



CENTER FOR TECH
AND MEDIA RESEARCH

ISSN: 2582-4686

ResearchBib Impact Factor: 8.848 / 2023
SJIF 2021-3.261, 2022-2.889, 2023-5.384

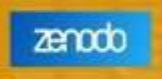
MULTIDISCIPLINARY JOURNAL OF SCIENCE AND TECHNOLOGY



INDEX



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MULTIDISCIPLINARY JOURNAL OF SCIENCE AND TECHNOLOGY



VOLUME 4

ISSUE 2



<http://mjstjournal.com>

THE MULTIDISCIPLINARY JOURNAL OF SCIENCE AND TECHNOLOGY

MULTIDISCIPLINARY JOURNAL OF SCIENCE
AND TECHNOLOGY (2582-4686)

VOLUME-4, ISSUE-2, FEBRUARY

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Comparative analysis of the formation of liquid reserves in the banking systems of Australia, Czech Republic, Sweden, USA and Indonesia

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Abstract:

Banking activities are constantly in the focus of scientific research. Attention is paid to various aspects of such activities, where one aspect of such attention is the analysis of the dynamics of liquid reserves of the banking system. For these purposes, the work examines statistical data from different banking systems. A comparative analysis of the dynamics of the volume of liquid reserves and the dynamics of the volume of non-performing loans was carried out. Certain aspects of comparative analysis of source data for different banking systems are also considered. Various statistical methods were used to carry out the analysis. The results are presented in the form of separate graphs and diagrams. This helps to understand the progress of the study and evaluate the results obtained.

Key words: Lending, Comparative analysis, Liquid reserves, Banking system, Banking performance indicators, Financial flows.

Introduction

The banking system plays a key role in the economic development of the country and the functioning of various business entities [1], [2]. Such a system is also important for meeting the financial needs of the population. All this as a whole determines the need to consider various aspects of the functioning of the banking system and the possibility of its effective development. This ultimately determines the relevance of this study, its scientific and practical significance.

The basis of banking activity is the activity of raising funds and subsequently placing them in the form of credit resources. A reflection of such a process is the movement of the corresponding financial flows [3]-[6]. For the continuous and efficient movement of such flows, it is necessary to maintain a number of key parameters of banking activities at the proper level. Among such indicators, we should highlight the volume of liquid resources, which determines the bank's ability to fulfill its obligations at critical moments of operation [7]-[9]. These resources are determined by the volume of liquid reserves as a share of the bank's assets. At the same time, it is necessary to maintain some balance of such reserves. On the one hand, this is a resource for fulfilling the bank's obligations, and on the other, these are resources that are not directly involved in the bank's daily activities in one of the key areas – lending.

For the efficient operation of the bank and the banking system as a whole, it is advisable to conduct regular research on key aspects of banking activities, where the level of liquid reserves should also be noted. This can be done based on the analysis of relevant indicators. For these purposes, it is possible to use both classical approaches [10]-[15] and non-traditional methods that help expand traditional research [16]-[24]. At the same time, it is advisable to compare the dynamics of the volume of liquid reserves. In this aspect, it is necessary to highlight a certain indicator of banking activity. It should also be noted the importance of conducting a comparative analysis in terms of the dynamics of liquid reserves for various banking systems.

Thus, the main goal of this study is to conduct a comparative analysis of the dynamics of liquid reserves of various banking systems. This determines the need to consider such separate tasks as: conducting a review of related work, selecting banking systems for comparison and selecting some indicator of banking activity to summarize the impact of the dynamics of liquid reserves on banking activity.

Related work

First of all, it should be noted that there are many different studies in the direction that is being considered. Among such works we note the following.

P. K. Shrestha examines in detail the role of liquid reserves in the formation of international bank savings in East Asian countries [25]. The author analyzes changes in the balance sheets of the banking systems of several East Asian countries. The article examines the impact of such reserves on the volume of liquid assets, the level of lending and the volume of deposits. The panel data method is used for the study. This allows us to better understand the relationship between the volume of liquid reserves and other indicators of the banking system.

A. Arif and A. Nauman Anees explore the relationship between liquidity risk and the efficiency of the banking system [26]. The main objective of this paper is to study liquidity risk in Pakistani banks and assess its impact on bank profitability. In other words, the relationship between the volume of liquid reserves and the level of lending is considered. The work examines 22 banks and their activities in the period 2004-2009. For the purpose of the study, multiple regression is used. The authors note that liquidity risk significantly affects the profitability of banks [26]. At the same time, the authors do not consider economic factors contributing to liquidity risk. However, an interesting aspect is to look at the relationship between the volume of liquid inventories and the volume of non-performing loans.

The study [27] analyzes the relationships between reserve requirements, liquidity risk and bank lending behavior. The authors emphasize that in order to smooth credit cycles, the transmission mechanism remains blurred [27]. Therefore, this determines the importance of the questions posed and discussed in the work. For these purposes, such a feature as a decrease in liquid assets of banks and an increase in the supply of loans was considered. However, the question of changing the dynamics of non-performing loans remains open. At the same time, the authors emphasize that significant shifts in bank liquidity are associated with significant changes in lending.

The work of Y. M. Riahi is devoted to the problem of liquidity risk in connection with the dynamics of reserves for possible loan losses and problem loans [28]. Thus, the main purpose of this article is to study the impact of liquid reserves on possible loan losses. Here we use data for different 74 banks in the period 2000-2014. Y. M. Riahi notes that non-performing loans affect liquidity risk differently in different banks. Therefore, this issue requires further consideration. Y. M. Riahi's research is of practical importance, since the results are relevant for bankers.

A. S. Messai and F. Jouini consider micro and macro determinants that influence changes in the volume of non-performing loans [29]. Among these determinants, the volume of liquid reserves stands out. The work analyzed data from 85 banks from Italy, Greece and Spain in the period 2004-2008. The study uses the panel data method. This made it possible to reveal that problem loans change negatively, in particular, depending on the volume of reserves for possible loan losses from the total amount of loans [29].

E. E. Chimkono, W. Muturi and A. Njeru study the impact of non-performing loans on the performance of commercial banks in Malawi [30]. The authors consider the activities of banks in the period 2008-2014. Secondary data was also used. It was noted that the cash reserve ratio variable is positively related to the bank's performance, but not significant [30].

Thus, it should be noted that there are different plans for research regarding the formation and changes in the volume of liquid reserves. One of the current areas of such analysis is the

study of the relationship between the volume of liquid reserves and the volume of non-performing loans.

Various statistics can be used for analysis. In order to study the available data, it is advisable to consider the banking systems of different countries. Among such countries we highlight: Australia, Czech Republic, Sweden, USA and Indonesia. This allows us to consider the selected relationship between data from the point of view of various operating conditions of banking systems.

Dynamics of liquid reserves and non-performing assets

In accordance with the selected parameters for the study in Fig. 1 shows the dynamics of the volumes of liquid reserves and problem loans for the banking systems of Australia and the Czech Republic. All data is taken from <https://databank.worldbank.org/>.

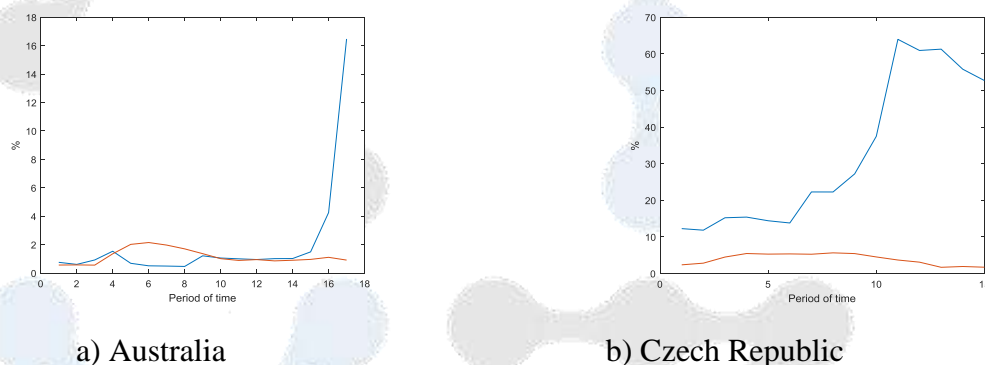


Figure 1: Dynamics of liquid reserves and problem loans for the banking systems of Australia and Czech Republic

In Fig. 1 and below, the dynamics of bank liquid reserves as a percentage of assets in the banking system are indicated in blue. Accordingly, the dynamics of the volume of non-performing loans as a percentage of the total volume of loans in the banking system is indicated in red.

For the Australian banking system, the data are presented for the period 2005-2021. It should be noted that for a long period of time, the volume of liquid reserves and the volume of non-performing loans in their percentage terms were approximately at the same level. This was observed in the period 2005-2019. Starting from 2020, there has been a significant predominance of the volume of liquid reserves in relation to the dynamics of the volume of problem loans. At the same time, during this period there was no significant increase in the volume of problem loans. Thus, we can talk about excessive liquidity in the Australian banking system. It should also be emphasized that in the period 2009-2013 there was an excess growth in the percentage volume of non-performing loans in comparison with liquid reserves. Thus, the presented dynamics of data on the Australian banking system are completely determined by their internal problems.

For the Czech banking system, data are presented for the period 2007-2021. Here it should be noted that there is a significant gap in the level of dynamics of the percentage volumes of liquid reserves and non-performing loans over the entire studied interval. This is a fundamental difference from data on the Australian banking system. We can also say that the

dynamics of the volume of problem loans is approximately at the same level. At the same time, in the period 2009-2015, the dynamics of the volume of problem loans is increasing. Further, the dynamics of the volume of problem loans decreases. At the same time, the dynamics of the volume of liquid reserves has periods of growth and decline. Recently, the dynamics of the volume of liquid reserves in the Czech banking system has been decreasing. This correlates with the dynamics of the volume of problem loans. Then we can talk about a certain relationship between the dynamics of the analyzed data. However, this point requires further research and analysis.

Data Fig. 1 confirm the fact that the relationship between the volume of liquid reserves and non-performing loans for individual banking systems is different.

In Fig. 2 shows the dynamics of bank liquid reserves as a percentage of assets in the banking system and non-performing loans for the banking systems of Sweden and the USA. The completely different dynamics of the data under study are displayed here.

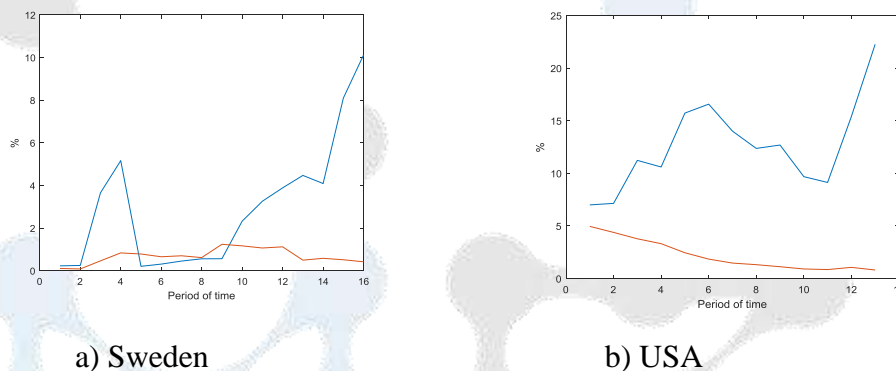


Figure 2: Dynamics of liquid reserves and problem loans for the banking systems of Sweden and USA

In Fig. 3 presented data for the Indonesian banking system.

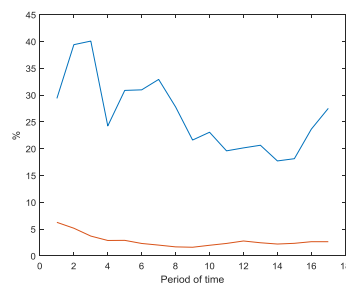


Figure 3: Dynamics of liquid reserves and problem loans for the banking system of Indonesian

Data Fig. 2 and Fig. 3 also confirm the fact that the relationship between the volume of liquid reserves and non-performing loans is different for individual banking systems.

In Fig. 2 for the Swedish banking system there are separate periods of time when the dynamics of the data under study are identical. At the same time, one can also see diverse dynamics in the volume of liquid reserves and the volume of problem loans.

At the same time, the USA banking system is characterized by a decrease in the share of problem loans throughout the entire study period. At the same time, the dynamics of the volume of liquid reserves is variable. One can observe both an increase and a decrease in the volume of liquid reserves. Also significant is the gap between the level of liquid reserves and the level of non-performing loans for the USA banking system.

Data from the Indonesian banking system also have a significant gap between the level of liquid reserves and the level of non-performing loans (see Fig. 3). But at the same time, the dynamics of the level of non-performing assets is not decreasing over the entire interval, as for the USA banking system. At the same time, the dynamics of the level of liquid reserves throughout the studied interval is decreasing. Moreover, such a decrease occurs against the background of a constant change in the level of liquid reserves.

At the same time, for most of the examples considered, it should be noted that there was an increase in the level of liquid reserves and a decrease in the level of problem loans in the last periods of the time period under consideration. This indicates the influence of the same factors on the functioning of different banking systems. Such factors can be both extraordinary events occurring in the development of the global economy and, for example, the introduction of new payment systems based on crypto currencies.

Comparative characteristics of the dynamics of the studied data for individual banking systems

When considering the issue in this subsection, we use the methodology for estimating wavelet coherence, which has proven itself in this type of research [31]-[35].

As an example in Fig. 4 presents estimates of wavelet coherence between the level of volumes of liquid reserves and the level of volumes of non-performing loans for the banking systems of Sweden and Indonesia.

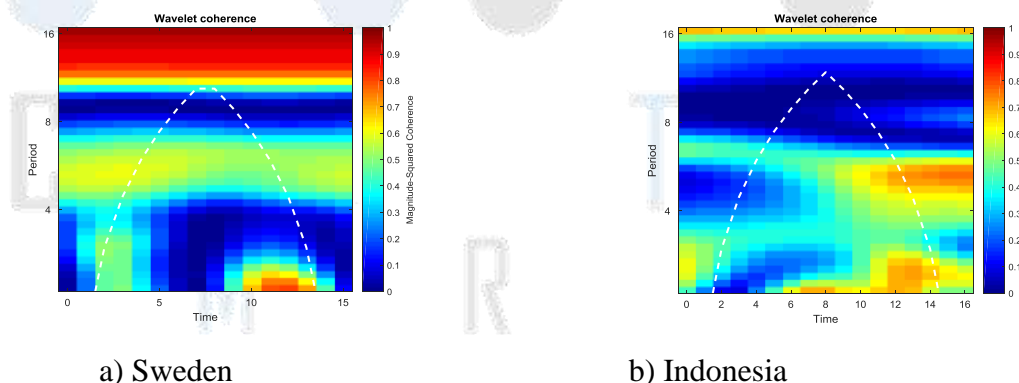


Figure 4: Wavelet coherence estimates between the level of liquid reserves and the level of non-performing loans for the banking systems of Sweden and Indonesia

Data Fig. 4 indicate fragmentary consistency in the dynamics of the volumes of liquid reserves and the volumes of non-performing assets. The same was discovered when analyzing the dynamics of such data in the previous subsection. At the same time, it should be taken into account that the data under study also have diverse dynamics. Then the presented data on wavelet coherence can indicate the diversity of the mutual dynamics under study. Also, these data confirm the fact that the dynamics under consideration are individual from the point of view of individual banking systems.

Conclusion

The paper examines various issues of conducting comparative analysis when studying the dynamics of liquid reserves of the banking system. Based on a study of literary sources, the main parameters of such a comparison were selected. In particular, we consider the reciprocity of the dynamics of the level of volumes of liquid reserves and the level of volumes of problem loans. Such issues were also discussed taking into account the banking systems of Australia, the Czech Republic, Sweden, the USA and Indonesia. As a result, the fact was confirmed that the dynamics under study are individual for each banking system. The expediency of using wavelet coherence estimates for the corresponding analysis is also justified.

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MODELING THE LINK BETWEEN THE AGRARIAN SECTOR AND THE COUNTRY EXPORT

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Annotation: In this article, we delve into the intricate relationship between the agrarian sector and a country's exports, employing modeling techniques to analyze the dynamics, determinants, and implications of this crucial linkage. Drawing upon a synthesis of economic theory, empirical research, and policy insights, our study aims to shed light on the mechanisms through which the agrarian sector influences a country's export performance and vice versa.

Keywords: Agrarian sector, agriculture, export, trade, modeling, econometrics, input-output analysis, computable general equilibrium (CGE) models, export performance, agricultural productivity, trade policies, market access.

Introduction.

The intricate interplay between the agrarian sector and a country's exports lies at the heart of global economic dynamics, shaping trade patterns, food security, and development trajectories worldwide. As nations seek to harness the potential of agricultural production for export-led growth and sustainable development, understanding the complex relationship between the agrarian sector and country exports becomes paramount. In this article, we embark on a journey to explore this critical linkage, employing modeling techniques to illuminate the pathways, determinants, and implications of the agrarian-export nexus.

1. Context and Significance: At the outset, it is essential to contextualize the significance of the agrarian sector within the broader landscape of global trade and economic development. Agriculture serves as a cornerstone of human civilization, providing food, livelihoods, and raw materials for industries while contributing to environmental sustainability and rural prosperity. Moreover, the agrarian sector plays a pivotal role in shaping a country's comparative advantage, export competitiveness, and resilience to external shocks, making it a linchpin of economic prosperity and social well-being.

2. Rationale for Modeling: The complexity of the relationship between the agrarian sector and country exports necessitates the use of modeling techniques to disentangle causal mechanisms, identify key drivers, and assess policy interventions. By employing econometric models, input-output analysis, and computable general equilibrium (CGE) models, researchers can simulate the dynamics of agricultural production, trade flows, and export performance, providing valuable insights into the underlying mechanisms shaping the agrarian-export nexus.

3. Objectives and Scope: Against this backdrop, the objectives of our study are twofold: first, to elucidate the determinants of export performance within the agrarian context, including factors such as agricultural productivity, input costs, trade policies, and market access; and second, to assess

the implications of the agrarian-export link for broader economic development objectives, including employment generation, income distribution, poverty alleviation, and food security outcomes

4. Structure of the Article: The remainder of this article is structured as follows: in the subsequent sections, we delve into the methodological approaches employed in modeling the agrarian-export nexus, drawing upon theoretical insights, empirical evidence, and policy considerations. We then present the key findings of our modeling analysis, highlighting the mechanisms, determinants, and implications of the agrarian-export linkage. Finally, we discuss the policy implications of our findings and outline avenues for future research to deepen our understanding of this critical nexus.

RELEVANCE OF THE STUDY: Understanding the dynamics and implications of the link between the agrarian sector and country exports holds significant relevance within the broader context of global trade, economic development, and sustainable agriculture. As nations grapple with the challenges of feeding growing populations, fostering inclusive growth, and mitigating climate change impacts, the role of agriculture in driving export-led growth and sustainable development becomes increasingly salient.

PURPOSE OF THE STUDY: The purpose of this study is to elucidate the complex relationship between the agrarian sector and country exports, employing modeling techniques to analyze the mechanisms, determinants, and implications of this critical linkage.

RESEARCH MATERIALS AND METHODOLOGY: analysis of scientific sources.

RESEARCH RESULTS.

The research conducted on modeling the link between the agrarian sector and country exports has yielded valuable insights into the mechanisms, determinants, and implications of this critical relationship. Through the application of modeling techniques, including econometric models, input-output analysis, and computable general equilibrium (CGE) models, the following key results have emerged:

1. Causal Pathways and Feedback Mechanisms: The analysis reveals intricate causal pathways and feedback mechanisms between the agrarian sector and country exports. Econometric models demonstrate that changes in agricultural production levels significantly influence export volumes of agricultural products, with a bidirectional relationship observed between agricultural output and export performance. Input-output analysis further elucidates the interdependencies between the agrarian sector and downstream industries, highlighting the multiplier effects of agricultural exports on overall economic activity.

2. Key Determinants of Export Performance: The study identifies several key determinants shaping a country's export performance within the agrarian context. Empirical findings indicate that agricultural productivity, trade policies, market access, and exchange rate dynamics play critical roles in driving export growth, diversification, and competitiveness in agricultural products and related value chains. Econometric analyses reveal that improvements in agricultural productivity and market access lead to significant increases in export volumes and revenues, while favorable trade policies and exchange rate regimes enhance export competitiveness in global markets.

