqtda juda dolzarb bo'lib, uni hal qilish har qanday sanoat korxonasi, shu jumladan kimyoviy korxonalar faoliyatining ustuvor yo'nalishi hisoblanadi. Yuqoridagi muammolar yirik quvvatli sanoat tarmoqlari, shu jumladan soda zavodlari bilan ham bog'liq. Bu kabi sanoat korxonalarining ishlab chiqarish faoliyatida katta miqdordagi qattiq va suyuq chiqindilar hosil bo'lib, atrof-muhitga tashlanadi, bu esa ekologik muammoni keltirib chiqaradi.

O'zbekistonda soda «Qo'ng'irotda soda zavodi» korxonasi ishlab chiqariladi. Korxonada yiliga 100 ming tonna soda ishlab chiqarishga mo'ljallangan. Xom ashyo sifatida natriy xlorid va oxaktosh ishlatiladi. Osh tuzi uchun zarur xom ashyo korxonadan 21 kilometr uzoqliqda joylashgan «Qaraumbet» tuz konidan avtomashinalarda yetkazib beriladi. Ushbu tuzni qayta ishlash orqali oyiga 148 million so'mlik qo'shimcha mahsulot ishlab chiqariladi. Oxaktosh esa Jamansoy konidan qazib olinadi.

Zavod mahsulotlari asosan «Kvars», «Navoiy kon-metallurgiya kombinati», «O'zbek kimyo sanoati» aksiyadorlik jamiyatlariga, «CAMPALIA XK» ma'suliyati cheklangan jamiyatiga, «Asl oyna» ochiq aksiyadorlik jamiyatiga va boshqa korxonalariga uzluksiz yetkazilib beriladi. Korxonada ishlab chiqarilgan mahsulotlarga nafaqat ichki bozorda, balki chet davlatlarda ham talab ortib bormoqda. Jumladan, mahsulotlar o'tgan yillar mobaynida Qozog'iston, Qirg'iziston, Rossiya, Tojikiston, Afg'oniston va Eron kabi davlatlarga eksport qilingan.

Soda ishlab chiqarish - bu yagona texnologik liniyaga birlashtirilgan murakkab kompleks jarayondir.

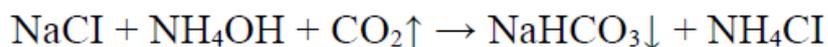
Ammiak usulida soda ishlab chiqarish uchun zarur bo'lgan xom ashyo arzon, keng tarqalgan va oson olinadi. Reaksiyalar atmosferaga yaqin bosimda va past haroratlarda amalga oshiriladi. Usul yaxshi o'rganilgan, texnologik jarayonlar tuzatilgan va barqaror hisoblanadi. Olingan kalsinirlangan soda nisbatan arzon narxda va yuqori sifatga ega

bo'ladi. Ammo Solve usulining asosiy kamchiligi distiller suyuqligi deb ataladigan ko'p miqdordagi suyuq chiqindilarning hosil bo'lishi hisoblanadi, bu esa boshlang'ich tabiiy xom ashyodan yetarli darajada samarali foydalanilmaganlikni ko'rsatadi. Distiller suyuqlikni qayta ishlash, utilizatsiya qilish va qayta ishlash texnologiyalarining qo'llanilishi katta miqdordagi chiqindilar tufayli muammoni qisman hal qiladi.

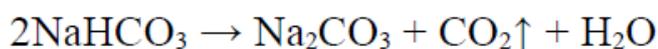
Ammiak usulida soda ishlab chiqarish jarayonida chiqindilarini yo'q qilish muammosi alohida ahamiyatga ega, chunki distillash loylari eng katta chiqindilar hisoblanadi va distillash suyuqligi suv havzalarini ifloslantiradi.

### ADABIYOTLAR TAHLILI VA METODOLOGIYA

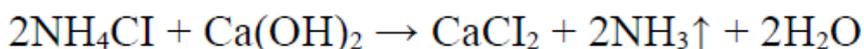
Ammiak usuli (Solve usuli) yordamida kalsinirlangan soda ishlab chiqarish jarayonida asosiy reaksiya quyidagi sxema bo'yicha davom etadi:



Olingan natriy gidrokarbonat cho'kmasi filtrlanadi va kalsinatsialanadi, natijada soda hosil bo'ladi:



Ammiakni eritmadan ajratish uchun tarkibida ammoniy xlorid bo'lgan qo'r eritma ohak suspenziyasi bilan aralashiriladi:



Ajralib chiqqan ammiak ishlab chiqarishga qaytariladi va natijada hosil bo'lgan suspenziya kalsinirlangan soda ishlab chiqarishning asosiy chiqindi mahsuloti bo'lib, distiller suyuqlik deb ataladi.

Adabiyotlarda keltirilgan ilmiy ma'lumotlarda kalsinirlangan soda ishlab chiqarish chiqindisi bo'lgan distiller suyuqligini qayta ishlashning istiqbolli usullaridan biri yuqori konsentratsiyali kalsiy xlorat defolianti olish ekanligi ko'rsatilgan va uni olishda distiller suyuqligidan foydalanilgan [1].

Soda ishlab chiqarishdagi ekologik muammolarning istiqbolli yechimlaridan biri -chiqindilarni qayta ishlash orqali yuqori sifatli mahsulotlar, jumladan, paxta defoliatsiyasi uchun ishlatiladigan yuqori samaradorli kalsiy xlorat defolianti ishlab chiqarilgan. Xlorlangan aralashma va natriy xloratini suvli muhitdagi konversiya jarayonini tadqiq qilishda olingan natijalar [2] kalsiy xlorat defoliantini olishda xlorlangan aralashma tarkibidagi kalsiy xlorid va natriy xloratini 1:2 nisbatida, 100°C haroratda bug'latish bilan

birga olib boriladigan konversiya jarayoni maqsadga muvofiq ekanligi ko'rsatilgan.

Distiller suyuqligini utilizatsiya qilishning istiqbolli usullaridan biri uni yuqori sifatli kimyoviy cho'kma kalsiy karbonat ishlab chiqarish uchun xom ashyo sifatida ishlatish bo'lishi mumkin, bu moddaning ko'plab sohalarda keng qo'llanilishi topilgan, jumladan: oziq-ovqat, tibbiyot, kosmetika, kauchuk, kabel, qog'oz, lak-bo'yoq, kimyo, plastmassa va polimerlar ishlab chiqarishda, qishloq xo'jaligida [3].

Ilmiy ma'lumotlarda [4], soda ishlab chiqarishdagi suyuq va qattiq chiqindilarni utilizatsiya qilish usullari keltirilgan. Neft konlarini distiller suyuqligi bilan to'ldirish ehtimolligi isbotlangan. Distiller suyuqlikni chuqur yotqizilgan gorizontlarga quyish orqali utilizatsiya qilish usuli bayon qilingan. Asbest-sement mahsulotlarini ishlab chiqarishda distiller suyuqligidan foydalanish usullari ko'rib chiqilgan. Soda ishlab chiqarishning oqava suvlari asosida qurilish materiallari, shuningdek, murakkab kon-geologik sharoitga ega quduqlarni sementlash uchun bog'lovchi moddalar ishlab chiqarish mumkinligi ko'rsatilgan.

Kalsiy ionlarini sulfatlar shaklida cho'ktirish uchun tabiiy natriy sulfat yordamida soda ishlab chiqarishdagi distiller shlamini qayta ishlash texnologiyasi taklif qilingan [5], bu mashhur Solve usulidan bosim ostida gazsimon  $\text{NH}_3$  va  $\text{CO}_2$  o'rniga qattiq  $\text{NH}_4\text{HCO}_3$  qo'llanilishi bilan farq qiladi. Jarayon oxirida  $\text{NaCl}$  eritmada qoladi,  $\text{CaSO}_4 \cdot 2\text{H}_2\text{O}$ ,  $\text{CaCO}_3$ , shuningdek, temir, alyuminiy va og'ir metallarning birikmalari cho'kadi.  $\text{CaO}$  va  $\text{SO}_4^{2-}$  ionining cho'kmaga o'tish jarayoniga harorat ( $298\text{-}368^\circ\text{K}$ ) va reaksiya davomiyligining (40-80 min) ta'siri o'rganilgan. Aniqlanishicha,  $353^\circ\text{K}$  haroratda va 60 minut vaqt davomida sulfat ionlari cho'ktirilishining 99 % maksimal darajasiga erishilgan. Xulosa qilinadiki, distiller suyuqligini tabiiy natriy sulfat bilan qayta ishlash  $\text{NaCl}$  ning to'yingan eritmasini va qurilish materiali sifatida ishlatilishi mumkin bo'lgan qo'shimcha mahsulot - gips olish imkonini beradi.

Soda ishlab chiqarish chiqindilarini utilizatsiya qilishning istiqbolli usullaridan biri uni kalsiy xlorat olish uchun qayta ishlash bo'lishi mumkin [6].

Adabiyot ma'lumotlarida [7] kalsinirlangan soda ishlab chiqarishning asosiy chiqindilari – distiller suyuqlikdan kalsiy peroksidni olishning maqbul sharoitlari topilgan. Ushbu maqsadga erishish uchun distiller suyuqligining tarkibi o'rganilgan.

Kalsiy peroksid, shuningdek, sun'iy va tabiiy suv omborlarining pastki qavatlarini kislorod bilan to'yintirish uchun ishlatiladi. Kalsiy peroksidan foydalanish suvni kislorod bilan ta'minlashning yanada qoniqarli rejimini va suvni boshqa begona kiruvchi ionlardan qo'shimcha ravishda tozalash imkonini beradi [6-8].

Kalsiy peroksid o'zgaruvchan tarkibli radioaktiv chiqindilarni zararsizlantirishda bundan tashqari, shahar chiqindi suvlarini zararsizlantirish uchun ishlatiladi [9-11].

## MUHOKAMA VA NATIJALAR

Kalsinirlangan soda ishlab chiqarish texnologiyasi chiqindilarini tarkibini xususan kalsiy va natriy ionlarini aniqlash uchun ГOCT 4233-77 ga asosan alangali fotometriyadan foydalanildi.

Alangali fotometriya ishqoriy va ishqoriy yer metallarini xilma – xil ob'ektlarda aniqlashda foydalaniladi. Bundan tashqari, geologiyada, geoximiyada, biologiyada, tibbiyotda, metallurgiyada va kimyo sanoatida keng ko'lamda qo'llaniladi.

Alangali fotometriya analiz usuli yordamida amaliyotda aniqlanadigan element kontsentratsiyasini aniqlashda ko'pincha darajalangan grafik usuli qo'llaniladi, chunki uni nurning intensivligi bilan kontsentratsiya orasidagi bog'lanishning hamma turiga qo'llash mumkin. Bu usulning mohiyati quyidagidan iborat: katta kontsentratsiyalar intervalini o'z ichiga oladigan va bir – biridan yetarlicha farq qiladigan aniqlanadigan elementning standart eritmalari tayyorlab olinadi va ketma – ket fotometrlanadi. Olingan natijalar (nurning intensivligi galvanometr ko'rsatkichi orqali olinadi) va standart elementning aniq kontsentratsiyalari asosida darajalangan grafik chiziladi. So'ngra xuddi shunday sharoitda analiz qilinadigan eritma fotometrlanadi olingan natijalarni to'g'ridan – to'g'ri grafikka qo'yib aniqlanadigan element kontsentratsiyasi aniqlanadi.

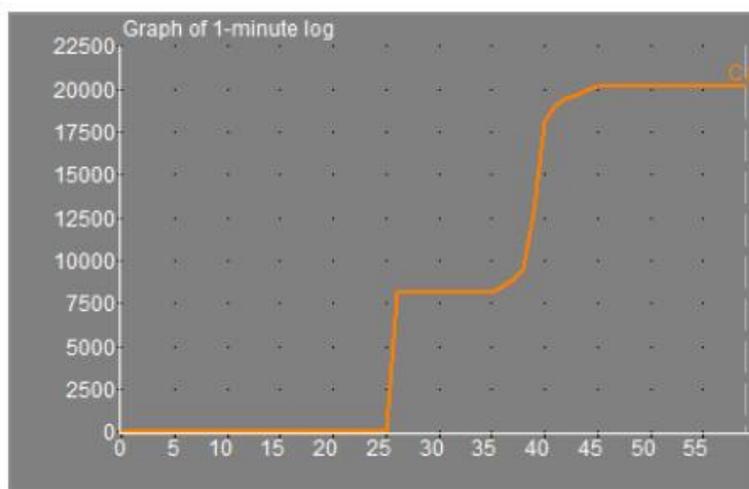
Tarkibida aniqlanuvchi kimyoviy element (natriy, kaliy, kalsiy va hokazo)ni saqlagan moddaning eritmasi aerosol holda alangaga purkaladi. Alanganing yuqori harorati ta'sirida tahlil etilayotgan namuna parchalanib atomlarga ajraladi. Alangadan aniqlanuvchi elementning rezonans nurlanishiga mos, qo'zg'atuvchi nur o'tkaziladi. Qo'zg'atuvchi nur manbai sifatida, aniqlanuvchi element atomlariga rezonans qo'zg'alishiga mos keladigan nur chiqaruvchi lampa qo'llaniladi. Namuna parchalanishi natijasida alanagada hosil bo'lgan, element atomlari faqat shu elementga xos rezonans nur fotonlarinigina yutadi. Masalan, boshqa kimyoviy element emas, balki aynan qo'zg'atilgan natriy atomlari rezonans nurlarni yutadi.

Biz foydalangan alangali fotometriya uchun yoqilg'i sifatida propan ishlatildi. Alangali fotometriya yordamida 5 ta element litiy, natriy, kaliy, kalsiy va bariy elementlarini ppm (1ppm=1mg/l) miqdorda aniqlash mumkin. Biz shu elementlardan distiller suyuqligi tarkibida mavjud bo'lgan natriy va kalsiy elementlarining miqdorini aniqladik. Buning

uchun dastavval analiz qilinayotgan distiller suyuqligidan eritma tayyorlab olindi. 1000 ml o`lchov kolbasiga analiz qilinayotgan distiller suyuqligidan 1 ml solindi va uni distillangan suv bilan o`lchov kolbasining belgisigacha suyultirildi.

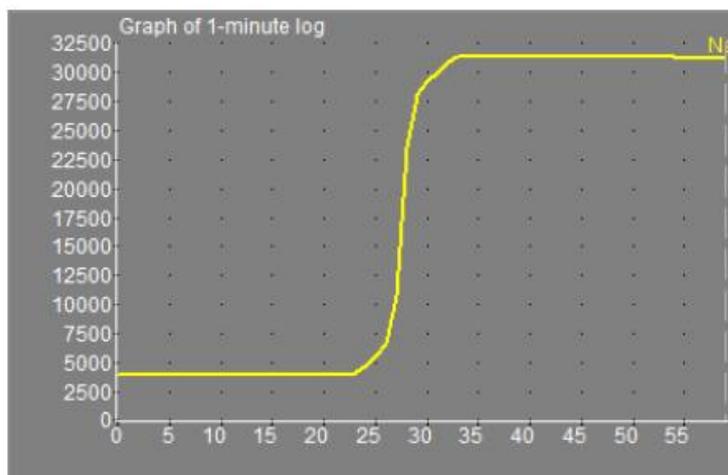
Hosil bo`lgan eritma purkagich yordamida doimiy ravishda ya`ni uzluksiz va bir maromda gaz gorelkasi alangasiga purkaladi. Bunda alanga doimiy ravishda bir maromda yonib turishi shart. Alanganing yuqori harorati ta`sirida erituvchi tezda bug`lanib ketadi va tuzning mayda zarrachalari qoladi va bu zarrachalar atomlargacha parchalanadi. Bunda atomlarning bir qismi yuqori kvant energetik holatigacha qo`zg`aladi. Qo`zg`algan atomlar normal holatga o`tib har bir elementning o`zi uchun alohida xarakterli ma`lum to`lqin uzunligiga ega bo`lgan nurni chiqaradi.

Alangali fotometriya yordamida distiller suyuqlik tarkibidagi kalsiy va natriy ionlarining miqdorini aniqlash diagrammasi 1- va 2-rasmlarda keltirilgan.



**1-rasm. Alangali fotometriya yordamida distiller suyuqlik tarkibida kalsiy ionining miqdorini aniqlash diagrammasi**

1litr distiller suyuqlikdagi aniqlangan kalsiy ionining miqdori 35,7 g ni tashkil qiladi.



**2-rasm. Alangali fotometriya yordamida distiller suyuqlik tarkibida natriy ionining miqdorini aniqlash diagrammasi**

1 litr distiller suyuqligi tarkibida natriy ionining miqdori 17,9 g ni tashkil qiladi.

Alangali fotometriyada yoqilg'i sifatida tabiiy gaz yoki propan va butan aralashmasi, oksidlovchi gaz sifatida siqilgan havo ishlatilsa alanganing harorati 1800-2000<sup>0</sup>C atrofida bo'ladi. Bunday haroratda ishqoriy va ishqoriy yer metallari atomlari qo'zg'algan holatga o'tadi. Qolgan elementlar esa o'zlaridan nur chiqarmaydi va shu bilan birga oson qo'zg'algan holatga o'tadigan elementlarga (ishqoriy va ishqoriy yer metallari) halaqit bermaydi.

## XULOSA

Ushbu maqolada kalsinirlangan soda ishlab chiqarish jarayonida hosil bo'ladigan distiller suyuqlik tarkibidagi natriy va kalsiy ionlarining miqdori alangali fotometriya yordamida aniqlandi. 1 litr distiller suyuqlikdagi aniqlangan kalsiy ionining miqdori 35,7 g ni va natriy ionining miqdori 17,9 g ni tashkil qilishi aniqlandi.

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# МЕТОДИКА ПРОЕКТИРОВАНИЯ ТВОРЧЕСКОЙ АКТИВНОСТИ СТУДЕНТОВ НА РЕСУРСНЫХ ЗАНЯТИЯХ

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## АННОТАЦИЯ

Внедрение новых наукоемких технологий в разработку и функционирование нефтегазового комплекса значительно повышает требования в области фундаментальных наук, предъявляемые к выпускникам высших учебных заведений инженерного профиля. Они должны обладать глубокими профессиональными знаниями и умениями, владеть математическими методами и применять их в практической деятельности (и не только в стандартных ситуациях). В статье рассмотрено формирование творческой активности студентов на основе внедрения комплекса профессионально ориентированных задач (ПОЗ) в процессе проектирования и реализации ресурсных занятий в рамках освоения курса математическое моделирование процессов. Обоснована необходимость и разработана методика исследования профессионально ориентированных задач.

**Ключевое слово.** Творческий активность студентов, проектирование профессионально ориентированных задач.

## ВВЕДЕНИЕ

Имеющийся теоретический запас знаний студентов не всегда является активным. Необходимо добиваться от студентов творческого практического применения полученных знаний в различных ситуациях, в том числе связанных с их будущей





профессиональной деятельностью. Этого можно добиться в курсе «Высшей математики» при исследовании и решении профессионально ориентированные задачи с варьированием условий, результатов и процедур, где раскрывается связь математических и специальных знаний.

Возможность осуществления этих связей обусловлена тем, что:

- многочисленные применяемые математические приемы и методы, изучаемые в техническом вузе при исследовании реальных процессов и явлений, широко применяются в будущей профессиональной деятельности;
- в своей будущей профессиональной деятельности необходимо творчески и самостоятельно решать возникшую профессиональную проблему;
- для управления и использования современной техникой необходимы более глубокие знания теории и практики, понимание теоретических законов и практических принципов действий.

## МАТЕРИАЛЫ И МЕТОДЫ

При формировании творческой активности студентов эффективным средством является исследование и решения профессионально ориентированных задач, в которых реализуются межпредметные связи математических и специальных знаний. В настоящее время стало актуальным использование в процессе обучения математике в техническом вузе теоретического обоснования методики решения задач, направленных на будущую профессиональную деятельность студентов. Для формирования творческой активности студентов задачи должны быть подвержены изменениям, чтобы в процессе решения и исследования был выход за пределы стандартной ситуации. Это позволит самостоятельной творческой работе студентов.

### Различные подходы к сущности понятия «ПОЗ».

Г.А. Балл считает, что сущность понятия «задача» применяется для обозначения объектов, относящихся к трем категориям:

- 1) к категории цели действия субъекта, требования, поставленного перед субъектом;
- 2) к категории ситуации, включающей наряду с целью условия, в которых она должна быть достигнута;
- 3) к категории словесной формулировки этой ситуации [Балл, 1985, С.21].

Г.А. Балл говорит, что в основном в литературе распространено понятие «задачи» относящегося ко второй категории. К объектам первой категории больше подходит



формулировка «цель действия» или «требования задачи». Определение А.Н. Леонтьева подходит ко второй категории. Для обозначения объектов третьей категории применительно «формулировка» задачи [Трофимова, 2000, С. 52].

Из выше сказанного, можно сделать вывод, что нет единой трактовки понятия «задача», и мало возможно выявление общей сущности понятия «задача» по причине различных подходов отношений между студентом и задачей.

А.М. Матюшкин под решением задачи понимает систему преобразований условий задачи для достижения требуемого искомого [Матюшкин, 1972, С.20].

В процессе решения следует выделять основные структуры (этапы). Для решения этого вопроса существуют различные подходы к этой проблеме. А.М. Матюшкин при решении задачи выделяет четыре основных этапа в решении задачи:

- 1) «закрытое» решение, т.е. использование известных способов решения;
- 2) этап «открытого» решения — поиск новых способов решения задачи, принципа действия;
- 3) реализация данного принципа;
- 4) проверка правильности полученного решения [Матюшкин].

П.М. Эрдниев выделяет следующие взаимосвязанные и последовательные этапы:

- 1) составление математической задачи;
- 2) выполнение;
- 3) проверка (контроль) ответа;
- 4) переход к следующей задаче [Эрдниев, 1970, С.54].

Д. Пойа выделяет свою структуру в процессе решения задачи:

- 1) понять предложенную задачу;
- 2) найти путь от неизвестного к данным, если нужно, рассмотрев промежуточные задачи («анализ»);
- 3) реализовать найденную идею решения («синтез»);
- 4) решение проверить и критически оценить [Пойа, 1991, С.21].

Практически все авторы в качестве структуры решения предлагают проверить правильность полученного решения, а это как раз является спецификой инженеров: довести решение задачи до конечного результата и сделать проверку адекватности полученного ответа.

Г.С. Альтшуллер считает простейшими приемами (способами решения) изобретательства: аналогию, инверсию, эмпатию, фантазию.

Аналогией является поиск объекта, являющегося более удобным для изучения. Аналогия, как считает Г.С. Альтшуллер, обильный источник новых идей, но ее нельзя использовать слепо [Альтшуллер, 1979, С.30]. Аналогию следует использовать при:

- выяснении основных принципов и конструктивных особенностях исследуемого объекта,
- выявлении ведущей области реального явления или процесса по функции, которую выполняет этот объект, Инверсия означает выполнение чего-либо наоборот, например, поменять местами, вместо вертикального расположения расположить горизонтально и т.п.

Автор рассматривает различные виды инверсии:

1. Функциональная инверсия означает заменить функцию или действие противоположным, например, сжимать — растягивать и т.п.

2. Структурная инверсия заключается в изменении структуры явления, например, непрерывная функция — дискретная функция и т.п.

3. Инверсия формы заключается в изменении формы изучаемого объекта, например, шероховатая — гладкая и т.п.

4. Параметрическая инверсия, изменение параметров изучаемого объекта на противоположные, например, длинного на короткий и т.п.

5. Инверсные связи означают изменение связей изучаемого объекта на противоположные, например, положительная связь — отрицательная связь.

6. Инверсия пространства означает изменение положения в пространстве, например, изменение положения в пространстве на  $90^\circ$  и т.п.

7. Инверсия времени означает изменение времени протекания процесса, например, быстропротекающий процесс на медленный и т.п.

Прием эмпатии означает, например, отождествление себя с другим человеком.

Прием фантазия означает выдавание желаемого результата за действительное, например, студент, решая проблему, что в итоге приводит к новому реальному решению [1].

Д. Пойа предлагает при решении задачи использовать «текущий», а не «жесткий» план решения, при доказательстве использовать правдоподобные рассуждения, а не строгие доказательства. Он считает, что надо учиться догадываться, проводить аналогии [Пойа, 1991, С.85].

Функции задач: обучающая, развивающая и воспитывающая определены целями математического образования. Ведущей целью задач является

«расширение и усложнение индивидуальных интеллектуальных ресурсов личности средствами математики» [Лебедев,1984,С.45].

Как правило, при обучении математики мы решаем не одну, а целый комплекс задач, что происходило и в нашем случае. Классификации задач являются относительными. Вопросом квалификации задач занимались многие методисты и психологи, каждый автор внес свои новшества при классификации задач, показывающие различные подходы, например, Д. Пойа [10], исходит из характера требования задач и подразделяет их на задачи:

- на нахождение;
- на доказательство.

По мнению Л.И. Фридмана [15], задачи делятся — по характеру требований на:

1. на нахождение,
2. на преобразование,
3. на построение,
4. на доказательство.

Принципиально классификация Л.И. Фридмана не отличается от классификации Д. Пойа.

С точками зрения Д. Пойа и Л.И. Фридмана вполне можно было бы согласиться. Однако, принимая во внимание субъективную сторону творческого процесса, стремясь постигнуть мыслительные процессы при решении задач с присущими при решении задачи анализом, синтезом и реализацией идей, мы должны дополнить мнение Пойа и сказать, что все задачи делятся на три типа: на нахождение, на доказательство, на составление задач.

Все, кто решал задачи, знают, что в процессе решения даже простых задач творческая активность проявляет себя тем, что выдвигаются различные гипотезы, генерируются, анализируются различные идеи, которые, в сущности, и представляют собой составление задач. Они не являются целью при решении исходной задачи, они никак не следуют из постановки исходной задачи, однако, чаще всего, без составленных задач не обойтись. Простейший пример доставляет стереометрия, которую изучают в старших классах: каждая стереометрическая задача состоит из нескольких планиметрических задач, которые, ученик сам придумывает, и сам же их решает.

В.А. Онищук в процессе решения задачи выделяет формирования умений такие как:

1. актуализация опорных знаний;
2. усвоение знаний;
3. первичное применение знаний;
4. овладение навыками в стандартных условиях;
5. творческий перенос знаний и навыков;
6. контроль, коррекция и оценка навыков и умений [Онищук,1981,С.24].

В.А. Онищук, продолжая анализировать указанную последовательность этапов решения, выделяет свои виды задач:

1. подготовительные;
2. вводные;
3. пробные;
4. тренировочные;
5. творческие;
6. контрольные [9]

Другие авторы классифицируют задачи по их местонахождению в процессе обучения, например, Ю.К. Бабанский рассматривая учебную деятельность, показывает существование следующих компонентов: организационно-действенных, стимулирующих и контрольно-оценочных [Бабанский,1978, С.40].

Подводя итог вопросу о различных подходах к сущности понятия «задача», классификаций и функций задач, можно сделать вывод, что основная роль задач заключается в развитии логического творческого мышления, а в нашем случае, является эффективным средством для формирования творческой активности студентов.

В связи с этим согласимся с высказыванием М.Н. Скаткина «...решение задач служит одним из средств овладения системой знаний и умений по тому или иному учебному предмету и, в то же время, способствует развитию самостоятельного творческого мышления» [Скаткин,1980, С.20]. Однако мы в своей работе рассматриваем не просто задачи, а задачи, в фабуле которых содержится направленность на будущую профессиональную деятельность.

Далее рассмотрим профессионально ориентированные задачи. Какие существуют подходы к сущности понятий «профессионально ориентированная задача», «прикладная задача» и «практическая задача».

А.А. Столяр под «прикладной задачей» рассматривает задачу, поставленную вне математики и решаемую математическими средствами [Столяр, 1986, С.89].

Н.Р. Колмакова и Р.А. Майер [5] классифицирует прикладные задачи, различающиеся по требованиям, предъявляемым к студентам во время решения задачи:

- На первом уровне студентам дана математическая модель прикладной задачи и содержит все значения входящих в нее условий. Студентам надо исследовать, полученную математическую модель и интерпретировать, полученные результаты в условиях исходной задачи.

- На втором уровне студентам приводятся в условии математическая модель, в которой необходимо вычислить, имеющиеся в ней параметры.

- На третьем уровне студентам задачи, в которых необходимо преобразовать математическую модель, чтобы получить удобный вид для ее исследования.

- На четвертом уровне студентам самостоятельно надо построить математическую модель прикладной задачи, в которой приведены все необходимые данные, что найти в данной задаче.

- На пятом уровне студентам надо самостоятельно построить математическую модель прикладной задачи, в которой приведены все необходимые данные, но что найти в данной задаче должен додуматься сам студент.

- На шестом уровне студентам надо самим построить математическую модель, разобраться с условием и вопросом задачи, с какой точностью необходимо получить результат, интерпретировать его на языке исходной задачи [Колмакова].

Анализируя уровни Н.Р. Колмакова и Р.А. Майера, можно сказать, что в данной работе преподавателем предъявлялись требования для формирования творческой активности студентов по всем шести уровням, но только последние четыре дают выход студента за пределы «штатной» ситуации, на что преподаватель и нацеливал внимание студентов.

При решении прикладной задачи Ю.М. Колягина предлагает три компонента:

- 1) построение математической модели (составление уравнения) реальной ситуации;
- 2) исследование построенной модели средствами математики (решение уравнения);
- 3) интерпретация полученного результата с исходной задачей [Колягин, 1977, С.70].

Иную схему решения прикладной задачи предлагает Ю.Ф. Фомин:

- 1) изучение условия, требований, характеристик реального процесса;
- 2) построение математической модели исходной задачи;
- 3) построение новой модели, отличной от математической, с использованием численных методов;
- 4) исследование этой модели, т.е. получение числового результата математической модели;
- 5) интерпретация полученного результата, проверка адекватности реального исходного процесса [Фомин, 1990, С.7].

В нашем случае мы, как правило, не переходили ко второй модели, а исследования проводили с помощью интеграции математического аппарата, использовали возможность ИКТ-средств поддержки. Наша методика исследования и решения профессионально ориентированных задач проходит три этапа, как предложено у Ю.М. Колягина.

Для формирования творческой активности студентов в рассматриваемой методике разбивали задачу на три составляющие: объекты, отношения и свойства, что и являлось полем исследований студентов, т.е. изменив, любую из составляющих или несколько составляющих (как это рассматривается в примере 1 данной главы в 3 параграфе), студенты получали новую задачу, исследовали и решали ее в малых группах.

Подведем итог анализа понятий прикладной и профессиональной направленности. Таким образом, используя термин «прикладная направленность», как правило, подразумевают «профессиональную направленность» [С. 43, Худякова]. Мы же различаем эти понятия, т.к. прикладная задача, использует в своем решении математический аппарат, но она может и не иметь применения в будущей профессиональной деятельности, в отличие от профессионально ориентированной.

В своей работе мы используем профессионально ориентированные задачи при обучении курса «Высшей математики», являющиеся средством формирования творческой активности студентов. Под понятием «профессионально ориентированная задача» мы понимаем некоторую абстрактную модель реальной ситуации, возникающей в профессиональной деятельности и решаемую средствами математики, в фабуле которой заложена возможность варьирования условия, процедур и результата.

Варьирование условия, результата и процедур профессионально ориентированной задачи активизирует мыслительную деятельность студентов.



Для выделения наших задач из всего многообразия профессионально ориентированных задач необходимо определить их функции профессионально ориентированных задач:

- развитие профессиональной мотивации;
- выявление и актуализация механизмов интеграции математических и специальных знаний;
- совершенствование навыков самоконтроля и рефлексии поведения;
- формирование интеллектуальной восприимчивости, гибкости, подвижности мысли как проявлений творческого мышления студентов;

Проводя анализ вышеперечисленных функций мы выделили еще и критерии профессионально ориентированных задач:

- наличие инженерно-технической (естественнонаучной) фабулы задачи в контексте профессиональной направленности;
- математические средства и методы решения ПОЗ, в основном, должны находиться в поле актуального опыта личности будущего инженера;
- комплексность применяемых математических знаний, методов и процедур на основе «анализа через синтез»;
- воспроизводимость в достаточной вариативности содержания, средств и методов решения ПОЗ для обеспечения работы студентов в малых группах;
- наличие элементов новизны и занимательности в фабуле задачи как благоприятных факторов пробуждения интереса студентов к математике и мотивирования их творчества.

Для формирования творческой активности студентов при ресурсном взаимодействии в нашей методике, как это уже говорилось, на начальном этапе должны быть выступления студентов с исследовательскими проектами. Студентам заранее раздаются темы докладов, они готовят материал по данной теме и в начале ресурсного занятия выступают с презентацией. В исследовательском проекте рассматриваются великие открытия в исторических аспектах, имеющие связь и влияние на будущую профессиональную деятельность студентов, и как при их открытии использовался математический аппарат. Сущность исследовательских проектов заключается в следующем: вместе со студентами разбираются образцы творческой деятельности, т.е. примеры того, как выдающиеся ученые «делали открытия», что предшествовало и способствовало этому открытию и т.п. При самостоятельной разработке исследовательского проекта творчество является звеном и механизмом, которое предметно интегрирует



математические и специальные знания студентов, мотивирует студентов на творческую деятельность.

Таким образом, разработка комплекса профессионально ориентированных задач на ресурсных занятиях в процессе обучения математике будет являться эффективным средством для формирования творческой активности будущих инженеров.

Задачи эксперимента-теста будут заключаться в следующем:

-показать значимость сущности проектирования учебно-методических материалов по высшей математике, преподаваемых в нефть-газовых специальностях.

-интеграция педагогических, психологических, дидактических и методических основ проектирования профессионально ориентированных задач по высшей математике в сознание профессоров, преподавателей и студентов.

- проведено исследование взглядов профессоров и преподавателей на совершенствование алгоритма проектирования профессионально ориентированных задач по высшей математике.

### **Этапы творческой деятельности студентов на ресурсном занятии.**

Рассмотрим этапы творческой деятельности студентов на ресурсном занятии.

На первом этапе творческой деятельности студенты выступают с заранее подготовленными исследовательскими проектами (в том числе, с использованием информационных технологий), в которых показываются в деталях образцы творческого поведения ученых: как в истории и генезисе было сделано открытие в инженерно-технической (естественнонаучной) области, как обосновывалось это открытие средствами математики. Таким образом, студенты получают образцы решения проблемы с анализом и особенностями творческих решений.

На втором этапе идет разбор задачи вместе со студентами: строится план решения задачи, строится математическая модель, вычлняя при этом, что дано, и что необходимо найти, переводится условие задачи на язык математики, актуализируется интеграция математики, происходит анализ возможностей ИКТ-средств поддержки, выстраивать последовательность действий, строится граф согласования и продумываются формы проверки, гарантирующие исключение посторонних решений. Происходит выдвижение гипотезы.

Умение выдвигать гипотезы является важным умением, способствующим формированию творческой активности.



При исследовании и решении профессионально ориентированной задачи возникают следующие процессы мышления: абстракция, сравнение, анализ и синтез, обобщение, посредством которых студент ставит и решает задачу (вычленяет ее условия и требования, соотносит их друг с другом, выявляет искомое и т.д.). Важную роль при этом играют вопросно-ответные процедуры.

На третьем этапе студенты в малых группах, проварьировав условия задачи, методы решения, анализируя полученные результаты, получают цикл новых ПОЗ. Так происходит видение новой проблемы в знакомой ситуации на основе актуализации творческих потенциалов студентов. Такая черта творческой деятельности как видение новой проблемы в знакомой ситуации, включает в себя способность раскрыть новые стороны знакомого объекта. Решение новых задач, предложенных студентами, строится, опираясь на уже решенную исходную задачу. Перенос решения предполагает аналитико-синтетическую деятельность, в основе которой лежит обобщение и аналогии, визуализация и ассоциация, вскрывающие существенные связи. В малой группе студенты на основе распределения ролевых функций [116] актуализируют такие приемы творческой деятельности как: создания нестандартных ситуаций, используя метод мозгового штурма, метод контрольных вопросов, метод проб и ошибок, метод морфологического анализа [64] и т.п.

Здесь имеет место личностный аспект мышления это мотивация и способности человека (т.е. его отношение к решаемой задаче, к другим людям и т.д., в чем проявляются и формируются его пробуждения к мыслительной деятельности и его умственные способности). Это соответствует подходу Д.Б. Богоявленской о трехаспектности творческого процесса: предметность, социальность и личностность.

На четвертом этапе происходит презентация полученных решений студентами в малых группах, делаются выводы о полученных результатах при решении профессионально ориентированной задачи, анализ обобщений, рефлексивный контроль, оценки и коррекция результатов.

В.В. Афанасьев [12] считает, что при формировании творческой активности необходим самоанализ студентов собственных интеллектуальных действий. С помощью такого анализа осуществляется самоконтроль и самооценка проделанной работы, фиксируются рациональные структуры творческого процесса. Самооценка своих действий (рефлексия обучаемым своих действий) характеризуется осознанием студентами всех компонентов учебной деятельности:

1. Осознание индивидом ПОЗ (Что такое ПОЗ? Как



можно исследовать и решать ПОЗ?).

2. Осознание цели учебной деятельности (Чему научился сегодня? Каких целей добился на занятии? Чему можно научиться, решая и исследуя ПОЗ? Оценивание самим студентом результатов деятельности в зависимости от реализации ее целей).

3. Оценка студентами способов деятельности, специфичных и инвариантных по отношению к различным учебным предметам (уяснение общих способов действий; умение студента выделить общее, инвариантное в различных учебных предметах, в исследовании ПОЗ; осознанность конкретных операций, необходимых для решения и исследования ПОЗ) [12].

При работе с задачей можно выделить три характеристических признака. Первый характеристический признак характеризует уровень становления творческой активности студента, его мотивацию и собственные цели. Для студента в этом случае происходит реализация его творческого потенциала, если он приносит в процесс исследования и решения профессионально ориентированной задачи творческое содержание.

Второй характеристический признак заключается в наличии проблемы, т.к. студентам в группах предлагается изменить условие задачи, чтобы получить новые задачи. Работа студентов происходит в малых группах и основывается на принципах автономности и коммуникативности. Автономность включает самостоятельную постановку проблемы для каждого студента в отдельности и способа ее решения; инициативность при решении; способность к принятию ответственности; самоконтроль, анализ и оценку собственной творческой деятельности; умение рассуждать самостоятельно; степень понимания связи профессионально ориентированной задачи с будущей профессиональной деятельностью. Коммуникативность проявляется в способности к сотрудничеству между студентами в группе, в психологической совместимости студентов, в самостоятельном разрешении возникающих конфликтов в группе и т. д.

Третий характеристический признак заключается в создании студентом собственного образовательного продукта (самостоятельное решение новой для студентов задачи, в ходе изменения условия исходной, оригинальный новый способ решения задачи, собственное обобщение данной задачи и т.д.).

С помощью определенных условий и средств создаются предпосылки для проявления творческой активности, проводится ее коррекция, формируются и закрепляются мотивы творчества.

**Пример. Ресурсное занятие: дифференциальные уравнения.**

Задача 1. Резервуар, имеющий форму куба с ребром 3 м, наполнен нефтью. За какое время нефть вытечет из куба через круглое отверстие диаметром  $\rho = 15$  см, сделанного в днище куба? (Принять коэффициент вязкости нефти равным  $\sigma = 0,98$ ).

Решение данной задачи сводится к построению математической модели в виде дифференциального уравнения первого порядка с разделяющимися переменными:

$$dt = -\frac{9}{\rho\sigma\sqrt{2gh}}$$

Ответ:  $t \approx 48$  с.

Обобщение задачи 1. Попытаемся максимально обобщить задачу  $N$ , варьируя форму резервуара (цилиндр, сфера, полусфера, конус, усеченный конус, прямоугольный параллелепипед), а также меняя наклон резервуара относительно вертикали. А затем применим принцип специализации — придавать параметрам конкретные значения и получать специальные случаи. Такой прием часто используется не только в математике, но и в технике.

Пусть,  $h$  высота уровня нефти в резервуаре,  $S = S(h)$  площадь поперечного сечения резервуара как функция от  $h$ . Определим время  $t$ , за которое уровень нефти понизится от начального положения  $H$  до произвольного  $h$ , и время  $T$  полного опорожнения сосуда. При этом считаем, что скорость  $v$  изменения количества вещества (объема) нефти в сосуде является известной функцией  $v = v(h)$  от уровня  $h$  нефти в сосуде (напора).

Тогда в общем случае получаем:

$$t = -\frac{1}{\rho\sigma\sqrt{2g}} \int_h^H \frac{S(h)}{\sqrt{h}} dh, \quad T = \frac{1}{\rho\sigma\sqrt{2g}} \int_0^H \frac{S(h)}{\sqrt{h}} dh$$

где  $\sigma$  — эмпирический коэффициент (вязкость).

В специальных случаях функция  $S(h)$  будет иметь конкретный вид, и наша задача сводится к вычислению конкретного определенного интеграла.

В таблице 1 приводятся специальные случаи для формы резервуара и его наклона к горизонту.

Этап 1. Занятие начинается с выступления студента с исследовательским проектом на тему «Математические и механические задачи в работах Гюйгенса о маятниковых часах», в том числе с использованием информационно коммуникационных технологий. Происходит дискуссия студентов об образце решения инженерно-



технических и естественнонаучных проблем с анализом условий и особенностями творческих решений, генезисом проблемы, личностных переживаний и озарений ученых.

Этап 2. Далее со студентами актуализируются математические и специальные знания необходимые для решения профессионально ориентированной задачи.

Ориентированных задач с фиксацией необходимых этапов: сбор и анализ данных, возникновение гипотез, анализ возможностей ИКТ-средств поддержки (дифференциальные уравнения решать в MathCAD).

## ВЫВОДЫ

В ходе научно-методического анализа уточнены функции и критерии отбора профессионально ориентированных задач.

Функции профессионально ориентированных задач:

- развитие профессиональной мотивации;
- выявление и актуализация механизмов интеграции математических и специальных знаний;
- совершенствование навыков самоконтроля и рефлексии поведения;
- формирование интеллектуальной восприимчивости, гибкости, подвижности мысли как проявлений творческого мышления студентов;

В качестве основных выделены следующие критерии отбора:

- наличие инженерно-технической (естественнонаучной) фабулы задачи в контексте профессиональной направленности;
- математические средства и методы решения ПОЗ, в основном, должны находиться в поле актуального опыта личности будущего инженера;
- комплексность применяемых математических знаний, методов и процедур на основе «анализа через синтез»;
- воспроизводимость в достаточной вариативности содержания, средств и методов решения ПОЗ для обеспечения работы студентов в малых группах;
- наличие элементов новизны и занимательности в фабуле задачи как благоприятных факторов пробуждения интереса студентов к математике и мотивирования их творчества.

б. Выделены и обоснованы следующие педагогические условия формирования творческой активности будущих инженеров в процессе обучения математике:

- наличие творческой среды;
- низкая степень регламентации поведения и наличие

предметно-информационной обогащенности;

- информационно-технологическая поддержка творческой активности студентов на всех этапах обучения математике с использованием ПОЗ.

7. Выявлено на основе построения дидактической модели формирования творческой активности студентов, что формирование творческой активности студентов на основе внедрения комплекса ПОЗ в процесс проектирования и реализации ресурсных занятий в рамках освоения курса высшей математики проходит ряд последовательных этапов деятельности:

мотивационно-ценностный

подготовительный

содержательно-исследовательский

оценочный.

Уровень студентов экспериментальной группы после использования комплекса ПОЗ (в конце IV семестра) статистически достоверно выше уровня мотивации студентов контрольной группы.

Исходя из результатов расчетов, можно сделать вывод, что комплекс ПОЗ статистически достоверно положительным образом повлиял на уровень приобретения знаний студентами экспериментальной группы.

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## TRADITIONAL AND NEWER APPROACHES TO MEASURING LINGUISTIC EXPERTISE INTRODUCTION

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### ABSTRACT

This article provides a comprehensive overview of the different methodologies used to study and assess linguistic expertise. It explores the evolution of the concept of linguistic expertise and the advantages and limitations of traditional measures of linguistic competence, such as standardized tests and self-assessment questionnaires. The article also discusses newer approaches to measuring linguistic expertise, such as corpus linguistics and eye-tracking studies, which provide a more detailed and nuanced understanding of language use and processing. By using a combination of methods, researchers can gain a more comprehensive understanding of linguistic expertise in different contexts. The article concludes by emphasizing the importance of choosing the appropriate methodology for the specific research question and goals of the study.

**Keywords:** linguistic expertise, traditional measures, standardized tests, self-assessment questionnaires, corpus linguistics, eye-tracking studies.

Linguistic expertise is a critical component in many fields, including education, business, law, medicine, and international relations, among others. As the world becomes more globalized and interconnected, the ability to communicate effectively across linguistic and cultural boundaries has become increasingly important. This has led to a growing demand for individuals with high levels of linguistic proficiency and expertise.

The purpose of this sub-chapter is to provide a historical and methodological overview of the concept of linguistic expertise. Specifically, this sub-chapter will examine the evolution of the concept of linguistic expertise over time and explore the different methodologies that have been used to study and assess linguistic expertise. By doing so, we hope to gain a better understanding of the nature of linguistic expertise and its importance in various fields.

According to Bloomfield (1933), linguistic expertise refers to "the ability to use the language correctly, both in speaking and in writing, and to understand the language as used by others" (p. 231). [1] This definition emphasizes the importance of both productive and



receptive language skills in achieving linguistic expertise. Furthermore, linguistic expertise is not limited to a narrow set of linguistic features, but rather encompasses a broad range of language skills and competencies (Chomsky, 1965). [2]

Overall, the study of linguistic expertise is an important area of inquiry that has implications for a wide range of fields. In the following sections, we will explore the historical development of the concept of linguistic expertise and the different methodologies that have been used to study and assess linguistic expertise.

### **Historical development of linguistic expertise**

The concept of linguistic expertise has a long and complex history, with many different scholars and thinkers contributing to its development over time. This section will provide an overview of the evolution of the concept of linguistic expertise and highlight some of the key contributions made by influential figures in the field of linguistics and language acquisition.

The study of language and linguistic expertise can be traced back to the ancient Greeks, who recognized the importance of language as a means of communication and expression. Aristotle, for example, wrote extensively about the relationship between language and thought, arguing that language was not just a tool for communication, but also a means of reasoning and understanding the world (Aristotle, 350 BC/2014). [3]

In the centuries that followed, scholars continued to study language and linguistic expertise, but it was not until the emergence of modern linguistics in the late 19th and early 20th centuries that the concept of linguistic expertise began to take shape. Linguists such as Ferdinand de Saussure and Noam Chomsky played a particularly significant role in shaping the modern understanding of linguistic expertise.

Saussure (1916/1983) argued that language was a system of signs and symbols that was governed by a set of rules and conventions. He emphasized the importance of understanding the underlying structures and principles of language in order to achieve linguistic expertise. [4] Chomsky (1957, 1965), on the other hand, proposed that language was an innate human ability that was hard-wired into the brain. [5] He argued that linguistic expertise was achieved through a process of language acquisition that was guided by innate linguistic principles. [6]

More recently, scholars in the field of second language acquisition have made important contributions to the study of linguistic expertise. Researchers such as Stephen Krashen (1981) and Merrill Swain (1985) have emphasized the importance of exposure and interaction in the development of linguistic expertise. They argue that linguistic

expertise is achieved through a combination of formal instruction and meaningful interaction in real-world contexts. [7, 8]

Overall, the concept of linguistic expertise has evolved significantly over time, with many different scholars and thinkers contributing to its development. While there is still much debate and discussion about the nature of linguistic expertise, there is broad consensus that it is a complex and multifaceted phenomenon that plays a critical role in communication and understanding across linguistic and cultural boundaries.

### **Methodologies for studying linguistic expertise**

The study of linguistic expertise has long been a topic of interest for researchers in the fields of linguistics, psychology, education, and communication. Over time, a variety of different methodologies have been developed and used to measure and assess linguistic expertise. In this section, we will provide an overview of the different methodologies that have been used to study linguistic expertise, including traditional measures of linguistic competence, newer approaches to measuring linguistic expertise, and the advantages and limitations of each methodology.

#### **A. Traditional Measures of Linguistic Competence**

One of the most common ways to measure linguistic expertise is through traditional measures of linguistic competence, such as standardized tests and self-assessment questionnaires. Standardized tests, such as the TOEFL (Test of English as a Foreign Language) and the IELTS (International English Language Testing System), are widely used to assess the proficiency of non-native speakers of English. These tests typically measure a range of language skills, including reading, writing, speaking, and listening.