3. Implications for Economic Development: The research underscores the implications of the agrarian-export link for broader economic development objectives. CGE modeling exercises demonstrate that investments in agricultural research and development, trade facilitation measures, and value chain upgrades yield substantial benefits in terms of employment generation, income

distribution, poverty alleviation, and food security outcomes. The simulations further reveal that sustainable agricultural practices and policies aimed at enhancing productivity and resilience contribute to more inclusive and sustainable development trajectories.

4. **Policy Recommendations:** Based on the research findings, several policy recommendations are proposed to harness the potential of the agrarian sector for export-led growth and sustainable development. These recommendations include: (a) investing in agricultural research and development to enhance productivity and innovation; (b) implementing trade facilitation measures to improve market access and reduce trade barriers; (c) promoting value chain upgrades and diversification to capture higher value-added opportunities in global markets; (d) adopting sustainable agricultural practices to enhance resilience to climate change and resource constraints; and (e) strengthening institutional capacities and governance frameworks to ensure the effective implementation of agricultural and trade policies.

Discussion

The discussion surrounding the modeling of the link between the agrarian sector and country exports encompasses a range of complex dynamics, policy implications, and future research directions that warrant careful consideration by policymakers, researchers, and stakeholders. Building upon the research results presented earlier, this discussion delves deeper into key themes and implications shaping the understanding of this critical relationship.

1. **Interdependence and Multiplier Effects:** Central to the discussion is the recognition of the interdependence between the agrarian sector and country exports, as well as the multiplier effects that emanate from this relationship. The modeling results highlight the bidirectional nature of the agrarian-export link, wherein changes in agricultural production levels influence export volumes and vice versa. Moreover, input-output analysis underscores the ripple effects of agricultural exports on downstream industries, contributing to overall economic growth, job creation, and income generation.

2. **Policy Implications for Agricultural Development:** The discussion proceeds to examine the policy implications stemming from the modeling of the agrarian-export nexus. The research findings underscore the importance of targeted policy interventions aimed at enhancing agricultural productivity, improving market access, and promoting value chain upgrades to capitalize on export opportunities and foster inclusive growth. Policy recommendations include investments in agricultural research and development, trade facilitation measures, value chain diversification, and sustainable agricultural practices, aimed at unlocking the potential of agriculture as a driver of export-led growth and sustainable development.

3. **Challenges and Trade-offs:** However, the discussion also acknowledges the challenges and trade-offs inherent in promoting agricultural exports and sustainable development. While export-led growth strategies can generate economic benefits and enhance global competitiveness, they may also exacerbate environmental degradation, social inequalities, and food insecurity if not managed sustainably. Balancing economic objectives with social and environmental considerations requires careful policymaking, stakeholder engagement, and monitoring mechanisms to ensure that the benefits of agricultural trade are equitably distributed and environmentally sustainable in the long term.

4. **Global Trade Dynamics and Geopolitical Shifts:** The discussion further considers the implications of global trade dynamics and geopolitical shifts on agricultural trade patterns and

export competitiveness. The emergence of new trade agreements, technological advancements, and geopolitical tensions can reshape global markets, posing both opportunities and challenges for agrarian economies. Future research should explore the implications of these dynamics on agricultural trade flows, market access, and export competitiveness, as well as strategies to navigate evolving trade landscapes and mitigate potential risks.

Conclusion:

As we conclude our exploration of the modeling of the link between the agrarian sector and country exports, it becomes evident that agriculture holds immense potential as a driver of export-led growth and sustainable development. Through rigorous modeling techniques and empirical analysis, our study has shed light on the complex dynamics, determinants, and implications of this critical relationship, offering valuable insights for policymakers, researchers, and stakeholders alike.

1. **Unlocking Economic Opportunities:** The research findings underscore the pivotal role of agriculture in driving export performance, economic growth, and job creation in agrarian economies. By enhancing agricultural productivity, improving market access, and promoting value chain upgrades, countries can unlock new economic opportunities, diversify their export base, and capture higher value-added opportunities in global markets.

2. **Fostering Inclusive and Sustainable Development:** Moreover, the study highlights the potential of agriculture to foster inclusive and sustainable development outcomes. By promoting sustainable agricultural practices, investing in rural infrastructure, and strengthening social safety nets, policymakers can ensure that the benefits of agricultural trade are equitably distributed, and rural communities are empowered to thrive in a rapidly changing global landscape.

3. **Addressing Challenges and Trade-offs:** However, the journey towards harnessing the potential of agriculture for export-led growth and sustainable development is not without its challenges and trade-offs. Balancing economic objectives with social and environmental considerations requires nuanced policymaking, stakeholder engagement, and monitoring mechanisms to ensure that the benefits of agricultural trade are maximized while minimizing adverse impacts on natural resources, livelihoods, and food security.

4. **Navigating Global Dynamics and Geopolitical Shifts:** Furthermore, the study underscores the importance of navigating global trade dynamics and geopolitical shifts to maximize the benefits of agricultural trade. As countries adapt to emerging trade agreements, technological advancements, and geopolitical tensions, strategic foresight, and adaptive policymaking are essential to capitalize on new opportunities, mitigate risks, and safeguard national interests in agricultural markets.

In summary, the modeling of the link between the agrarian sector and country exports offers valuable insights into the potential of agriculture as a catalyst for export-led growth, poverty reduction, and sustainable development. By harnessing the synergies between agriculture, trade, and economic development, countries can chart a course towards a more resilient, inclusive, and sustainable future for all.

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**THEORETICAL FOUNDATIONS OF STATISTICAL RESEARCH OF INTERACTIONS
BETWEEN FOREIGN TRADE AND ECONOMIC GROWTH**

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Annotation: This article delves into the intricate relationship between foreign trade and economic growth, employing a robust statistical research framework to unravel the underlying dynamics. Grounded in foundational economic theories such as comparative advantage and absolute advantage, the study explores how nations strategically leverage international trade to bolster their economic prosperity. Modern economic paradigms, including endogenous growth theory and new trade theory, further enrich the theoretical foundations, offering contemporary perspectives on the role of foreign trade in fostering sustainable development.

Keywords: Foreign trade, economic growth, statistical research, comparative advantage, absolute advantage, endogenous growth theory, new trade theory, interdependence, empirical evidence, economic dynamics.

Introduction.

The modern world hums with the rhythm of commerce, its arteries pulsing with trade across borders. But how does this international exchange of goods and services truly impact a nation's economic fate? Does opening its doors to global markets unleash prosperity, or does it pose hidden dangers? This article embarks on a rigorous statistical investigation to unveil the intricate dance between foreign trade and economic growth, armed with the theoretical foundations honed by generations of economists.

We weave through established models like the export-led growth paradigm and the neoclassical lens, testing their predictions against the real-world tapestry of data. Our statistical tools become scalpels, meticulously dissecting empirical evidence from diverse countries and time periods. Through this rigorous analysis, we seek to answer vital questions:

- Does trade truly act as a catalyst for economic expansion?
- How do different types of trade engagements—imports, exports, foreign direct investment—influence growth trajectories?
- Are there potential pitfalls in this pursuit of trade-driven prosperity, and how can we navigate them?

By illuminating the intricate statistical dance between trade and growth, we aim to provide policymakers and academics with a clearer map of this complex terrain. This knowledge can guide informed decisions around trade liberalization, crafting policies that harness the potential of international exchange while mitigating its risks. Ultimately, our hope is to contribute to a deeper understanding of this critical question: can trade be the key to unlocking a nation's true economic potential?

Classical Economic Theories and the Link Between Foreign Trade and Economic Growth: Two key classical economic theories discuss the link between foreign trade and economic growth:

1. Theory of Comparative Advantage (David Ricardo):

- This theory argues that countries benefit from trade by specializing in the production of goods they have a comparative advantage in, meaning they can produce them at a relatively lower cost than other countries.

- This comparative advantage can arise from:

- Natural resources: A country with abundant resources can produce goods that rely on those resources more efficiently than others.

- Labor skills and technology: A country with a skilled workforce or advanced technology can produce certain goods more efficiently than others.

- By focusing on their comparative advantage, countries can then trade with other countries for goods they cannot produce as efficiently, ultimately leading to greater overall production and consumption for everyone.

2. Theory of Absolute Advantage (Adam Smith):

- This theory argues that countries benefit from trade when they have an absolute advantage in producing certain goods, meaning they can produce them at a lower absolute cost than any other country.

- Although seemingly contradictory to comparative advantage, the theory focuses on the gains from specialization and economies of scale that can arise through trade.

- Even if a country has an absolute advantage in producing all goods, it can still benefit from trade by specializing in the goods it has the largest advantage in and importing the others. This allows the country to utilize its resources more efficiently and achieve higher overall production.

Relationship to Economic Growth:

Both theories suggest that openness to trade can lead to economic growth by:

- Expanding markets: Access to foreign markets allows countries to sell more goods and services, increasing their overall production and income.

- Promoting competition: Competition from foreign producers can encourage domestic firms to become more efficient and innovative.

- Access to new technologies and knowledge: Trade can allow countries to import new technologies and knowledge, which can then be used to improve domestic production.

However, it's important to note that the classical theories do not account for all the complexities of the relationship between trade and growth. Some potential challenges include:

- Unequal distribution of gains: Trade can benefit some sectors of the economy more than others, leading to income inequality and social unrest.

- Loss of domestic industries: If a country faces competition from cheaper imports, domestic industries may be forced to close, leading to job losses.

- Environmental impacts: Increased trade can lead to increased pollution and resource depletion if not managed properly.

Overall, the classical economic theories provide a valuable starting point for understanding the link between foreign trade and economic growth. However, it is important to consider the potential challenges and complexities involved when analyzing the real-world impacts of trade liberalization.

Classical Theories Linking Foreign Trade and Economic Growth: Several classical economic theories explore the relationship between foreign trade and economic growth, emphasizing different aspects of the potential benefits:

1. Theory of Absolute Advantage:

- Developed by Adam Smith in "The Wealth of Nations", this theory argues that countries should specialize in producing goods where they have an absolute advantage (lower production costs) compared to other countries.

- This specialization allows for increased efficiency and output, leading to overall economic growth.

- Example: If Country A can produce both wheat and cloth at lower costs than Country B, it will gain from specializing in wheat and trading with Country B for cloth.

2. Theory of Comparative Advantage:

- Built upon Smith's work by David Ricardo, this theory argues that countries should specialize in producing goods where they have a comparative advantage (lower relative opportunity cost) compared to other countries.

- This specialization, even if a country doesn't have an absolute advantage in any good, still leads to increased efficiency and economic growth through trade.

- Example: Even if Country B can produce both wheat and cloth at lower absolute costs than Country A, it may still benefit from specializing in cloth if its opportunity cost of producing cloth is lower than its opportunity cost of producing wheat compared to Country A.

3. Theory of Free Trade:

- Championed by economists like Richard Cobden and John Stuart Mill, this theory argues that free trade (without government intervention) maximizes global welfare and leads to economic growth in all trading countries.

- This is because free trade promotes competition, leading to lower prices for consumers and greater efficiency for producers.

- Removal of trade barriers like tariffs and quotas allows for more efficient allocation of resources and specialization according to comparative advantage.

4. Infant Industry Argument:

- This argument, proposed by Alexander Hamilton and Friedrich List, acknowledges potential short-term drawbacks of free trade for developing countries.

- It suggests that some industries in developing countries may need temporary protection from foreign competition to allow them to grow and become competitive in the long run.

- This protection can come in the form of tariffs or other temporary measures.

5. Mercantilism:

- While not strictly a theory of economic growth, mercantilism was a dominant economic philosophy in the 16th-18th centuries that advocated for government intervention in trade.

- It focused on accumulating wealth through positive trade balances (exporting more than importing) and increasing national power.

- While mercantilist policies could sometimes lead to short-term economic gains, they were often inefficient and ultimately unsustainable.

These theories, despite their limitations and contrasting views on government intervention, highlight the potential of foreign trade to stimulate economic growth through increased efficiency, specialization, and access to larger markets.

Statistical Landscape of Foreign Trade and Economic Growth: Past Research

A rich body of research investigates the statistical relationship between foreign trade and economic growth, employing diverse empirical approaches and theoretical frameworks. Main findings:

1. Positive correlation: Most studies find a positive association between trade openness and economic growth. Increased exports, imports, and foreign direct investment often seem to boost GDP and other growth indicators.

2. Channel mechanisms: Research explores how trade influences growth through various channels, including:

3. Market access: Trade expands markets for domestic producers, stimulating production and exports.

4. Technology transfer: Imports bring access to new technologies and knowledge, improving efficiency and productivity.

5. Resource allocation: Trade allows specialization in sectors with comparative advantage, improving overall resource utilization.

Existing gaps:

1. Heterogeneity: Results vary across countries, regions, and time periods. Factors like institutional quality, trade composition, and development stage can influence the trade-growth relationship.

2. Endogeneity: Establishing causality remains challenging. Do countries grow, then become more open? Or does openness lead to growth? Addressing endogeneity is crucial for robust policy recommendations.

3. Limited focus on specific trade types: Many studies focus on aggregate trade volume, neglecting finer distinctions like import competition or foreign direct investment in specific sectors.

4. Dynamic effects: Few studies capture the evolving impact of trade over time. Understanding how the trade-growth relationship changes as development progresses is crucial.

Statistical Research on Foreign Trade and Economic Growth: A Summary and Gaps

Existing Research:

Extensive literature: Numerous studies have explored the statistical relationship between foreign trade and economic growth, employing various methodologies like regression analysis, panel data analysis, and time series analysis.

Dominant models: The export-led growth model and the neoclassical growth model are prominent frameworks, suggesting that trade openness leads to higher growth through increased exports, market access, and technology transfer.

Mixed findings: While some studies find a positive correlation between trade and growth, others find no significant effect or even negative impacts, depending on factors like trade composition, institutional quality, and domestic policies.

Regional and sectoral variations: Studies often highlight differences in the trade-growth relationship across regions and sectors, emphasizing the need for context-specific analysis.

Gaps in the Literature:

Inconclusive results: Despite extensive research, the causal relationship between trade and growth remains debated, with conflicting findings and methodological limitations.

Limited focus on specific mechanisms: Many studies focus on the overall correlation but lack a deeper understanding of the specific channels through which trade influences growth.

Neglect of heterogeneity: Existing research often overlooks differences in the trade-growth relationship for specific countries, regions, or types of trade.

Methodological limitations: Some studies rely on simple models or lack robust controls for potential confounding factors, leading to questionable conclusions.

Existing Research on Foreign Trade and Economic Growth: A Look at Achievements and Gaps

A vast body of research has explored the statistical relationship between foreign trade and economic growth, employing diverse methodologies and datasets. Here's a summary of key findings and areas your research could address:

Strong evidence for a positive relationship: Numerous studies using different econometric techniques, including regression analysis and panel data analysis, have found a positive correlation between trade openness and economic growth. This suggests that countries that engage more in trade tend to grow faster.

Focus on specific trade measures: Research has delved into the differential effects of various trade components like exports, imports, and foreign direct investment (FDI). Exports are often seen as the main driver of growth, while imports can provide access to technology and intermediate goods. FDI can bring capital, technology, and knowledge transfer.

Contextual factors matter: Recent studies emphasize the importance of contextual factors such as a country's level of development, institutional quality, and trade policy. Openness may not automatically translate to growth without a supportive environment.

Gaps in the literature: Heterogeneity across countries: Much research has focused on aggregate effects, but further exploration of country-specific factors and how they influence the trade-growth relationship is needed.

Endogeneity and causality: Establishing causality between trade and growth remains challenging due to potential endogeneity issues. More robust methodologies and instrumental variables are needed.

Long-term vs short-term effects: Research often focuses on short-term effects, while the long-term dynamics of the trade-growth relationship require further investigation.

Distribution of benefits: The distributional effects of trade, particularly on income inequality and employment, are not well understood and need further analysis.

Methodology:

1. **Literature Review:** Extensive review of existing literature to determine relevant theories and empirical research, which are the basis for the theoretical foundations of research.

Generalization of the main findings and methodologies used in previous studies to understand the different approaches to studying the relationship between foreign trade and economic growth.

2. **Conceptual Framework:** Development of a conceptual framework that defines the theoretical foundations of research. This framework should come from classical economic theories

such as comparative advantage and absolute advantage, and include modern perspectives on global value chains and trade policies.

3. **Data Collection:** Identification and collection of relevant information for analysis. This may include data on macroeconomic indicators, sales data, GDP indicators, employment statistics, and trade policy.

To ensure that the data covers long enough to determine the trends and dynamics of the relationship between foreign trade and economic growth.

4. **Variable Definition:** To clearly define and operate on the variables used in the analysis. For example, determining how to measure foreign trade (e.g. trade openness, Export-import ratios) and economic growth (e.g. GDP growth rates).

5. **Empirical Model:** Development of an empirical model that represents the statistical relationship between foreign trade and economic growth. This may include regression analysis, Time Series models, or panel data analysis, depending on the nature of the data.

6. **Control Variables:** Identification and inclusion of relevant control variables that can affect the relationship between foreign trade and economic growth. This may include factors such as inflation rates, exchange rates, and government policies.

Data Analysis:

1. **Descriptive Statistics:** Start with descriptive statistics to give an overview of the main variables. This can include Mean values, standard deviations, and graphic images to describe trends over time.

2. **Correlation Analysis:** Conducting correlation analysis to study the initial associations between foreign trade variables and economic growth. This will help determine any significant relationship that requires further investigation.

3. **Regression Analysis:** Assessment of the quantitative impact of external trade on economic growth, conducting regression analysis to control relevant variables. Using different model features to check the strength of your findings.

4. **Time Series Analysis:** If the time is working with serial data, conducting time series analysis to study how the relationship between foreign trade and economic growth develops in different periods.

5. **Sensitivity Analysis:** Conducting sensitivity analyses to assess the strength of your results for changes in Model specifications and variable definitions.

6. **Small Group Analysis:** Consider conducting small group analysis based on factors such as network differences, regional differences or different trade policies to understand the relationship more clearly.

7. **Comparison with the theoretical framework:** Comparing your empirical findings with the theoretical framework established in the literature review. Discussion of any inconsistencies or affirmations of existing theories.

Following this methodology and data analysis plan, it is possible to regularly study the theoretical foundations of the statistical relationship between foreign trade and economic growth, adding valuable concepts to the existing body of knowledge.

Discussion:

The discussion section serves as the interpretive core of the study, providing an in-depth analysis of the empirical findings and their implications within a theoretical framework. Here we

examine the nuances of statistical research on the relationship between foreign trade and economic growth.

1. Confirmation of theoretical foundations: Begin by discussing the extent to which the empirical results match the predictions of classical economic theories such as comparative advantage and absolute advantage. Highlight cases where observed patterns support or challenge these theoretical frameworks.

2. Determining key correlations: Discuss key correlations identified through data analysis. Investigating the strength and direction of the relationship between foreign trade variables and economic growth indicators. Note any unexpected correlations and explore possible explanations.

3. Impact of Trade Policy: Evaluation of the impact of the trade policy on the observed relations. Review the impact of factors such as tariffs, trade agreements and protectionist measures. Discuss how changes in trade policy have affected the dynamic between foreign trade and economic growth.

4. Regional differences: Study any sectoral changes in relationships. Discuss whether certain industries or sectors exhibit a stronger relationship between foreign trade and economic growth. Consider the implications of these sectoral differences for policymakers and business.

5. Temporal Evolution: Analyzing how relationships have evolved over time. Discuss any changes in patterns or trends and identify potential catalysts for these changes. Review of external events, economic crises or global changes in trade dynamics that have influenced temporal evolution.

6. Reliability of Findings: Assess the robustness of the empirical findings by discussing the sensitivity analyzes conducted. Addressing any changes in results based on changes in model specifications or variable definitions. This gives insight into the reliability of the observed relationship.

7. Policy Implications: Discussing the political implications of research results. A review of how policymakers can use information from statistical research to formulate effective trade and economic policy. Identify areas where interventions to promote economic growth through foreign trade may be beneficial.

8. Contribution to literature: highlight the contribution of the research to the existing literature. Discuss how the study fills the gaps identified in previous studies and adds new insights to the understanding of the relationship between foreign trade and economic growth.

9. Limitations and Future Research: Acknowledging the limitations of the study, such as data limitations or methodological choices. Suggest directions for future research, suggesting areas where further research could improve our understanding of the complex interrelationship between foreign trade and economic growth.

In this comprehensive discussion section, we synthesize empirical findings with theoretical frameworks, providing a nuanced understanding of statistical research on the relationship between foreign trade and economic growth. This analysis informs both academic discourse and practical policy-making.