Self-assessment questionnaires are another commonly used method for measuring linguistic expertise. These questionnaires ask participants to rate their own proficiency in a given language using a scale or rubric. While self-assessment questionnaires can provide useful information about a person's perceived level of proficiency, they are often criticized for being subjective and prone to bias (Bachman, 1990). [9]

One of the advantages of traditional measures of linguistic competence is that they are widely used and have been validated through years of research. Standardized tests, in particular, are highly reliable and valid measures of language proficiency (Bachman, 1990). [9] However, these measures also have some limitations. For example, they may not fully capture the complexity and nuance of linguistic expertise, and they may not

be well-suited to measuring the types of communicative competence that are required in real-world settings (Canale & Swain, 1980).

### **B. Newer Approaches to Measuring Linguistic Expertise**

In recent years, researchers have begun to explore newer approaches to measuring linguistic expertise, such as corpus linguistics and eye-tracking studies.

Corpus linguistics involves the analysis of large collections of natural language data, or corpora, to identify patterns and relationships between words and phrases (McEnery & Wilson, 2001). Corpus linguistics has been used to study a wide range of linguistic phenomena, including grammar, vocabulary, and discourse. It has also been used to measure aspects of linguistic expertise, such as vocabulary size and use (Nation & Webb, 2011).

Eye-tracking studies involve the use of specialized equipment to measure the movements of a person's eyes as they read or process language (Rayner, 1998). Eye-tracking studies can provide valuable information about the cognitive processes involved in language processing and comprehension, and they have been used to study a wide range of linguistic phenomena, including reading comprehension, sentence processing, and language learning (van Gompel & Fischer, 2016).

One of the advantages of these newer approaches to measuring linguistic expertise is that they allow for a more detailed and nuanced understanding of language use and processing. They can also provide insight into the underlying cognitive processes that are involved in linguistic expertise. However, these methods also have some limitations. For example, corpus linguistics studies may be limited by the quality and representativeness of the corpora being used, and eye-tracking studies may be limited by the artificiality of the laboratory setting.

### **C. Advantages and Limitations of Each Methodology**

Each of the methodologies discussed above has its own advantages and limitations. Traditional measures of linguistic competence, such as standardized tests and self-assessment questionnaires, are widely used and have been validated through years of research. However, they may not fully capture the complexity and nuance of linguistic expertise, and they may not be well-suited to measuring the types of communicative competence that are required in real-world settings.

Newer approaches to measuring linguistic expertise, such as corpus linguistics and eye-tracking studies, provide a more detailed and nuanced understanding of language use and processing. These methods can provide insight into the underlying cognitive processes that are involved in linguistic expertise. However, they may be limited by the quality and representativeness of the data being used, and they may not fully

capture the complexity of linguistic expertise in real-world contexts.

It is important to note that these different methodologies are not mutually exclusive, and many studies use a combination of methods to measure linguistic expertise. For example, a study might use a standardized test to assess overall proficiency, and then use corpus linguistics to analyze specific aspects of language use. By using a variety of methods, researchers can gain a more comprehensive understanding of linguistic expertise.

Overall, the choice of methodology for studying linguistic expertise will depend on the specific research question and the goals of the study. Traditional measures of linguistic competence are well-established and provide a reliable and valid way to measure proficiency. However, newer approaches to measuring linguistic expertise can provide a more detailed and nuanced understanding of language use and processing. By using a combination of methods, researchers can gain a more comprehensive understanding of linguistic expertise in different contexts.

In conclusion, the study of linguistic expertise has evolved over time, with researchers using a variety of different methodologies to measure and assess proficiency. Traditional measures of linguistic competence, such as standardized tests and self-assessment questionnaires, are widely used and have been validated through years of research. Newer approaches to measuring linguistic expertise, such as corpus linguistics and eye-tracking studies, provide a more detailed and nuanced understanding of language use and processing. Each methodology has its own advantages and limitations, and the choice of methodology will depend on the specific research question and goals of the study.

### **Challenges and controversies in studying linguistic expertise**

While the study of linguistic expertise has made significant progress over the years, there are still several challenges and controversies that researchers encounter when studying linguistic expertise. This section will explore some of these challenges and controversies.

#### **Cross-linguistic variation**

One of the main challenges in studying linguistic expertise is the issue of cross-linguistic variation. Languages differ in many ways, including phonetics, syntax, and semantics. These differences can pose challenges for researchers who are attempting to compare language proficiency across different languages. For example, it may be difficult to compare the proficiency of a native speaker of Chinese with that of a native speaker of English, as the two languages have different grammatical structures and phonetic systems.

To address this challenge, researchers have developed measures of language proficiency that are specific to individual languages. For example, the Common European Framework of Reference for Languages (CEFR) provides a framework for describing language proficiency in several European languages. Similarly, the ACTFL Proficiency Guidelines provide a framework for describing language proficiency in several languages, including Arabic, Chinese, and Japanese. By developing measures of language proficiency that are specific to individual languages, researchers can better compare proficiency across different languages.

#### Influence of social and cultural factors

Another challenge in studying linguistic expertise is the influence of social and cultural factors on language use and acquisition. Social and cultural factors can influence the way that individuals acquire and use language, as well as their attitudes towards different languages and language varieties.

For example, research has shown that social and cultural factors can influence the motivation and attitudes of language learners. Learners who have positive attitudes towards the language and culture that they are studying are more likely to be successful in acquiring the language (Gardner, 1985). Similarly, social and cultural factors can influence the way that language is used in different contexts. For example, research has shown that speakers may modify their language use depending on the social context and the identity of their interlocutors (Gumperz, 1982).

Another area where social and cultural factors play a role is in the study of dialects and language varieties. Different dialects and language varieties may be associated with different social and cultural groups, and these associations can influence the way that individuals perceive and use these dialects and varieties. For example, African American English (AAE) is a dialect of English that is spoken by many African Americans in the United States. AAE is often stigmatized and associated with negative stereotypes, which can influence the way that speakers of AAE are perceived and the way that they use the dialect (Wolfram, 2007).

#### Controversies in studying linguistic expertise

There are also several controversies in the study of linguistic expertise. One of the main controversies is the nature of language proficiency. Some researchers argue that language proficiency is a static, stable trait that can be measured through standardized tests and other measures of linguistic competence. Others argue that language proficiency is a more dynamic, context-dependent phenomenon that is influenced by a variety of factors, including social and cultural factors.

Another area of controversy is the relationship between language proficiency and other cognitive abilities, such as working memory and attention. Some researchers argue that language proficiency is closely related to these cognitive abilities, while others argue that the relationship is more complex and may depend on the specific language task being performed (DeKeyser, 2013).

In conclusion, the study of linguistic expertise is a complex and multifaceted area of research that poses several challenges and controversies. Cross-linguistic variation and the influence of social and cultural factors are just two of the challenges that researchers encounter when studying linguistic expertise. Despite these challenges, researchers have made significant progress in developing measures of linguistic proficiency and understanding the cognitive and social factors that influence language use and acquisition.

## Conclusion

This sub-chapter has provided an overview of the historical development and methodologies of linguistic expertise. We have seen that the concept of linguistic expertise has evolved over time, from a focus on grammar and vocabulary to a more holistic understanding of language use in context. Key scholars and thinkers in the field of linguistics and language acquisition have made significant contributions to this development.

In addition, we have explored the different methodologies that have been used to study and assess linguistic expertise, including traditional measures of linguistic competence, such as standardized tests and self-assessment questionnaires, and newer approaches, such as corpus linguistics and eye-tracking studies. Each methodology has its advantages and limitations, and researchers need to carefully consider which methodology is most appropriate for their research questions.

Finally, we have discussed some of the challenges and controversies that researchers have encountered when studying linguistic expertise, including issues related to cross-linguistic variation and the influence of social and cultural factors on linguistic expertise. These challenges highlight the need for researchers to take a multidisciplinary approach to studying linguistic expertise, drawing on insights from fields such as psychology, anthropology, and sociolinguistics.

The historical and methodological overview provided in this sub-chapter has important implications for the study and assessment of linguistic expertise in various fields. For example, in the field of language education, a better understanding of the historical development of linguistic expertise can inform the design of language curricula that take into account



the broader range of skills and knowledge required for successful language use. Similarly, in the field of language assessment, a more nuanced understanding of the different methodologies available can help ensure that assessments are both reliable and valid.

In conclusion, the study of linguistic expertise is a complex and multifaceted area that requires careful consideration of historical developments, methodological approaches, and social and cultural factors. By taking a multidisciplinary approach to the study of linguistic expertise, researchers can gain a deeper understanding of the complex processes involved in language use and develop more effective ways of assessing and promoting linguistic competence in various contexts.

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## ANATOMIC VARIATION OF INTESTINAL TRACT (SMALL INTESTINAL TUBULAR DUPLICATION INFREQUENT SOURCE OF INTESTINAL OBSTRUCTION IN CHILDREN)

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### ABSTRACT

**Background:** Intestinal tract duplications are infrequent congenital abnormalities. The common perinatal demonstration is an abdominal lump. When it occurs in upper gastrointestinal tract has accompanying respiratory manifestation, but duplications in the lower gastrointestinal tract can present clinically as an intestinal obstruction, perforation, nausea, Vomiting, bleeding of lower GIT, or may be symptomless, or known as a related clinical manifestation. Eighty five percent of intestinal tract are identified in children under two years of age. These anomalies can be seen along the whole gastrointestinal tract from the esophagus to the lower end part of anus, but mostly occurs in ileum, and frequently has seen as a cystic lesion at the mesenteric border of the intestine but rarely tubular duplication can be occurred. The best way to approach is the surgical resection and anastomosis.

**Materials and Methods:** During the laparotomy in the Nangarhar Regional hospital Jalalabad in the department of General surgery. we find a 12-years-old patient with small bowel (ileum) tubular duplication. In spite of physical exam and imaging investigations, the diagnosis we made during laparotomy. Our current research has done in Nangarhar Reginal Hospital General Surgery Department from 2021-Jan to 2021-May.

**Findings:** Amongst Patients who admitted to Nangarhar Regional Hospital due to Peritonitis, we observed 1 case of the

Small intestinal duplication the patient was severely ill and also experienced weight loss during this period of time he received deferent medical treatments. The pain was sited in the periumbilical and lower abdominal quadrants. He cited month ago, He had a history of melena and diarrhea. The patient's abdominal Physical exam was atypic unless he has mild abdominal distention and severe tenderness in the lower quadrants of abdominal wall. Lab exams reveal leukocytosis 13000/mm<sup>3</sup>, 36% hematocrit, platelets 400000 and C Reactive Protein of 2 milligram/Liter, and biochemical laboratory investigation revealed unchanged. Abdominal erect position X-ray reveals free air in peritoneal cavity. Ultrasound shows free fluid in abdominal cavity.

**Conclusion:** We believe that we always remember the duplication of intestinal tract for unexplained and unclear Diagnostic finding. Because of the very bad prognosis and complications from the intestinal duplication like obstruction, hemorrhage, volvulus, and peritonitis.

**Keywords:** intestinal duplication, Intestinal obstruction, Gastrointestinal tract congenital anomaly.



## INTRODUCTION

The intestinal tract is originated from the endodermal part of the yolk sac and mesenteric vessels molded from the mesodermal Layer, mucosal and submucosal layer derived from the endodermal layer. The Vessels and adventitia, serosa, lamina propria, muscularis mucosae and submucosal connective tissue developed from mesodermal layer of the fetus. And the intestinal intrinsic nerves mostly arise from the relocation of neural crest into the submucosa based on the arterial supply. And intestinal tract is alienated in fetus into three main parts that so called, foregut, midgut and hindgut. Foregut include lower esophagus, stomach and duodenum till the major duodenal papilla get their blood supply from celiac truck. The midgut that is include duodenum distal to major duodenal papilla, jejunum, ileum and colon 2/3 right side revived their blood supply from Superior mesenteric artery and hindguts that is include 1/3 left side transverse, Descending, sigmoid colon and upper part of the rectum received their blood supply from inferior mesenteric artery and their branches (Soffers, J. et al, Zhou, Y. et al)

Changing during normal embryological development has been attributed following intestinal abnormality.

Esophageal atresia, anorectal atresia and intestinal duplication are the structural anomalies of embryological developments. There are more other congenital anomalies that arise in fetus in intrauterine life is peritoneal bands, mesenteric cysts, gastrointestinal discontinuation, ano-rectal atresia and intestinal duplication.

Specially, in the case of gastrointestinal tract duplications there is few embryological trails that had studied. Some of them are related to ecological factors, recanalization malformations, split notochords, and incomplete twinning. Each of these concepts suffers from not being able to recognize as a single reason. (Favara, B. E et al, BENTLEY, J. F., & SMITH, J. R. (1960).

Gastrointestinal tract replications are rarely congenital variances of nor well-known causes. Although they can be noticed in any part of the gastrointestinal tract from the upper GIT to lower end of GIT as (anus), they are most often recognized in the small bowel.

Duplication in GIT can be separated into 2 main forms first and common as a cystic, second & infrequently forms as a tubular structure. almost 85% of patients clinically present before the school age. (Fiorani, C et al)

And frequently common clinical manifestations are repeated abdominal pain, nausea, anorexia, vomiting and abdominal palpable Lump. (Puligandla, P. S., et al)

The peri-operative finding of intestinal duplication is hard and imaging investigations will be not enough for exact finding. Obstruction, hemorrhage, perforation, torsion, intussusception and malignancy can be seen in adults with duplicated intestine. (Holcomb, G. W., et al)

Our case meant to assess the clinical manifestation of duplicated intestine and the treatment of duplicated intestine with the literature. (9)



Figure. Which we took during operation from duplicated ileum( Nangarhar Regional hospital, Jalalabad Afghanistan, 2021)

## MATERIALS AND METHODS

Our case presentation was as follow!

One twelve years old boy single teenage was come to Nangarhar regional hospital General surgery department with chief complaints of abdominal pain, nausea, anorexia, vomiting, since few days & lost weight and become severely ill however, he got some medical therapy from local clinic and doctors but he admitted with the clinical manifestation of peritonitis with us. His past history was unknow with such disease. He suffers from abdominal pain for few days. He had experienced such episodes of abdominal pain for about last 6 months, has come to hospital for several times but unfortunately his problems treated medically. He also experienced weight loss during these 6 months and he got deferent medical treatments. His pain was located in the peri-umbilical region and lower abdominal quadrants. A several month ago, He had a history of melena. The patient's abdominal examination was unremarkable except mild mid abdominal distention and severe tenderness in the lower quadrants of the abdomen. Lab investigation shows leukocytosis 13000/mm<sup>3</sup>, 36% hematocrit, platelets 400000 and C Reactive Protein was 2 milligram per liter, and biochemical results were unchanged. Abdominal erect position X-ray showed a few intestinal free fluid levels. Ultrasound shows free fluid in abdominal cavity.

The patient was admitted to hospital in acute abdomen. After inquires we diagnosis the patient as a peritonitis with unknown origin, after laparotomy we find some intestinal contents that the peritoneal cavity was contaminated with ilial contents and fibrin clots (peritonitis).

## DISCUSSION

Fitz (Fiorani, C., et al)define duplicated intestine for the first time. In 1937, Ladd define duplicated intestine as the existence of a mature structure like intestine and as same as from the external to internal bowel wall. Its incidence described as one in every 10,000 live births (Ildstad, S. T., et al). intestinal duplication often occurs in the small and are bowel most

common in terminal part of small intestine. (Fiorani, C., et al, Puligandla, P. S., et al)

In our case, the duplication was seemed in the terminal part of small intestine about 60cm long tubular like structure during laparotomy. However, the tubular type occurred rarely. (Okur, M. H., et al, Spătaru, R. I., et al).

<sup>(10, 11)</sup> Round or cystic duplicated anomalies are frequently occurred than tubular structure . (Li, et al) he have further described the duplicated intestine as following types

(1) type I

(2) type II.

His classifies the duplicated intestine to its blood supply to its next intestine. (Fiorani, C., et al)

Type one intestinal duplications can be derived from any layer of four layer of intestine tract such as submucosa, inter- muscular, or sub serosal layer of the intestinal wall which shows its attachment, continuity, and detachment of the duplicated part to the adjacent part of the intestine. ( BENTLEY, J. F., et al) For example, duplications origins from the sub serosa may detach from the intestinal wall and lie next to the point of its origin.

Type II is intramesenteric small intestinal duplications, which we have seen in our case too. This type of duplications may attach its wall or open its lumen with the adjacent intestinal require a resection with its adjacent part of intestinal tract and anastomosis because of its blood supply and proximity with the adjacent part of intestinal tract. Cystic type of duplication frequently identified incidentally on an ante-natal or peri-natal sonography. (Bremer, J.L. (1952) according to the Srivastava et al research study it may appear as a gradually growing mass in abdomen in childs in the first 10 years of age. (Simsek, A., et al)

Unlike Mackle's diverticulum, they are located within the mesentery. Primary manifestations are in adults is a infrequent incidence. When presenting after the 20years of age, the clinical feature differs from abdominal pain, abdominal mass, fresh lower GIT bleeding which is common feature in melena which is more common in upper GIT, small Intestinal obstruction, intussusception, Torsion, and rarely malignancy in the duplicated cyst. (Macpherson R. I. (1993). )

In the 1984, there was a case of 21 years-old French man that was suffering from abdominal pain with recurrent GIT bleeding for 4 years. But after laparotomy it reveals peritonitis and on T99 scan it shows ectopic gastric mucosal ulcer and at terminal ileum on histopathology examination it reveals duplicated cyst of intestine. (Ben Amar, et al)

Approximately 80% of patients shows the symptoms before 2 years of age, the some of them remain symptomless and undiagnosed until the patient reach at their adolescent age.( Babür T. (2014). )

In my case it was a 12 years old boy who was misdiagnosed despite a repeated examinations such as physical, imaging until we had done laparotomy and then we find tubular duplication even in second time laparotomy.

Incidence of GIT duplications reported to be one in 4500. { Babür T. (2014)}.

Feature of GIT duplications are inconstant. The usual clinical features are abdominal pain, vomiting, distention, palpable lump, Peritonitis & bleeding. (Holcomb, G. W., Ildstad, S. T., Okur, M. H., et al).

Diagnosis of GIT duplications, especially of the small intestine is difficult but endoscopic examination of the small intestine even it is

challenging. Barium X-ray, Sonographic examination & CT Scan may play a diagnostic role. Duplications can be role out from other abdominal cystic mass by containing normal GIT mucosa, nonetheless one third of duplicated intestine my has ectopic stomach mucosa. (Peksoy, I., et al) though Ectopic stomach mucosal epithelium may cause peptic ulceration, hemorrhage, perforation and fistula formation. <sup>99m</sup>Tc is taken by and it can show intestinal duplications containing ectopic gastric mucosa depending on the width of the mucosa. Babür T. (2014).

In our patient the pathologic evaluation of the specimen shows ectopic stomach mucosa, with past history of black stool.

In our patient Duplicated intestine was not malignant , however malignancy in adults are rare.( WRENN E. L., Jr (1962). Jung, K. H., et al)

In spite of advances Evaluation, the exact diagnosis of the case may be made after surgery. intestinal duplications can cause volvulus, intussusception, hemorrhage and perforation. Hypertrophic ileal duplication, lymphoma, gastrointestinal stromal tumor and Crohn's disease should be considered as part of differential diagnosis of ileum duplications.

The best surgical method is complete resection of the duplicated part of intestine and repair by end-to-end anastomosis or in the case of peritonitis ileostomy done and after returning the patient to stability (hemodynamically) then anastomosis done.

If patient is symptomless non-surgically supervised. But in our case there was contaminated of peritoneal cavity we resected the whole duplicated segment of the intestine and followed by ileostomy.

In Our case insomuch the patient duplication was perforated and the patient was in Toxic condition we prefer to done the ileostomy and resection the duplicated part of intestine because the duplication was within the ileal mesenteric border. After the one month we repair the ileum but the patient went to severe malnutrition due to the lack of nutrient absorption because the large part of ileum was resected after repair the patient getting well day by day and improve his health.

Laparoscopic intervention, especially in the case of large lesions, may be safely performed with good prognosis. ( Rees, C. M., et al, )

Advancements in Trans-anal endoscopic microsurgery is the also good method for small to moderate sized intestinal duplications.( Rees, C. M., et al, Ben-Ishay, O, et al)

(21, 22)

## CONCLUSION

We believe that we always remember the duplication of intestinal tract for unexplained and unremarkable Diagnostic finding.

Because of the very bad prognosis and complications from the intestinal duplication like obstruction, hemorrhage, volvulus, and peritonitis.

We are lack of facility and the economic statues of the peoples are not well-known during laparotomy we must keep in to investigate for the duplication of intestinal tract.

If someone has unexplained abdominal pain, intestinal duplication should be supervised and role-out for intestinal duplication, once it has known duplication of intestine it may resect to prevent the transformation to malignancy.

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## МИНЕРАЛ ЎҒИТЛАРНИ ОЛМАНИ ЎРТА БЎЙЛИ ПАЙВАНДТАГЛАРИДА ЎСТИРИЛГАН ИНТЕНСИВ БОҒЛАР ҲОСИЛДОРЛИГИГА ТАЪСИРИ

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### АННОТАЦИЯ

Мақолада паст бўйли ММ106 пайвандтагида ўстирилган олма навларининг ўсиши, ривожланиши ва ҳосилдорлигига минерал ўғитларни таъсири ўрганилган ҳамда илмий асосланган маълумотлар келтирилган.

Олмани ўрта бўйли ММ106 пайвандтагида ўстирилган интенсив олма боғларни ҳар хил меъёردа озиклантириш олма боғлар ҳосилдорлигига юқори даражада таъсир кўрсатади. Бунда энг юқори ҳосилдорлик олманинг Голден Делишес навида 25,9 т/га ва Фуджи навида 26,9 т/га Гренни Смит навида 26,4 т/га ва Пинк Леди навида эса 27,5 т/га минерал ўғитлар  $N_{160} P_{120} K_{40}$  ҳисобидан берилган тажриба вариантыда аниқланди.

**Калит сўзлар:** Боғ, ўғит, пайвандтаг, навлар, олма, кўчат, дарахт, экиш схемасм, новда, куртак, гул, мева, ҳосил.

### ABSTRACT

The article examines the effect of mineral fertilizers on the growth, development and yield of apple varieties grown on low MM106 grafts and provides scientifically based information.

Intensive feeding of apple orchards grown on the medium-sized MM106 graft at different rates has a high effect on the productivity of apple orchards. In this case, the highest yield was given by Golden Delishes variety 25,9 t/ha and Fuji variety 26,9 t/ha, Granny Smith variety 26,4 t/ha and Pink Lady variety 27,5 t/ha due to mineral fertilizers  $N_{160} P_{120} K_{40}$  was determined in the experimental version.

**Keywords:** garden, fertilizer, stock, varieties, apple tree, seedlings, tree, planting pattern, shoot, buds, flowers, fruit, harvest.

## КИРИШ

Дунё бўйича олма етиштиришда етакчилик қилаётган мамлакатларда супер пакана, пакана ва ўрта бўйли олма боғларида пайвандтаг турларидан ташқари боғ шароитида дарахларни жойлаштириш схемалари ва уларга шакл беришнинг такомиллаштирилган усуллари ишлаб чиқилган. Қўлланилаётган ушбу замонавий технологиялар экстенсив олма боғларига нисбатан қарийб 7-8 баробар кўпроқ ҳосил олиш имконини бермоқда. Ўзбекистон Республикасининг 2022-2026 йилларга мўлжалланган янги Ўзбекистоннинг тараққиёт стратегиясида «Қишлоқ хўжалигини илмий асосда интенсив ривожлантириш орқали деҳқон ва фермерлар даромадини камида 2 баравар ошириш, қишлоқ хўжалигини йиллик ўсишини камида 5 фоизга етказиш» муҳим стратегик вазифалар сифатида белгилаб берилган.

## АДАБИЁТЛАР ТАҲЛИЛИ ВА МЕТОДОЛОГИЯ

М.П. Тарасенко [150; 9–15-б.] ва бошқа кўплаб олимларнинг маълумотлари билан ҳам тасдиқланади, унинг махсус тажрибаларида XVI пайвандтаг типидида ўсув даври она кўчатзорда жуда кеч бошланган бўлсада, боғ шароитларида унга пайванд қилинган навларда ўсув даврининг эрта бошланиши қайд этилган.