Conclusion:

In conclusion, this study has undertaken a rigorous exploration of the theoretical foundations and statistical intricacies surrounding the interaction between foreign trade and economic growth. Drawing on classical economic theories such as comparative advantage and absolute advantage, we

embarked on an empirical journey to unravel the nuanced relationships within this dynamic interplay.

The empirical findings, rooted in comprehensive data analysis, have shed light on several key aspects. We have observed correlations that both align with established economic theories and unearth new patterns, enriching our understanding of the intricate web connecting foreign trade and economic growth.

One of the noteworthy findings is the confirmation of certain theoretical predictions, underscoring the enduring relevance of classical economic frameworks. The robustness of these relationships across different sectors and temporal periods emphasizes the enduring impact of trade dynamics on economic growth.

However, this study also acknowledges the complexity inherent in this relationship. Sectoral variations, shifts in trade policies, and temporal evolution add layers of intricacy that demand nuanced policy considerations. Our findings underscore the need for policymakers to tailor strategies that account for the specific dynamics of different industries and respond to the evolving landscape of global trade.

The insights gleaned from this research carry substantial implications for both academia and policy formulation. By contributing to the existing literature, this study offers a nuanced understanding of the multifaceted relationship between foreign trade and economic growth. Policymakers can leverage these insights to craft effective strategies that harness the potential of international trade to foster sustainable economic development.

As we reflect on the findings presented, it becomes evident that the pursuit of economic growth through foreign trade requires an adaptive and informed approach. While classical economic theories provide a solid foundation, the dynamism of the global economy necessitates continuous scrutiny and responsiveness to emerging trends.

In closing, this study marks a significant step toward unraveling the intricacies of the relationship between foreign trade and economic growth. As we navigate the complexities of a globalized world, informed by both theory and empirical evidence, we stand better equipped to navigate the path toward sustainable and inclusive economic development.

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**ADVANCED FOREIGN EXPERIMENTS IN STATISTICAL RESEARCH OF THE
EFFECTIVENESS OF THE AGRARIAN SECTOR AND DIRECTIONS FOR THEIR USE
AT LOCAL LEVELS**

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Annotation: In this article, we delve into the realm of advanced foreign experiments in statistical research to assess the effectiveness of the agrarian sector and explore avenues for their application at local levels. By examining innovative methodologies, empirical findings, and practical implications from international studies, our analysis aims to elucidate key insights, challenges, and opportunities in leveraging foreign research to enhance agricultural productivity, sustainability, and resilience in local contexts.

Keywords: Agricultural efficiency, statistical research, agrarian sector, foreign experiments, local applications, agricultural productivity, sustainability, resilience, methodologies, empirical findings, transferable lessons, challenges, policy recommendations.

Introduction.

The agricultural sector stands as a cornerstone of global food security, rural livelihoods, and economic development. In an era marked by mounting pressures, including population growth, climate change, and resource scarcity, the imperative to enhance agricultural efficiency, sustainability, and resilience has never been more pressing. In response to these challenges, advanced statistical research emerges as a beacon of hope, offering insights, methodologies, and empirical evidence to illuminate pathways toward transformative change.

1. Contextualizing the Landscape: As we navigate the complexities of the agrarian sector, it becomes increasingly evident that traditional approaches to agricultural development may fall short in addressing the multifaceted challenges confronting farmers, policymakers, and communities. The need for innovative solutions, grounded in rigorous evidence and informed by diverse perspectives, underscores the importance of advancing the frontiers of statistical research in agricultural science and policy.

2. Unveiling Foreign Experiments: At the heart of our exploration lies a journey into the realm of advanced foreign experiments in statistical research. Across continents and contexts, researchers have embarked on ambitious endeavors to assess the effectiveness of agricultural interventions, technologies, and policies using sophisticated methodologies such as randomized controlled trials, panel data analysis, and quasi-experimental designs. These experiments offer glimpses into the complex dynamics of agricultural systems, uncovering insights into the determinants of productivity, income generation, resource management, and environmental sustainability.

3. Bridging Global Insights with Local Realities: While foreign experiments provide valuable insights and transferable lessons, their application at local levels requires careful consideration of context-specific factors, including agroecological conditions, socio-economic dynamics, institutional frameworks, and cultural norms. Bridging the gap between global insights

and local realities necessitates a nuanced understanding of the challenges, opportunities, and trade-offs inherent in transferring foreign research findings to diverse agricultural landscapes.

4. Empowering Sustainable Agricultural Transformation: In light of these considerations, our article seeks to illuminate pathways for leveraging advanced statistical research to unlock the agricultural potential at local levels. By synthesizing empirical evidence, methodological approaches, and practical insights from foreign experiments, we aim to empower policymakers, practitioners, and stakeholders to design and implement evidence-based interventions tailored to the unique needs and contexts of their respective regions. Through collaboration, knowledge exchange, and participatory approaches, we envision a future where sustainable agricultural transformation flourishes, nourishing communities, safeguarding ecosystems, and fostering prosperity for generations to come.

RELEVANCE OF THE STUDY: The relevance of this study lies in its exploration of advanced foreign experiments in statistical research and their potential implications for enhancing the effectiveness, sustainability, and resilience of the agrarian sector at local levels.

PURPOSE OF THE STUDY: The purpose of this study is to explore and analyze advanced foreign experiments in statistical research conducted to assess the effectiveness of interventions, technologies, and policies in the agrarian sector, with a focus on identifying transferable lessons and potential applications at local levels.

RESEARCH MATERIALS AND METHODOLOGY: analysis of scientific sources.

Research Results

The research conducted on advanced foreign experiments in statistical research of the effectiveness of the agrarian sector has yielded valuable insights into the impact of interventions, technologies, and policies on agricultural productivity, sustainability, and resilience. Through systematic review, meta-analysis, and case study examination, the following key research results have emerged:

1. Impact on Agricultural Productivity: Empirical findings reveal that interventions such as improved crop varieties, precision agriculture technologies, and sustainable farming practices have a significant positive impact on agricultural productivity. Advanced statistical analyses demonstrate that these interventions lead to higher crop yields, increased farm incomes, and improved livelihoods for smallholder farmers in diverse agroecological zones and socio-economic contexts.

2. Enhancement of Environmental Sustainability: Moreover, research results indicate that interventions aimed at promoting environmental sustainability, such as conservation agriculture, agroforestry systems, and soil and water conservation measures, contribute to the preservation of natural resources, biodiversity, and ecosystem services. Statistical analyses highlight the positive correlations between sustainable farming practices and indicators of soil health, water quality, and habitat biodiversity, underscoring the importance of integrating environmental considerations into agricultural development strategies.

3. Socio-Economic Implications: Furthermore, research findings shed light on the socio-economic implications of agricultural interventions, including their effects on rural employment, food security, income distribution, and social equity. Meta-analyses reveal that investments in agricultural research and extension services, market access infrastructure, and value chain development have multiplier effects on local economies, creating job opportunities, reducing poverty, and enhancing food access and nutrition outcomes for vulnerable populations.

4. **Adaptability and Scalability:** Additionally, research results demonstrate the adaptability and scalability of successful interventions from foreign experiments to local agricultural systems. Case studies highlight examples of innovative approaches, such as participatory extension programs, farmer field schools, and community-based natural resource management initiatives, that have been successfully adapted and replicated in diverse agroecological contexts, contributing to sustainable agricultural development and poverty alleviation.

Discussion

The discussion surrounding advanced foreign experiments in statistical research of the effectiveness of the agrarian sector delves into the implications, challenges, and opportunities arising from research findings and their potential applications at local levels. This section synthesizes key themes and implications emerging from the research results presented earlier

1. **Implications for Agricultural Development:** A central theme in the discussion is the implications of research findings for agricultural development. The evidence from advanced foreign experiments underscores the importance of evidence-based interventions, technology adoption, and sustainable farming practices in enhancing agricultural productivity, improving livelihoods, and promoting environmental sustainability. The discussion highlights the need for policymakers, practitioners, and stakeholders to prioritize investments in agricultural research, extension services, and market access infrastructure to support sustainable agricultural development and poverty reduction efforts.

2. **Challenges in Adaptation and Implementation:** However, the discussion also acknowledges the challenges and limitations inherent in adapting and implementing foreign research findings at local levels. These include differences in agroecological conditions, socio-economic dynamics, institutional frameworks, and cultural norms, which may affect the effectiveness and scalability of interventions. Addressing these challenges requires context-specific approaches, participatory methodologies, and multi-stakeholder engagement to ensure that interventions are tailored to the unique needs and contexts of local agricultural systems.

3. **Opportunities for Innovation and Collaboration:** Moreover, the discussion highlights the opportunities for innovation and collaboration arising from foreign research findings. By fostering partnerships, sharing best practices, and building networks for learning and knowledge exchange, foreign experiments provide valuable opportunities for researchers, extension workers, and farmers to collaborate on innovative solutions to shared agricultural challenges. The discussion emphasizes the importance of south-south and north-south collaboration, as well as interdisciplinary approaches, in harnessing the full potential of foreign research findings for local agricultural development.

4. **Policy Implications and Recommendations:** Furthermore, the discussion explores the policy implications and recommendations arising from research findings. Evidence-based policy formulation, informed by rigorous empirical research, is essential for guiding investments, setting priorities, and designing interventions that maximize impact and promote sustainable agricultural development. The discussion underscores the importance of fostering enabling environments, strengthening institutional capacities, and promoting multi-stakeholder partnerships to support evidence-based decision-making and policy implementation in the agrarian sector.

5. **Future Directions and Research Agenda:** Finally, the discussion outlines future directions and a research agenda for advancing the field of agricultural research and development. Emerging topics such as climate-smart agriculture, digital technologies, and inclusive value chains offer

promising avenues for innovation and collaboration. The discussion calls for continued investment in research, capacity building, and knowledge exchange to address emerging challenges, seize opportunities, and achieve sustainable agricultural development goals at local, national, and global scales.

In summary, the discussion surrounding advanced foreign experiments in statistical research of the effectiveness of the agrarian sector underscores the importance of evidence-based interventions, innovation, collaboration, and policy support in promoting sustainable agricultural development and resilience-building efforts in diverse local contexts.

Conclusion.

As we draw the curtains on our exploration of advanced foreign experiments in statistical research of the agrarian sector, a tapestry of insights, challenges, and opportunities emerges. From the fields of rural villages to the corridors of policymaking, the evidence gleaned from foreign experiments illuminates pathways toward transformative change in agricultural development.

1. **Harnessing Evidence for Impact:** Central to our journey has been the recognition of the power of evidence-based interventions in driving agricultural productivity, sustainability, and resilience. The empirical findings from advanced statistical research underscore the effectiveness of interventions such as improved crop varieties, sustainable farming practices, and market access initiatives in improving livelihoods, conserving natural resources, and promoting inclusive growth.

2. **Navigating Challenges with Ingenuity:** Yet, our exploration has not been without its challenges. Adapting and implementing foreign research findings at local levels require careful navigation of diverse agroecological, socio-economic, and institutional landscapes. However, the challenges posed by differences in context serve as catalysts for innovation, collaboration, and adaptive management approaches that harness local knowledge and resources to address shared agricultural challenges.

3. **Embracing Opportunities for Collaboration:** Moreover, our journey has illuminated the boundless opportunities for collaboration and knowledge exchange between global and local stakeholders in the agrarian sector. By fostering partnerships, sharing best practices, and building networks for learning and innovation, foreign experiments offer fertile ground for co-creating solutions, driving policy change, and advancing sustainable agricultural development goals.

4. **Charting a Course for Sustainable Futures:** In conclusion, our exploration of advanced foreign experiments in statistical research underscores the importance of evidence-based innovation, collaboration, and policy support in advancing agricultural development and resilience-building efforts. As we chart a course for sustainable futures, let us be guided by the evidence gleaned from foreign experiments, informed by the wisdom of local communities, and driven by a shared commitment to nourishing the planet and its people.

In the end, the true measure of our success lies not in the breadth of our knowledge or the depth of our insights, but in the impact we create, the lives we touch, and the legacies we leave behind in the fields of rural villages and the hearts of rural communities.

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ACRONYM AND ABBREVIATIONS IN ENGLISH LANGUAGE

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Abstract: Abbreviations are used in written conversation in English as well as in writing. Generally, common abbreviations such as dimensions and headings are always abbreviated in writing. However, days and months are usually written. Online, abbreviations and acronyms are common in texting, chat rooms, and texting. A shortened form of a word or phrase is abbreviated. Acronyms are also a type of abbreviation that can be expressed as a single word.

Keywords: Abbreviations, English, Dictionary, Acronym, word, vocabulary.

Abbreviations and acronyms are shorter versions of existing words and phrases. They're designed to save time and take up less space (whether you're typing or writing by hand), and can even make your writing easier to read. One of the most common types of abbreviations is an abbreviated word. The first few letters of the word or important letters are used for this abbreviation. Common abbreviations include titles used in everyday speech as well as military positions. We have a lot of acronyms, abbreviations and initialisms in English, which we assume most people understand. But even for native speakers, it's not clear what the difference between these three are, and many of them actually come from other languages! According to whatis.com, an acronym is "an abbreviation of several words in such a way that the abbreviation itself forms a pronounceable word. The word may already exist or it can be a new word."¹ There are some famous and international words that few people know were actually formed by putting words or letters together and shortening them.

Any shortened form of a word or phrase is an abbreviation. Acronyms are also a type of abbreviation that can be pronounced as a single word. Abbreviations are selectively used in spoken conversation as well as written English. Generally, common abbreviations such as measurements and titles are always abbreviated in written form. Days and months are commonly written out. Online, abbreviations and acronyms are most common in texting, chat rooms and in SMS. In spoken English, we often use abbreviations in informal conversations. A good rule of thumb is to use abbreviations and acronyms that you know others are familiar with, and avoid them when they are too specific. For example, if you are having a conversation with a business colleague it may be appropriate to use abbreviations particular to your line of work. However, the use of work-related abbreviations would be out of place if speaking with friends. Here is a guide to some of the most common abbreviations. Using Abbreviations and Acronyms Sparingly²

Avoid using a given acronym unless you use it extensively in a publication. In a short report, do not use an acronym for a phrase you use five or fewer times. In a long report, do not use an acronym for a phrase you use fewer than 10 times. In a webpage, do not use an acronym for a phrase

¹ Bogdanova, V.A. Pismennaya and ustnaya formy nauchnogo style (na material lexicon) [Text] / V.A. Bogdanova. - Saratov, 1999.

² Bolshakov, I. A. O nekotorykh lingvisticheskikh osobennostyakh Delovoy prose. Semiotics and informatics [Text] / I. A. Bolshakov. - M., 1995. -24-33 p.

you use fewer than three times. Some two-letter abbreviations and acronyms are acceptable (e.g., AC and DC, or MW). Avoid other two-letter acronyms that are less universally used. Writing business letters and writing business correspondence today requires high-quality study and a careful approach. When faced with the design and decoding of abbreviations in the business English language for the first time, beginners are sometimes confused and surprised to understand what it all means. The difficulty lies in the correct use of this or that abbreviation, as well as in the peculiarities of the business vocabulary. However, as in any area of language learning, knowledge and a little practice will help overcome any difficulties.

Spelling out Acronyms

In general, each time you use an acronym for the first time in the body of a report or on a given webpage, spell it out and put the acronym in parentheses after the full name. Abbreviations are international organizations (UN, UNESCO), countries and states (PRC, RF, USA), political parties, military associations (UzKDP, NATO), scientific and educational institutions (UzR FA, UzDJTU, FarDU), ministry, office, institution, indicates the names of organizations, enterprises (XTV, DTM, Uzmashholding, Toshshaharyoluchi), machines, equipment and facilities (EHM, ATS, HPP) and others. Q.s ready learning from other languages (UNESCO, FIFA, FIDE, NATO, AES) or a specific language, e.g. can be created on the basis of Uzbek language materials. Most of the Uzbek abbreviations belonging to the next type are Russian word combinations and the forms of abbreviations based on them, for example, BMT < OON, DAN < GAI, OAV (mass media) < SMI (sredstva massovoy informatsii), EHM < EVM, etc.³

In general, the use of abbreviations in English communication registers it is more common than Russian and Uzbek. Not only the names of companies, enterprises, institutions and organizations abbreviated, as well as names of famous people (JFK-John Fitzgerald Kennedy), frequently used concepts (VIP- very important person, Rip-rest in peace (may he rest in heaven); cultural stamps (WASP-Western Anglo-Saxon Protestant), Yuppy-(young urban professional); disease names (SARS –severe acute respiratory syndrome) can also be shortened. It should be remembered that the same abbreviation can express several meanings: ((MP – Member of Parliament, Military police, Metropolitan police, Mounted police), which of them we can find out from the context that it is used in the text.

Characteristics of abbreviations as a special type of nominative signs slow development of many issues related to learning and identification due to, within the framework of studies devoted to nomination problems. A lot of space is devoted to studying the results of abbreviations. In particular, It is of obvious interest to determine the "vocabulary" status of abbreviated names wakes up. This is their category of lexical units includes consideration of their usefulness as verbal cues. So, abbreviations are abbreviations written with letters. For example: UNCTAD - U.N. Conference on Trade and Development. Saving speech and written text is the main task of abbreviation. For voice time according to which the abbreviation is about five times shorter than its corresponding concept and the savings in writing will be more impressive. However, only abbreviations are interlocutors and this saving is justified only in places that are understandable to their translators. Abbreviations are found in texts of various natures and used in various speech styles and speech

³ Galkina, E. N. *Perevod abreviatur i akronimov na ruskiy yazyk. Russia and the West: dialogue culture Russia and the West: dialogue culture* [Text] / E. N. Galkina. - M, 2005. -250 p.

activities: newspaper articles, advertising, in letters, artistic works, journalistic and scientific works. Modern business world thanks to the active introduction of new information technologies is distinguished by the most active use of abbreviations in the English language. Information in the materials of the seminar on human rights. Here are examples of abbreviations: 1. FAO - Food and Agriculture Organization of the United Nations (Food and Agriculture Organization of the United Nations) 2. WHO - World Health Organization (World Health Organization) Subject-logical meanings of words in business documents prevail.⁴ That's it together with derivatives of object-logical values in this field of communication except where it is terminological. Diplomatic in this regard a number of features are formed in the speech. One of them is a particularly diplomatic speech the peculiarity of the style is clearly shown. This is a diplomatic speech consists in the existence of a small number of techniques for creating an image. In particular, metonymy, metaphor, as well as the creation of a text or speech image to witness the absence or absence of important and widespread methods possible.

Pay attention to abbreviations and acronyms every professional team related to the development of its own system of abbreviations. Such abbreviations are in dictionaries not reflected, but always out of professional communication has its own definitions. The existence of definitions and explanations of such abbreviations refers to the lack of memorization and activation. All these abbreviations, regardless of their origin, are professional should be considered as limited communication signals. Therefore, recently abbreviations (abbreviations) are words of many languages became one of the most effective ways to replenish wealth. Linguistic perspective. In fact, abbreviations are getting more and more special attention because of their number is growing more and more. Today it is reduced in developed countries the number of lexical units reached tens of thousands. Different abbreviations are widely used in different fields is used. This trend is a natural and scientific-technical phenomenon occurring in the world. It is a unique response of the language to the revolution and the development of international relations. And it is not surprising that abbreviations are a new, rapidly developing science and technology branches: programming, rocket work, cosmonautics, atomic energy, radio electronics, to complete the vocabulary of financial matters and diplomatic correspondence is widely used.

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⁴ Yashnov, P.A. Osobennosti perevoda abbreviation [Text] / P.A. Yashnov. - M., 2005. - p. 289.

EFFECT OF CHANGING THE DIAMETER OF THE FAN INLET PIPE ON ITS PARAMETERS

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Abstract. The article examines the influence of the design of the fan inlet pipe on the operating parameters of the fan. The inlet pipe is made in the form of a diffuser, as well as a confuser and different sizes. After alternately installing them on the fan, the fan is started and its main operating parameters are measured with special tools. By comparing the results, the influence of the shape and dimensions of the fan inlet pipe on its parameters was determined. Based on the analysis of the obtained results, rational shape and dimensions of the fan inlet pipe were recommended.

Key words: pneumo-transport, pipe, cotton, fan, aerodynamic force, cyclone, cotton drum, pipe, air consumption.