Якубов М.М., Назарова Д.Қ. ва бошқалар [103; 35–38-б.] томонидан мевали олма ўсимлигида қуйидаги фенофазалар ўрганилган: куртакларнинг бўртиши: барг куртакларининг бўртиши, гул куртакларининг бўртиши (вегетациянинг бошланиши); гуллашнинг бошланиши, ялпи гуллаш ва гуллашнинг тугаши; новдалар ўсишининг тугаши (вегетациянинг тугаши). Тадқиқотда куртакларнинг ёзила бошлаши ва меваларнинг пишиш муддати кун ора, гуллаш муддати – ҳар куни, новдаларнинг ўсиш муддатларининг тугаши, хазонрезгиликнинг бошланиши ва тугаши ҳар беш кунда бир марта ўрганилган. Бунинг натижасида иқлим шароитларининг фенофазаларга таъсири, ўсув даврининг бошланиши, вегетациянинг давомийлигига кўра, турли ҳудудларга олма навлари тавсия қилинган.

В.И.Сенин [90; 11–13-б.] суғориладиган боғдорчилик институтида 20 йилдан ортиқ М-VII пайвандтагига пайванд қилинган ҳар хил олма навларининг ўсиши, ривожланиши ва маҳсулдорлигини М-VIII ва М-IX пакана пайвандтаглари ҳамда ўртача ўсувчи М-II, М-IV пайвандтагларига пайванд қилинган айнан шу навларнинг ҳолати билан таққослаб ўрганган.

Тадқиқотни олиб бориш шароити ва услуби.



Тажрибалар “Мевачилик ва узумчилик” кафедрасида ишлаб чиқилган услуб бўйича олиб борилди. Дала тажрибалари Тошкент давлат аграр университетнинг илмий тадқиқот ва ўқув-тажриба хўжалик станциясидаги ҳосилли олма боғида ўтказилди. Биометрик ўлчовлар ва ҳисоблар: ҳар бир вариантда 10 та ўсимликда олиб борилди. Тажриба тўрт қайтариқда ўрганилди.

Тажрибалар Х.Ч.Буриев ва бошқаларнинг «Мевали ва резавор мевали ўсимликлар билан тажрибалар ўтказишда ҳисоблар ва фенологик кузатувлар методикаси» (2014), В.Ф.Моисейченконинг «Методика учетов и наблюдений в опытах с плодовыми и ягодными культурами» (1967) номли услубий адабиётларида келтирилган тавсияларга мувофиқ ва Тажриба маълумотларига статистик ишлов бериш Б.А.Доспехов (1985) услуби бўйича дисперсион таҳлилдан ўтказилди.

## НАТИЖАЛАР

Олмани ўрта бўйли ММ106 пайвандтагида ўстирилган интенсив боғлар ҳосилдорлигига минерал ўғитлар меъёрининг таъсири ўрганиш бўйича олиб борилган тадқиқотларимизда шу нарса маълум бўлдики 4x3 м схемада экилган 6 ёшли дарахтларнинг бир тупидан олинган ҳосил ўғитланмаган назорат вариантыдаги кузги Голден Делишес навида 25 кг, қишки Фуджи навида 26,1 кг, Гренни Смит навида 24,9 кг, Пинк Леди навида эса 26,4 кг мева олинди (1-жадвалга қаранг).

1-жадвал

Олмани ММ106 пайвандтагида ўстирилган интенсив боғлар ҳосилдорлигига минерал ўғитлар меъёрининг таъсири, 2020-2022 йиллар.  
(4x3 м схемада экилган 6 ёшли боғ)

Т/р	Вариантлар	Тупдаги ҳосил, кг	Ҳосилдорлик, т/га	Назоратга нисбатан, %
Голден Делишес нави				
1.	Ўғитланмаган – назорат	25,0	20,8	100
2.	N <sub>60</sub> P <sub>30</sub> K <sub>15</sub>	26,5	22,0	105,7
3.	N <sub>120</sub> P <sub>90</sub> K <sub>30</sub>	28,2	23,4	112,5
4.	N <sub>160</sub> P <sub>120</sub> K <sub>40</sub>	31,1	25,9	124,5
5.	N <sub>200</sub> P <sub>150</sub> K <sub>50</sub>	29,8	24,9	119,7
Фуджи нави				
1.	Ўғитланмаган – назорат	26,1	21,7	100

2.	$N_{60} P_{30} K_{15}$	27,2	22,6	104,1
3.	$N_{120} P_{90} K_{30}$	29,8	24,8	114,2
4.	$N_{160} P_{120} K_{40}$	32,3	26,9	123,9
5.	$N_{200} P_{150} K_{50}$	30,1	25,0	115,2
Гренни Смит нави				
1.	Ўғитланмаган – назорат	24,9	20,7	100
2.	$N_{60} P_{30} K_{15}$	26,1	21,7	104,8
3.	$N_{120} P_{90} K_{30}$	28,3	23,5	113,5
4.	$N_{160} P_{120} K_{40}$	31,8	26,4	127,5
5.	$N_{200} P_{150} K_{50}$	30,3	25,2	121,7
Пинк Леди нави				
1.	Ўғитланмаган – назорат	26,4	21,9	100
2.	$N_{60} P_{30} K_{15}$	27,8	23,1	105,4
3.	$N_{120} P_{90} K_{30}$	26,5	25,0	114,1
4.	$N_{160} P_{120} K_{40}$	33,1	27,5	125,5
5.	$N_{200} P_{150} K_{50}$	30,7	25,5	116,4

## МУҲОКАМА

Интенсив типдаги олма боғлар ҳосилдорлигига минерал ўғитларнинг таъсири гектар ҳисобидан олинган натижаларда янада яққол ўз ифодасини кўрсатди. Бинобарин, олманинг Голден Делишес навида энг юқори ҳосилдорлик – 25,9 т/га ёки назоратга нисбатан қўшимча 24,5% ҳосил минерал ўғитлар  $N_{160} P_{120} K_{40}$  ҳисобидан берилган тажриба вариантыда аниқланди. Энг кам ҳосилдорлик ўғитланмаган назорат вариантыда бўлиб – 20,8 т/га ни ташкил этди.

Олманинг қишки навларида эса энг юқори ҳосилдорлик Фуджи навида 26,9 т/га, Гренни Смит навида 26,4 т/га, Пинк Леди навида эса 27,5 т/га бўлганлиги кузатилди бу эса назоратга нисбатан 23-27 % гача юқори ҳосил олинганлигидан далолат беради.

Минерал ўғитлар  $N_{160} P_{120} K_{40}$  ва  $N_{200} P_{150} K_{50}$  ҳисобидан берилганда ҳосилдорлик юқоридаги вариантлар ўртасида оралиқ ифодага эга бўлди назоратга нисбатан қўшимча ҳосил 5-7 т/га ни ташкил этди.

Замонавий интенсив типдаги мевали боғлар анча маҳсулдор ва уларнинг илдиз системаси юза жойлашган. Шу боис улар тупроқни юза қисмидаги унумдорлигига анча талабчан. Бу боғларда, табиийки, минерал ўғитларнинг меъёри оддий боғларга нисбатан анча юқори бўлади ва боғ ҳосилдорлигига узвий боғлиқ ҳисобланади. Барча ҳолатларда азот ўғити 2–4 бўлиниб берилади – апрель ва июль ёки март, май ва июль ойларида йиллик меъёри тенг бўлган ҳолда. Фосфор ва калий

ўғитлари 50% кузда (шудгорга) ва қолган 50% июль ойида. Бу, ўз навбатида, мева куртакларини сифатли шаклланишига имкон беради ва дарахтларни қишга тўлиқ ва яхши тайёрланишига ёрдам беради.

## ХУЛОСА

Олмани ўрта бўйли ММ106 пайвандтагида ўстирилган интенсив олма боғларни ҳар хил меъёردа озиклантириш олма боғлар ҳосилдорлигига юқори даражада таъсир кўрсатади. Бунда энг юқори ҳосилдорлик олманинг Голден Делишес навида 25,9 т/га ва Фуджи навида 26,9 т/га Гренни Смит навида 26,4 т/га ва Пинк Леди навида эса 27,5 т/га минерал ўғитлар N160 P120 K40 ҳисобидан берилган тажриба вариантыда аниқланди.

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## ANATOMIC VARIATION OF THE RENAL BLOOD SUPPLY (MAIN RENAL ARTERY AND ACCESSORY RENAL ARTERY) AND ITS EFFECT ON HUMAN HEALTH

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### ABSTRACT

Information of the vascular anatomy of the kidney is important not only for Anatomist, Surgeons and medical doctors (cause of HTN) nonetheless also specifically to the surgeons to prevent surgical accidental injuries during partial nephrectomy, kidney transplantation, interventional radiological procedures, kidney surgeries and donor nephrectomies, urological and renal vascular operations more carefully and professionally. Specifically, an Inferior accessory renal artery located on the right side. This anatomical variation is the least common of all identified Reno vascular variants and has little previous documentation in existing literature. During the kidney surgery in the Nangarhar Regional hospital Jalalabad in the department of General surgery. We detected a variation in the vascular supply to the kidney on the right side of (18-20) years male Patients. We detected accessory renal artery to supply inferior segment of the right kidney and directly coming from abdominal aorta. Our current research was done in Nangarhar Reginal Hospital General Surgery Department from 2020-Jan to 2020-July.

### INTRODUCTION

The kidneys are paired retroperitoneal organs that receive 20-25% of cardiac output and function in the filtration of blood and maintenance of fluid homeostasis. In the majority of the population, each kidney is perfused by a single renal artery that branches from the abdominal aorta at the level of the L1-2 vertebrae just a little under the origin of superior mesenteric artery. And enters the renal hilum. The left renal artery is usually little higher than right one, it passes posterior to left renal vein and then enters left kidney. Near the hilus of renal artery divides in to anterior and posterior partitions which intern divides in to different segmental arteries and supplies the respective segments of the kidney being they the end arteries [Saluja, S., Kumar, D., & Kalita, B. (2016)].

So, the presence of a single hilar renal artery has been shown to vary deeply in different studies, with prevalence ranging from 63-97%. In the remainder of these cases, the blood supply to the kidney includes accessory or aberrant renal arteries. Accessory renal arteries are auxiliary to the main renal artery and generally travel together with the renal artery through the hilus into the kidney. Alternatively, accessory renal arteries are the single source of kidney perfusion and typically branch directly from the abdominal aorta, entering the kidney outside of the hilum [Gray, H., Standring, S].

## CASE REPORT

Amongst 60 Patients who admitted to Nangarhar Regional Hospital for kidney Stone Open Surgery, we observed 2 cases of the aberrant renal artery during the dissections of kidney from other adjacent structures, the patients were young (18-22years old), The flank pain was most often practiced during the later hours of the day, especially after ingestion of large quantities of fluid. They had been treated at OPDs in the past for urinary tract infection with right flank pain and weakness. Physical examination revealed blood pressure of 110/80 mmHg and the presence of costovertebral-angle tenderness. Urinalysis were within normal limits (WBC 0-1/HPF, RBC 0-1/HPF). Biochemical analysis revealed BUN level of 11.0 mg/dl and serum creatinine level of 0.8 mg/dl. Kidney ultra-sonogram showed a marked dilatation of the right pelvicalyceal system and right proximal ureter. Nevertheless, the left kidney showed normal appearance.

Excretory-urogram exposed a marked right hydronephrosis with dilated calyces due to ureteropelvic junction obstruction (Figure 1).



**Figure.1**

Excretory urogram after 35 mins. shows massive dilatation of the right pelvo-calyceal system with cortical thinning and smooth obstruction of the right ureteropelvic junction.

(Nangarhar Regional hospital Jalalabad Afghanistan, 2021)

The patient endured surgical exploration via an anterior approach which exposed a slightly ptotic, mobile, right kidney which was normal in size, with a marked hydronephrotic pelvis accessory renal artery and vein crossing the ureteropelvic junction, going on to the inferior pole and squeezing the ureteropelvic junction against the inferior pole of the kidney. The inferior segment was dissected carefully and taken photographs. Figure. 2



**Fig. 2:**

Inferior segmental artery, Ureter retracted by suction tube and inferior pole of the right kidney compress with the Gauze swab  
(Nangarhar Regional hospital Jalalabad Afghanistan, 2021)

## RESULTS

### Left kidney:

Length- 9cm, width at upper part- 5cm, width at lower part- 3.5 cm, thickness- 2.8cm.

### Main renal artery:

Originated from aorta just under the level of right kidney artery and it run towards the left kidney. It has separated in to superior and inferior branches 4cm from aorta 3cm from hilus.

Superior division has given branch to superior Segment and constant as artery for middle segment and supplies to it by dividing in to two lobar arteries 8mm from hilus.

Lower division run obliquely downwards and towards the inferior pole and supplied to the inferior segment by dividing in to second lobar arteries 15mm from the hilum.

Each renal artery gives off the following branches:

1. Inferior suprarenal, which ascends to the suprarenal body.
2. Capsular or peri-renal branches to the capsule of the kidney and peri-renal fat.
3. Ureteral branch to the upper end of the ureter.

### Right kidney:

Length- 8.4cm, width at upper part-7.5cm, width at lower part- 3cm, thickness- 3 cm.

Right renal artery arises from aorta directly above the level of left renal artery, it has given lower anterior and upper posterior divisions 5cm from aorta. Lower Anterior branch run obliquely downwards and towards the hilus and 15mm from hilum divided in to middle and inferior segmental arteries and they have supplied to the respective segments. These arteries for middle and lower segments lie in front of the renal vein.

Upper anterior division arise from renal artery around 5.3cm from aorta, 3.6 cm from hilum and it divides in to apical and superior segmental arteries about 1.5 cm from hilum and supplied corresponding segments.

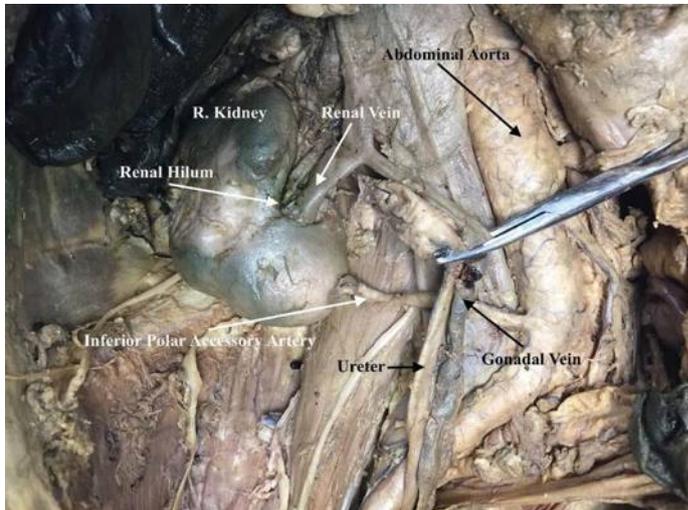
The continuation of right renal artery runs vertically down downwards along the hilum as posterior segmental artery and giving many lobar arteries along its course to the posterior segment.

Types of anomalies of the renal artery include:

Superior polar artery arising from the main renal artery.

1. Inferior polar and Superior polar artery from the aorta.
2. Inferior polar artery from the main renal artery.
3. Inferior polar arising from the common and internal iliac arteries. Furthermore, may ascend from the middle sacral or even inferior mesenteric arteries.

**Accessory renal artery:** It ascended from aorta just below and behind the main kidney artery and course to the right kidney just under and the main kidney artery near the kidney it has crossed the right ureter (just beneath the Pelvio-ureteric junction). It has given branch to the lower segment as Inferior renal polar artery about 3.1cm from the aorta and for supplying the lower segment and it is present in between pelvis of ureter lower part of the kidney. Figure : 3



**Fig. 3.**

An image of the unilateral lower polar aberrant renal artery recognized in an 82-year-old female cadaver. The accessory renal artery branches of the abdominal aorta at the L4 spinal level just prior to the aortic divergence, and runs posterior to both the ureter and gonadal vein as it enters the inferior pole of the right kidney. Furthermore, the segmental branches of the primary kidney artery enter the kidney hilus Patel, K., Gandhi, S., & Modi, P. (2016)..

## DISCUSSION

The kidney ascends and reaches the iliac fossa after crossing the pelvic edge, here it gets blood supply from common iliac arteries. Finally, it appears on the under surface of diaphragm where its ascent is arrested by adrenal gland which has in the meantime developed in this region. Here kidney receives the blood supply from lowest adrenal artery and this branch persist after birth as permanent renal artery. Aberrant renal artery is remnant of degenerated mesonephric artery [Datta AK (2013)].

Accessory renal arteries with an aortic derivation are frequent vascular variations, representing the persistence of the embryonic vessels, the lateral branches of the mesonephros, within the kidney ascent [Larsen's human embryology,1996] Fig: 2.

We discover the aberrant renal artery originated from the aorta just lower the origin of main renal artery.

Bremer states that the anomalies of the renal artery depend on vessels present in the embryo before the aorta and its larger branches develop mesodermal coats. There are no "late branches." certain anomalies are due to the persistence of the early kidney blood supply most frequently seen with pelvic kidneys, that is the renal artery as a branch of the iliac, inferior mesenteric or middle sacral.

Familiarity to the existence of aberrant renal arteries is important because they may be Accidentally damaged during renal surgery and their presence must be considered in evaluating a donor kidney for renal transplantation. Persistence of certain of the cephalic mesonephros vessels, however, may result in the arterial abnormalities [Cerny JC, Karsch D 1973].

Simple division and ligation of accessory vessels causing hydronephrosis has cured the condition in the majority of cases reported. The Mayo Clinic in 1909 reported twenty-seven cases of surgically treated hydronephrosis. 20 of these were associated with aberrant blood vessels. In order to prove the causative

relationship, in 13 out of 20 cases the vessels were merely severed and ligated and a cure of the condition obtained. In 1922 Kummer collected fifty-six cases in which an operation (ligation) upon the aberrant obstructing arteries had cured the condition. In the author's case division and ligation of the accessory inferior polar artery causing hydronephrosis gave complete relief from symptoms (intermittent pain).

Quinby cautions against division of the larger accessory arteries to the kidney pointing out the danger of degeneration of that part of the kidney supplied by it, since there are no arterial anastomoses. Belt and Joelson have demonstrated by experimentation in dogs the degenerative process and scar formation in the kidney parenchyma happening to blockage of the blood supply. Kummer (cited by Belt) did not observe any evidence of necrosis of the kidney following the vascular section in fifty-six reported cases.

Different origins of the renal arteries and its frequent variations are explained in various literatures owing to the development of mesonephric arteries. These mesonephric arteries extend from C6 to L3 during the development. Most cranial vessels disappear while the caudal arteries form a network, the rete arteriosum urogenital that supplies in future the metanephros. The metanephros in future develops into adult kidney deriving its blood supply from the lowest adrenal artery which gives out a permanent renal artery. Persistent roots of the network form these segmental arteries of the adult kidney having variations at their point of origin. The kidney grafts with multiple arteries resulted in post-transplant morbidity and graft loss following the ligation of the polar arteries. The transplantation of the kidney with the single renal artery is technically easier compared to the kidney with multiple arteries [Patel, K., Gandhi, S., & Modi, P. (2016)].

We suggested that the accessory renal artery ligation or damage during surgery will cause Segmental necrosis and Ischemia to supplied segment of kidney. Therefore during surgery of the kidney we must be careful for the variation of accessory renal artery from the different part of the other arteries.

The terminology of the variations of the renal arteries is still not clear as different authors described them as additional, accessory, hilar, inferior and superior polar arteries. We named our renal arteries as aberrant renal arteries [Shashikala, P, et all (2012)].

In research done by Bordei et al. found 54 double renal arteries mainly originating from the aorta in 272 kidneys (20%); six of them were bilateral (2,2%) and other was Unilateral [Shashikala, P, et all (2012)].

In last years, interest in the surgical and medical aspects of accessory renal arteries has been high because during renal surgical procedures, besides bleeding and loss of renal parenchyma, arterial lacerations may induce segmental ischemia followed by hypertension. The presence of accessory renal arteries increases the complexity of kidney transplantation; kidneys with accessory arterial supply being involved in a higher percentage of transplant failures than kidneys showing no variation [Shashikala, P, et all (2012)].

In study done by Satyapal et al. showed double renal arteries in 31.3% of the African population in their study, 30.9% of the white people, 18.5% of the half-case people and 13.5% of the Indian people [Bordei, P., Şapte, E., & Iliescu, D. (2004)]

There were early divisions in 67 (8%) patients, 32% of which occurred on the right side, 25% on the left, and 22% on the both sides [Satyapal, K. S, et all, (2001)].



We Detected 2 cases of aberrant renal artery in 60 patients suffering for renal surgery in Nangarhar regional hospital General surgery ward. Both was young and fit Patients and they suffer from history of intermittent Pain of right flank and also there was stones in the right kidney and with hydronephrosis.

Also reported double renal arteries, first renal artery arise from aorta at the level of L1 vertebra, whereas second renal artery arise from same 5.1 cm under the first one. Both renal artery run laterally and entered the kidney through the hilum with their anterior and posterior divisions. One branch (superior polar artery) of 1st renal artery arise from 0.5 cm away from main origin, course supero-laterally to reach the upper pole of the kidney and supplied it. Anterior division of 1st renal artery divided into four segmental arteries (1 apical, 1 upper, 2 middle) having intra renal course, while second renal artery give second segmental arteries (one middle and one lower). Posterior division of first renal artery gave second (apical) whereas that of second gave six (2 upper, 2 middle, 2 lower) segmental arteries [Özkan, U, et all, (2006)].

Had reported that the accessory right renal artery originated at the level of inferior border of L1 vertebra along with the origin of the normal right renal artery. This aberrant renal artery had a equivalent course with that of the right renal artery lying superior to it. The trunk of the Accessory renal artery entered the kidney from its anterior surface through its capsule giving off branch to the upper pole called superior polar artery. Additionally, this artery gave a posterior branch that was entering the capsule of the right kidney from its posterior surface almost close to its medial border behind the hilus. This Accessory artery gave a branch to the right adrenal gland, the inferior adrenal artery instead of the main renal artery supplying it. We also saw an extra-capsular branch given off by the main right renal artery to the anterior surface in front of the hilus [Shashikala, P, et all, (2012)].

Had reported that an uncommon variation of double left renal arteries one below the other. The upper left renal artery was higher wider than the lower left renal artery. The diameter of the left renal artery was smaller compared to the right renal artery. On the right side, the renal artery and vein were normal [Rao, T. R. (2011)].

Such a morphological appearance is important due to these branches being incorrectly interpreted as being additional arteries in diagnostic imaging studies and determines surgical complications in kidney transplants; since the first 15 mm of the kidney artery can be used for anastomosis with the receiver's iliac artery. It should also be emphasized that early ramification of the main renal artery and the presence of added arteries represent exclusion criteria in laparoscopic kidney surgery [Vishal, K., Vinay, K. V., & Remya, K. (2014), Holden, A, et all (200)].

Conferring to study by Gümü<sup>o</sup> H., et al. Kidney artery originating from the level of L1-L2 intervertebral disc was found in 37.0% and 38.9% of patients on the right and left sides, respectively. Kidney artery dissimilarities, including extra renal artery, were found in 27% and early division in 26.7% of the patients [Arora, A. et all, 2012].

The position of the kidney artery according to origin from abdominal aorta was assessed as origin of right kidney artery above the origin of left kidney artery 30 cases (60%), at the same level 14 cases (28%) and right kidney artery lower to left renal artery 6 cases (12%). So origin of Right kidney Artery is slight higher than Left kidney Artery in maximum cases [Gümü<sup>o</sup>, H et all (2012)].

Also the thought of systemic hypertension due to renal ischemia is well accepted.  
<http://ahajournals.org> by on June 25, 2021

## CONCLUSION

A comprehensive knowledge of the anatomy and variation of the kidney arteries such as its origin, extent, caliber, number, course, branching patterns, structures present at hilus and their relations is very important to Clinical doctors to planning and performing procedure for safe attempt of kidney transplants, vascular reconstructions, while using non-angiographic, noninvasive methods for investigating kidney artery stenosis, the kidneys in trauma management and various surgical and radiological techniques Early division of kidney arteries may establish a danger in nephrectomy and in the partial resection of the kidney. The purpose of present Article is modest effort to bring awareness to the clinical doctors about the variation in the vascular pattern near its origin course and ramification at hilus for the safe and effective surgical procedures without vascular damage.

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## ОЛМАНИ ПАСТ БЎЙЛИ ПАЙВАНДТАГЛАРИДА ЎСТИРИЛГАН ИНТЕНСИВ БОҒЛАР ҲОСИЛДОРЛИГИГА МИНЕРАЛ ЎҒИТЛАРНИНГ ТАЪСИРИ

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### АННОТАЦИЯ

Мақолада паст бўйли М-IX пайвандтагида ўстирилган олма навларининг ўсиши, ривожланиши ва ҳосилдорлигига минерал ўғитларни таъсири ўрганилган ҳамда илмий асосланган маълумотлар келтирилган.

Тадқиқотларда олмани паст бўйли М-IX пайвандтагида ўстирилган интенсив типдаги боғлардан олинган энг юқори ҳосил минерал ўғитлар  $N_{160} P_{120} K_{40}$  ҳисобида берилган вариантда бўлиб Голден Делишес навида 30,4 т/га, Фуджи навида 31,4 т/га, Гренни Смит навида 31,1 т/га ва Пинк Леди навида эса 31,5 т/га мева териб олинди. Бу эса назорат варинтига нисбатан 68-69% га юқори кўрсаткичига эга бўлди.

**Калит сўзлар:** Боғ, ўғит, пайвандтаг, навлар, олма, кўчат, дарахт, экиш схемасм, новда, куртак, гул, мева, ҳосил.

### ABSTRACT

The article examines the effect of mineral fertilizers on the growth, development and yield of apple varieties grown on low M-IX grafts and provides scientifically based information.

In the researches, the highest yield obtained from the intensive type orchards grown on the low M-IX grafting of apples was in the option of mineral fertilizers  $N_{160} P_{120} K_{40}$ : 30,4 t/ha in the Golden Delishes variety, 31,4 t/ha in the Fuji variety, 31,1 t/ha in the Granny Smith variety. t/ha and 31,5 t/ha of fruits were harvested in the Pink Lady variety. This was 68-69% higher than the control variant.

**Keywords:** garden, fertilizer, stock, varieties, apple tree, seedlings, tree, planting pattern, shoot, buds, flowers, fruit, harvest.

## КИРИШ

Сўнги йилларда республикамизда уруғмевалилар, хусусан олма етиштириш ва уни экспорт қилиш ҳажмини ошириш, мақсадида интенсив боғдорчиликни илмий асосда ривожлантиришга алоҳида эътибор қаратилмоқда. Бу борада республикада хориждан келтирилган кучсиз ўсувчи кўчатлар асосида кўплаб интенсив боғлар барпо этилган бўлиб, ушбу боғларда кейинги замонавий агротехник тадбирларни қўллаш, хусусан, уларнинг шох-шаббаларига шакл бериш ва ўстиришнинг энг янги усулларини қўллаш долзарб аҳамият касб этмоқда. Ўзбекистон Республикасининг 2022-2026 йилларга мўлжалланган янги Ўзбекистоннинг тараққиёт стратегиясида «Қишлоқ хўжалигини илмий асосда интенсив ривожлантириш орқали деҳқон ва фермерлар даромадини камида 2 баравар ошириш, қишлоқ хўжалигини йиллик ўсишини камида 5 фоизга етказиш» муҳим стратегик вазифалар сифатида белгилаб берилган.

## АДАБИЁТЛАР ТАҲЛИЛИ ВА МЕТОДОЛОГИЯ

Қатор олимларнинг фикрича [3; 7–8-б.]; [4; 47–48-б.], экиш схемаси, яъни ўсимлик зичлиги мева сифатининг шаклланишида муҳим роль ўйнайди. Олимларнинг фикрича нисбатан сара, бир текис ва тўлиқ ранг олган мевалар экстенсив боғларда эмас, аксинча интенсив боғларда етиштирилади деб таъкидлашган [5; 11–13-б.].

Пакана пайвандтагларда ўстириш ва шох-шаббасига урчуқсимон шакл бериш интенсив олма боғларида дарахтларни гектарига 2 мингдан 5 минг донагача жойлаштириш имконини беради. Бу эса гектаридан катта ёшли боғларда барқарор 30-40 тонна ҳосил олишни таъминлайди [2; 19-б.].

М.М.Якубов, Д.Қ.Назароваларнинг [6; 87–90-б.] Тошкент вилояти шароитларида олиб борган тадқиқотларида Татура усулида шакллантирилган боғларда дарахтларнинг жойлашиш зичлиги ўрганилган. Бунда ўсимликлар зич қилиб ўтказилганда олманинг Розмарин нави 17 йиллик дарахтлари одатдаги масофа билан экилган дарахтларга нисбатан 30% га юқори ҳосил берган.

Тадқиқотни олиб бориш шароити ва услуби. Тажрибалар “Мевачилик ва узумчилик” кафедрасида ишлаб чиқилган услуб бўйича олиб борилди. Дала тажрибалари Тошкент давлат аграр университетнинг илмий тадқиқот ва ўқув-тажриба хўжалик станциясидаги ҳосилли олма боғида ўтказилди. Биометрик ўлчовлар ва ҳисоблар: ҳар бир вариантда 10 та ўсимликда олиб борилди. Тажриба тўрт қайтариқда ўрганилди.

Тажрибалар Х.Ч.Буриев ва бошқаларнинг «Мевали ва

резавор мевали ўсимликлар билан тажрибалар ўтказишда ҳисоблар ва фенологик кузатувлар методикаси» (2014), В.Ф.Моисейченконинг «Методика учетов и наблюдений в опытах с плодовыми и ягодными культурами» (1967) номли услубий адабиётларида келтирилган тавсияларга мувофиқ ва Тажриба маълумотларига статистик ишлов бериш Б.А.Доспехов (1985) услуби бўйича дисперсион таҳлилдан ўтказилди.

## НАТИЖАЛАР

Интенсив олма боғлардаги дарахтларга ҳар хил миқдордаги минерал ўғитлар беришда туп дарахтдан олинадиган ҳосил ва умумий ҳосилдорликнинг тажриба вариантлари бўйича ўзаро фарқланишига олиб келди. Минерал ўғитларни боғни суғоришдан олдин чуқур қилиб берган яхши самара беради, кузда ҳайдовдан олдин берилади. Бунда ўғитни сочиб берадиган РУ-4–10 агрегатидан фойдаланса бўлади. ПРВН–2,5 машинасига ўрнатилган ПРВН–17 агрегати ўғитни 20–22 см чуқурликка беради. Минерал ўғитлар меъёри интенсив олма боғлар ҳосилдорлигига, хусусан бир тупдан олинадиган ўртача ҳосилдорликка сезиларли таъсир кўрсатди. Олиб борилган илмий-тадқиқот натижаларининг кўрсатишича, олманинг кузги Голден Делишес навида бир туп дарахтдаги ҳосил ўғитланмаган вариантда 12,5 кг ни ташкил этган бўлса, энг юқори кўрсаткич минерал ўғитлар  $N_{160} P_{120} K_{40}$  ҳисобида берилган вариантда бўлиб 21,3 кг ҳамда минерал ўғитлар  $N_{200} P_{150} K_{50}$  ҳисобидан берилган вариантда эса 21,2 кг ҳосил олинди.

1-жадвал

Олмани М-IX пайвандтагида ўстирилган интенсив боғлар ҳосилдорлигига минерал ўғитлар меъерининг таъсири, 2020-2022 йиллар.  
(3,5x2 м схемада экилган 6 ёшли боғ)

Т/р	Вариантлар	Тупдаги ҳосил, кг	Ҳосилдорлик, т/га	Назоратга нисбатан, %
<b>Голден Делишес нави</b>				
1.	Ўғитланмаган – назорат	12,5	17,8	100
2.	$N_{60} P_{30} K_{15}$	14,8	21,1	118,5
3.	$N_{120} P_{90} K_{30}$	17,5	24,9	139,8
4.	$N_{160} P_{120} K_{40}$	21,3	30,4	170,7

5.	$N_{200} P_{150} K_{50}$	21,2	30,2	169,6
<b>Фуджи нави</b>				
1.	Ўғитланмаган – назорат	13	18,5	100
2.	$N_{60} P_{30} K_{15}$	15	21,4	115,6
3.	$N_{120} P_{90} K_{30}$	18	25,7	138,9
4.	$N_{160} P_{120} K_{40}$	22	31,4	169,7
5.	$N_{200} P_{150} K_{50}$	22	31,4	169,7
<b>Гренни Смит</b>				
1.	Ўғитланмаган – назорат	12,9	18,4	100
2.	$N_{60} P_{30} K_{15}$	15,1	21,5	116,8
3.	$N_{120} P_{90} K_{30}$	17,8	25,4	138,0
4.	$N_{160} P_{120} K_{40}$	21,8	31,1	169,0
5.	$N_{200} P_{150} K_{50}$	21,5	30,7	166,8
<b>Пинк Леди</b>				
1.	Ўғитланмаган – назорат	13,1	18,7	100
2.	$N_{60} P_{30} K_{15}$	16,2	23,1	123,5
3.	$N_{120} P_{90} K_{30}$	18,1	25,8	137,9
4.	$N_{160} P_{120} K_{40}$	22,1	31,5	168,4
5.	$N_{200} P_{150} K_{50}$	22,0	31,4	167,9

Минерал ўғитлар билан озиклантирилган вариантлар ичида бир дарахтдан олинган энг кам ҳосил – 14,8 кг минерал ўғитлар  $N_{60} P_{30} K_{15}$  ҳисобидан берилганда тажриба вариантыда аниқланди.

Бир гектар майдондан олинган ҳосилдорлик бўйича энг юқори кўрсаткич минерал ўғитлар  $N_{160} P_{120} K_{40}$  ҳисобидан берилган вариантда бўлиб 30,4 т/га ни ташкил этди. Энг кам ҳосил ўғитланмаган вариантда кузатилган бўлиб 17,8 т/га атрофида бўлди. Бундан кўришиб турибдики бир дарахтдан ва майдон бирлигидан олинган ҳосил боғларда ўсимликларни минерал ўғитлар билан озиклантиришга боғлиқ бўларкан. Олма дарахти дастлабки йилларида азот ва фосфорга бўлган талаби катта бўлади. Мева бериш даври бошлангандан кейин калийга бўлган талаб ортади, шунинг учун боғлардан юқори ва сифатли ҳосил олиш учун минерал ва органик ўғитларни қўллаш яхши самара беради.

Тажрибадаги олманинг қишки навларини ўғитламаган вариантларда бир тупдан олинган энг кам ҳосил Фуджи навида 13 кг, Гренни Смит навида 12,9 кг ва Пинк Леди

навида эса 13,1 кг ни ташкил этди. Бир дарахтдан олинган энг юқори ҳосил минерал ўғитлар  $N_{160} P_{120} K_{40}$  ҳисобида берилган вариантда бўлиб Фуджи навида 22,0 кг, Гренни Смит навида 21,8 кг ва Пинк Леди навида эса 22,1 кг мева териб олинди. Бу эса назорат вариантыга нисбатан 68-69% га юқори кўрсаткичига эга бўлди.

Шу навларни ҳосилдорлиги бир гектар майдон бирлигида ҳисобланганда эса энг кам ҳосилдорлик ўғитланмаган тажриба вариантыдан олинган бўлиб Фуджи навида 18,5 т/га, Гренни Смит навида 18,4 т/га ва Пинк Леди навида эса 18,7 т/га ни ташкил этди.

Тажрибадаги олмани қишки навларидан олинган энг юқори ҳосилдорлик кўрсаткичи минерал ўғитлар  $N_{160} P_{120} K_{40}$  ҳисобида берилган вариантда кузатилган бўлиб Фуджи навида 31,4 т/га, Гренни Смит навида 31,1 т/га ва Пинк Леди навида эса 31,5 т/га мева териб олинган бўлиб назорат вариантыга нисбатан 13 т/га кўпроқ ҳосил демакдир.

Минерал ўғитлар билан озиклантирилган вариантларни ичида энг кам ҳосил  $N_{60} P_{30} K_{15}$  ҳисобида берилган вариантда бўлиб Фуджи навида 21,4 т/га, Гренни Смит навида 21,5 т/га ва Пинк Леди навида эса 23,1 т/га мева олинган (5.24-жадвалга қаранг).

## МУҲОКАМА

Замонавий интенсиф типдаги мевали боғлар анча маҳсулдор ва уларнинг илдиз системаси юза жойлашган. Шу боис улар тупроқни юза қисмидаги унумдорлигига анча талабчан. Бу боғларда, табиийки, минерал ўғитларнинг меъёри оддий боғларга нисбатан анча юқори бўлади ва боғ ҳосилдорлигига узвий боғлиқ ҳисобланади. Барча ҳолатларда азот ўғити 2–4 бўлиниб берилади – апрель ва июль ёки март, май ва июль ойларида йиллик меъёри тенг бўлган ҳолда. Фосфор ва калий ўғитлари 50% кузда (шудгорга) ва қолган 50% июль ойида. Бу, ўз навбатида, мева куртакларини сифатли шаклланишига имкон беради ва дарахтларни қишга тўлиқ ва яхши тайёрланишига ёрдам беради.

## ХУЛОСА

Олмани паст бўйли М-IX пайвандтагида ўстирилган интенсиф боғларнинг бир гектар майдондан олинган энг юқори ҳосил минерал ўғитлар  $N_{160} P_{120} K_{40}$  ҳисобида берилган вариантда бўлиб Голден Делишес навида 30,4 т/га, Фуджи навида 31,4 т/га, Гренни Смит навида 31,1 т/га ва Пинк Леди навида эса 31,5 т/га мева териб олинди. Бу эса назорат вариантыга нисбатан 68-69% га юқори кўрсаткичига эга бўлди.



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## O'ZBEKISTON HARBIY XIZMATCHILARINING IKKINCHI JAHON URUSHIDA G'ALABAGA QO'SHGAN HISSASI

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### ANNOTATSIYA

Ushbu maqolada O'zbekiston fashizm ustidan g'alaba qozonish uchun juda katta hissa qo'shganligi, Respublika o'sha paytlar frontga qurol-yaroq va oziq-ovqat mahsulotlarini yetkazib berish bilan birga millionlab ko'chirilgan insonlar uchun umumiy maskanga aylanganligi haqida fikrlar keltirilgan.

**Kalit so'zlar:** Ikkinchi jahon urush, fashizm, front orti, ruslar flangi, maxsus xizmat.

### ABSTRACT

This article states that Uzbekistan made a great contribution to the victory over fascism, that the Republic at that time, along with supplying weapons and food to the front, became a common place for millions of displaced people.

**Keywords:** The Second World War, fascism, behind the front, Russian flank, special service.

### KIRISH

Ikkinchi jahon urushi XX asrning eng katta fojiasi va insoniyat tarixidagi eng yirik urush edi. U Yevropa, Osiyo va Afrikada tarqaldi, Shimoliy muz, Atlantika, Tinch va Hind okeanlarida, ularga tutash dengizlarda harbiy harakatlar olib borildi. Urushda 61ta davlat qatnashgan. Unga 1 milliard 700 million odam, ya'ni dunyo aholisining to'rt dan uch qismi jalb qilingan edi. 10 million kishi armiyaga safarbar qilindi, bu Birinchi jahon urushidagiga qaraganda 1,5 baravar ko'pdir. Taxminiy hisob-kitoblar shuni ko'rsatadiki, faqat jang maydonida nemis fashistlari tomonidan otib o'ldirilganlarni o'zi 50 milliondan ortiq odamni tashkil etadi - Birinchi jahon urushidagidan 5 baravar ko'p. Vayronagarchilikdan ko'rilgan zarar va urushga sarflangan mablag'lar 4 trillion dollarni tashkil etdi[1].

### ADABIYOTLAR TAHLILI VA METODOLOGIYA

Bu urushda nemis fashizmi va yapon militarizmining dahshatli kuchlari ustidan qozonilgan g'alabani insoniyat ulkan qurbonlar va mashaqqatlar evaziga qo'lga kiritdi. Urush tugaganiga o'nlab yillar o'tgan bo'lsada, uning tarixi va voqealari odamlar e'tiborini hali-hanuz



tortmoqda. Ikkinchi jahon urushining sabablari, xarakteri, saboqlari, geosiyosiy oqibatlari haqida bugungi kunda qizg'in bahs-munozaralar avj olmoqda.

XX asrning eng katta falokatining tarixiy ildizlarini, dunyo xalqlarining fashizmga qarshi harbiy qarshilikda ishtirok etish sabablarini tushunishga qiziqishning ortishi tasodifiy emas. Bunga quyidagi holatlar sabab bo'ladi.

Bu urush jahon hamjamiyati xalqlarini zamonaviy geosiyosiy voqelikni saqlab qolish uchun umumiy kurashda birlashtirishning noyob tajribasini namoyish etdi, Hozirgi yangi global mojaro sharoitida o'tmish tajribasiga murojaat qilish keyingi xavfqa qarshi global kurashda birlashtiruvchi sa'y-harakatlarni chuqurlashtirishga, kelishmovchiliklarni bartaraf etishga va zamon talablariga munosib javob topishga yordam beradi.

So'ngi o'n yilliklarda ko'plab mamlakatlarda, hattoki antigitler koalitsiyasida qatnashganlar, aholining ba'zi siyosiy jamoasi va guruhlar ham, ayniqsa, fojiali urush yillari haqida aniq tasavvurga ega emas yoshlar tarkibi fashizmni qayta tiklashga, natsizm falsafasini va Gitler tizimini oqlashga harakat qilishyapti.

Bu holat SSSR parchalangandan keyin sovet tizimi merosini yengib o'tishda fashistik harakatlarni faollashtirish uchun postsovet davlatlarida kuzatilyapti, buning oqibatida Ikkinchi jahon urushida o'zini yaqqol namoyon qilgan noxush fashizm ko'rinishini ilmiy aniq ochib berish ehtiyoji paydo bo'lyapti.

Ikkinchi jahon urushining siyosiy, mafkuraviy, ijtimoiy-iqtisodiy va ma'naviy kelib chiqishini aniq tushunish jarayonlarining dinamikasini ilmiy jihatdan to'g'ri aniqlash, urush davri voqealarining murakkab o'zaro bog'liqligini chuqur anglash, shuningdek, qahramonona va fojiali urush yillarining obyektiv manzarasi chizish imkonini beradi.

Sobiq Ittifoq xalqlarining, shu jumladan O'zbekistonning Ikkinchi jahon urushidagi ishtiroki tarixini haqqoniy yoritish uchun keskin harbiy qarama-qarshiliklarning paydo bo'lish genetikasini har tomonlama o'rganish prinsipial ahamiyatga ega.

Stalingrad jangi Ikkinchi jahon urushi, urushining hal qiluvchi janglaridan biridir.

20 avgustda nemislar Stalingrad yaqinidagi Donni kesib o'tib, shimoldan shaharni chetlab o'tib, Volgaga o'tishdi. Stalingrad doimiy ravishda bombardimon qilinardi. Shahar yonayotgan edi. 1942- yil 25- avgustda Stalingradda harbiy holat e'lon qilindi. Ertasi kuni, 26- avgust kuni o'sha kunlarda G'arbiy frontda bo'lgan G.K.Jukov Oliy qo'mondonning birinchi o'rinbosari etib tayinlandi.

Ilgari bunday lavozim mavjud emas edi. Nemislarning Stalingrad hududida bo'lishiga Stalinning noto'g'ri qarorlari oqibati ekanligini Stalinning o'zi anglab yetarmidi yoki yo'q – buni aytish qiyin.



Jukov Oliy bosh Qo'mondonlikka Stavkaga kelganida, Stalinning so'zlari uni hayratda qoldirdi: "Balki nemislar Stalingradni egallab olishar". Shundan so'ng Stalin Jukovni u erga yuborishga qaror qildi.

Gitler maxsus kuchlarni Kavkazdan Stalingradga o'tkazib, yaqin kunlarda shaharni batamom egallab olmoqchi edi

General Paulus esa bu rejani amalga oshirishga to'g'ri kelmasligini ta'kidlab, shaharni egallashga urinmasdan, uni artilleriya va samolyotlar yordamida harbiy sanoat markazi sifatida yo'q qilishni talab qildi.

Aks holda, ruslar flaglarni ishga solib, butun maxsus guruhni o'rab olishlari mumkinligi haqida 6-armiya qo'mondoni ogohlantirdi. Gitler generalning ishonsiz takliflarini takabburlik bilan rad etdi.

12 sentabr kuni nemislar shahardan 10km uzoqlikda edilar va 13-sanada Stalingradda janglar boshlandi.

Shahar mudofaasini 62-(qo'mondon-general V.I.Chuykov) va 64- (qo'mondon-general M.S.Sumilov) qo'shinlari bo'linmalari amalga oshirdi.

Nemis-fashist qo'shinlari shaharni bosib olish uchun to'rt marta urinishdi. 62-armiya qo'mondonligiga tayinlangan general Chuykov yaqinda Xitoydan qaytib kelgan edi, u yerda Chuykov harbiy maslahatchi bo'lgan edi. U to'xtovsiz janglar davom etayotgan shahar haqidagi ilk taassurotlarini shunday ta'riflagan edi: "Tajribasiz odamga yonayotgan shaharda yashashga joy qolmagandek, u yerda hamma narsa vayron bo'lib, yonib ketgandek tuyulardi. Lekin men narigi qirg'oqda jang davom etayotganligini, shiddatli kurash ketayotganligini bilardim"[3].

15 sentabrga o'tar kechasi himoyachilarning ahvoli shu qadar yomonlashdiki, yangi madad kuchlarini, yangi general A.K.Rodimsevning bo'linmasini kechuvdan so'ng darhol jangga kiritishga majbur bo'ldi. 16-sentabr kuni Bosh shtab Stalinga Berlindan radioxabar olinganligi to'g'risida habar berdi: "Stalingrad jasur nemis qo'shinlari tomonidan bosib olindi. Rossiya shimoliy va janubiy qismlarga bo'lindi, ular tez orada o'lim talvasasiga tushishadi". Oliy qo'mondon Stalingrad fronti shtabidan so'radi: "Stalingradda nima bo'layotganini menga ochiq ayting. Stalingradni nemislar olgani rostmi? Haqiqatni boricha ayting. Menga darhol javob berib".

Ular nima deb javob berishlari mumkin edi? General Yeryomenko Volganing o'ng qirg'og'iga o'tishdan qo'rqdi. Daryo unga to'kilib ketgan mazutdan alanganardi. 50 kilometrgacha cho'zilgan yog'ochli shahardan deyarli hech hima qolmagandi, uning qariyb janubiy qismini nemislar egallab bo'lgandi.

General Chuykovning 62-armiyasi shimoldagi ishchilar posyolkalariga tirmashar edilar, Mamayev Kurganndan boshlangan bizning mudofaamiz esa nemislar tomonidan egallab olingan edi.

Jang shtabdan 800 metr uzoqliqda borayotgan edi, qo‘shinlar bilan aloqa yo‘q edi. Jukov bir qancha kontr zarbalar uyushtirdi, u nemis flanglariga zahiradagi diviziyalar bilan qayta-qayta hujum qildi. General Rodimsevning 13-gvardiya diviziyasi Mamayev qo‘rg‘onini qaytarib oldi.

Ikki tomon ham dahshatli yo‘qotishlarga uchrab borardi, lekin sovet jangchilari shaharning qolgan qismini saqlab qoldilar

Shu kabi urushni hali hech kim ko‘rmagan edi. Stalingrad jangida tirik qolganlar shunday fikrda edilar – Volga bo‘yi janglaridagidek xavf-xatarga biz hech boshqa janglarda duch kelmagan edik. Biznikilar birinchi va ikkinchi qavatda! Yer to‘la va tepada – nemislar. “Yegulikni yetkazib berish” har safar jangovar operatsiyaga aylanar edi, buning uchun vzvodni ognemyot (o‘tsochar) bilan, ba’zida esa tanklar ham yuborilar edi.

Bu jangda hamma narsa aniq jangchi, kichik komandir bilan hal bo‘lar edi. Nihoyat ular o‘zlarini butunlay ozod his qila boshladilar Ularning ustida og‘ir ezuvchi tizim yo‘q edi. Maxsus xizmat xodimlari front orti Volga ortida bo‘lib qoldilar, ya’ni stalingradliklar uchun, ularning o‘zlarinig so‘zlari bilan aytganda, “ular uchun yer yo‘q edi”. Inson qaddini ko‘tardi. Bunday insonlarni fashistlar yenga olmasdilar. Qamalda (qurshovda) o‘tirgan jangchi, vzvod, batalyon “partiya va hukumatning qarorlariga” bo‘ysunmay qo‘ydilar. Ularni qo‘rquv, Volga emas, balki fashistga nafrat to‘xtatib turardi. Asirlikka olingan bir nemis ofitserining kundaligida shahar himoyachilarining misli ko‘rilmagan qahramonliklari haqida o‘qish mumkin. 1 sentabr: nahotki ruslar haqiqatdan ham Volga qirg‘oqlarida kurashmoqchi bo‘lsalar? Bu aqlga sig‘maydiku... 2-sentabr: aql bovar qilmaydigan qaysarlik. 13-sentabr yovvoyi hayvonlar... 16 -sentabr; ... bular odam emas, balki shaytonlar... 27-oktabr: bizning dushmanlarimiz odam emas, balki qandaydir temir mavjudotlar. Ular hech qachon charchamaydilar va o‘tdan qo‘rqmaydilar 28-oktabr: har bir soldat o‘zini o‘limga mahkumman deb hisoblaydi.