Introduction. The cotton growing and processing industry is of great importance in the development of the economy of Uzbekistan. In recent years, the cotton ginning enterprises of our republic have been completely reconstructed and modernized on the basis of the state program, and equipping with modern equipment reaches remote areas every day. The purpose of the reforms carried out in the industry in recent years is to improve the quality of products to the level of world market requirements, increase the efficiency of cotton production by reducing its cost.

Product quality and cost are formed at each stage of the technological process of its processing. In this case, an important role is played by the stage of supplying raw materials, which is considered the first link in the process. The supply of raw materials for the cotton processing technology is carried out with the help of pneumatic transport equipment at ginneries. Due to the simplicity of the design of air ducts and the lack of replaceable, controlled parts, their testing is limited to determining the air velocity and pressure in them. Because all other indicators of the pneumatic transport system depend on these two parameters. For example, the productivity of a pipe, or the mass of cotton it can transfer per unit of time (i.e. the capacity of the pipe), depends on the diameter of the pipe, air velocity and pressure. Depending on various factors, the pressure and air velocity in the pneumatic transport system change. However, existing pneumatic equipment does not use air speed and pressure gauges, and air speed and pressure are set approximately. Therefore, it is advisable to install measuring instruments that show the mode of operation of cotton pneumatic transport [1,2].

When a mixture of air and cotton moves in the pipe, various resistances arise, which have a great impact on the performance of pneumatic transport and energy costs. The intake of air from the outside through holes and slots in pipe joints, stone stops and separators seriously affects the performance of pneumatic transport and energy consumption [3]. Our observations show that the intake of air from the outside ("wind loss", in the working language), in existing pneumatic vehicles is very high. This situation leads to excessive consumption of a large amount of electricity and, as

a result, to an increase in the cost of the product. Therefore, the problems of ensuring the tightness of the pneumatic transport system, determining and eliminating the causes of air leakage in enterprises are also relevant.

The “heart” of pneumatic conveying equipment, that is, the device that creates movement inside it, is a fan. Therefore, all indicators of the operation of pneumatic transport are related to the parameters of the fan.

Fans are a versatile tool. Except for its special types, there will be no types dedicated to a certain material, such as cotton fan, grain fan. Perhaps, based on the task being performed and the required qualitative and quantitative indicators, fans of a certain type and power are selected for a specific technique. Fig. 1 shows a scheme of a centrifugal fan, one of the most common types of fans in the industry. It mainly consists of a base 1, a casing 2, a fan 3, an outlet pipe 4 and an inlet pipe 5, an electric motor 6, a wheel (pulley) on the fan shaft, a belt drive 7, a bearing 8, a pulley 9 on the motor shaft. When starting the electric motor during operation, its shaft rotates the pulley 9, it rotates the pulley 7, which in turn rotates the fan blade 3.

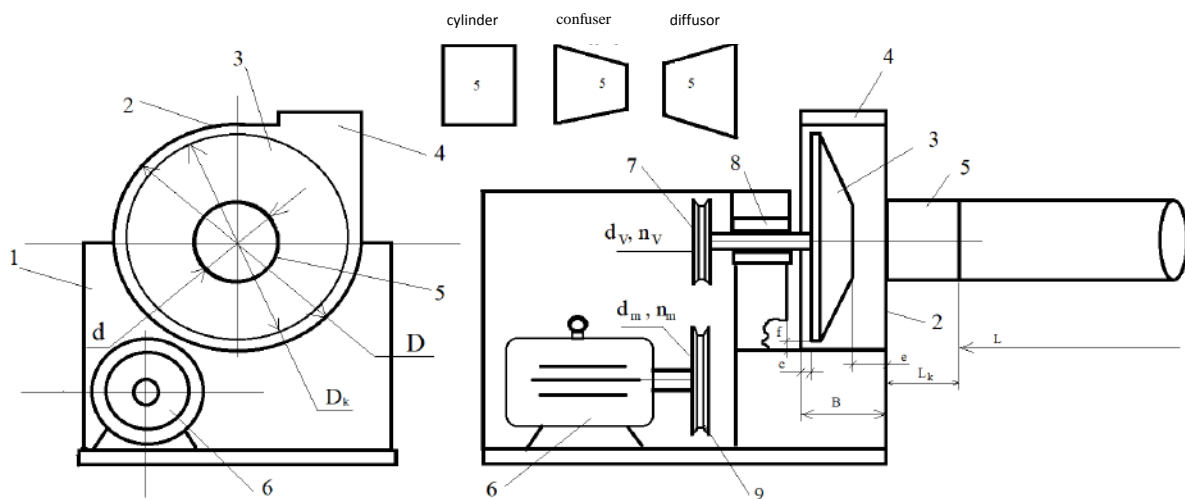


Fig.1. Scheme of a centrifugal fan

As a result of the rotation of the fan blades, air is sucked in through the inlet pipe 5 and ejected through the outlet pipe 4. By connecting pipes of the required length to the inlet and outlet pipes of the fan, it is possible to create an aerodynamic device that sucks air from one place and sprays it to another. If the material is putted into the pipe, the air flow moves it in its own direction and transports it from the suction point to the spray point.

Method. The fan casing (screw), blade, part of the blade rib, blade deflection angle, blade installation method on the propeller are recommended, so the parameters of a fan designed for a certain technology may be incorrect for a different process. Therefore, when choosing a fan for pneumatic conveying equipment designed for a specific product, it is necessary to determine some of its main parameters and check how this parameter is optimal for this process and adjust it. In addition to them, a change in the diameter of the branch pipe at the fan inlet can have a serious impact on its parameters. In these studies, we studied the influence of these factors on fan parameters in order to evaluate the size of the air inlet nozzle and the shape of the short inlet pipe connected to it.

We conducted research at the private enterprise “Ven-kon air engineering”, Namangan city, Namangan region. Scientific research was carried out on a high-pressure centrifugal fan. This fan

drive has 4 kW power, rotating blades at 3000 rpm and connects to a piping system up to 26 m long. Each pipe is 1.25 m long, which is equal to the width of the steel sheet from which the pipe is made.

The inlet pipe of the used fan has the shape of a cylinder and its diameter is equal to the diameter of the pipe, that is, 14 cm. We prepared a fan pipe in the form of a truncated cone 10x14 cm, 11x14 cm, 16x14 cm, 18x14 cm and 20x14 cm (Fig. 2, 3, 4). These pipes were connected to a pipe with a diameter of 14 cm.



Fig.2. Types of short pipes that connect to the fan inlet nozzle.

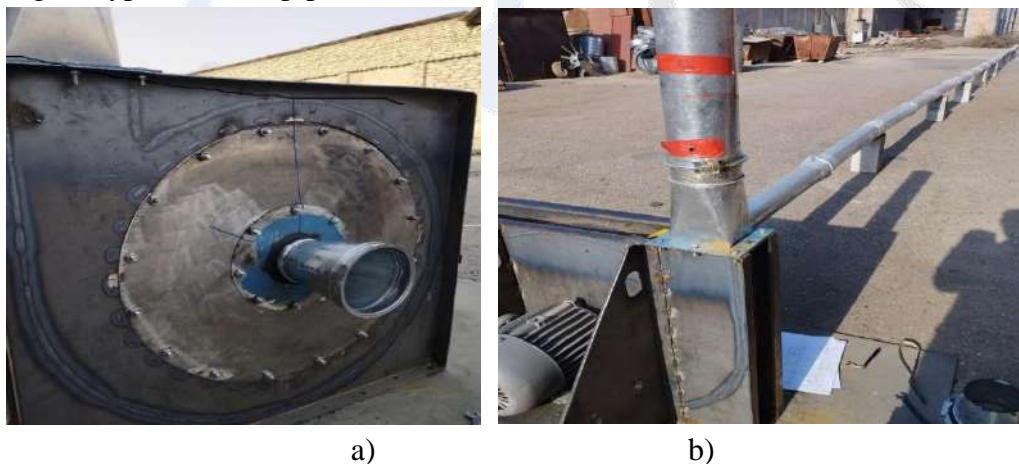


Fig.3. Overview of the experimental pneumatic device. a) fan inlet pipe b) assembled pneumatic device

By connecting them to the pipe in turn, a 26 m long track was formed from the pipes (Fig. 4). The velocity, static and dynamic pressures of the suctioned air in the pipe were measured using special measuring devices: anemometer and micromanometer. The device was connected to a 380 V current source through an inverter device, and the current and voltage changes were monitored.

Results. According to the Table 1, the diameter of the fan inlet is 10 cm, and when a diffuser with a length of 20 cm is connected to it, a full pressure of 5400 Pa occurs with the pipe

inlet closed, and when the pipe inlet is open, a static pressure of 2500 Pa and a dynamic pressure of 1380 Pa occurs at a distance of 0.20 m. Air speed is 48 m/s. As the length of the pipe increases, the air pressure and velocity at the beginning of the pipe decrease, and at a distance of 26 m, the static pressure is 900 Pa, the dynamic pressure is 1160 Pa, and the air velocity is 44 m/s. In order not to increase the size of the article, we did not present the results of subsequent studies in tabular form. However, we will present the analysis.

The results of the measurements taken on the manufactured 10x14 cm diffuser tube.

Table 1.

No	Fan state	Amperage (A)	Voltage (B)	Power (W)	Frequency (Hz)	Static pressure (Pa)	Dynamic pressure (Pa)	Velocity m/s	
Manufactured 10x14 cm diffuser tube									
1	Closed inlet nozzle (0,20 m)	2,6-3	380	1,7	50	5400			
2	Tube length 26,05M	0,20 m From inlet nozzle	7,5	380	4,24	50	2500	1380	48
		6,70 m From inlet nozzle	7,5	380	4,24	50	2060	1320	47
		25,60 m From inlet nozzle	7,5	380	4,24	50	900	1160	44

The diameter of the fan inlet is 11 cm, and when a diffuser with a length of 20 cm is connected to it, a full pressure of 5350 Pa with the inlet of the pipe is closed, and when the inlet of the pipe is opened, a static pressure of 3240 Pa and a dynamic pressure of 1880 Pa was created at a distance of 0.20 m. Air speed was 56 m/s. As the length of the pipe increased, the air pressure and velocity decreased at the beginning of the pipe, and at a distance of 26 m, the static pressure was 1180 Pa, the dynamic pressure was 1620 Pa, and the air velocity was 52 m/s.

The diameter of the fan inlet is 14 cm, and when a cylinder with a length of 20 cm is connected to it, a full pressure of 5250 Pa with the pipe inlet closed, and a static pressure of 3350 Pa and a dynamic pressure of 1880 Pa at a distance of 0.20 m, when the pipe inlet is opened. Air speed is 56 m/s. As the length of the pipe increased, the air pressure and velocity decreased at the beginning of the pipe, and at a distance of 26 m, the static pressure was 1280 Pa, the dynamic pressure was 1620 Pa, and the air velocity was 52 m/s.

The diameter of the fan inlet is 16 cm, and when a 20 cm long confusor is connected to it, a full pressure of 5350 Pa with the pipe inlet closed, and a static pressure of 3850 Pa and a dynamic pressure of 2160 Pa at a distance of 0.20 m, when the pipe inlet is open. The air speed was 60 m/s. As the length of the pipe increased, the air pressure and velocity decreased at the beginning of the pipe, and at a distance of 26 m, the static pressure was 1350 Pa, the dynamic pressure was 1880 Pa, and the air velocity was 56 m/s.

The diameter of the fan inlet is 18 cm, and when a 20 cm long confusor is connected to it, a full pressure of 5350 Pa was created with the pipe inlet closed, and when the pipe inlet was opened, a static pressure of 3800 Pa and a dynamic pressure of 2080 Pa occurred at a distance of 0.20 m. Air speed was 59 m/s. As the length of the pipe increased, the air pressure and velocity decreased at the

beginning of the pipe, and at a distance of 26 m, the static pressure was 1340 Pa, the dynamic pressure was 1810 Pa, and the air velocity was 55 m/s.

The diameter of the fan inlet is 20 cm, and when a 20 cm long confusor is connected to it, a full pressure of 5250 Pa occurs when the pipe inlet is closed, and when the pipe inlet is open, a static pressure of 3770 Pa and a dynamic pressure of 2080 Pa occurs at a distance of 0.20 m. Air speed was 59 m/s. As the length of the pipe increased, the air pressure and velocity decreased at the beginning of the pipe, and at a distance of 26 m, the static pressure is 1330 Pa, the dynamic pressure is 1810 Pa, and the air velocity is 55 m/s.

The graphs of the variation of the air velocity, static and dynamic pressure in the pipe along the length of the pipe when the fan pipe diameters are 10 cm, 14 cm, and 16 cm are presented in Fig. 4.

According to them, the air velocity along the length of the pipe decreases linearly with the dynamic and static pressure in front of the fan towards the pipe head. In this case, the intensity of the decrease in speed is relatively low, around 7%, that of dynamic pressure is around 18%, and that of static pressure is quite high - around 65%. This law was also confirmed in all the experiments conducted.

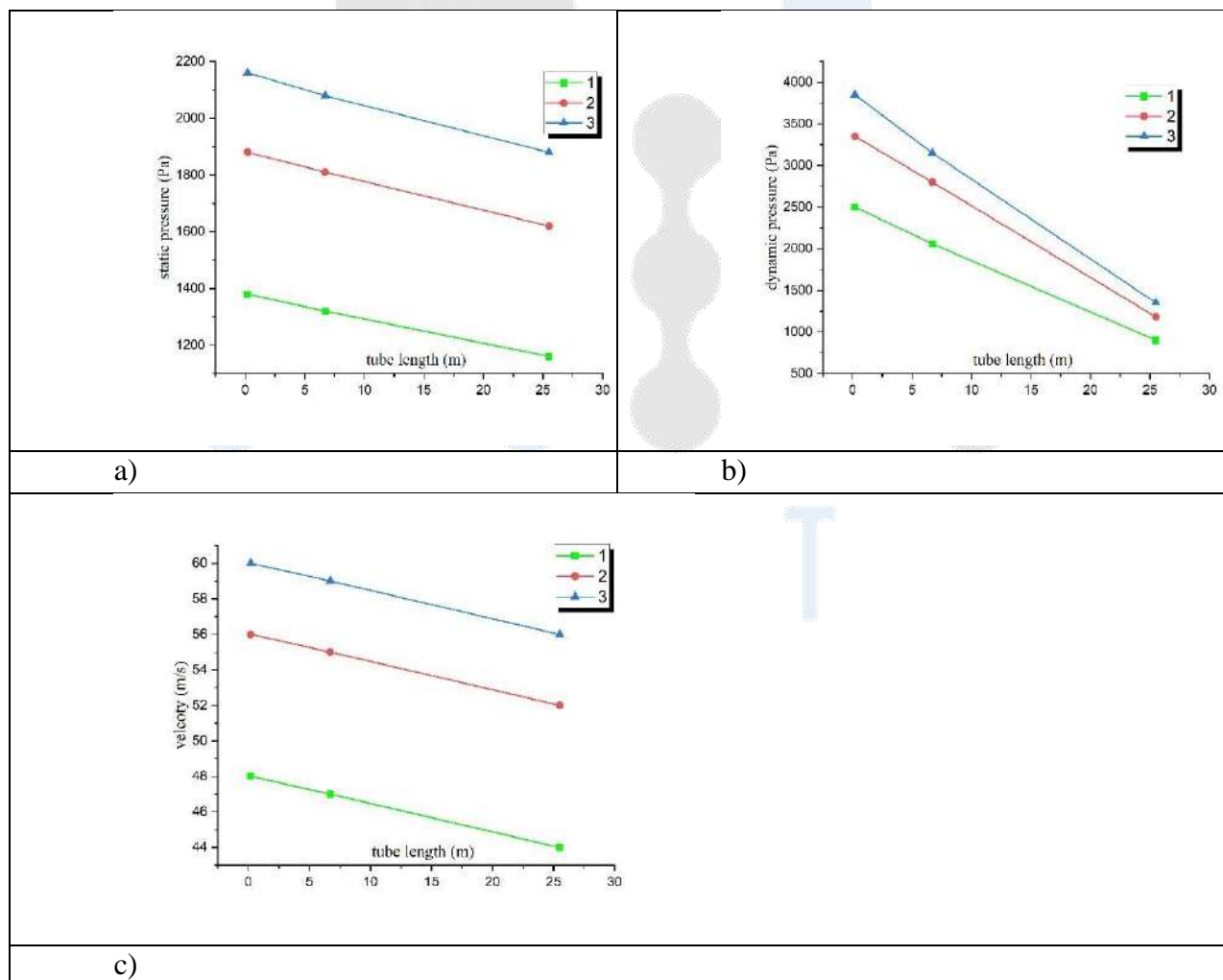


Fig. 4. Variation of the a) static, b) dynamic pressure and c) air velocity in the pipe along the length of the pipe (fan pipe diameters 1-10 sm, 2-14 sm, 3-16 sm).

The results show that, with the increase in the diameter of the fan inlet nozzle, the air pressure and speed increase, and this law continues until the pipe inlet is 16 cm. When the diameter goes from 16 to 18 cm and from 18 to 20 cm, the pressure and speed decrease compared to the final result. Accordingly, it can be said that it is appropriate to prepare the diameter of the inlet nozzle of the fan with actual dimensions of 16 cm. However, this size depends on the diameter of the fan shell. What is the ratio for other sizes? To answer this question, we introduce a coefficient that represents the ratio of the diameters of the case and the inlet hole:

$$Kt = d / D, \quad (1)$$

According to the dimensions used:

$$Kt = d / D = 16 / 80 = 0.2$$

As a result, the diameter of the inlet hole for other diameters of the fan case can be found from the following equation:

$$d = D \cdot Kt, \quad (2)$$

The diameter of the inlet pipe at the connection to the fan is equal to the diameter of the hole in the case d . However, the shape of this pipe and the size of the three parts depend on the diameter of the main pipe connected to the pipe, which should be determined experimentally.

Conclusions. Centrifugal and radial fans, among other parameters, depend on the diameter of the fan inlet, the shape and size of the inlet pipe.

When the fans work, the speed and pressure of the air flow it generates decreases linearly from the fan to the end of the pipe, and the change intensity of the air speed and dynamic pressure is relatively low, but the static pressure is very high.

As a result of the conducted research, it was determined that the coefficient of the ratio of the diameter of the fan inlet and the diameter of the fan screw should be around 0.2. However, the shape and size of the fan inlet pipe depends on the diameter of the main pipe connecting to the pipe, which should be determined experimentally.

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УЎТ: 664.8+62+576.8+633.2

IMPROVEMENT OF INITIAL PROCESSING IN STACK DRYING OF SEEDLESS GRAPE VARIETIES

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Abstract. This article analyzes the results of experiments on studying the effect of alkali treatment on the quality of the product and the speed of the process when drying the seedless varieties of grapes by the stack method. As a result of the experiments, the criteria of indicators important for evaluating the organoleptic properties of grapes after stack drying were studied. As a result of the research, scientifically based conclusions were made.

Keywords. Grapes, raisins, productivity, dry matter, quality, autumn and winter varieties, drying technology, stack, alkali.

Enter. Currently, about 73 million tons of grapes are grown in the world every year. The People's Republic of China, Italy and Spain are world leaders in terms of production volume, and in these countries, 11.2 million, 8.1 million and 6.1 million tons of grapes are harvested each year, respectively. Also, countries such as the USA, France, Turkey, and India are among the largest producers of grapes. More than 1.7 million tons of grapes are grown in Uzbekistan every year. For the rational use of all of them, it is necessary to establish the cultivation of varieties intended for consumption, export, and industry. Our country has unique experiences in the preparation of dried grape products, and the production of dried products by the Soyaki method is a unique method of the region. Improving this method and introducing it into production is one of the requirements of the present time.

The purpose and specific issues of the research. In order to increase the quality of the finished product in the drying of seedless varieties of grapes, it is necessary to study the importance of the technological properties and biochemical composition of raw materials.

Material and methods. Seedless grape varieties such as "Kishmish belyy", "Kishmish Botir", "Kishmish rozovy", "Kishmish Sogdiana", "Kishmish chyorny" were selected for research.

According to the method of conducting research:

Studies on determining the most effective concentration of alkali solution in the initial treatment during drying of selected varieties.

In order to speed up the process of obtaining a dried product from seedless grapes, experiments were carried out on forming micro-slits in the skin of grape seeds by treating with an alkaline solution. Experiments were conducted to determine the optimal concentration of the alkali solution. Including NaOH

- with 1%

- with 2%

- with 3%

- with 4%

- The effectiveness of treatment with 5% solution was determined.

These experiments were carried out in 4 repetitions.