Noyabr boshida Gitler o‘z nutqida quyidagilarni aytgan edi: “Men Volgaga belgilangan joyda, belgilangan shahar yonida chiqmoqchi edim. Bu shahar Stalin nomi bilan atalar ekan. Men bu shaharni zabt etmoqchi edim. Hech qanday mubolag‘asiz, men sizga shuni aytishim mumkinki, biz uni egallab oldik. Faqat bir kichik qismigina hali bizning qo‘limizda emas”. Biroq Gitler adashgan edi: shahar dushmanga qarshi bardosh bera oldi.

Gitlerning o‘zining halokatga olib keluvchi xatolari haqida gapirish mumkin, uning generallarini tanqid qilish mumkin, lekin shuni inkor qilib bo‘lmaydiki, hal qiluvchi daqiqalarda sovet jangchilarining o‘zini qurbon qilishlari tufayli shahar dushman qo‘lida qolmadi. Stalingrad mudofaasida, Chuykov so‘zlari bo‘yicha, jangchi va komandirlar “aql bovar qilmaydigan vazifalarni bajarishgan”.

Stalingrad vayronalarida kurashayotgan jangchi va komandirlar, yillar o‘tib, quyidagilarni eslashardi: o‘sha og‘ir kunlarda ularning xatti-harakatida, ongida aniq bir burilish ro‘y bergan; qonli jangda (to‘polonda) aniq buyruqlarni kutib o‘tirishga to‘g‘ri kelmagan, bu ishni ular tavakkal qilib, butun mas‘uliyatni o‘z bo‘yniga olib harakat qilishgan, ularning yagona maqsadi – chekinmaslik, shaharni saqlab qolish edi. Vaziyatni tushungan holda ba‘zi komandirlar shturm guruhlarini tuzib, ularga mustaqil harakat qilishga imkon berar edilar.

Harbiy harakatlardagi burilish nuqtasi urush davrida totalitar ongga xos bo‘lgan chigallik, bo‘ysunish, tashabbussizlikdan xalos bo‘lgan ko‘plab jangchilar va Sovet armiyasi qo‘mondonlarining ongida burilish sodir bo‘ldi.

1942-yil 19-noyabrda “Volga qal’asi” hududida Qizil Armiyaning qarshi hujumi boshlandi. Hujumning beshinchi kunida Janubi-g‘arbiy va Stalingrad frontining oldingi qismlari birlashdilar. 250ming kishilik nemis qo‘shinlari qurshovda qoldi.

Nemis qo‘shinlari qurshovni buzib o‘tishga harakat qilganlari sari ular atrofidagi halqa kun sayin siqilib borardi. Janubi-g‘arbiy va Stalingrad frontlarining muvaffaqiyatli harakatlari natijasida 8-Italiya armiyasi, 3-va 4-Ruminiya armiyasining asosiy kuchlari tor-mor qilingan edi. Shimoliy Kavkazda joylashgan front ortidagi nemis-fashist qo‘shinlariga, Rostovga hujum qilish uchun sharoitlar yaratilar edi. Janubiy yo‘nalishdagi butun vaziyat ham o‘zgargan edi.

1943-yil 10-yanvarda K.K.Rokossovskiy qo‘mondonligi ostida Sovet qo‘shinlari Stalingrad yaqinida o‘rab olingan dushman guruhini yo‘q qilishni boshladi. Nemis bo‘linmalari ruhiy tushkunlikka tushgan edi, ammo hamon yetarlicha kuchli edi. Sovet qo‘mondonligi qurshab olingan bo‘linmalarga ultimatum qo‘ydi, ultimatum dastlab ular tomonidan qabul qilinmagan edi. Ammo tez orada Paulus o‘z ahvolining umidsizligini to‘liq angladi.

2-fevralda Stalingradda 6-armiyaning qolgan qismi ham taslim bo‘ldi. Volgadagi buyuk jang yakun topdi. 200 kun davomida dushman Volga va Don oralig‘ida 1,5mln.ga yaqin jangchilarini yo‘qotdi. U katta miqdorda harbiy texnikasidan ayrildi. Sovet armiyasi strategik tashabbusni mahkam qo‘lga oldi.

Volga qal’asi mamlakat xalqlari qahramonligining timsoliga, ularning mard o‘g‘lonlarining mislsiz jasorati timsoliga aylandi.

O‘zbek xalqining o‘g‘lonlari Volga va Don bo‘ylaridagi janglarda manfur dushman bilan olib borilgan muqaddas janglar yilnomasiga yorqin sahifalar yozdilar. G‘arbiy frontda jang qilgan o‘zbek askarlari o‘zbek xalqining Murojaatiga quyidagicha javob yozishgandi: Muqaddas kurashimiz tobora ko‘proq botirlarni dunyoga keltirmoqda. G‘arbiy frontda jang qilayotgan jasur, mard, botir o‘zbek jangchilari – qahramonlar nomini ona O‘zbekiston bilsin.

Qo‘rqmas Axat Bobomurodov zirhlangan nemis mashinasi oldida o‘zini yo‘qotib qo‘ymadi. U o‘zining quroli bilan bir jangning o‘zida to‘rtta dushman tankini yakson qildi. Boboqul Abzalovning sevimli ayoli quvonishga loyiq. Abzalovayolining nasihatini (ko‘rsatmasini) mag‘rurlik bilan bajaryapti. Urushning birinchi kunlaridayoq Boboqul 51 fashistni o‘lirdi. Frontda Qo‘ziboyev, Toshpo‘tov, Abdurasulov va boshqa o‘zbek jangchilarining nomlari ulug‘lanadi.

Tunu-kun o‘zbek snayperlari razil nemislarni yakson qiladilar. Mamadali Madaminov 84 nemisni, Toshpo‘latov 91 nemisni, Qosim Saytob 29 nemisni, Ikrom Toshmatov 93 nemisni qirib tashladilar. O‘z qahramonlari bilan o‘zbek xalqi faxrlansin[4].

Yashirib bo‘lmas faxr va iftixor bilan Stalingrad fronti qo‘shinlari qo‘mondoni Yeryomenko o‘zbek jangchilari haqida shunday yozadi: Bir shoir “O‘zbekning yuragi – bu sherning yuragi”, deb yozadi. Axir bu Lenin orden bilan taqdirlangan Xamro Ochilov haqida emasmi? U pulemyotni a‘lo darajada o‘zlashtirib, 1500 nafar dushmanni yer tishlatdi.

300 dan ortiq dushmanni o‘ldirgan mohir minomyotchi Zrendukayev va Raxmatullinlar emasmi? bir qancha nemis tanklarini vayron qilgan, boshidan yaralanganligiga qaramasdan dushman bilan oxirigacha kurashgan qahramon Qurbonov emasmi? boshqa o‘nlab, yuzlab Stalingrad ostonasidagi jangda dovrug‘i ketgan o‘zbek o‘g‘lonlari emasmi?

A‘lo darajadagi jangchi sifatida 62-armiyaning 326-armiya injener batalyoni sapyori serjant Magomet Raymonqulovni ko‘rsatish mumkin.

1942-yil noyabr-dekabr oylarida o‘z hayotini xavf ostiga qo‘yib, qiyinchiliklarni yengib o‘tib, u jangovar vazifalarni bajarishga chorlardi. Serjant Raymonqulov juda topqir jasur edi. U Stalingrad himoyachilariga o‘q-dorilarni yetkazib berar, yaradorlarni qirg‘oqqa olib chiqar edi. Bunday mashaqqatga chidash qiyin, lekin Magomet o‘z harbiy burchini sidqidildan bajarardi.

Shu armiyaning 47-alohida injener rotasidan Bozor Narzaliyev ham o‘z hamyurtidan qolishmasdi. U o‘z qismida mohir minyor sifatida tanilgan edi. B.Narzaliyev dushman qo‘shinlari yo‘llarini minalashtirar edi. Bu minalar yordamida ko‘pgina dushman tirik kuchi va texnikasi nobud bo‘lgan. Stalingraddagi janglardan birida u dushman o‘qlari ostida ikki soat davomida 140 ta minani qo‘yib chiqqan. 1943-yil boshida esa o‘zimizning tanklar va piyodalar o‘tishi uchun yo‘llardagi dushman minalaridan tozalagan. Sharafli 62-armiyaning qism va birlashmalarida, keyinchalik 8-gvardiya armiyasi bo‘lib qoldi, o‘zbek xalqining boshqa o‘g‘lonlari ham qahramonliklari bilan ajralib turadi. Bular – N.A.Sharafutdinov – tibbiy xizmat gvardiya mayyori, kichik leytenant Maqsud Saxobutdinov – 39-o‘qotar diviziyasi rotasi komandirining tarbiyaviy ishlar bo‘yicha

o‘rinbosari, katta leytenant Y.S.Sobitob – 79-o‘q otar diviziyasi rota komandiri, jangchilar – Abdulxamid Xadishev, Axmed Nabiyev, Zafar Mufazalov va boshqalar.

Jangovar qahramonliklarni 64-armiya, keyinchalik 7-gvardiya armiyasi, jangchilari ko‘rsatishgan. Farg‘onalik Turop Nuraliyev katta telefonist (aloqachi) edi. Qahshatqich janglarda Abganerovo stansiyasidan shimolroqda bo‘linmalar bilan aloqa bir necha marotaba uzilib qolardi. Nuraliyevga esa polkning qo‘mondon kuzatuv punktini batalyon va rotalar bilan uzluksiz bog‘lash buyurilgan edi. Nuraliyev butun mahoratini ishga solib, qiyin vazifani amalga oshirdi. Bu bilan u polk komandirining bo‘linmalar bilan bog‘lanib, jangovar harakatlarni boshqarib, dushman hujumini muvaffaqiyatli qaytarishiga katta yordam berdi.

Buxoro viloyati Qorako‘l tumani Yangibozor qishloq sovetidan pulemyotchi Xaitov Vatan uchun janglarda alohida qahramonlik ko‘rsatdi. Uning pulemyoti beshta jangda dushmanning 300dan ortiq askar va ofitserlarini yakson qildi. Kamoljon Turg‘unov esa Pavlov uyi mudofaasida haqiqiy vatan o‘g‘loni ekanligini ko‘rsatdi. Stalingrad janglarida qahramonlarcha Toshkent davlat pedagogika instituti talabasi Yelena Stempovskaya halok bo‘lgan, unga vafotidan so‘ng Qahramon unvoni berilgan.

Volga bo‘yida mardlarcha jang olib borganlar – Kuli Elmurodov, I.Askarov, M.Niyazbekov, K Grigorev, V.Voytov, M.Vaks, A, Bloxin, Fattoh Farmonov. Bu insonlarning har biri bir necha o‘nlab dushmanni va uning texnikasini yakson qilganlar.

Serjant Usmonov o‘lmas (o‘chmas) qahramonlik ko‘rsatdi. U granata yordamida bitta tankni portlatdi, yarador bo‘la turib, yerto‘ladan bir nechta granatalar bilan chiqib, boshqa tank ostiga o‘zini tashlab, uni yo‘q qildi.

Ko‘plab o‘zbekistonlik jangchilar 15-gvardiya o‘q otar diviziyasi tarkibida bo‘lib, jang olib borganlar. Diviziya ikki marotaba Qizil bayroqli diviziya unvoniga ega bo‘lgan.

20-avgustdan 23-avgustgacha dushman katta kuch, yuzlab tanklar bilan aviatsiyaning faol ko‘magida Volga bo‘yidagi diviziya pozitsiyalariga hujum qildi. Dushmanning son jihatdan ustunligiga qaramay, shafqatsiz qonli janglarda fashistlarga katta talofatlar bergan diviziya o‘z jangovar vazifasini sharaf bilan bajardi. Fashistlar qo‘mondonligining Krasnoarmeysk orqali Stalingradga o‘tish rejasini barbod qildi.

Janubdan Stalingrad ostonasini himoya qilishda davom etib, diviziya boshqa bo‘linmalar bilan hamkorlikda dushman kuchlarini zaiflashtirib, holdan toydirardi.

Qat‘iyat va matonat bilan olib borilgan uch oylik mudofaada dushmanga katta talofat yetkazildi: U 7,5 mingdan ortiq askar va ofitserlarni yo‘qotdi, 150 ta tank, 74 avtomashina, 25 ta turli kalibrli qurol, 101 ta pulemyot, 29 ta minomyot, 2ta samolyot va bir qancha boshqa texnika yo‘q qilindi. Alohida o‘rnak ko‘rdatganlar jangovar orden va medallar bilan taqdirlandilar.



Ular orasida quyidagilarni ko'rish mumkin: 11-o'qotar batalyoni tarbiyaviy ishlar bo'yicha rota kosandiri o'rinbosari gvardiya kapitani Nosir Sulaymonov, 5-o'qotar batalyoni rota komandirining tarbiyaviy ishlar bo'yicha o'rinbosari, 44-gvardiya o'qotar polki katta leytenant Xamid Xamidov, 1-o'qotar rota 1-o'qotar batalyon 1- o'qotar polk snayperi G'ulom Murotov va boshqalar.

O'zbek xalqining mard va jasur o'g'il-qizlari Stalingrad uchun jangda 33-gvardiya va 112-o'qotar diviziyasi, 90- va 94- o'qotar brigadalarida va boshqa ko'plab qism va harbiy bo'linmalarda qahramonlarcha jang olib borganlar. "Stalingrad mudofaasi uchun" medali bilan 2733 nafar o'zbek jangchilari taqdirlanganlar.

Volga bo'yidagi g'alaba katta tarixiy hamiyatga egadir. Bu urush keskin burilish davrini boshlab berdi, Germaniyaning harbiy qudratini va harbiy obro'sini pasaytirdi. Bu g'alaba natijasida SSSR va Qurolli Kuchlarining xalqaro obro'si ortdi. Bu Yevropada ozodlik kurashining kuchayishiga va antifashistik koalitsiyaning mustahkamlanishiga yordam berdi. 1943-yil qish va bahorda boshlangan Stalingrad hujumi mart oyining oxirigacha davom etgan umumiy strategik hujumga aylandi. Dushman 600-700 km orqaga uloqtirildi va bo'linmalarni g'arbdan Sovet-Germaniya frontiga o'tkazishga majbur bo'ldi[5].

## XULOSA

Shu o'rinda davlatimiz Prkezidenti Shavkat Mirziyoyev ta'kmidlaganlaridek: "Urushning dastlabki kunlaridanoq O'zbekistonning butun moddiy va ma'naviy kuchlari fashizmga qarshi kurashga safarbar etildi, respublikaning hayoti harbiy izga tushirildi. O'zbekistonning o'sha vaqitdagi yaroqli aholisining 50 foizidan ko'krog'i, ya'ni 1 million 951 ming kishi frotga jo'natildi. Urush yillarida Sovet Ittifoqining g'arbiy hududlaridan minglab aholi, badarg'a qilingan xalqlar O'zbekistonga ko'chirib keltirildi. O'zbek xalqi ularga qo'lidan kelgan g'amxo'rlikni ko'rsatdi"[6].

O'sha olovli yillarda O'zbekistonda yetti yoshdan yetmish yoshgacha butun xalqimiz "hamma narsa-front uchun, hamma narsa-g'alaba uchun deb yashadi, ormo va xalovatidan voz kechib, tinimsiz og'ir mehnat qildi. Respublikamiz frontning mustahkam ta'minot bazasiga aylandi. Yurtimizdan jang maydonlariga 2 mingdan ziyod samolyot, ko'plab quprol-yarog'lar, harbiy-sanitariya poyezdlari, yuzlab dala oshxonalari, plakatlar, ulkan miqdorda oziq-ovqat, kiyim-kechak va boshqa mahsulotlar yetkazib berildi[7]. Fashistlar Germaniyasi tor-mor etildi.

O'zbekistonliklarni urushda ko'rsatgan mardligi va jasorati yuqori baholandi. 200 ming o'zbekistonlik jangchilar, jumladan, 70 ming o'zbek yigit va qizlari orden va medallar bilan mukofatlandi. 301 askar va komandirlar qahramon unvoniga sazovor bo'lishdi, ularni 75 nafari o'zbeklardir. 32 nafar

o‘zbekistonlik jangchi uchala darajadagi “Shuhrat” ordeni bilan msukofatlandi[8].

O‘zbekistondan urushga safarbar etilganlardan 263005 kishi xalook bo‘lgan, 158000 kishi esa bedarak yo‘qolgan, 60452 nafar kishi umrbod nogiron bo‘lib qolgan.

Xulosa o‘rnida ta’kidlash joyizki, Ikkinchi jahon urushi yillarida O‘zbekistonda harbiy-siyosiy tafakkurning rivojlanishi, o‘zbek xalqining buyuk g‘alabaga munosib xissasi, mustaqili izlanuvchilar tomonidan o‘rganishi davom etmoqda.

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# MAXSAM-CHIRCHIQ KORXONASIDAN ATMOSFERA HAMDA SUV INSHOOTLARIGA CHIQUINDI SIFATIDA AJRALIB CHIQUYOTGAN AZOT OKSIDLARI VA NITRATLAR MIQDORI TARKIBI TAHLILI VA SHU HUDUDDAGI AYRIM QISHLOQ XO‘JALIGI EKINLARINI FENOLOGIK KUZATISH

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## ANNOTATSIYA

Atmosferaning kimyoviy, fizik, akustik shovqin, issiqlik, elektromagnit ifloslanishi yirik zavodlar va sanoat rayonlarida yuqori darajaga yetgan. O‘simliklarning sog‘ligiga NO, NO<sub>2</sub> gazlari to‘g‘ridan to‘g‘ri va bilvosita yo‘llar orqali ta‘sir qiladi. NO, NO<sub>2</sub> o‘simliklarning o‘shishiga bevosita zarar yetkazadigan va hosilni kamaytiradigan fitotoksinlardir. Azot dioksidining o‘zi nafas yo‘llarining yallig‘lanishiga va astma kabi salbiy respiratorli kasalliklarga olib keladi. Suvning nitritlar va nitratlar bilan ifloslanishi bilan bog‘liq muammo mahalliy ekologik muammolardan biri hisoblanadi. Ichimlik suvi nitrat va nitritlarning yuqori konsentratsiyasi bo‘lgan oziq ovqat mahsulotlarini iste‘mol qilish saraton qalqonsimon bezning kengayishi va qandli diabet kabi kasalliklarga olib kelishi mumkin.

**Kalit so‘zlar:** NO, NO<sub>2</sub>, REM, kislotali yomg‘ir, smog, nitritlar, nitratlar.

## KIRISH

Hozirgi kunda respublikamizda sanoat ekologiyasi va atrof-muhitni muhofaza qilish hamda atmosfera havosini yaxshilashga doir ishlar olib borilmoqda. Jumladan, O‘zbekiston Respublikasi Prezidenti Shavkat Mirziyoyevning tashabbusi bilan ishlab chiqilgan “2017-2021- yillarda O‘zbekiston Respublikasini rivojlantirishning beshta ustuvor yo‘nalishi bo‘yicha Harakatlar strategiyasi” ayniqsa, ekologiya va atrof-muhitni muhofaza qilish sohasida davlat organlarining faoliyatini yanada rivojlantirish muhim ahamiyatga ega bo‘ldi. Atmosfera havosini muhofaza qilish, zararli gazlar miqdorini kamaytirish va ekologik xavfsizlikni ta‘minlash asosiy vazifalaridan biridir. Yana bir muhim vazifalardan biri bu xorijiy davlatlar bilan ekologik hamkorlikni yo‘lga qo‘yish yoki ekologik muammolarni hal qilish uchun chetdan investitsiyalar olib kirish shuningdek, chet davlatlarda olib borilayotgan ekologik muhofaza qilish bo‘yicha amalga oshirilayotgan choralarni o‘rganib chiqib, o‘zimizda bizga



moslarini tanlab amalga oshirish bugungi kunning talabi hisoblanadi.

Ma'lumki, atmosfera yer sharining havo qobig'i bo'lib, biosferada hayot mavjudligini ta'minlovchi asosiy manbalardan biridir. Atmosfera barcha jonzotlarni zararli kosmik nurlardan himoya qilib turadi, sayyora yuzasidagi issiqlikni saqlaydi. Agar havo qobigi bo'lmaganida yer yuzasida kunduzi harorat +100 C va kechqurun-100 C harorat kuzatilgan bo'lar edi. Atmosferaning yuqori chegarasi taxminan 2000 km balandlikdan o'tadi, atmosfera bir necha qatlamlardan iborat bo'lib. uning asosiy massasi 10-16 km balandlikkacha bo'lgan quyi troposfera qismida joylashgan, ob - havo va iqlim ko'p jihatdan atmosferadagi jarayonlar bilan bog'liq [2].

### ADABIYOTLAR TAHLILI VA METODOLOGIYA

Dunyoda sanoatning jadal rivojlanishi atmosferaga zaharli gazlarning chiqarilishini oshiradi va qishloq xo'jaligi ekinlariga juda katta zarar yetkazadi. Olib borilgan uzoq muddatli monitoring natijalariga ko'ra, atmosferaga chiqayotgan ekologik zararli kimyoviy birikmalar, yonish mahsulotlarining moddalari va elementlari miqdori har 12-14 yilda ikki baravar ko'payadi va shu sababli atmosferaning ifloslanish muammosi global muammolardan biri hisoblanadi. Atmosferaning ifloslanishi deganda uning tarkibi va xossalarining inson salomatligi, hayvonlar, o'simliklar va ekosistemalarga salbiy ta'sir ko'rsatadigan o'zgarishi tushuniladi. Atmosfera tabiiy va sun'iy yo'llar bilan ifloslanadi. Vulqonlar o'tilishi, chang to'zonlar, o'rmon, dashtlardagi yong'inlar, o'simlik changlari, mikroorganizmlar, kosmik chang va boshqalar tabiiy ifloslanish manbalaridir. Sun'iy ifloslanish manbalariga energetika, sanoat korxonalari, transport, maishiy chiqindilar va boshqalar kiradi.

Suvning **nitritlar va nitratlar** bilan ifloslanishi bilan bog'liq muammo mahalliy ekologik muammolardan biri hisoblanadi. Nitrit va nitratlarning o'tkir va surunkali ta'sirini baholash bo'yicha olib borilgan tadqiqotlar shuni ko'rsatdiki, bu birikmalarning suv va oziq ovqatdagi turli konsentratsiyalari ko'plab kasalliklarga sabab bo'ladi. Ichimlik suvi nitrat va nitritlarning yuqori konsentratsiyasi bo'lgan oziq ovqat mahsulotlarini iste'mol qilish saraton qalqonsimon bezning kengayishi va qandli diabet kabi kasalliklarga olib kelishi mumkin. Nitratlar va nitritlarning past konsentratsiyalarining ijobiy ta'siri yurak qon tomir tizimiga himoya ta'sirini, qon bosimini tartibga solish rolini rolini va qon tomirlarining gomeostazini o'z ichiga oladi. Odamlar nitratlar va nitritlar oziq-ovqat, ichimlik suvi havo va tuproq orqali ta'sir qilishi mumkin.

Hozirgi kunda dunyo boylab quydahi hudularda olimlar tomonidan aniqlanishcha, eng toza havo okean suvlari ustidadir.



Qishloqlar ustida havodagi chang zarralari miqdori okean yuzasiga nisbatan 10 barobar, shaharlar ustida havodagi chang 35 barobar, sanoat korxonalarida ustida 150 baravargacha ortiq zararli chang va turli zaharliy gazlarga bo'ladi. Havoning chang bilan ifloslanishi 1,5-2 km balandlikni tashkil etadi; quyosh nurlarini yozda 20% va qishda 50% ni tutib qoladi. Yerdagi hayotning davom etishi, asosan, havoning tozaligiga bog'liq [2].

Atmosferaning kimyoviy, fizik, akustik shovqin, issiqlik, elektromagnit ifloslanishi yirik zavodlar va sanoat rayonlarida yuqori darajaga yetgan. Atmosferaning eng xavfli ifloslanishi radioaktiv ifloslanishdir. Radioaktiv ifloslanishning asosiy manbalari yadro qurolining sinovlari, atom elektrostansiyalaridagi falokatlar hisoblanadi. Radioaktiv ifloslanish rak va boshqa kasalliklarning ortishiga olib keladi. Havoning kuchli ifloslanishi inson sog'lig'iga, barcha jonzotlarga salbiy ta'sir ko'rsatadi. Shaharlar va sanoat rayonlarida kishilar o'rtasida asab, yurak-qon tomir, surunkali bronxit, emfizema, nafas qisishi va o'pka raki kasalliklarining ko'payishi kuzatiladi. Ko'z kasalliklari va bolalar kasalliklarining ortishi qayd qilingan. Shahar havosida sanoat korxonalarida va avtotransport chiqindilarida kanserogen moddalar bo'lib (benz(a)piren, aromatik uglevodorodlar), ularning surunkali ta'siri natijasida rak kasalliklari kelib chiqadi. Avtotransportning chiqindi gazlaridagi qo'rg'oshin birikmalari ham inson sog'lig'i uchun ayniqsa xavfli hisoblanadi [3].

Respublikadagi asosiy sanoat tarmoqlarida zararli birikmalarni ushlab qolish va zararsizlantirish talab darajasida emas. Korxonalarda chang-gaz tozalash qurilmalari bilan ta'minlanganlik 85% ni tashkil qiladi va ularning ishi samaradorligi 70- 86% bo'lib, qurilmalarning 77% eskirgan va yaxshi ishlamaydi. Korxonalar uchun havoni belgilangan miqdordan ortiqcha ifloslagani hollarida to'lov va jarimalar belgilangan. Toshkent, Samarqand, Buxoro, Farg'ona shaharlarida havo ifloslanishining 80% dan ortig'i avtotransport hissasiga to'g'ri keladi. O'zbekistonning boshqa yirik shaharlarida ham havo ifloslanishida transportning hissasi ortib bormoqda. Bunga sabab etil qo'shilgan benzin va tarkibida oltingugurt ko'p bo'lgan dizel yoqilg'isi (solyarka)dan foydalanish hisoblanadi. Davlat sektoridagi avtomobillarning 50% va xususiy sektordagi avtomobillarning 40% dan ortig'i 10 yildan ortiq foydalaniladi va atmosferani kuchli ifloslaydi. Transportda ekologik nazorat talabga to'la javob bermaydi. Gaz yoqilg'isidan foydalanadigan avtomobillar soni 7% dan ortiqni tashkil qiladi. 400 mingdan ortiq qishloq xo'jalik texnikasida, temir yo'l transporti va havo transportida atmosfera ifloslanishi nazorati yo'lga qo'yilmagan. Bir qator zararli birikmalar bo'yicha ko'rsatkichlari REM dan yuqori bo'lgan shaharlarning ba'zilarida fotokimyoviy smog xavfi mavjud. O'zbekiston hududida ham «kislotali yomg'ir»lar kuzatiladi.

Ayrim vaqtlarda Olmaliq-Ohangaron sanoat rayonining ta'sirida Chotqol qo'riqxonasi hududida «kislotali yomg'ir»lar qayd qilinadi [4].

**Azot oksidi( NO<sub>2</sub>)-** azot dioksidi , azot kislotasi va nitrat kislotani o'z ichiga olgan yuqori reaktiv gazlar guruhi. Xususan, azot dioksidi elektr stansiyalari va yoqilg'ilarning yonishi natijasida hosil bo'ladi. Ushbu manbalardan hosil bo'lgan azot oksidlari uchuvchan organik birikmalar, oltingugurt oksidi, ammiak bilan birlashib, yer darajasidagi ozonni yemiradi. Atmosferaning ozon qatlami quyoshning ultrabinafsha nurlarini ushlab qoladigan qalqon hisoblanadi. Afsuski sayyoramizda tabiiy muvozanat buzilishi natijasida ozon qatlamining yemirilishi bilan bog'liq ekologik xavf paydo bo'ldi. Bu esa kelajakda iqlimning bashorat qilib bo'lmaydigan o'zgarishlariga, ya'ni inson organizmi immun tizimining zaiflashishiga, onkologik kasalliklar sonining oshishiga, o'simliklarning sekin o'sishiga olib kelishi mumkin. Azot dioksidining o'zi nafas yo'llarining yallig'lanishiga va astma kabi salbiy respiratorli kasalliklarga olib keladi. NO<sub>2</sub> chiqindilari yo'llardan va sanoat korxonalaridan uzoqda joylashgan oksidlari oilasi ammiak oltingugurt oksidlari va boshqa birikmalar bilan reaksiyaga kirishib hosil bo'lgan moddalar o'pkaning sezgir va chuqur qismlariga osonlik bilan kirib boradi, bu esa amfezim va bronxit kabi nafas yo'llari kasalliklarini keltirib chiqaradi. NO<sub>x</sub> oldindan mavjud bo'lgan yurak xastaligini kuchaytirib erta o'limga olib kelishi mumkin.

Azot oksidi kislotali yomg'irga hissa qo'shadi. Ular suv va havo bilan reaksiyaga kirishganda nitrat kislota (HNO<sub>3</sub>) hosil qiladi. Nitrat kislota esa o'z navbatida yerga tushadi. Natijada o'rmon, qishloq xo'jaligi ekinlariga zarar yetadi.

NO<sub>x</sub> gazlari ta'sirida ifloslanish fotokimyoviy smog'larning shakllanishiga yordam beradi. Smog-havoning kuchli ifloslanishining bir turi. Smoglar nafas olish kasalliklarini keltirib chiqaradi va ko'rishga ta'sir qiladi.

Davlat ekologiya qo'mitasi raisining 2022 yil 6 iyuldagi 253-son buyrug'i bilan tasdiqlangan tekshiruvlar asosida atmosfera havosi ifloslanishi haqida amalga oshirilgan davlat ekologik monitoring natijasida shu narsa ma'lum bo'ldiki, MAXAM Chirchiq korxonasida azot II-oksidi 1,53 va azot IV-oksidi 1,02 me'yordan ortiq holatlar qayd etilgan (1-jadval).

## 1-jadval

Davlat ekologiya qo'mitasi raisining 2022 yil 6 iyuldagi 253-son buyrug'i bilan tasdiqlangan tekshiruvlar asosida atmosfera havosi ifloslanishi haqida amalga oshirilgan davlat ekologik monitoring natijasida atrof muhitni

REM dan ortiq ifloslantirish holatlari haqida

## MA'LUMOT

N	Korxonasi nomi	Me'yordan ortiq holatlar kuzatilgan manbalar soni	Ifloslantiruvchi ingridiyentlar	Me'yordan ortiq holatlar	Qo'shimcha kompensatsiya to'lash uchun hududiy inspeksiyaga o'tkazilgan sana
1.	MAXAM Chirchiq "AJ"	Toshkent viloyati 1	NO	1,53	16.03.2022
2.	MAXAM Chirchiq "AJ"	Toshkent viloyati 1	NO <sub>2</sub>	1,02	16.03.2022

MAXAM Chirchiq "AJ" korxonasidan chiqayotgan zararli azot birikmalari oqava va yer usti suvlarini ifloslantirishi monitoring natijalari shuni ko'rsatdiki, zararli azot birikmalari 1,6-1,95 me'yordan ortiq holatlar qayd etilgan (2-jadval). Bu esa atrof muhitni ifloslanishida asosiy omillardan biri hisoblanadi.

## 2-jadval

Oqava hamda yer usti suvlarini ifloslantirish manbalari monitoringida aniqlangan Atrof tabiiy muhitni REM dan ortiq ifloslantirish holatlari

N	Korxonasi nomi	Me'yorida ortiq holatlar kuzatilgan manbalar soni	Ifloslantiruvchi ingridiyentlar	Me'yorida ortiq holatlar	Qo'shimcha kompensatsiya to'lash uchun hududiy inspeksiyaga o'tkazilgan sana
1.	MAXAM CHIRCHIQ "AJ"	1	Azot nitrit	1,6	16.03.2022
2.	MAXAM CHIRCHIQ "AJ"	1	Azot nitrit	1,95	23.08.2022

Chirchiq shahrida joylashgan Ximprom posyolkasi, Baytqo'rg'on mahallasi va nazorat uchun Bo'stonliq tuman Ozodbosh mahallasida tajriba uchun tayyorlangan yerga pomodor,

Qibray tumani

bulg'or qalampiri, baqlajon urug'lari 07.04.2022 yil sanasida ekildi va feneologik kuzatuv ishlari olib borildi. 17-aprelda pomidor o'simligi unib chiqa boshladi. Baqlajon va bulg'ori o'simliklari esa unib chiqmadi. 25-aprelda baqlajon va bulg'ori o'simliklari unib chiqdi. Unib chiqqan pomidor, baqlajon, bulg'or qalampiri ekinlari ustida fenolokig kuzatish ishlari olib borildi (3-jadval).

3-jadval

## O'simliklarning unuvchanlik darajalari

O'simlik nomi	15.04	16.04	17.04	19.04	22.04	25.04	28.04	5.05	10.05
Pomidor	1	4	7	10	17	80%	85%		
Baqlajon						3	4	50%	60%
Bulg'ori						1	3	40%	50%

Bundan tashqari Chirchiq shahrida joylashgan Ximprom posyolkasi, Qibray tumani Baytqo'rg'on mahallasi va nazorat uchun Bo'stonliq tuman Ozodbosh mahallasida ekilgan ayrim qishloq xo'jalik ekinlarining morfobiologik (barg, ildiz, poya uzunligi, kasallangan qismlari) tuzilishni o'rganidik (3-jadval).

4-jadval

## Ayrim qishloq xo'jaligi ekinlarini (pomidor, bulg'or qalampiri, baqlajon) morfobiologik tuzilishini o'rganish (27.04.22 yil)

O'simlik lar nomi	Barg soni, o'rtacha	Ildiz uzunligi, sm	Poya uzunligi, sm	Kasallangan qismlari
Pomidor	3,9	2,7	2,9	0,0
Bulg'or qalampiri	3,0	1,65	1,85	0,0
Baqlajon	3,2	1,89	1,69	0,0

5-jadval

## Ayrim qishloq xo'jaligi ekinlarini (pomidor, bulg'or qalampiri, baqlajon) morfobiologik tuzilishini o'rganish (28.05.2022 yil)

O'simlik lar nomi	Bo'yi, sm	Ildiz uzunligi, sm	Barg soni, dona	Kasallangan barg soni, dona	Gullar soni, dona
Pomidor	30,3	11,1 sm	98,9	0,7	2,6
Bulg'or qalampiri	17,9	5,54	19,8	1,2	3,9
Baqlajon	20,3	5,55	19,8	1,1	3,8

O'rganilgan pomidor, baqlajon, bulg'or qalampiri ekinlarida kasallanish holatlari kuzatilmadi. Jumladan, 28 may holatiga ko'ra pomidor, baqlajon barcha o'simliklar gulga kirdi.



Pomidorda o'rtacha 0,7 dona, baqlajonda o'rtacha 1,2 dona, bulg'or qalampirida o'rtacha 1,1 dona o'simligi barglarida zararlanish holatlari aniqlandi (4-5-jadvallar).

## XULOSA

Bugungi kunda MAXAM Chirchiq "AJ" korxonasiidan chiqayotgan zararli gazlarni me'yoridan ortiq ekanli monitoring natijalari orqali bilish mumkin. Bu esa korxonada atrofida barcha tirik organizmlarga o'zini salbiy oqibatlarini namoyon etadi. Korxonadan chiqayotgan zararli gaz va chiqindilarni atrof muhitga me'yoridan ortiq chiqmaslikka birgalikda harakat qilishimiz kerak. Shundagina yosh avlod genofondi so'g'lom bo'ladi.

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## INTERPRETATION OF IMAGES AND SYMBOLS IN ENGLISH AND UZBEK NON-REALISTIC WORKS

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### ABSTRACT

This article deals with the nuanced process of interpreting images and symbols in non-realistic works of literature written in English and Uzbek. Non-realistic literature employs various techniques to convey meaning beyond the literal, often relying on symbolism and imagery to evoke emotions, provoke thought, and communicate complex themes. This paper aims to provide a comparative analysis of how images and symbols are employed in these two distinct linguistic and cultural contexts, shedding light on the underlying semiotic structures and cultural influences that shape interpretations.

**Keywords:** non-realistic, literature, images, symbols, interpretation, linguistic, cultural context.

The study begins by establishing a theoretical framework that incorporates key concepts from semiotics, literary theory, and cultural studies. By examining the theoretical underpinnings of symbol interpretation, the study lays the foundation for a comprehensive analysis of non-realistic works in English and Uzbek. Furthermore, the research employs a multi-modal approach, combining close reading techniques with cultural and linguistic analysis. This allows for a holistic examination of the interplay between language, culture, and symbolism within non-realistic literature. By focusing on representative works from both English and Uzbek literary traditions, the study aims to identify commonalities and distinctions in the use and interpretation of images and symbols.

Through this comparative analysis, the research addresses questions regarding the universality of certain symbols, as well as the extent to which cultural and linguistic factors influence their interpretation. Additionally, the study investigates how non-realistic literature may serve as a medium for cross-cultural communication and understanding.

Non-realistic literature often employs vivid imagery and symbolic elements to convey deeper meanings and provoke reader engagement. The interpretation of these elements can be influenced by cultural, linguistic, and contextual factors. This research explores the strategies employed by English and Uzbek authors in using images and symbols, shedding light

on the distinct perspectives these two traditions bring to non-realistic works [1].

**The Role of Images and Symbols in Non-Realistic Literature:** Images and symbols serve as potent tools in conveying abstract ideas and emotions. In non-realistic literature, authors frequently use these elements to create a heightened emotional impact and stimulate critical thinking [2]. The incorporation of images and symbols allows for multiple layers of meaning, enabling readers to engage with the text on various levels.

**Cultural Influences on Image and Symbol Interpretation:** Cultural contexts significantly shape how readers perceive and interpret images and symbols. For instance, in English literature, the use of certain symbols may draw upon a rich tradition of cultural associations, such as the use of the rose as a symbol of love and beauty [3]. In contrast, Uzbek literature may employ symbols with entirely different cultural connotations, reflecting the unique historical and cultural background of the region.

**Linguistic Nuances in Image and Symbol Interpretation:** The linguistic structure of a text can also influence how images and symbols are interpreted. The choice of words, their connotations, and the syntactical arrangement can impact the reader's understanding of the visual elements in the text. This aspect will be explored through linguistic analysis of selected works from both English and Uzbek traditions.

**Cultural Understanding:** English and Uzbek literature represent distinct cultural backgrounds. Analyzing how images and symbols are employed in non-realistic works from both languages can offer valuable insights into the cultural values, beliefs, and traditions of these societies. This can foster cross-cultural understanding and appreciation.

**Literary Analysis:** Non-realistic works often employ symbolism and imagery as key literary devices. Studying how these elements are utilized in English and Uzbek literature can provide a deeper understanding of the artistic choices made by authors. This analysis can shed light on the narrative techniques employed in these works.

**Comparative Literature Studies:** This research topic encourages a comparative approach, which is essential in the field of comparative literature. By juxtaposing English and Uzbek non-realistic works, researchers can identify commonalities, differences, and potentially even shared literary trends or influences.

**Language and Expression:** Understanding how imagery and symbols are used in different linguistic contexts (English and Uzbek) can offer insights into the ways language influences expression. This

research can delve into the nuances of linguistic choices and their impact on conveying meaning and emotion.

**Reader-Text Interaction:** The interpretation of symbols and images in literature is not only a function of the author's intention, but also depends on the reader's perspective and cultural background. This research can explore the dynamic between the text and the reader, shedding light on how meaning is constructed.

**Aesthetic Appreciation:** Non-realistic works often rely heavily on aesthetic elements like metaphor, allegory, and surrealism. By studying how these elements are employed in English and Uzbek literature, scholars can gain a deeper appreciation for the artistic craftsmanship of these works.

**Educational and Pedagogical Value:** This research can have practical applications in education. Understanding how images and symbols function in non-realistic literature can inform teaching methods and materials, helping educators convey complex literary concepts to students more effectively.

**Cultural Exchange and Translation:** For translators working with non-realistic literature, a nuanced understanding of how images and symbols operate is crucial. This research can provide valuable guidance for translators seeking to accurately convey the intended meaning across linguistic and cultural boundaries.

**Contemporary Relevance:** As non-realistic literature continues to be an important genre in both English and Uzbek literary landscapes, understanding how images and symbols function in these works is relevant for contemporary literary criticism and scholarship.

**Contribution to Academic Discourse:** Research on the interpretation of images and symbols in English and Uzbek non-realistic works can contribute to the broader academic discourse in fields such as comparative literature, cultural studies, linguistics, and literary theory.

To provide a comprehensive comparative analysis of non-realistic works from English and Uzbek literature, it is important to select representative works that showcase the use of symbols and imagery in both traditions. Let's consider two exemplary works from each tradition:

**English Literature:**

1. **“The Waste Land” by T.S. Eliot:**

**Symbolism:** Eliot's poem is replete with a wide range of symbols that represent the disillusionment and fragmentation of the modern world. For instance, the wasteland itself stands as a powerful symbol of spiritual desolation.

**Imagery:** The poem utilizes vivid and often disorienting imagery to evoke a sense of the decay and disintegration of society. Examples include the barren landscape, the tarot card imagery, and the various allusions to myth and history.

2. **“One Hundred Years of Solitude” by Gabriel Garcia Marquez (originally written in Spanish but widely translated into English):**

**Symbolism:** Marquez employs magical realism to infuse everyday events with a surreal quality. The Buendía family's house, for instance, symbolizes the cyclical nature of time and the family's entrapment in their own history.

**Imagery:** Marquez's use of vivid and often fantastical imagery creates a dreamlike atmosphere, blurring the lines between reality and fantasy. For example, the scene of Remedios the Beauty ascending to the sky.

#### **Uzbek Literature:**

1. **“Chashma” by Abdulla Qodiriy (originally written in Uzbek):**

**Symbolism:** This novella is rich in symbolic elements that represent the complex interplay between tradition and modernity in Uzbek society. The chashma (spring) itself becomes a symbol of life, renewal, and hope.

**Imagery:** Qodiriy employs vivid descriptions of the natural landscape, particularly the desert and the oasis, to create a sense of place and to underscore the significance of the chashma.

2. **“Boluqba” (brick) by Cho‘lpon (originally written in Uzbek):**

**Symbolism:** Cho‘lpon employs symbolism to explore the tensions between traditional Uzbek values and the encroachment of Russian influence. The boluqba (brick) comes to represent the struggle to preserve cultural identity.

**Imagery:** The story is rich in visual imagery, particularly in its depictions of the Uzbek architecture and landscape. This imagery serves to ground the narrative in a specific cultural and geographical context.

#### **Comparative Analysis:**

**Common Themes:** Both English and Uzbek works explore themes of cultural identity, societal change, and the passage of time. They use symbols to encapsulate these themes.

**Cultural Context:** While the symbols in the English works are often rooted in Western literary and religious traditions, those in the Uzbek works draw heavily from Central Asian cultural and historical contexts.

**Linguistic Differences:** The linguistic devices employed to convey symbolism also differ. English works may rely on metaphors and allusions drawn from a wide range of Western sources, while Uzbek works may use more localized metaphors and allegories.

**Imagery and Atmosphere:** Both traditions use vivid imagery to create a distinct atmosphere. However, the nature of the imagery is influenced by the specific cultural and geographical settings of the works.

**Magical Realism in Uzbek Literature:** Notably, the use of magical realism is more pronounced in the Uzbek works, reflecting a distinct narrative style that blends the mundane with the fantastical.

In summary, this topic is important for its potential to enhance cultural understanding, deepen literary analysis, facilitate comparative studies, and contribute to the broader academic discourse surrounding non-realistic literature in English and Uzbek. Thus, selected non-realistic works from English and Uzbek literature showcase the diverse ways in which authors employ symbols and imagery to convey complex themes. These works reflect the cultural, linguistic, and historical contexts from which they emerge, providing valuable insights into the distinct literary traditions.

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## TALABALARNI VATANPARVARLIK RUHIDA TARBIYALASHNING PEDAGOGIK IMKONIYATLARI

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### ANNOTATSIYA

Maqolada yosh avlodning, jamiyat a'zolarining tarbiyasi bilan yetarlicha shug'ullanish dolzarb muammolardan biri ekanligi haqida so'z boradi. Kelajak avlodning o'sishi va rivojlanishi uchun har qanday jamiyat tomonidan moddiy va ma'naviy boyliklar yaratish masalasi muntazam ravishda yuksalib borishi lozim. Buning uchun yosh avlod moddiy va ma'naviy boyliklar yaratilishini o'z ajdodlari darajasidan ham yaxshiroq o'zlashtirgan bo'lishi lozim. Shuningdek, maqolada Yoshlarni harbiy-vatanparvarlik ruhida tarbiyalash kontseptsiyasining qabul qilingani, armiya va xalq birligini ta'minlash borasida mahalliy davlat hokimiyati organlari bilan hamkorlikdagi ishlarning kuchaytirilgani tahlil qilinadi.

**Kalit so'zlar:** yosh avlod, moddiy, ma'naviy boylik, tarbiyalash, kontseptsiya, harbiy-vatanparvarlik, pedagogik imkoniyat.

### KIRISH

Bugungi kunda O'zbekiston Respublikasi mustaqilligi va hududiy yaxlitligini himoya qilishning eng muhim shartlaridan biri bu yuqori professional, haqiqiy vatanparvar, o'z burchiga sodiq, fidoyi hamda mard o'g'lonlarni tarbiyalash hisoblanadi. Shunday ekan, shaxsning kamol topishi, ma'nan yetuk inson bo'lib tarbiyalanishida uning oila a'zolari, yon atrofidagi do'stlari, xamkasblari, xususan, jamiyatning har bir bo'g'inining o'rni beqiyosdir. Shaxs tarbiyasi har qanday jamiyat va mamlakatning farovon, rivojlangan hamda ijtimoiy himoyalangan bo'lishida, millat sog'lomlashuvi va yuksalishida hal qiluvchi ahamiyat kasb etuvchi muhim omillardan biri sanaladi.

Zero, tarbiya har qanday jamiyat va har qanday mamlakatning hayotini farovon bo'lishi, millat sog'lomlashuvi va yuksalishida hal qiluvchi ahamiyat kasb etuvchi muhim omillardan biridir.

Yosh avlodning umuman, jamiyat a'zolarining tarbiyasi bilan yetarlicha shug'ullanmagan mamlakat parokandalik va inqirozga mahkumdur. Negaki, kelajak avlodning o'sishi va rivojlanishi uchun har qanday jamiyat tomonidan moddiy va ma'naviy boyliklar yaratish masalasi muntazam ravishda yuksalib borishi lozim. Buning uchun yosh



avlod moddiy va ma'naviy boyliklar yaratilishini o'z ajdodlari darajasidan ham yaxshiroq o'zlashtirgan bo'lishi lozim.

Yoshlarda mana shunday moddiy va ma'naviy qobiliyatlarni shakllantira olish uchun esa, jamiyat samarali faoliyat ko'rsatadigan mustaqil tarbiyaviy tizimiga ega bo'lishi lozim.

Mamlakatimiz mustaqillikka erishgach, tarbiya va unga bog'liq jarayonlarga yangicha sog'lom pedagogik tafakkurga tayangan holda yondashuv qaror topa boshladi. Uni targ'ib qilishda ilmiy asoslangan holda chuqur tahlil asosida turli g'ayri yondashuvlardan voz kechildi. Tarbiyaning milliyligi va insoniyligiga alohida e'tibor qaratildi va qaratib kelinmoqda. Buning uchun xalqning ma'naviy boyliklari, jumladan, o'zbek mutafakkirlarining mazkur masala yuzasidan qarashlari sinchkovlik bilan o'rganishni va yosh avlodga keng targ'ib qilishni talab etmoqda. Natijada, O'zbekiston jamiyatida oila tarbiyasining ham, ijtimoiy tarbiyaning ham o'ziga xos o'rni borligi yanada teranroq isbotini topmoqda.

Ayni vaqtda, dunyo jamiyatida shaxsning shakllanishida tarbiyaning ahamiyatiga yetarlicha baho berilmayapti. Bu hol tarbiyaga doir hodisa va holatlarni to'g'ri izohlash, tarbiyaviy tadbirlar tizimini to'g'ri anglash imkoniyatini yaratmayapti.