RESEARCH RESULT AND DISCUSSION

When analyzing the time required for the formation of microcracks when applying different concentrations of NaOH solution to seedless grape varieties in the 2020-2022 period, in order to reduce the duration of the establishment of grape varieties, NaOH solution with different concentrations, i.e. 1%, 2%, 3%, 4%, 5% by increasing the amount of cracks formed on the surface of the grape grains when used as (Table 1).

According to the characteristics of different grape varieties, the time interval for the formation of dispersions through NaOH solution varied due to the different degrees of skin thickness. For example, Kishmish Botir variety was treated with a 1% NaOH solution, cracks were formed in 8 seconds, when treated with a 2% NaOH solution, cracks were formed in 7 seconds. formation of slits was achieved. When treated with NaOH solution with a concentration of 5% for the thickness of the skin of the Kishmish Rozovyi variety, it took 5 seconds to form cracks. Similarly, Kishmish belyy cultivar developed cracks in 3 seconds when treated with 5% NaOH solution.

Table 1

The time required for the formation of microcracks when drying seedless grape varieties using different concentrations of NaOH solution, s (2020-2022).

№	Varieties	Concentration of NaOH solution				
		1%	2%	3%	4%	5%
1	Kishmish Botir	8	7	5	3	2
2	Kishmish Rozovy	9	8	7	6	5
3	Kishmish chyorny	11	10	9	4	3
4	Kishmish bely	9	8	6	5	3
5	Kishmish Sogdiana	7	6	4	3	2

In the analyzed Kishmish chyorny variety, cracks were formed in 11 seconds when treated with NaOH solution with a concentration of 1%, and cracks were formed in 3 seconds when treated with NaOH solution with a concentration of 5%. Similarly, this pattern was repeated in Kishmish Sogdiana variety. According to it, when treated with a NaOH solution with a concentration of 1%, a crack was formed in 7 seconds, and when treated with a NaOH solution with a concentration of 2%, a crack was formed in 6 seconds. It was found that when treated with a 4% NaOH solution, a crack was formed in 4 seconds, and when treated with a 4 and 5% NaOH solution, a crack was formed in 3 and 2 seconds.

Based on the results of our analysis, it was proved that cracks were formed in 2 and 3 seconds for the thinness of the skin parts of the Kishmish chyorny and Kishmish Sogdiana varieties of the experimental varieties, when treated with a NaOH solution with a concentration of 5%, and it was possible to obtain a high-quality and high-quality finished product.

Table 2

Effect of different concentrations of NaOH solution on the yield of the finished product when drying seedless grape varieties in the stack method, % (2020-2022)

№	Varieties	Normal stack (control)	Concentration of NaOH solution				
			1%	2%	3%	4%	5%
1	Kishmish Botir	22,8	24,0	23,5	23,0	22,6	22,1
2	Kishmish Rozovy	24,7	26,0	25,5	25,0	24,5	24,0
3	Kishmish chyorny	19	20,0	19,6	19,2	18,8	18,4
4	Kishmish bely	28,5	30,0	29,4	28,8	28,2	27,7
5	Kishmish Sogdiana	14,25	15,0	14,7	14,4	14,1	13,8

When drying seedless grape varieties using the stack method, the output of the finished product was analyzed using different concentrations of NaOH solution, mainly depending on the thickness of the skin of the grape varieties, they were treated with NaOH solution at different concentrations and the product output was determined. According to him, Kishmish Botir variety from the thick-skinned raisin varieties produced 22.8% finished product yield in the normal stack (control) method, and 24.0% finished product yield when dried with 1% NaOH solution. When this variety was treated with a 2% NaOH solution and dried, the yield of the finished product was 23.5%. The yield of the finished product was 23.0% when dried by treatment with a NaOH solution with a concentration of 3%, while the yield of the finished product was 22.6% when treated with a solution of NaOH with a concentration of 4%, and with a concentration of 5% After drying with NaOH solution, the yield of the finished product decreased by 22.1%. (Table 7)

In Kishmish rozovy variety, when dried by a simple stack (control) method, it was 24.7%, when dried with a 1% NaOH solution, the yield of the finished product increased by 26.0%, when treated with a 2% NaOH solution. the yield of the finished product when dried was 25.5 percent, and the yield of the finished product decreased when treated with NaOH solution with a concentration of 3.4 and 5 percent. In the same way, cases of reduction were found in the Kishmiy Belyy variety.

Among these analyzed varieties, the highest finished product yield was observed in the Kishmi Belyy variety. Compared to other varieties, it can be observed that the output of the product is 5-6 percent higher. Due to the thinness of the skin of the investigated Kishmish chyorny and Kishmish Sogdiana varieties, the yield of the finished product decreased when these varieties were dried by treating with NaOH solution.

From the kishmishbop grape varieties listed in the table, only Kishmish Botir, Kishmish rozovyy and Kishmish belyy varieties received high-quality ready-made products due to the skin thickness, or on the contrary, 20 and 15% of ready-made products were obtained for thin-skinned varieties, i.e. Kishmish chyorny and Kishmish Sogdiana varieties. it was found that the quantity of quality products has decreased.

According to the analysis, when the Kishmish chyornyi and Kishmish Sogdiana varieties were dried by treating with NaOH solution in a simple stacking method, the grape grains were

crushed, their color was lost, and it was determined that it was impossible to obtain a high-quality finished product.

Table 3

The effect of different concentrations of NaOH solution on the organoleptic evaluation of the finished product during stack drying of seedless grape varieties (2020-2022)

№	Varieties	Оддий штабел (назорат)	NaOH эритмасининг концентрацияси				
			1%	2%	3%	4%	5%
1	Kishmish Botir	91,2	96,0	94,1	92,2	90,4	88,5
2	Kishmish Rozovy	90,25	95,0	93,1	91,2	89,4	87,6
3	Kishmish chyornyy	89,87	94,6	92,7	90,9	89,0	87,3
4	Kishmish bely	89,015	93,7	91,8	90,0	88,2	86,4
5	Kishmish Sogdiana	87,685	92,3	90,5	88,6	86,9	85,1

The influence of different concentrations of NaOH solution on the organoleptic evaluation of the final product when drying Kishmishbop grape varieties in the stack method was performed (Table 3) compared to a simple stack (control). While the organoleptic value of drying in a normal stack was estimated from 87.6 to 91.2 points, the organoleptic value of the finished product dried using a 1% NaOH solution was evaluated based on the coefficient of importance. According to the evaluation, Kishmish Botir variety got 91 points and 94.1 points when treated and dried in NaOH solution with 2% concentration. Similarly, 92.2 points were scored in 3 percent, 90.4 points in 4 percent and 88.5 points in 5 percent. According to this analysis, treatment and drying in 1% NaOH solution scored 7.5 points higher than treatment and drying in 5% NaOH solution. 2.7 points lower compared to the normal stack (control). When treated and dried in a NaOH solution with a concentration of 1 percent compared to the normal stack (control), it scored 4.8 points higher.

According to the assessment based on the essence coefficient, the Kishmish rozovy variety was evaluated with 95 points when treated and dried in a 1% NaOH solution, and 93.1 points when treated and dried in a 2% NaOH solution. Similarly, 91.2 points were scored in 3 percent, 89.4 points in 4 percent and 87.6 points in 5 percent. According to this analysis, treatment and drying in 1% NaOH solution scored 7.4 points higher than treatment and drying in 5% NaOH solution. 2.6 points lower compared to the normal stack (control). When treated and dried in a NaOH solution with a concentration of 1 percent compared to the normal stack (control), it scored 4.8 points higher.

According to the evaluation based on the coefficient of mochiity, Kishmish rozovy variety was evaluated with 95 points when processed and dried in NaOH solution with 1% concentration, and 93.1 points when processed and dried in NaOH solution with 2% concentration. Similarly, 91.2 points were scored in 3 percent, 89.4 points in 4 percent and 87.6 points in 5 percent. According to this analysis, treatment and drying in 1% NaOH solution scored 7.4 points higher than treatment and drying in 5% NaOH solution. 2.6 points lower compared to the normal stack (control). When

treated and dried in a NaOH solution with a concentration of 1 percent compared to the normal stack (control), it scored 4.8 points higher.

Kishmish chyorny variety was evaluated with 94.6 points when processed and dried in NaOH solution with 1% concentration, and 92.7 points when processed and dried in NaOH solution with 2% concentration. Similarly, 90.9 points were scored in 3 percent, 89.0 points in 4 percent and 87.3 points in 5 percent. According to this analysis, the treatment and drying in 1% NaOH solution scored 7.3 points higher than the treatment and drying in 5% NaOH solution. 2.5 points lower compared to the normal stack (control). When treated and dried in a NaOH solution with a concentration of 1 percent compared to the normal stack (control), it scored 4.8 points higher. Kishmish Bely variety was evaluated with 93.7 points when processed and dried in NaOH solution with 1% concentration, and 91.8 points when processed and dried in NaOH solution with 2% concentration. Similarly, 90.0 points were scored in 3 percent, 88.2 points in 4 percent and 86.4 points in 5 percent. According to this analysis, the treatment and drying in 1% NaOH solution scored 7.3 points higher than the treatment and drying in 5% NaOH solution. 2.6 points lower compared to the normal stack (control). When treated and dried in a NaOH solution with a concentration of 1 percent compared to the normal stack (control), it scored 4.7 points higher.

Kishmish Sogdiana cultivar was evaluated with 92.3 points when treated and dried in NaOH solution with 1% concentration, and 90.5 points when treated and dried with NaOH solution with 2% concentration. Similarly, 3 percent scored 88.6 points, 4 percent scored 86.9 points, and 5 percent scored 85.1 points. According to this analysis, 7.2 points were scored higher when treated and dried in a 1% NaOH solution compared to treated and dried in a 5% NaOH solution. 2.5 points lower compared to the normal stack (control). When treated and dried in a NaOH solution with a concentration of 1 percent compared to the normal stack (control), it scored 4.7 points higher.

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**Формирование навыков и умений профессионального устного
общения у студентов**

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Аннотация: В данной исследовательской работе основное внимание уделяется изучению развития навыков у студентов колледжей и подчеркивается важность развития навыков устного общения для их профессионального роста и будущих начинаний.

Ключевые слова: устное общение, способности, мнение, построение профессиональных отношений, эффективное сотрудничество.

Профессиональные навыки устного общения необходимы в различных аспектах жизни, включая рабочее место и личные отношения. Эффективная вербальная коммуникация позволяет людям ясно выражать идеи, точно передавать информацию и вступать в содержательные беседы. Кроме того, это позволяет отдельным лицам выстраивать позитивные профессиональные отношения, эффективно сотрудничать и эффективно разрешать конфликты. Таким образом, развитие и оттачивание профессиональных навыков устного общения имеет решающее значение для успеха студентов в их будущей карьере и личной жизни.

Кроме того, внедрение технологий в образовательные учреждения оказало большое влияние на формирование навыков и умений профессионального устного общения у студентов. Использование онлайн-платформ и инструментов виртуальной коммуникации предоставило студентам возможность участвовать в беседах в режиме реального времени с людьми из разных слоев общества, тем самым повышая их навыки межкультурного общения. Кроме того, интеграция мультимедийных ресурсов, таких как видео и аудиозаписи, позволила студентам практиковаться и улучшать свое произношение, интонацию и общую подачу

материала. Эти достижения произвели революцию в том, как студенты учатся и развивают свои навыки устного общения, подготавливая их ко все более взаимосвязанному глобальному обществу, в которое они вступят после окончания учебы. Профессиональная вербальная коммуникация относится к обмену информацией, идеями и сообщениями в профессиональной обстановке с эффективным и надлежащим использованием языка. Она включает в себя различные компоненты, включая ясность, лаконичность и согласованность, которые обеспечивают точную и результативную передачу сообщений.

Одним из важных компонентов навыков профессиональной вербальной коммуникации является владение языком. Учащиеся должны уметь эффективно общаться и четко в выбранной ими области, используя соответствующую лексику и грамматику. Наряду со знанием языка учащиеся должны развивать навыки активного слушания, позволяющие им осмысленно понимать других и реагировать на них. Кроме того, навыки межличностного общения играют решающую роль в профессиональном устном общении, поскольку они позволяют студентам устанавливать взаимопонимание, разрешать конфликты и сотрудничать с другими людьми. Наконец, навыки невербального общения, такие как язык тела и тон голоса должны быть отточены, чтобы обеспечить эффективную коммуникацию и передать профессионализм.

Владение языком является обязательным условием эффективного устного общения в профессиональном контексте. Это позволяет людям четко формулировать свои мысли, понимать сложные идеи и участвовать в содержательных дискуссиях. Кроме того, владение языком позволяет студентам продемонстрировать свои знания и опыт, повышая их шансы на успех в выбранной ими области. Развитие языкового мастерства требует постоянной практики, знакомства с различными языковыми контекстами и понимания культурных нюансов. Поэтому учебные заведения должны уделять приоритетное внимание программам языкового обучения, которые направлены на расширение словарного запаса, грамматики и навыков произношения

учащихся, а также на развитие культурной восприимчивости и навыков межкультурной коммуникации.

Активное слушание - важнейший навык, который необходимо развивать при формировании профессионального устного общения. Это предполагает уделение полного внимания говорящему, избегание перебиваний и обеспечение обратной связи для обеспечения понимания. Активные слушатели чутки, терпеливы и непредвзяты, что способствует эффективному общению и развитию сильных межличностные отношения.

Невербальная коммуникация играет жизненно важную роль в эффективной передаче сообщений, поскольку она включает в себя использование мимики, языка тела и жестов. Эти невербальные сигналы часто могут передавать больше, чем просто слова, позволяя людям выражать эмоции, отношение и намерения. Понимание и интерпретация невербальных сигналов являются важными навыками в профессиональном вербальном общении, особенно среди студентов, развивающих свои способности. Способность распознавать и интерпретировать невербальные сигналы общения помогает учащиеся лучше понимают других людей и общаются с ними, способствуя успешному взаимодействию и взаимоотношениям в различных профессиональных условиях. Более того, осознание собственных невербальных сигналов может способствовать эффективному общению, поскольку люди могут согласовывать свои вербальные и невербальные сообщения, чтобы избежать путаницы и точно передавать свои мысли. В целом, невербальная коммуникация дополняет вербальную коммуникацию и усиливает ее воздействие, играя решающую роль в формировании навыков и умений, необходимых для профессионального общения у студентов.

Ясность и лаконичность имеют первостепенное значение в эффективном профессиональном устном общении. Студенты должны стремиться выражать свои мысли ясно и прямо, избегая расплывчатых или двусмысленных формулировок. Систематизируя мысли и идеи в сжатой форме, учащиеся могут

представлять информацию упорядоченным и понятным образом, повышая общую эффективность своего общения.

Эмпатия и эмоциональный интеллект являются необходимыми навыками для эффективного вербального общения между учащимися. Эмпатия позволяет людям понимать чувства других людей и разделять их, воспитание большего чувства связи и сострадания. Эмоциональный интеллект включает в себя способность распознавать собственные эмоции и управлять ими, а также воспринимать эмоции других людей и реагировать на них. Развитие этих навыков может привести к улучшению коммуникации, разрешению конфликтов и сотрудничеству, что в конечном итоге повысит общее качество межличностных взаимодействий в условиях колледжа.

Образовательная среда играет решающую роль в формировании навыков и умений профессионального устного общения у студентов. Она предоставляет студентам платформу для взаимодействия со своими сверстниками и учителями, создавая среду совместного обучения. Кроме того, она предлагает различные ресурсы и инструменты, такие как библиотеки и технологии, которые способствуют развитию коммуникативных навыков. Эта среда поощряет студентов участвовать в дискуссиях, дебатах и презентациях, повышая их способность эффективно выражать идеи. Кроме того, присутствие знающих и доступных преподавателей способствует созданию благоприятного пространства для того, чтобы студенты могли обрести уверенность в своих навыках устного общения.

Дискуссии, с другой стороны, способствуют развитию критического мышления и позволяют учащимся выражать свои мнения и идеи, учась у своих сверстников. Более того, эти мероприятия и дискуссии способствуют созданию инклюзивной учебной среды, в которой учащиеся чувствуют, что их ценят и поощряют к участию, способствуя их общему росту и развитию как эффективных коммуникаторов.

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VOLUME-3, ISSUE-5

Роль учителей и наставников заключается в имеет решающее значение в формировании навыков и умений профессионального устного общения у студентов. Они играют важную роль в обеспечении руководства, поддержки и обратной связи, чтобы помочь студентам развить эффективные коммуникативные навыки. Преподаватели и наставники не только обучают теоретическим знаниям, но и предоставляют студентам практические возможности практиковать и применять свои коммуникативные навыки в реальных жизненных ситуациях. Благодаря своим знаниям и опыту учителя и наставники могут выявить сильные и слабые стороны отдельных учащихся и дать целенаправленные рекомендации по улучшению их коммуникативные способности. Кроме того, они могут способствовать созданию благоприятной учебной среды, которая побуждает учащихся активно участвовать в устном общении, позволяя им обрести уверенность и компетентность в эффективном выражении своих мыслей и идей.

Групповые проекты и презентации обычно используются на курсах колледжа как способ для студентов развить свои навыки и умения в профессиональном устном общении. Эти занятия позволяют студентам попрактиковаться в формулировании своих идей, сотрудничестве с другими людьми и представлении информации в понятной форме. С помощью групповых проектов студенты учатся эффективно работать в команде, разрешать конфликты и делегировать задачи. Презентации требуют от студентов изложения своих выводов или аргументов в убедительной и увлекательной манере, оттачивая их ораторские способности. В целом, этот опыт способствует формированию и развитию основных коммуникативных навыков, которые имеют решающее значение для успеха как в академической, так и в профессиональной сферах.

С другой стороны, личная мотивация и самосознание играют решающую роль в формировании навыки и умений профессионального устного общения у студентов. По мере того как люди начинают лучше осознавать свои собственные сильные и слабые стороны, они могут эффективно направлять свои усилия на

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улучшение своих коммуникативных навыков. Кроме того, личная мотивация выступает в качестве движущей силы, которая подталкивает студентов постоянно стремиться к совершенству в своих способностях к вербальному общению. Устанавливая цели и беря на себя ответственность, студенты могут добиться большего успеха в своих профессиональных коммуникационных начинаниях.

Для того, чтобы добиться успеха в профессиональном мире люди должны осознавать важность коммуникативных навыков. Эффективная коммуникация способствует взаимопониманию, сотрудничеству и решению проблем внутри организаций. Учащиеся должны уделять приоритетное внимание приобретению и совершенствованию своих способностей к вербальному общению, поскольку это имеет решающее значение для построения отношений, передачи информации и четкого и убедительного выражения идей.

Упражнения по чтению и письму играют фундаментальную роль в формировании и развитии навыков устного общения у студентов. Эти упражнения позволяют учащимся улучшить свой словарный запас, улучшить грамматику и синтаксис, а также расширить свои знания в различных предметных областях. Кроме того, благодаря чтению и письму учащиеся также приобретают критическое мышление и аналитические навыки, поскольку от них требуется анализировать тексты, интерпретировать информацию и эффективно выражать свои собственные идеи.

Программы языкового погружения - это высокоэффективный метод приобретения свободного владения изучаемым языком. Предоставляя студентам захватывающую среду, в которой они постоянно находятся в окружении носителей языка, эти программы способствуют развитию лингвистических навыков и умений. Программы погружения знакомят студентов с аутентичным использованием языка, улучшая их навыки аудирования, разговорной речи, чтения и письма. Более того, они способствуют культурному пониманию и признательности, поскольку учащиеся погружаются в обычаи и традиции страны

изучаемого языка. Кроме того, программы погружения поощряйте студентов активно участвовать в процессе изучения языка, выводя их за пределы зоны комфорта и поощряя критическое мышление. В целом, программы языкового погружения служат ценным инструментом в формировании у студентов профессиональных навыков устного общения.

Поддержание зрительного контакта является важнейшим аспектом профессиональной вербальной коммуникации. Это помогает установить доверие, вовлеченность и связь между людьми. Поддерживая зрительный контакт, выступающие могут выразить свою уверенность, уважение и внимательность по отношению к слушателю, что в конечном счете способствует эффективному и содержательному общению.

Задавать уточняющие вопросы - важный навык профессионального устного общения. связь. Это помогает получить четкое представление об обсуждаемой теме или проблеме. Задавая соответствующие вопросы, учащиеся могут получить больше информации, прояснить сомнения и обеспечить эффективную коммуникацию. Кроме того, это демонстрирует активное слушание и вовлеченность в беседу, способствуя созданию атмосферы сотрудничества и продуктивности.

Перефразирование и обобщение - необходимые навыки в профессиональном устном общении. Перефразирование включает в себя перефразирование чьих-либо слов или идей, в то время как подведение итогов - это процесс обобщения большей части информации. информация в более короткой, сжатой форме. Оба метода широко используются в академических и профессиональных кругах, чтобы продемонстрировать понимание и избежать плагиата. Правильно выполненное перефразирование и подведение итогов требуют навыков критического мышления и анализа, позволяющих оратору синтезировать сложную информацию и представить ее в ясной и связной форме. Овладение этими навыками имеет решающее значение для студентов, поскольку

это помогает им эффективно излагать свои идеи, отдавая должное первоисточникам.

Чтобы эффективно общаться, люди должны осознавать ту роль, которую играет язык тела в передаче сообщений. Осознание языка тела предполагает понимание невербальных сигналов, таких как жесты, мимика и поза, которые могут повлиять на смысл вербального общения. Распознавая и интерпретируя эти сигналы, люди могут повысить свою способность понимать других и реагировать на них и, в конечном счете, улучшить свои общие коммуникативные навыки.

Модуляция голоса и интонация играют важную роль в эффективном вербальном общении. Умение модулировать свой голос помогает передавать эмоции и вовлекать слушателей. Аналогичным образом, правильное использование тона позволяет говорящему проявлять напористость, сопереживание или убеждение. Развитие этих навыков имеет решающее значение для того, чтобы студенты преуспели в профессиональном общении.

Развитие ясности и лаконичности в устном общении имеет решающее значение для эффективной передачи учащимися своих идей. Исключая лишние слова и сосредотачиваясь на главном, учащиеся могут улучшить свои коммуникативные навыки. Этот навык гарантирует, что сообщения будут понятны легко понимается и предотвращает путаницу или неправильное толкование в академической и профессиональной среде.

Организация мыслей перед выступлением - важнейший навык в профессиональном устном общении студентов. Это позволяет людям четко формулировать свои идеи и аргументы, повышая эффективность их послания. Структурируя мысли, учащиеся могут исключить ненужную информацию и сосредоточиться на ключевых моментах, что приводит к краткой и связной речи.

Использование соответствующего языка и терминологии - это важнейший аспект развития профессиональных навыков устного общения у студентов колледжа. Это требует понимания специализированной лексики и жаргона,

используемых в соответствующих областях. Использование точного языка имеет важное значение для точной и эффективной передачи информации. Кроме того, использование соответствующей терминологии демонстрирует опыт и авторитет в выбранной ими области обучения и повышает общую ясность и согласованность их коммуникации. Учащиеся должны активно участвовать в процессах овладения языком, постоянно расширяя свой словарный запас и совершенствуя свои понимание технических терминов для обеспечения успешного и профессионального устного общения.

Проявление эмпатии и сострадания является важным аспектом эффективного вербального общения между студентами. Понимая и признавая эмоции других, люди могут создать благоприятную и инклюзивную среду. Этот навык позволяет учащиеся должны выражать искреннюю заботу и обеспечивать комфорт, укрепляя значимые связи и повышая общее качество межличностных взаимодействий.

Управление эмоциями во время общения является важнейшим аспектом эффективной вербальной коммуникации, особенно среди студентов колледжа. Это требует способности распознавать и регулировать свои эмоции, чтобы сохранять рациональное и сдержанное поведение. Поступая таким образом, люди могут с большей легкостью справляться с конфликтами и разногласиями, обеспечивая плавное и продуктивное общение. Развивая эти навыки управления эмоциями могут привести к улучшению межличностных отношений и общему успеху в профессиональной коммуникации.

Согласно эссе под названием "Формирование навыков и умений профессиональной вербальной коммуникации у студентов", эффективная вербальная коммуникация среди студентов играет решающую роль в их профессиональном развитии. В эссе исследуются факторы, способствующие формированию этих навыков, такие как практика, активное участие в дискуссиях и получение обратной связи. Кроме того, это подчеркивает важность развития у студентов способностей к публичным выступлениям и овладения искусством

уверенного и убедительного представления информации. В заключение отметим, что преимущества получения профессионального устного общения среди студентов колледжа. множество. Во-первых, эти навыки повышают их компетентность и эффективность в самовыражении и передаче информации. Во-вторых, такие навыки способствуют развитию критического мышления и способностей к решению проблем. Более того, они улучшают межличностные отношения, позволяя студентам создавать прочные связи и способствовать сотрудничеству. Кроме того, приобретение профессиональных навыков устного общения дает студентам возможность проводить убедительные презентации и уверенно формулировать свои идеи. Кроме того, эти навыки высоко ценятся на рынке труда, поскольку эффективная коммуникация является важнейшим аспектом успеха в различных профессиональных областях.

Преимущества приобретения профессиональных навыков устного общения. Повышение успеваемости является важнейшей целью для студентов. Эффективные навыки устного общения играют жизненно важную роль в достижении этой цели. Развивая свою способность четко и убедительно формулировать мысли, учащиеся могут преуспеть в презентациях, дебатах и дискуссиях, демонстрируя тем самым глубокое понимание предмета. Кроме того, эффективная коммуникация способствует лучшему сотрудничеству и вовлеченности, поскольку учащиеся могут активно участвовать в групповых проектах и обсуждениях в классе. Следовательно, улучшенная успеваемость учащихся напрямую связана с их улучшенными навыками устного общения, что позволяет им преуспевать в учебе.

Расширенные возможности трудоустройства и перспективы карьерного роста имеют решающее значение для студентов на современном конкурентном рынке труда. Благодаря приобретению профессиональных навыков устного общения студенты могут эффективно формулировать свои идеи и помыслы, демонстрируя свою компетентность и пригодность для желаемых должностей. Эти навыки позволяют студентам преуспевать на собеседованиях при приеме на

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работу, презентациях и сетевых мероприятиях, повышая их шансы получить работу и продвинуться по карьерной лестнице.

Еще одним преимуществом развития навыков профессионального устного общения у студентов является укрепление личных отношений. Эффективная коммуникация позволяет людям ясно выражать себя, понимать точку зрения других и эффективно разрешать конфликты. Оттачивая эти навыки, учащиеся могут установить более глубокие связи со своими сверстниками, учителями и даже членами семьи, что приведет к более прочным межличностным отношениям.

Повышенная уверенность в себе и самовыражение являются важнейшими аспектами личностного и профессионального развития человека. В контексте профессионального устного общения эти качества позволяют студентам эффективно передавать свои мысли и идеи, способствуя их успеху в различных сферах жизни. Развитие уверенности в себе и самовыражения позволяет людям уверенно преподносить себя, участвовать в содержательных дискуссиях и строить прочные межличностные отношения. Эти навыки особенно важны на рабочем месте, где требуется эффективная вербальная общение часто является определяющим фактором карьерного роста и успеха. В конечном счете, содействие повышению уверенности в себе и самовыражению повышает общие коммуникативные навыки людей и позволяет им достигать своих целей, как в учебе, так и в будущих профессиональных начинаниях.

Формирование навыков и умений профессионального устного общения у студентов имеет решающее значение в условиях колледжа. Она включает в себя развитие основных навыков, таких как публичные выступления, эффективные методы презентации, активное слушание и убедительная коммуникация. Эти навыки позволяют студентам уверенно выражать себя, красноречиво формулировать свои идеи и вступать в содержательные беседы, что в конечном счете подготавливает их к будущей профессиональной деятельности.

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**EPIDEMIOLOGICAL FEATURES OF THE SPREAD OF ACUTE
INTESTINAL DISEASES IN UZBEKISTAN**

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Resume

This article provides information on the global prevalence of acute diarrheal diseases and the occurrence characteristics of causative agents of diarrheal diseases, as well as the condition in the Republic of Uzbekistan.

Keywords: diarrhea, causative agent, salmonellosis, dysentery, virus.

Since diarrheal diseases are among the common, common, and at the same time causing enormous economic damage in our country, kurrai is also in the spotlight of scientists all over the world. As a result of the severe and persistent course of this disease in humans, especially in children, a significant increase in mortality among them is an impetus for the inexhaustible research of specialists in the relevant field.

It should be noted that these diseases not only lead to large economic losses in the premature death of children, but also a certain blow to the foundation of the formation of a healthy generation, which is reflected in the mental and physical development of the child: the child becomes capricious, indifferent and weak, as a result of which he is prone to various superstitions and ailments, causing.

Also, as a result of diarrheal diseases, the basis is also laid for the formation of a number of chronic somatic diseases (for example, gastritis, enteritis, enterocolitis, colitis, etc.), which ultimately leads to the fact that the person in question will suffer or remain disabled for a lifetime.

According to the Jaxon Health Organization's definition, diarrhea, i.e. diarrhea, is one of the symptoms of most pathological conditions, which is constipation in the form of liquid feces (enough to take the form of a poured container) three or more times over a 24 - hour period. The main diseases of this sign are referred to as diarrheal diseases.

The results of research conducted by Jaxon Health Organization and other foreign scientists show that in the countries of Asia, Africa and Latin America, aged children under 5 years of age suffer about 1 billion with ulcers (acute infectious intestinal diseases), of which 4.6 million. as long as the dead end. In recent years, as a result of the rise of medical science and the improvement of treatment methods, cases of recovery from the disease have increased, and the death rate in this regard is 3.3 million.down to.

A characteristic for all regions is that escherichioses are mainly (in the case of 3/4 parts) common among the population living in the city. The main reasons for this are that, firstly, there are many conditions for triggers to call disease in the city, and

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secondly, Bacteriological Methods of diagnosis are well established in the city. In the Republic of Uzbekistan, the incidence of oysters is much higher, with a trend of decline in recent years. These indicators are especially high among children, and there is no tendency to decrease the severity of the disease.

It is worth noting that in the USA there are more and more cases of pain with salmonellosis. Research shows that the holos, while only 1-5% of cases of real salmonellez are officially taken into account during the year. There are also growing cases of salmonellese pain in the UK. The largest foci of salmonellez incidence in RF range from 53-115 people per Flash, to 162 people, mostly kindergartens, with incidence observed. The instigators were mainly salmonelle of the D guru. Dysentery, on the other hand, decreased by 36% in 2000 compared to previous years. Similar rates have occurred in the Republic of Uzbekistan, in the regions of chunonchi Samarkand, Andijan, Tashkent in 1990, the incidence per 100,000 inhabitants fell from 20-40, while in 2000 it decreased to 15-18. According to reports, the incidence of dysentery in the Khorezm region was 37 per 100,000 inhabitants in 1991, compared to 3.2 by 2015. According to the Ministry of health of the Republic of Uzbekistan, in the Khorezm region in 1992, 709.9 cases of acute intestinal infections per 100,000 inhabitants were registered, which means 1.4 times more than the average of our country.

The positive state of Health and sanitation of children, in turn, is closely related to the decrease in the level of infectious diseases in our country. When studying the causes of infectious diseases and an increase in the mortality of children, as well as developing practical recommendations for their reduction, it is important to take into account all factors in the health of the population, including the level of environmental pollution, since the children's organism is especially susceptible to the level of environmental pollution. The development and distribution of grooves among humans initially depends on the socio-economic development of society, the lifestyle of the population, as well as the type, quantity and virulence of triggers.

Along with the changes that have taken place in our Mother Nature over the centuries, including ecological disturbances, an evolutionary process has also occurred in the triggers of infectious diseases, in particular, ulcers. The pathogenicity and virulence properties of infectious disease pathogens under the influence of colorful external and internal factors are in the variable. To date, many pathogenic microorganisms have disappeared, replaced by new species that have not been encountered before and are now adapted to the conditions of the modern environment. Therefore, it is especially important to identify the triggers of OIC lari, to assess their importance holistically, to diagnose, therapy and prophylaxis of these diseases.

The ecologically unfavorable conditions caused by the drying of the Aral Sea have

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severely adversely affected the flora, fauna and climate of the region. The population living in the same region is especially manifested by the deterioration in the health of women of childbearing age, which is a sensitive part of it, an increase in the number of cases. In our opinion, environmentally unfavorable conditions not only negatively affect the world of Man, animals and plants, but also change the properties of microorganisms. Over the past years, the clinical course of infectious diseases, in particular intestinal infections, and the epidemic process in them have changed radically. That is why their etiological diagnosis does not cause significant complications. In recent times, a somewhat mild course of most ulcers, severe forms and a decrease in intoxication, a significant decrease in relapses and lethal States, while changes in the characteristics of disease triggers also necessitate the need to dwell separately on the features of the occurrence of OIC Lar triggers.

We can also cite Salmonella, Shigella, Iersinae, Proteus Campylobacter and other microorganisms as triggers that cause ulcers in other countries of Central Asia and in Kazakhstan.

The Shigella are divided into three regions based on their degree of distribution: the first is Sh.the sonnei trigger is the region that calls for more disease; the second is Sh.flexneri ET Co.sonnei is a region of diseases that serve as the same etiological factor; the third is Sh.flexneri is a common region. It should be noted that our country is part of the third region. In addition to bacteria and simple animals, viruses, chunonchi, rotaviruses can also be cited as one of the causes of diarrheal diseases: in the RF during 1997-2001, the number of patients with rotavirus infection increased by 2 barovars compared to previous years. More than 70% of patients were identified during the cold season of the year, while 91% of cases occurred among children. Descendants of intestinal adenoviruses, enteroviruses and other similar viruses may also play a role in human OIC etiology in some cases.

Conclusion. As can be seen from the etiology of oysters, the causative agents of these diseases are diverse, the socio-economic, climatic-geographical conditions of their origin, as well as the age of the infected, the condition and living conditions of their organism are important.

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BASIC TYPES OF PERSPECTIVE ACCORDING TO FORMATION

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***Abstract:** In order to ensure students' quality mastery of the science of perspective, this article differentiates and illuminates the types of perspective according to its formation.*

***Key words:** Perspective, binocular vision, monocular vision, one-point perspective, two-point perspective, three-point perspective, "bird's eye", "worm's eye".*

Perspective Drawing is a technique of space manipulation that consists of drawing three dimensional images on a two-dimensional surface. Perspective is what gives a three-dimensional feeling to a flat image such as a drawing or a painting. In art, it is a system of representing the way that objects appear to get smaller and closer together the farther away they are from the viewer. The purpose of perspective drawing is to learn to create three dimensional forms from a vanishing point. Perspective is key to almost any drawing or sketch as well as many paintings. It is one of the fundamentals that you need to understand in order to create realistic and believable scenes. There are four parts of a perspective drawing: the horizon line, vanishing point, orthogonal lines, and three dimensional forms.

Perspective can be used to depict depth and volume and to give your visual work a convincing three-dimensional appearance of space. Perspective is one of the key principles of drawing, and better understanding of it will markedly improve your drawing skills.

Most commonly, artists use perspective to depict realistic three-dimensional spaces. However, perspective can do so much more than simply express reality. You can use perspective tools to bring to life unreal, exaggerated, and physically impossible subjects that could never exist in real three-dimensional space. This makes perspective a versatile tool for visual expression that can open doors to your imagination and expand your creative possibilities.

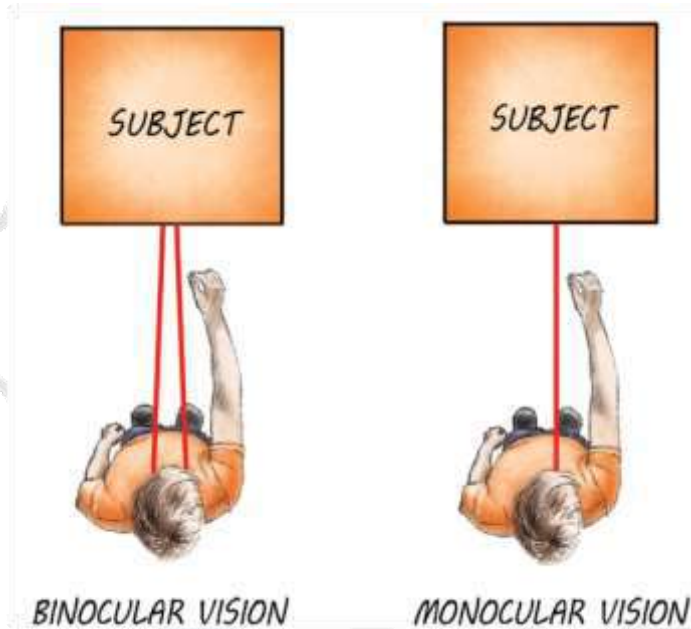
Linear perspective is a geometric method of depicting three-dimensional subjects on a two-dimensional format. Linear perspective creates the illusions of depth and dimension by modeling monocular vision. Monocular vision describes how one eye perceives depth. Binocular vision describes how both of our eyes in combination perceive depth.

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Linear perspective operates on three basic principles that summarize how we perceive depth through monocular vision: diminution, convergence, and foreshortening. Together they create the observable phenomenon that constitutes linear perspective. When receding forms appear increasingly smaller, we call that diminution.

Parts of a perspective drawing: perspective consists of four parts: 1. the horizon line, 2. the



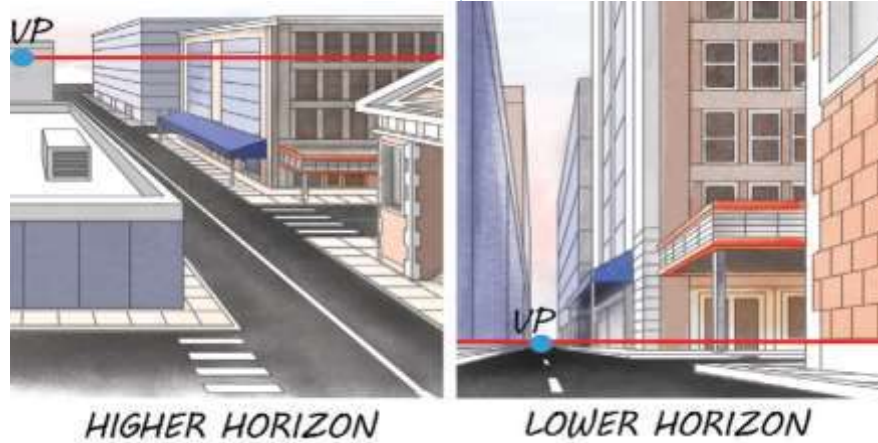
vanishing point, 3. orthogonal lines (diagonal, vertical, and horizontal lines); and 4. three-dimensional forms.

Horizontal lines, such as the top edge and bottom edge of a building (or any other type of cube) will vanish somewhere on the horizon. A horizon line usually defines the ground plane. You can place the horizon line anywhere on the page, and the vanishing point anywhere on the horizon line. Neither has to reside within the compositional frame, or boundaries, of the final drawing.

Carefully consider placement, because the position of both the horizon line and the vanishing point affects the angle of view. For example, a higher horizon line and vanishing point gives an aerial vantage of the top of the subject. Whereas placing the horizon line and vanishing



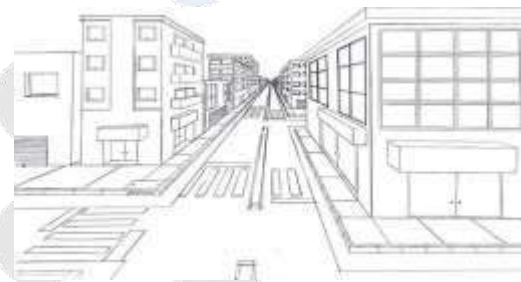
point lower in relation to the subject is better for a ground-level view.



Vertical lines, such as the upright edges of a building or the trunks of trees, vanish above or below the horizon.

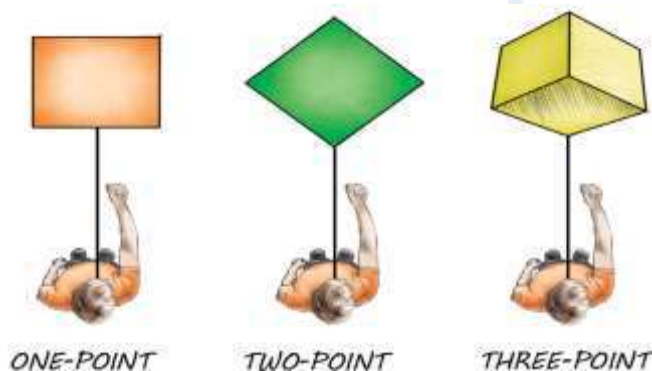
Frequently, vanishing points may be outside the picture. This can require a large work surface and a long ruler to figure out.