Xususan, O'zbekiston Respublikasi Prezidenti Shavkat Mirziyoyevning O'qituvchi va murabbiylar kuniga bag'ishlangan tantanali marosimdagi nutqida "Hammamizga ayonki, taraqqiyotning tamal toshi ham, mamlakatni qudratli, millatni buyuk qiladigan kuch ham bu – ilm-fan, ta'lim va tarbiyadir. Ertangi kunimiz, Vatanimizning yorug' istiqboli, birinchi navbatda, ta'lim tizimi va farzandlarimizga berayotgan tarbiyamiz bilan chambarchas bog'liq" [1] ekanligini ta'kidlagan edi.

O'zbekiston Respublikasining birinchi Prezidenti Islom Karimov o'zining "Barkamol avlod orzusi" asarida "Biz komil inson tarbiyasini davlat siyosatining ustuvor sohasi deb e'lon qilganmiz. Komil inson deganda biz, avvalo, ongi yuksak, mustaqil fikrlay oladigan, xulq-atvori bilan o'zgalarga ibrat bo'ladigan bilimli, ma'rifatli kishilarni tushunamiz", va yana "Yuqori malakali, zamonaviy fikrlaydigan odamlarning yetishmasligi bizning olg'a siljishimizda hamon katta to'siq bo'lib turibdi. Bunday kadrlarni, avvalambor, yosh kadrlarni topish, o'stirish, tarbiyalash bugungi kunning eng dolzarb masalasiga aylanmoqda [2]", deb juda o'rinli ta'kidlagan.

## ADABIYOTLAR SHARHI

Aslini olganda, tarbiyaning lug'aviy ma'nosi – shaxsda muayyan jismoniy, ruhiy, axloqiy, ma'naviy sifatlarni



shakllantirishga karatilgan amaliy pedagogik jarayon, insonning jamiyatda yashashi uchun zarur bo'lgan xususiyatlarga ega bo'lishini ta'minlash yo'lida amalga oshiriladigan chora-tadbirlar majmuidir. Tarbiya insonning faqatgina biologik emas ijtimoiy faolligini, munosabatlarini ta'minlaydigan eng qadimiy va abadiy qadriyatdir. Tarbiyasiz alohida odam ham, kishilik jamiyati ham mavjud bo'la olmaydi. Chunki odam va jamiyatning mavjudligini ta'minlaydigan qadriyatlar tarbiya tufayligina bir avloddan boshqasiga o'tadi [3].

Bugun nafaqat bir oila, balki yer sayyorasidagi har bir mamlakatning gullab-yashnashi, unda yashovchi xalqlarning farog'ati ham shak-shubhasiz tarbiya tufaylidir. Dunyoda tarbiya singari insoniyatga ta'sir ko'rsatadigan kuch yo'qdir. Shu sababli, qadimdan mashhur donishmandlar tarbiya to'g'risida qimmatli fikrlarni biz avlodga yozib qoldirganlar. Xususan, ajdodlarimiz asrlar davomida sevib mutolaa qilgan "Pandnoma", "Siyosatnoma", "Qobusnoma", "Qutadg'u-bilig", "Axloqi muhsiniy", "Axloqi jaloliy", "Axloqi nosiriy", "Qonuni hikmat", "Nigoriston", "Bahr al-ulum", "Kachko'li sultoniy", "Jovidoni xirad", "Bistu se hikmat", "Hikoyoti dilpisand", "Odob as-solihin", "Turkiy Guliston - yoxud axloq" singari asarlar shular jumlasidandir. Ushbu nodir asarlarda keltirib o'tilgan barcha ma'lumotlarning negizi odob-axloq hamda mukammal tarbiyaga bog'liq ekanligini ko'rishimiz mumkin. Shu sababli, ma'naviy boyliklarimizdan bo'lgan mazkur asarlarda ilgari surilgan g'oyalar bugungi kunda ham o'z ahamiyatini yo'qotmasdan kelmoqda.

Xitoy donishmandi Syun-Tszi "Chaqaloqlar hamma yerda bir xil yig'laydi. Katta bo'lganlarida esa turli qiliqlar qilishadi. Bu – tarbiyaning oqibati", deb yozgan edi. Olmon faylasufi Immanuil Kant o'z asarida "Inson faqat tarbiya orqali inson bo'ladi, uning qanday shakllanishi tarbiyaning natijasidir" degan fikrni ilgari suradi.

Tarbiya borasida Sa'diy Sheroziy o'z asarlarida shunday misralarni keltiradi:

Minbarning poyida tursa ham eshak,

Tarbiya yuqmaydi, bo'lmaydi odam.

Tarbiya ko'rmayin ulg'aysa kishi.

Eshak bo'lib qolur yuzga kirsam ham [4].

Alixonto'ra Sog'univ tarbiya xususida "Yolg'iz insonga emas, barcha mavjudotlarda ta'lim-tarbiya ta'siri ko'z oldimizda ko'rib, buning natijalari butun dunyoga tarqalib turmoqda. O'qitish-o'rgatish buyon tursin, suhbat o'zi ham, suhbatdoshlarga o't bilan suvdek tez o'tadi. Shuning uchun ham har kimga, suhbat yo'ldoshlariga qarab baho berilishi" degan qarashlarni bildirib, insonning kamolotida tarbiyaning o'rni haqida to'xtalib o'tgan.

Ma'lumki, ulug' mutafakkir ajdodimiz Abu Ali ibn Sino asarlarida ilm va axloq uyg'unligi masalasi alohida o'rin tutadi.

Allomaning “Tadbiri manzil” risolasida tarbiya masalasi ko‘proq tahlil etilgan. Xususan, asarda inson tayyor shaxsiy sifat, odat va ko‘nikmalar bilan tug‘ilmasligi qayd etiladi. Bunday xususiyatlar odamning ijtimoiy hayotida sekin-asta shaxsiy va o‘zgalar tajribasi, avvalgi ajdodlar an‘analari, ta‘lim-tarbiya o‘zgalarning ta‘siri ostida shakllanishi, shuningdek shaxs kamolotida ijobiy fazilat va odatlarni qaror toptirish qanchalik qiyin va mushkul bo‘lsa, salbiy jihat va odatlardan xalos bo‘lish qanchalik murakkabligini ta‘kidlaydi [5].

## MUHOKAMA

O‘zbekiston Respublikasi davlatchiligi tarixida jadidchilar tomonidan jamiyatning har bir bo‘g‘inini har tomonlama zamonaviy yangiliklar, tarbiyaning oilada, jamiyatda va davlatchilikda tutgan o‘rnini mustahkamlashga alohida e‘tibor qaratilgan.

XIX asr oxiri va XX asrning boshlarida Turkistonda chor mustamlakachiligining kuchayishi natijasida Markaziy Osiyoning ko‘p joylarida jadidchilik harakatlarinig ko‘lami ortdi. Ularning asl maqsadlari ijtimoiy, iqtisodiy va madaniy islohotlar yo‘li bilan xalq va jamiyat hayotini yaxshilashga, madaniy yuksaklikka olib chiqishga qaratildi. Bunga erishish uchun esa ta‘lim tarbiyaning o‘rni va ahamiyatiga e‘tiborni kuchaytirdilar.

Xususan, jamiyatni yetuklikka olib chiqishda tarbiyaning o‘rni va ahamiyati nechog‘lik muhim ekanligini barchamizga ayon ekanligi hamda tarbiyaga e‘tiborsizlikning oqibati nimalarga olib kelishini o‘z vaqtida Abdulla Avloniy kuyunib, “Bugungi kunda jamiyatimizning yuzini qora qiluvchi pastkashlar, yomonlar, beboshlar, o‘g‘rilar, giyohvandlar va nashavandlar... kecha tarbiyalariga e‘tibor berilmagan bolalardir [6]”, deb yozib qoldiradi.

Shu bilan birga, ta‘lim-tarbiya har bir jamiyatning kichik bo‘g‘inidan tortib davlat darajasigacha e‘tibor beriladigan soha hisoblanadi. Zero, Abdulla Avloniyning “Tarbiya biz uchun yo hayot - yo mamot, yo najot - yo halokat, yo saodat - yo falokat masalasidir” degan so‘zlarida har bir insonda vatanparvarlik, adolat, millatparvarlik, insonparvarlik, yurtsevarlik, el-yurtini himoya qilish, Vatanga sadoqat va muhabbat kabi xislatlarni o‘zida jamlagan milliy dunyoqarashning asosiy unsurlari o‘z tasdig‘ini topadi.

Adabiyotshunos olim Abdurauf Fitrat “Xalqning harakat qilishi, davlatmand bo‘lishi, baxtli bo‘lib izzat-hurmat topishi, jahongir bo‘lishi, zaif bo‘lib xorlikka tushishi, faqir bo‘lib, baxtsizlik yukini tortib e‘tibordan qolishi, o‘zgalarga tobe va qul, asir bo‘lishi bolalikdan o‘z ota-onalaridan olgan tarbiyalariga bog‘liq. Bolalar axloqiy tarbiyani muhitdan

oladilar, boshqacha qilib aytganda, bolalar suvga o'xshaydi, suv idishning shaklini olganidek, bolalar ham muhitning odob-axloqini qabul qiladilar" [6], deydi. Alloma nazdida insonlar tarbiyasini barvaqt boshlashi to'g'risida "Bola tana bo'g'inlari barqaror bo'lgan, uning tili to'g'ri, ravon gapirish va quloqlari tinglash va o'zgalar so'zlarini qabul qilish hamda o'rganilayotgan narsaga (tabiiy) moyillik paytdan boshlab uni ilmlar va axloq-odob (asoslari)ga o'rgatib borish lozim" ekanligini takidlab o'tadi.

Yuqoridagilardan shu narsa ma'lum bo'lmoqdaki, hamma vaqt tarbiyada butun ish nafaqat ota-onalarga, balki go'zal axloq va ilmiy salohiyatga ega bo'lgan ustoz-muallimlarning sa'y-harakatiga ham bevosita bog'liq. Bunda ishni tashkil qilish shakllarinigina emas, ayni paytda, ishlashni to'g'ri yo'lga qo'yish shartlarini bilish ham muhimdir.

Ma'lumki, tarbiya turli hududlarda turli xil ko'rinishda talqin qilinadi. Insoniyat tarixida, har bir jamiyat shakllanishida ta'lim-tarbiyaning o'rni va ahamiyati, nazariya va ta'limotlari insoniyat rivojlanishida muhim o'rin egallamoqda.

Xususan, Qadimgi Yunonistonda tarbiya pedagogik nazariya, pedagogik falsafaning uzviy qismi sifatida rivojlandi. Shu sababli, mashhur yunon faylasuflari Suqrot, Aflotun, Demokrit, Arastu va boshqa mutafakkirlar ta'limotida ta'lim-tarbiya muhim o'rinni egalladi. Ushbu mutafakkirlar tomonidan Yunonistonda ta'lim va tarbiya nazariyasi ishlab chiqilib, pedagogikaning rivojiga ulkan hissa qo'shildi [7].

Suqrotning falsafiy va pedagogik qarashlarida tarbiyadan kutilgan maqsad - insonning bilimlarni bilib olishga erishish, uni yuksak axloqli qilib kamol toptirishdir. Uning fikricha, mardlik - qo'rquvni daf qilish, donolik - jamiyat qonunlariga rioya qilish, mo'tadillik - o'z hissiyotlariga erk bermaslik, adolat - yaxshilikni amalga oshirish yo'llarini o'rgatishdir.

Aflotun tarbiyani tashkil etish haqidagi fikrlarini "Davlat" va "Qonunlar" asarlarida bayon etadi. Aflotunning fikricha, kattalarning bolalarga ko'rsatgan ta'siri, bolalarda axloqiy sifatlarning tarkib topishida ko'rinadi. Aflotun his-tuyg'uga ta'sir etish kichik yoshdagi bolalarni tarbiyalashning asosi, deb hisoblaydi. Kichik yoshdagi bolalar huzur qilish, zavqlanish, qayg'urish orqali yaxshilik va baxt-saodat tushunchalari haqida tasavvurga ega bo'ladilar. Aflotun "Davlat" asarida bolalarni yoshligidan boshlab ijtimoiy tarbiyalash g'oyasini olg'a surdi va uni tashkil etishning muayyan tizimini taklif etdi.

Arastu o'zining axloqqa oid "Nikomax etikasi", "Endem etikasi" asarlarida tarbiyaning maqsadi tabiat bilan bog'liq bo'lgan insonni tadrijiy rivojlantirishdan iboratligini va buning uchun aql va irodani rivojlantirish muhim ekanligini aytadi. Uning ta'limotiga ko'ra,

bolalarining yosh xususiyatini hisobga olgan holda, jismoniy, axloqiy va aqliy tarbiya uzviy birlikda amalga oshirilishi kerak. Arastu tarbiya muddatini 21 yil, ya'ni bola tug'ilganidan 7 yoshgacha, 7 yoshdan 14 yoshgacha, 14 yoshdan 21 yoshgacha deb belgiladi. U bolaning har bir davrdagi o'ziga xos xususiyatini ko'rsatdi, har bir davrda amalga oshiriladigan tarbiyaning maqsadi, mazmuni va usullarini bayon etdi. Arastu bola tarbiyasi davlat ixtiyorida va barcha fuqarolar uchun bir xilda bo'lishini himoya qiladi. Shunki, davlat tarbiyada o'z oldiga aniq bir maqsadni qo'yadi. Shuning uchun ham, tarbiyaga o'z xohishiga ko'ra o'qitish va tarbiyalashni istagan ota – onalar emas, davlat rahbarlik qilishi kerak. Har bir fuqaro o'z – o'zicha yashamaydi, u barcha fuqarolar kabi, davlatga mansubdir, davlatning uzviy bo'lagidir. Davlat uning haqida g'amxo'rlik qiladi.

Buyuk slovyan pedagogi Yan Amos Komenskiy o'rta asrdagi tarbiyadan farqli o'laroq, tug'ilganidan boshlab bola egallagan qobiliyatini xudoning tuhfasini hisobladi va ayni paytda, bu qobiliyat faqat tarbiya jarayonida rivojlanishini uqtirdi. Komenskiy insonning rivojlanishida tarbiyaning o'rni benihoya ekanligiga ishonadi va tarbiya tufayligina har qanday bolani yuksak axloqli, ma'lumotli qilib yetishtirish mumkin degan fikrni bildirdi hamda bolani yoshlik chog'idan jismonan sog'lom, ma'naviyatli qilib tarbiyalashni talab qildi.

Jan Jak Russoning "Emil yoki tarbiya to'g'risida" nomli romanida ozod, yangi odamni tarbiyalash yo'llari ko'rsatildi. Tabiiy tarbiya – erkin tarbiyadir. Bola o'zining noto'g'ri ishlari natijasini, shu ishlar tufayli paydo bo'ladigan zararli oqibatlarni his qilishi lozim. Russo tarbiyani hayot, tabiat bilan bog'liq holda amalga oshirishni, mehnat tarbiyasiga e'tibor berishni talab etdi [8]. Uning bu g'oyalari pedagogik nazariya va tajribaning rivojiga ijobiy ta'sir ko'rsatdi.

O'zbekiston Respublikasi Prezidenti Shavkat Mirziyoyev yunon faylasufi Aristotelning "Vatan taqdirini yoshlar tarbiyasi hal qiladi", degan so'zlari, qarang, miloddan 350 yil avval aytilgan. Demak, insoniyat ongli hayot kechira boshlagan davrdan buyon ta'lim va tarbiya masalasi, doimo dolzarb ahamiyatga kasb etib kelmoqda [9] deb fikr bildirgan edi.

"Derazani ochsang toza havo bilan birga chang ham kiradi" degan maqoldan kelib chiqib, ommaviy axborot vositalari va internet orqali ham bizning qadriyatlarimizga zid bo'lgan har xil madaniyatlar, axloqsizlik va vahshiylikni targ'ib qiluvchi materiallar kirib kelmoqda (reklamalardagi ommaviy madaniyatga salbiy ta'sir ko'rsatayotgan holatlar).

O'zbekiston Respublikasi Prezidentining 2022 yil 28 yanvardagi "2022 – 2026 yillarga mo'ljallangan Yangi O'zbekistonning taraqqiyot strategiyasi to'g'risida"gi PF-60 sonli

Farmonida belgilangan 100 ta maqsadlarning aksariyatida aholi va avvalo yoshlar tarbiyasiga, xususan 39, 70, 71, 73, 78 va 90 maqsadlarida alohida to'xtalib o'tilgani, tarbiya masalasining davlat va jamiyat rivojlanishida naqadar dolzarb ekanligini ko'rsatmoqda.

Har qanday jarayon muayyan natijaga erishishga qaratilgan qonuniy va izchil harakatlar majmuidan iborat bo'ladi. Tarbiya jarayonining eng asosiy natijasi – har tomonlama uyg'un va kamol topgan, yangi tipdagi shaxsni shakllantirishdir. Bu jarayon ikki tomonlama bo'lib, uyushtirishni va rahbarlikni ham, tarbiyalanuvchi shaxsning o'zi ham faollik ko'rsatishini taqozo qiladi.

Tarbiya jarayonining mohiyatini tarbiyaga kompleks yondashish yo'li bilan eng muvaffaqiyatli tarzda ilmiy tahlil qilish mumkin. O'z tabiatiga ko'ra, tarbiya jarayoni ko'p faktorli xarakterga ega. Buning ma'nosi shuki, bola shaxsining qaror topishi maktab, oila, jamoatchilik, muhit va yaqin atrofdagi vaziyatning xilma-xil, bevosita va bilvosita ta'siri ostida ro'y beradi. Ta'kidlash zarurki, shaxsni odamlar, ashyolar, voqealar, ota-ona va pedagoglar tarbiyalaydi.

Yoshlarni yuqori professional, vatanparvar, fidoyi va mard qilib tarbiyalash O'zbekiston Respublikasining mustaqilligi va hududiy yaxlitligini himoya qilishning eng muhim shartlaridan biri hisoblanadi.

Yoshlarni harbiy-vatanparvarlik ruhida tarbiyalash kontsepsiyasining qabul qilingani, armiya va xalq birligini ta'minlash borasida mahalliy davlat hokimiyati organlari bilan hamkorlikdagi ishlarning kuchaytirilgani milliy armiyamiz saflarini mustahkam iroda, faol fuqarolik pozitsiyasiga ega bo'lgan yoshlar bilan to'ldirib borish imkonini bermoqda.

## XULOSA

Xulosa o'rnida aytish mumkinki, biz bugun dunyoda va mintaqamizda turli tahdid va xatarlar kuchayib borayotgan tahlikali bir zamonda yashamoqdamiz. Ko'plab buzg'unchi kuchlar o'zlarining g'arazli maqsadlari bilan yosh avlodning ongini egallashga urinmoqdalar. Bunday tahlikali vaziyatda jondan aziz farzandlarimizni yuksak vatanparvarlik ruhida tarbiyalash hal qiluvchi ahamiyatga ega ekanini hammamiz yaxshi tushunamiz.

O'zbekiston Respublikasi Prezidenti Shavkat Mirziyoyevning "Bir haqiqatni barchamiz chuqur anglab olishimiz kerak: milliy tarixni xalqimiz, ayniqsa, yoshlarimizga milliy ruhda yetkazish, ularning qalbiga, shuuriga singdirish kerak. Aks holda uning tarbiyaviy ta'siri bo'lmaydi" deb ta'kidlagan fikrida tarbiyaning ahamiyati yaqqol ochib berilgan [10].

Shu nuqtai nazardan aytish mumkinki, O‘zbekiston Respublikasi Prezidenti – Qurolli Kuchlar Oliy Bosh qo‘mondoni Sh.M. Mirziyoyev tashabbuslari bilan birinchi marta umumta’lim maktablarda “Tarbiya” fani joriy etildi [11].

Ma’rifatparvar bobomiz Abdulla Avloniyning asriy qadriyatlarimiz asosida yaratgan “Turkiy “Guliston” yoxud axloq” asari sharqona tarbiyaning noyob qo‘llanmasi sifatida bugungi kunda ham o‘zining qadri va ahamiyatini yo‘qotgan emas. Biz harbiy xizmatchilarni tarbiyalashda mana shunday bebaho asarlardan samarali foydalanishimiz zarur.

Dunyo shiddat bilan o‘zgarib, barqarorlik va xalqlarning mustahkam rivojlanishiga rahna soladigan turli yangi tahdid va xavflar paydo bo‘layotgan bugungi kunda ma’naviyat va ma’rifatga, barcha aholi qatlamlarining axloqiy tarbiyasiga e’tibor qaratish har qachongidan ham muhim ahamiyat kasb etmoqda. Negaki, mamlakatimizdagi mavjud uzluksiz ta’lim tizimi bugungi kunda aholining beshdan bir qismini qamrab oladi. Ushbu toifadagi bolalar va o‘smirlardan tashqari, aholining katta qismi orasida ma’naviy-ma’rifiy va tarbiyaviy ishlarning tizimli yo‘lga qo‘yilishi, bu borada yuksak samaradorlikka erishish shartiga aylanmoqda.

Ayniqsa “Bir ziyoli – bir mahallaga ma’naviy himoya” tamoyili asosida har bir mahallaga professor-o‘qituvchilar va taniqli ziyolilarning jalb etilayotgani muhim ahamiyatga ega bo‘lib, ularning bu ishga mas’uliyat va kuyunchaklik bilan yondoshishlari samarali natija hisoblanadi. Bunday jonkuyar insonlarni munosib rag‘batlantirish esa dolzarb masalalardan biridir.

Xususan, O‘zbekiston Respublikasi Prezidenti Sh.Mirziyoyevning “Bir haqiqatni barchamiz chuqur anglab olishimiz kerak: milliy tarixni xalqimiz, ayniqsa, yoshlarimizga milliy ruhda yetkazish, ularning qalbiga, shuuriga singdirish kerak. Aks holda uning tarbiyaviy ta’siri bo‘lmaydi” deb ta’kidlagan fikrida ustoz-murabbiy an’anasining ahamiyati yaqqol ochib berilgan [12].

Xususan, Imom Buxoriy, Imom Termiziy, Imom G‘azzoliy, Bahouddin Naqshband, Abu Nasr Forobiy, Jaloliddin Rumi, Abdurahmon Jomiy, Ahmad Yassaviy kabi allomalarning yoshlar tarbiyasi, axloq komilligi haqidagi fikrlari asrlar mobaynida milliy shuur va ongni shakllantirishda katta o‘rin tutadi. Ularning asarlarida vatanparvarlik, xalqparvarlik, odob-axloq, mehr va muruvvat, sabruqanoat, adolat, halollik, poklik hamda mukammal tarbiyaga bog‘liq tushunchalar ham o‘z ifodasini topgan.

Shu sababli, buyuk allomalarimizning asarlarida ilgari surilgan g‘oyalar bugungi kunda ham o‘z ahamiyatini yo‘qotmasdan kelmoqda. O‘tgan uch yil davomida mamlakatimizda yoshlarga oid davlat siyosatining huquqiy asoslarini mustahkamlash bo‘yicha 47 ta

qonun va boshqa me'yoriy hujjatlar qabul qilindi. 70 ga yaqin normativ-huquqiy hujjatga o'zgartirish va qo'shimchalar kiritildi. Yoshlarni madaniyat, san'at va sportga keng jalb etish, ularda zamonaviy axborot texnologiyalardan to'g'ri foydalanish ko'nikmasini shakllantirish, kitobxonlik madaniyatini yuksaltirish, xotin-qizlar bandligini ta'minlash bo'yicha kechiktirib bo'lmaydigan vazifalarni o'z ichiga olgan besh muhim tashabbus ilgari surildi.

Shuni alohida ta'kidlash kerakki, "Har bir nuroniy – besh nafar yoshga murabbiy" tamoyili bo'yicha nuroniy oqsoqollarmiz, muhtaram onaxonlarimizni tarbiyasi og'ir, ma'naviy ko'makka muhtoj, uyushmagan, ishsiz yoshlarga biriktirib qo'yish amaliyoti keng qo'llanib kelinmoqda.

Biz yoshlarimizni vatanparvarlik, azmu-shijoat, mardlik va jasorat ruhida tarbiyalashda muhtaram ziyolilarimiz, faol va fidoyi olimlarimiz hamda ijodkorlarimizning yordamiga tayanamiz. Ayniqsa, ulug' allomalarimiz, buyuk sarkarda bobolarimizning hayoti va jangovar faoliyati, ularning harbiy merosini o'rganish hamda yoshlarimiz o'rtasida targ'ib etish katta ahamiyatga egadir.

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