All parallel objects, such as multiple buildings on a street, share the same vanishing point.



If the station point, the center of vision, or the subject moves, the point of view changes. In observable linear perspective, a point of view will always be one of three major types: one-point perspective, two-point perspective, or three-point perspective. Without even taking a step in a new direction, simply shifting the viewer's gaze can alter a two-point perspective view into a three-point perspective view.

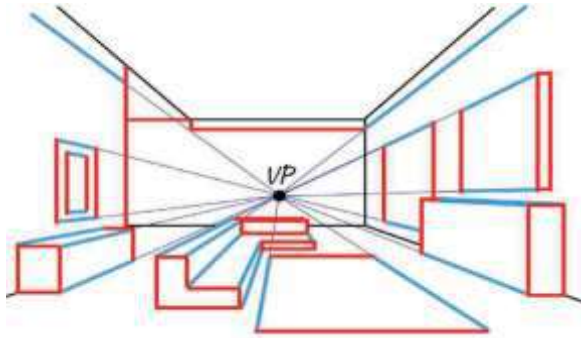
Three basic types of perspective - one-point, two-point, and three-point - refer to the



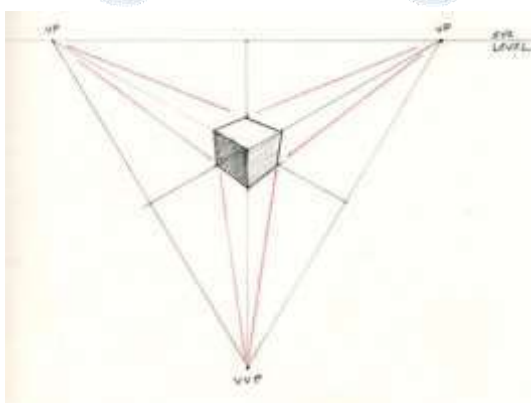
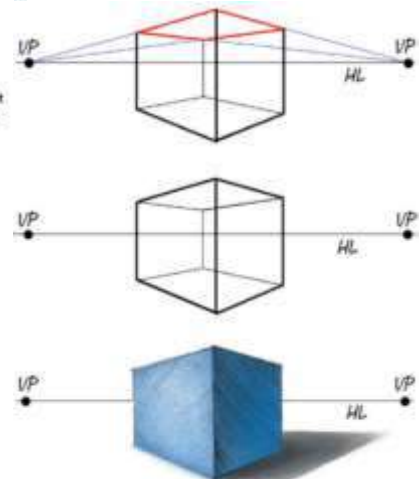
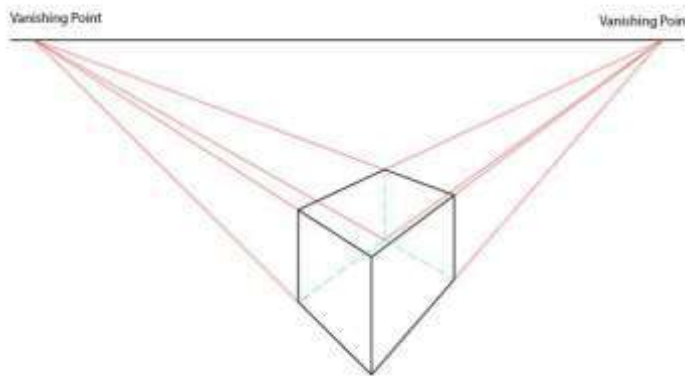
number of vanishing points used to create the perspective illusion. Two-point perspective is the most commonly used.

One-point perspective. Drawings have a one-point perspective when a single vanishing point (VP) seats on the horizon line. The position of the vanishing point can vary in its horizontal

location, but it always stays on the horizon line. Therefore, draw the horizon line first, then determine the VP position on it.



Two-point perspective. A drawing has two-point perspective when it contains two vanishing points on the horizon line. In an illustration, these vanishing points can be placed arbitrarily along the horizon. Two-point perspective can be used to draw the same objects as one-point perspective, rotated: looking at the corner of a house, or at two forked roads shrinking into the distance.



Three-point perspective. Three-point perspective is often used for buildings seen from above (or below). In addition to the two vanishing points from before, one for each wall, there is now one for how the vertical lines of the walls recede. For an object seen from above, this third vanishing point is below the ground. For an object seen from below, as when the viewer looks up at a tall building, the third vanishing point is high in space.

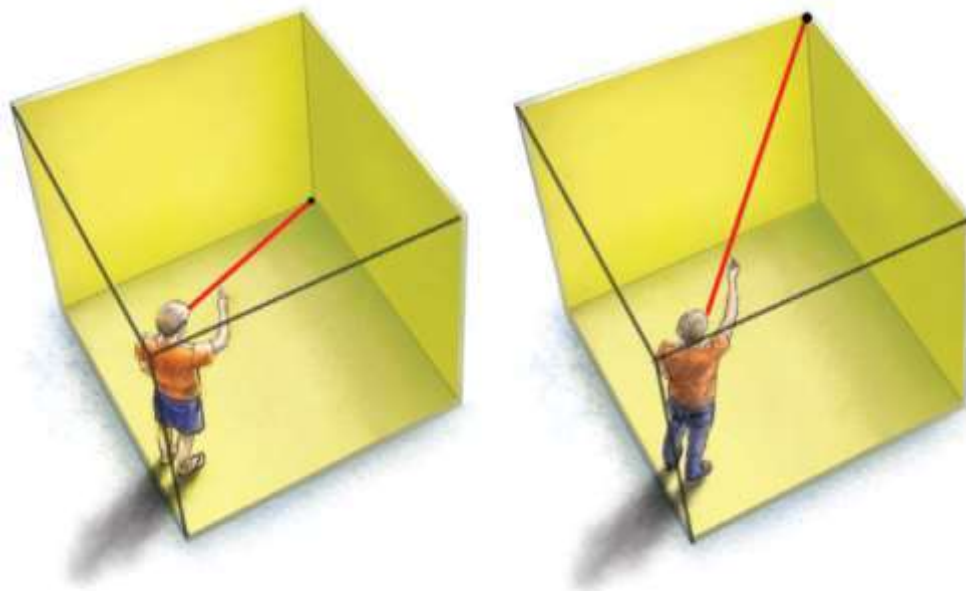
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A horizon line and vanishing point above the subject shows the topside, while a horizon line and vanishing point below the subject reveals the underside. Also a vanishing point to the right of the subject reveals a view of the left side and vice versa. Remember that a horizon line is always optional in perspective. Omitting the horizon allows for creative placement of the vanishing point. Points of view like a “worm’s-eye” (looking up) or “bird’s-eye” (looking down) are usually associated with three-point perspective, but they can be achieved in one-point, too.



In a three-point perspective interior, the viewer is located inside of the rectangular prism. The line of sight will point either to the far bottom corner for a bird’s-eye or the far top corner for a worm’s-eye. A bird’s-eye interior begins with the floor and walls. You can add details using the same three vanishing points. All vertical edges will originate from the third vanishing point below the horizon line. Right and left edges will originate from the left and right vanishing points, respectively. A worm’s-eye interior begins with the ceiling and walls. Details are again added



BIRD'S EYE INTERIOR

WORM'S EYE INTERIOR

using the same three vanishing points. All verticals originate from the third vanishing point above the horizon line. Right and left edges are formed by the left and right vanishing points, respectively.

Distinguishing the above types of perspective can be effectively used in the process of teaching students to construct perspective images. For example, in one-point perspective, we can say that all sets of parallel lines meet at one point, and that one side of the object is parallel to the picture plane, and so on. By effectively using the ability to distinguish between one, two and three

point perspectives in the educational process, the teacher achieves the student's mastery of the correct way of constructing images. The student learns the true nature of the rules and laws of realistic depiction of existence. In addition, he will be able to analyze artistic and aesthetic works of visual art and understand what is the secret of the creation of works of art.

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NORMAL DENSITY OF CEMENTS, HARD-TO-STAY DURATION, HYDRATION SPEED, AND BRAND DETERMINATION.

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Abstract:

This study investigates the critical parameters of cement, focusing on normal density, setting time, hydration rate, and the variability associated with different cement brands. Normal density, a key indicator of cement quality, reflects the mass per unit volume under standard conditions. The setting time, the duration between mixing and solidification, directly affects construction timelines. Hydration rate, the speed at which cement particles react with water to form a solid matrix, determines the strength development of concrete. Additionally, the influence of various cement brands on these properties is explored. The research employs advanced testing methodologies and analytical techniques to provide a comprehensive understanding of these crucial cement characteristics, contributing to informed decision-making in construction projects.

Keywords: Cement, normal density, setting time, hydration rate, cement brands, concrete properties, construction materials, quality control, structural integrity, and analytical testing.

Аннотация.

В этом исследовании изучаются критические параметры цемента с упором на нормальную плотность, время схватывания, скорость гидратации и изменчивость, связанную с различными марками цемента. Нормальная плотность, ключевой показатель качества цемента, отражает массу единицы объема при стандартных условиях. Время схватывания, продолжительность между смешиванием и затвердеванием, напрямую влияет на сроки строительства. Скорость гидратации, скорость, с которой частицы цемента реагируют с водой с образованием твердой матрицы, определяет прочность бетона. Дополнительно исследовано влияние различных марок цемента на эти свойства. В исследовании используются передовые методологии тестирования и аналитические методы, чтобы обеспечить всестороннее понимание этих важнейших характеристик цемента, что способствует принятию обоснованных решений в строительных проектах.

Ключевые слова: цемент, нормальная плотность, время схватывания, скорость гидратации, марки цемента, свойства бетона, строительные материалы, контроль качества, структурная целостность, аналитические испытания.

Introduction:

Cement plays a crucial role in the construction industry, serving as the fundamental binding agent in concrete production. The properties of cement, such as normal density, setting time, hydration rate, and brand characteristics, significantly impact the quality and performance of concrete structures. Understanding and accurately determining these properties are essential for ensuring the durability, strength, and overall integrity of construction projects. This research

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delves into the comprehensive analysis of normal density, setting time, hydration rate, and the influence of different cement brands, providing valuable insights for optimizing concrete formulations and enhancing construction practices.

Main body

Cement ash based on (Table 1) and comparison for sulfosilicate of the module different in values synthesis done based on clay (Table 2). features study

Table 1
Properties of ash-based cements

No	ns	Normal density	Timing hours/min		Power on removal within 28 days. MPa	Brand
			Beginning	ending		
1	0,1	34	0-50	2-15	48,3	400
2	0,5	33	0-55	2-25	50,6	500
3	1,0	32	0-35	2-10	57,4	500
4	1,5	31	0-35	1-55	48,7	400
5	2,0	31	0-30	1-45	42,6	400
6	2,5	30	0-15	1-05	40,3	400
7	3,0	28	0-10	0-40	38,1	300

It can be seen from Table 3.8.1.1 that cements in mixing sulfosilicate module n s increase with normal density from 34% to 28 % decreases, and hardening time shortens, especially initial. Sulfosilicate module At n_s = 0.1, mixing for 34% water Demand will be done, starting from 50 minutes after it happens will be and from only 2 hours 35 minutes after it ends. Sulfosilicate modulo n at s = 3.0 water demand minimum to be and adjust start from 10 minutes after, the end and from 40 minutes after happen will be Water with from mixing then.

28 days inside pressure power an increase in fluosilicate modulus ns of 1.0 with increases and reaches 57.4 MPa. Sulfosilicate modulus ns more increase of strength to decrease take will come. For most past cement hardening strength, the sulfosilicate module is equal to 3.0. Received cement brand 300-500. Cement with fluosilicate modulus ns = 0.5; 1.0 is both enhanced and sufficient long adjustment to the times have.

From the table. See 2 Like clay based on cement in the mixing of fluosilicate modulus ns increase with a normal density of 27 to 23 % decreases, setting time is shortened. Sulfosilicate modulus at ns = 0.1, mixing 27 % water is required for adjustment starting from 55 minutes after, ending and from 1 hour 35 minutes after will be Increasing the fluosilicate modulus ns to 3.0 with a normal density of up to 23% decreases, adjustment start from 10 minutes after happen will be and from mixing after 25 minutes after ends.

Table 2
Clay is based on cement features.

No	ns	Simple density	Time designation hours/minutes		28 days inside take throwing	Brand
			Beginning	ending		

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					strength MPa	
1	0,1	27	0-55	1-35	46,8	400
2	0,5	27	0-40	1-15	51,9	500
3	1,0	26	0-35	1-05	60,7	600
4	1,5	25	0-30	1-00	50,4	500
5	2,0	24	0-25	0-50	47,6	400
6	2,5	24	0-15	0-45	43,7	400
7	3,0	23	0-10	0-25	40,5	400

28-day year sulfosilicate modulus ns to 1.0 rises with pressure power increases and reaches 60.7 MPa. nS increase to 3.0 of cement hardening strength reduces Received of cement brand 400-600. Cements with fluosilicate modulus ns = 0.5; 1.0; 28 days 1.5 times the age have

Comparison of tables 1 and as seen from 2 as clay based on the normal density of cement ash own into received to cement than much lower.

Clay owns into received in cement strengthening time, especially the end shorter, power ash own into received to cement than a little lower.

Cement structure and technical features learning

Hardening in the process cement samples expand during reduction during surface coming deformations level determination for linear expansion was determined. 3.8.2.1. in the table ash justified cements in hardening voluminous deformations measure results given _

Table 3.

Linear expansion, %

No	ns	Hardening time						
		1 hour	6 hours	1 day	3 days	7 days	28 days	90 days
1	0.1	0	-0.07	-0.09	0.06	0.15	0.17	0.17
2	0.5	0	-0,04	-0,03	0,21	0,34	0,39	0,40
3	1,0	0,03	0,07	0,16	0,46	0,62	1,37	1,39
4	1,5	0,06	0,14	0,21	0,48	1,18	1,43	1,47
5	2,0	0,09	0,19	0,37	0,49	1,99	1,57	1,59
6	2,5	0,13	0,21	0,39	0,63	1,86	2,17	2,16
7	3,0	0,34	0,68	0,81	0,97	2,14	3,43	3,41

From the table apparently, as it is. 3. Sulfosilicate module ns at 0.1 and 0.5 of cement hardening day during reduction with together will come later expansion with will be covered. The fluosilicate module of value increases with linear expansion increases and the fluosilicate module at ns = 3.0 small values takes

The volume of change main growth of cement hard to stay seven daily at the age of observed. By the 28th, in expansion little growth was observed. Measurements, cement of samples three monthly from hardening after product, linear of expansion 28 days in size after that it will not change shows.

The mud based on cement hardening during linear expansion size determination results in the table given. 4

Table 4.

No	sulfosilicate modulus ns	Hardening time						
		1 hour	6 hours	1 day	3 days	7 days	28 days	90 days
1	0.1	0.03	-0.09	-0.01	0.03	0.09	0.12	0.11
2	0.5	0.01	-0.06	-0.03	0.09	0.14	0.17	0.17
3	1.0	0	0.03	0.06	0,15	0,19	0,21	0,22
4	1,5	0	0,06	0,11	0,19	1,21	0,29	0,30
5	2,0	0,07	0,09	0,18	0,24	1,29	0,34	0,33
6	2,5	0,12	0,18	0,27	0,37	0,41	0,58	0,59
7	3,0	0,26	0,38	0,44	0,63	0,84	1,03	1,04

Cement day during fluosilicate modulus ns hardening at 0.1 and 0.5 reductions with together, it comes while expansion with will be covered. Linear expansion sulfosilicate of the module growth and hardening time with increases. Seven daily to age come, mainly extended structure is formed, 28 days year old only three to the moon continue which of volume a little increase observed.

Ash and clay justified of cement hardening during linear expansion kinetics compared to ash own into received cement high linear expansion to the values achieved without intensive expansion with is described.

Cement ash and clay based on hardening appear to be by itself tension forces determination to determine the sulfosilicate modulus at ns = 0.1 possibilities gave 0.5 them no, insignificant at ns = 1.0 self- stress is set, this increase in sulfosilicate modulus ns with increases. Cement with fluosilicate modulus ns = 1.5 by itself tension degree of 20, fluosilicate modulus at ns = 3, resp, classify as 40 degrees can

In conclusion, the comprehensive investigation into the properties of cement, including normal density, setting time, hydration rate, and the impact of different cement brands, reveals valuable insights that are paramount for the construction industry. Normal density emerged as a critical parameter, directly influencing the mass-per-unit-volume characteristics of cement under standard conditions. This property holds significant implications for the structural integrity and load-bearing capacity of concrete in construction projects.

Setting time, a key factor in project scheduling, was found to be influenced by a myriad of factors, including cement composition and environmental conditions. The precise understanding of setting time aids in efficient project planning and execution, preventing issues associated with premature or delayed solidification.

The investigation into hydration rate elucidates the complex chemical processes governing cement curing. Recognizing the factors affecting hydration rate is crucial for optimizing concrete mixtures, ensuring the desired strength and durability. This knowledge contributes to the development of sustainable and resilient construction materials.

The influence of different cement brands on these properties underscores the need for meticulous quality control and informed material selection in construction projects. Variations in normal density, setting time, and hydration rate among different brands highlight the diverse

nature of available cements. Engineers and construction professionals must consider these nuances when specifying materials for a given application, tailoring the choice to meet the specific project requirements.

In summary, this research provides a holistic understanding of normal density, setting time, hydration rate, and the brand-specific characteristics of cements. The findings contribute to the ongoing efforts to enhance the efficiency, durability, and sustainability of concrete structures, paving the way for advancements in construction materials and methodologies. As the construction industry continues to evolve, this knowledge becomes increasingly crucial for meeting the demands of modern infrastructure while ensuring the longevity and reliability of built environments.

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Relationship between Bitcoin dynamics and energy futures quotes as a possible tool of choice for the implementation of startups

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Abstract:

Startups are a new form of implementing various business ideas. This form of business organization allows you to quickly and efficiently find the necessary solutions for a number of different problems and implement business ideas in the shortest possible time. However, this is a risky business that requires significant financial resources. One source of such resources may be the stock market. The cryptocurrency market and the energy market attract particular attention in this matter. Therefore, it is important to know the best times to enter these markets. Moreover, such markets can be potential consumers of startup services. Based on this, analyzing the relationship between Bitcoin dynamics and energy futures quotes is a promising area of research. The paper presents the dynamics of quotes for Bitcoin and energy futures. An analysis of their mutual dynamics is carried out. The results are presented in the form of separate graphs and diagrams. This helps to understand the progress of this study.

Key words: Comparison, Tool, Analysis, Quotes, Bitcoin, Startup, Dynamics, Futures, Securities Market, Source of Funding.

Introduction

The effectiveness of economic development, as well as the stability of the functioning of various business entities, is largely determined by the entrepreneurial spirit of management and its ability to adapt to constantly changing conditions and factors. At the same time, an important point in this issue is interaction with individual representatives of various fields of science and production, the opportunity to use their scientific and rationalization potential. This is due to the fact that such individual representatives are able to quickly respond to modern challenges and offer various options for solving emerging problems.

One of the forms of implementing non-standard problems and offering appropriate solutions is startups. A startup is a kind of structure that needs investment to implement its business idea into a finished unique product [1]-[3]. This type of activity is risky, but potentially promising in offering innovative solutions to emerging problems. A key aspect in the development of this type of activity is external financing. Such financing can be attracted from any sources, among which are the cryptocurrency market and the energy market [4], [5]. The identification of such markets is associated both with their intensive development and the ability to accumulate significant amounts of funds. Moreover, such markets themselves are capable of generating various directions for the development of startups. Then the dynamics of cryptocurrency quotes and energy market futures can be considered as a tool for selecting individual startups.

In order to implement the idea of studying the mutual dynamics of cryptocurrencies and energy market futures as a tool for selecting startups, it is important to know the dynamics of the corresponding quotes for such securities. This can be done based on consideration of statistical data, where it is advisable to use classical and special methods of analysis [6]-[21].

The result of such an analysis will help to understand the most appropriate moments for entering the securities market in order to attract appropriate financial resources. Such an analysis also helps to identify bottlenecks in the functioning of the markets in question and possibly propose their elimination based on startups.

Thus, the main goal of this study is to study the relationship between the dynamics of quotes for Bitcoin and energy futures with a view to the possible implementation of startups and their financing.

Related work

M. Klačmer Čalopa, J. Horvat and M. Lalić consider in detail various sources of funding for startups [22]. This analysis covers both start-up companies and companies that have been operating for a long time. The study focuses on companies from Croatia. The main purpose of this analysis is to study the transition from traditional financing to its new forms. This will contribute to a better understanding of startup financing strategies.

T. R. Smus analyzes sources of financing for innovative startups [23]. This study is aimed at identifying new and effective sources of financing for innovative projects. The author emphasizes that financial and non-financial support are key factors in the emergence of a competitive and stable business. Here are various startups that were funded by Poland and Ukraine in September 2016. This study allows us to find solutions in providing financing for the creation of innovative projects.

D. Bauer, S. Junge and T. Reif presented a systematic review of startup financing schemes and options [24]. The authors note that the situation with startup financing has changed significantly recently. Startups can choose between different sources and regularly ask for more [24]. This analysis covers 149 literary sources on the topic of startup financing. Startups have been shown to have different financial resources depending on the stage of their life cycle. Therefore, the issue of financing startups is relevant and very important. This study makes a significant theoretical contribution to the startup finance literature.

K. B. Binh, H. Jhang, D. Park and D. Ryu consider the possibility of financing startups through capital markets [25]. In particular, the authors highlight the securities market. This study is carried out using the example of South Korea. The importance of state participation in this issue is emphasized. For these purposes, the government should develop a financial assistance program to provide funds to these companies.

G. Elia and F. Quarta explore different sources of funding that should be used for the development of technology startups [26]. At the same time, it is separately noted that such companies are a potential engine for the socio-economic development of regions and territories. At the same time, the ability to access various sources of financing is the basis for the development of technological entrepreneurship. The authors emphasize that this allows you to turn a smart and innovative idea into a successful company. One such source is funds from the stock market. Therefore, it is important to know the features of its functioning in general and individual segments in particular.

H. Jaladati and E. Chitsaz are considering the possibility of using the cryptocurrency market as a source of financing for startups [27]. The need to consider such a source of financing is due to the fact that, as the authors emphasize, startups face major financing problems. Therefore, it is necessary to consider new opportunities to attract financial resources. Based on this, this study examined current methods of entrepreneurial financing through a systematic literature review [27]. Possible problems that arise as a result of using such a source of financing are also considered.

S. Ahluwalia, R. V. Mahto and M. Guerrero explore the possibilities of blockchain technology for use in startup financing [28]. For these purposes, cryptocurrency trading technologies are considered. This is because the impact of blockchain technology on institutional economics is enormous. Therefore, the authors analyze in detail the economics of blockchain technologies from the point of view of transaction costs when financing startups [28]. The authors use various models to carry out the relevant analysis. Information asymmetry is also considered. As a result, the authors provide an explanation of how a financing system based on blockchain technology can lead to more efficient financing of startups [28].

Thus, we see the importance of confirming that the cryptocurrency market and the energy futures market play an important role in the startup financing process. This makes it advisable to take a more detailed look at such markets, the mutual dynamics of their quotes, and explain the possible conditions for raising funds.

Dynamics of quotes on the cryptocurrency and energy futures markets

Note that the cryptocurrency market is characterized by quotes for various securities. In Fig. 1 and Fig. 2 presents relevant data that reflects the dynamics of prices for securities with the largest capitalization in the cryptocurrency market. In Fig. 3 shows the dynamics of quotes for futures for WTI crude oil and natural gas.

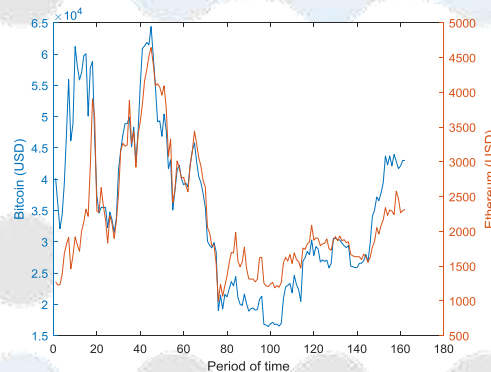


Figure 1: Dynamics of Bitcoin and Ethereum quotes

Let's look at the data in Fig. 1. Here you can see the price dynamics of Bitcoin (left axis, blue color) and Ethereum (right axis, red color). Data are presented on a weekly basis for the period 01.03.21-02.04.24. All data from investing.com.

It should be noted that quotes for Bitcoin and Ethereum have both the same trends and slightly different ones from each other. This is determined by the specifics of trading such cryptocurrencies, as well as the conditions of their initial release. We can see multidirectional trends at the beginning of the period under study. Further, one can observe completely coinciding trends in the quotes of such securities. Although there are also periods when the price trends of these cryptocurrencies do not coincide.

If we talk about the variability of quotes for Bitcoin and Ethereum, then it is insignificant.

The most significant difference between Bitcoin and Ethereum quotes is the unit price of such cryptocurrencies. The price of Bitcoin is significantly higher than the price of Ethereum.

Consequently, investing in Bitcoin allows you to attract larger amounts of money to invest in startups. But accordingly, the risk in this case is higher. Then it is necessary to consider a reasonable combination of choosing a cryptocurrency portfolio for investing in startups and timing of entry into the relevant segments of the stock market. You should also consider the possibility of hedging them through each other. For these purposes, it is advisable to study and evaluate the mutual dynamics of such cryptocurrencies among themselves and in relation to major energy futures. This will facilitate the choice of strategy for working with investment sources for the implementation of various startups.

In Fig. 2 shows the dynamics of quotes for Tether (left scale, blue color) and BNB (right scale, red color). The same period was considered as for the data in Fig. 1.

First of all, it should be noted that the dynamics of the data in Fig. 2 differs from the data dynamics Fig. 1. In Fig. 2 quotes are more variable. This is especially true for Tether quotes.

Tether quotes also have a significant surge, which occurs on 03.05.23. Tether quotes are more volatile than BNB quotes. At the same time, quotes for Tether are significantly lower than quotes for BNB. At the same time, we can say that quotes for Tether are approximately in the same range (with the exception of 03.05.23). BNB quotes tend to decline over the studied interval. In general, quotes for Tether and BNB are lower than for Bitcoin or Ethereum.

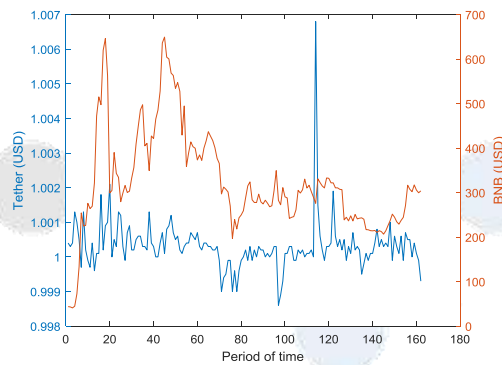


Figure 2: Dynamics of Tether and BNB quotes

In Fig. 3 shows futures for WTI crude oil (left scale, blue) and natural gas (right scale, red). These are the most significant energy futures. The same period was considered as for the data in Fig. 1 and Fig. 2.

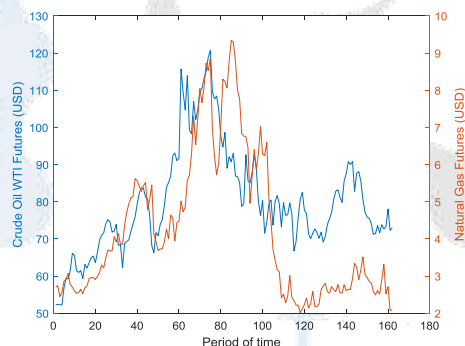


Figure 3: Dynamics of quotations for futures for WTI crude oil and natural gas

We emphasize that quotes for futures for WTI crude oil and natural gas have the same trends. At the same time, quotes for natural gas futures have a certain lag in relation to quotes for futures for WTI crude oil. This is understandable and logical, since gas prices are tied to oil prices.

At the same time, the dynamics of energy futures initially increases, then it decreases significantly and then stabilizes to some extent.

Given the goals of this study, in the next subsection we will consider some examples of analysis of the joint dynamics of the data under consideration.

Comparative characteristics of the dynamics of cryptocurrencies and energy futures quotes

To consider the characteristics of the mutual dynamics of the presented data, it is advisable to use the wavelet ideology. Among the appropriate methods for such a study, the estimation method based on wavelet coherence should be chosen [29]-[31].

This method allows you to evaluate the mutual dynamics of data over the entire interval of their analysis, taking into account individual time periods. It is also possible to explore the depth of such relationships, which is important for adopting the necessary strategies when choosing a source of funding for startups. It should also be emphasized that this method has found wide application in the analysis of data of this kind and data presented in the form of time series [32]-[38].

In accordance with the chosen research method, we will first consider the reciprocity of the dynamics of Bitcoin and Ethereum. Next, we will analyze the reciprocity in the dynamics between Bitcoin quotes and major energy futures.

In Fig. 4 shows the wavelet coherence estimate between Bitcoin and Ethereum.

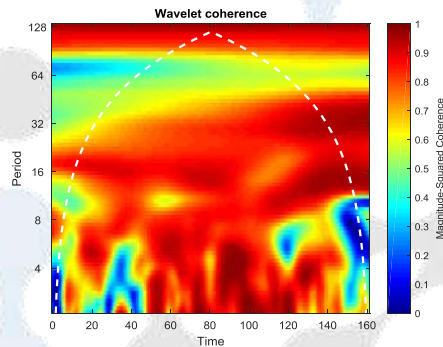
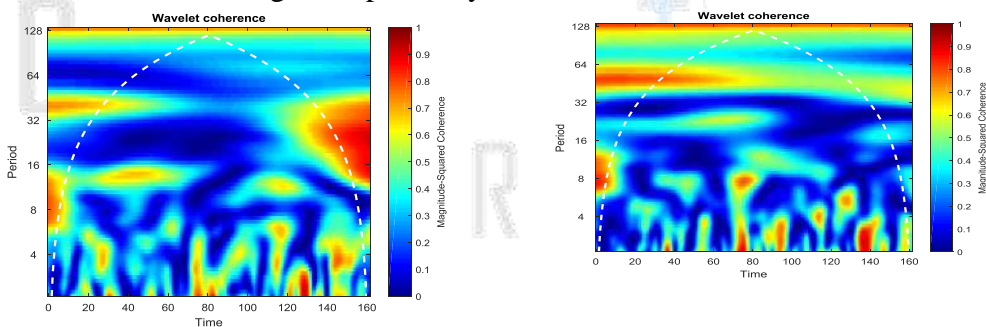


Figure 4: Estimation of wavelet coherence between Bitcoin and Ethereum

In Fig. 5 presents estimates of wavelet coherence between quotes for Bitcoin and futures for WTI crude oil and natural gas, respectively.



a) WTI crude oil

b) natural gas

Figure 5: Wavelet coherence estimates between Bitcoin quotes and crude oil and natural gas futures

Data analysis Fig. 4 confirms the fact of strong mutual influence in quotes between Bitcoin and Ethereum. There is also a significant depth to this relationship. This is observed over almost the entire interval that is being considered. Thus, this allows you to select appropriate strategies when choosing sources of investment for startups and determining time intervals for entering the market. No less relevant, in this aspect, is the ability to predict appropriate actions from the point of view of business development in the form of a specific startup. Mutual hedging for such cryptocurrencies can also be considered. This will reduce the risk of attracting the required amount of investment resources.

Looking at the data in Fig. 5, their similarity should be noted. This is due to the identical dynamics of quotes for the main energy futures. Thus, the data in Fig. 5 confirm the corresponding conclusions of the previous subsection (see Fig. 3). This also needs to be taken into account when developing and implementing a strategy for selecting sources of investment for startups using the cryptocurrency and energy futures markets.

Detailed data analysis Fig. 5 allows us to note the fragmented consistency in the dynamics of quotes for Bitcoin and the main energy futures. This is also important information for implementing appropriate startup investment strategies.

It should also be noted that a separate area for the relevant startups is the development of investment strategies for such business ideas, analysis of the possibilities of entering the stock market in order to attract the necessary resources.

Conclusion

The work examines certain issues of determining sources of financing for investing in startups. For these purposes, a brief but critical review of various literature sources has been carried out. This allowed us to pay attention to the cryptocurrency market and the energy futures market. In order to clarify this issue, the relationship between the dynamics of Bitcoin and quotes for major energy futures is examined in detail. The dynamics of various components of the cryptocurrency market are also considered.

For the purpose of analyzing the mutual dynamics of the corresponding data, wavelet coherence estimates were used. The possibility of constructing strategies when choosing sources of financing for startups using data on quotes of Bitcoin and energy futures is substantiated. Attention is also paid to developing such strategies based on individual startups.

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Abstract: This article discusses the beneficial properties of the ginger plant. It contains information on medicinal products obtained from the ginger plant, their preparation, pharmaceutical effectiveness and elements.

Key words: essential oils, group B vitamins, enzymes, amino acids

Introduction. Ginger root and many have tasted it, but not everyone thought about what this plant looks like, where it grows and how it blooms. There are many types of ginger, but the usual thing that can be bought in almost every supermarket is significantly different from its decorative relatives, but its benefits are very high. Common ginger, or ginger, belongs to the ginger family, which has about 1,000 species in the pharmacy. This includes popular spices like turmeric and cardamom. The homeland of the plant is the north of India, from here the spices came to the market in medieval Europe. Later, the plant was cultivated in China, Japan, Australia, Indonesia, Thailand and other countries. The warm and humid tropics are considered a traditional comfortable habitat. Here it means evergreen perennial whose stem looks like a cane. The average plant reaches a height of 1-1.5 meters. Leaves narrow, lanceolate, stems strong, flowers inconspicuous, small to large torches. different colors. Wild life inside the herb can grow for decades, its root grows deep underground and every year it gives new shoots around the main and first specimen. It is easy to distinguish a young root crop from an old one by a very thin light skin, which you can only buy there.

The old root has a clear dark skin, very dense, it must be cut before eating. In plantations where the plant is grown for commercial purposes, it is considered an annual. In one season, which lasts 6-8 months, a complete plant with developed roots grows from a seed or plot. It is a young root that is highly valued and exported. The older the root, the more bitterness and less lung aroma. Ginger gets its name from the appearance of its most valuable part - the root. Translated from Sanskrit, "singabera" means horned or horn-shaped. It can reach 7 cm in length and 4 cm in width. Any ginger pulp contains a lot of coarse fibers. Separate black and white ginger. The first is the unprocessed, unpeeled root. The white color comes from the upper dense layer of the skin, which is thoroughly washed and dried. Inside, it can be a simple ginger light color with a slight yellow or green tint. there may be exotic species, pulp blue veins, the smell of kerosene and other unusual features. How Ginger Blooms-The common ginger, grown by many Europeans in plantations or in pots on windowsills, has a very simple appearance. If in favorable conditions it grows up to 1.5 meters and has large flowers, then it is grown on the windowsill, it is a leafy plant that resembles a shallower.

Lancet leaves, branching rhizome, small flowers and oblong seed capsule are the outward appearance. The flowers of ordinary ginger are not large. They look a little like an iris or an orchid in a lilac shade... There are large-flowered species on strong pedicels that protrude directly from the soil. These torches can have a red, lemon-colored, shaded transition. Different types of plants have highly decorative flowers, which at the same time have a pleasant smell. Ginger is one of the most valuable and mysterious plants with a rich history covered with many

legends. It is a versatile medicine, the hottest spice and an effective way to preserve beauty and youth. Now we know what it looks like and can grow it on our windowsill. Ginger is a spice, ornamental and medicinal plant at the same time. The largest number has a characteristic root. The full name is medicinal ginger. It grows naturally in the tropical region. In ginger, the leaves have a linear type and are arranged alternately on the stem. The underground part of plants is usually called a root, but it is a rhizome. It has several parts and looks like a hand.

Useful properties of ginger - The main concentration of nutrients is located in the root of the plant. The root grows to the maximum until autumn. Harvesting is done after the plant has bloomed and all the leaves have fallen. Raw materials are cleaned from the ground and dried in the sun.

Below you can find out 7 useful properties of ginger.

Acid reflux can be caused by the food eaten or the person's anatomy. Some people are prone to it. Research shows that drinking or eating a special ginger tea every day can eliminate acid reflux. Inflammation is a defense mechanism when an injured or damaged part of the body needs to be isolated to limit damage to other areas. Nevertheless, the inflammatory process is painful and unpleasant. People suffering from chronic inflammatory diseases are especially effective in consuming ginger. Reduce the risk of cancer.

The effect of ginger on cancer cells is more active than the effect of other plants. Research shows that ginger kills cancer cells faster and more safely than chemotherapy drugs. As you know, chemotherapy can cause many health problems.

Ginger is also used to prevent inflammation of the colon and small intestine.

Get rid of digestive problems. Ginger can stop nausea. This is because ginger kills the harmful bacteria that cause ulcers. Ginger is also good for stimulating the salivary glands, which are an integral part of the digestive process. Get Rid of and Prevent Headaches Ginger's anti-inflammatory properties can also help treat headaches. Research shows that eating ginger every day can prevent headaches and even migraines.

Do you want to lose weight? Losing weight is a very difficult matter. An increase in fat reserves in the body is the main factor of many diseases. Diet plays a big role in weight loss, but obesity can also be caused by genes. Ginger also keeps the metabolism in the same level. Diet has a negative effect on metabolism. Don't Overcome Muscle Soreness Another common type of soreness is muscle soreness, which is often caused by exercise or daily routine. Research has shown that ginger helps in this case as well. However, the effect of ginger in this regard does not immediately relieve muscle pain, but gradually heals it. Eating ginger every day will prevent the pain that happens later in your body.

Ginger root is the main product of the plant. Infusions and tinctures are prepared on the basis of ginger, which are consumed internally and applied externally in the form of lotions and compresses. Medicines for cooking use raw and dried root. The benefits of ginger are in its rich composition. The root of the plant has analgesic, carminative, antispasmodic, bactericidal, antibacterial, anti-inflammatory, diaphoretic, choleric and tonic effects. The healing properties of ginger allow it to be used in traditional medicine recipes. The plant is useful for immunity. It has a tonic effect, restores strength after illness and prevents colds and flu. The dried root helps the production of gastric juice, normalizes the digestive process and eliminates spasms of any origin. The plant is often used in dietetics for weight loss. Ginger normalizes the cardiovascular system. It lowers cholesterol, strengthens blood vessels and cleans the blood. Ginger is used

topically to treat cuts, wounds, and burns. Funds based on it quickly relieve pain and prevent tissue infection.

In conclusion, there are contraindications to the use of ginger. We must act according to these instructions. Contraindications: Excessive consumption of ginger can harm the body. Nausea, vomiting, and diarrhea occur with excessive consumption of spices. Uncontrolled intake of plant products can cause an allergic reaction. Knowing how to use ginger properly is very useful.

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METHODOLOGY FOR INNOVATIVE EFFECTIVE ORGANIZATION OF THE EDUCATIONAL PROCESS

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Qisqacha mazmun: Ushbu maqolada ta'lim jarayonini raqamli va pedagogik texnologiyalarga asoslangan holda fanlarni o'qitishda o'quv jarayonini samaradorligini oshirish imkoniyatlari va ulardan foydalanish afzalliklari yoritilgan.

Аннотация: В данной статье описаны возможности и преимущества использования образовательного процесса, призванного повысить эффективность образовательного процесса при преподавании предметов на основе цифровых и педагогических технологий.

Annotation: This article highlights the possibilities and advantages of using the educational process designed to improve the effectiveness of the educational process when teaching subjects based on digital and pedagogical technologies.

Between the various characteristics necessary for the need able parts of the professional activity of a modern teacher, it is often called a creative approach to pedagogical activity. To do this, at the university, it is necessary to create a creative personality, played with flexible productivity, which allows you to create various original, model ideas at the stage of training future teachers. Creativity is the essence of various types of human activity; it is as specific to a person as consciousness, thinking, imagination, etc. This is the position of human thinking, which has a characteristic feature for the versatile, changeable appearance of the individual. That a modern teacher should be in fact, the success of the reforms carried out in the educational system directly depends on the professional skills and literacy of the teaching staff. The teacher is a person who has a special education in his/her specialty in pedagogical and psychological terms, has professional training and high moral qualities, operates in educational institutions. To be aware of the latest knowledge in their specialty, to organize education using pedagogical technologies and Information Technologies on the basis of the laws of the current educational and educational process, to demonstrate their skills, knowledge and abilities, to take into account the age and psychological characteristics of learners in education, to create conditions for the assimilation of knowledge by them, taking into, it is necessary to activate the comprehensive maturation of the individual.

If we consider effective educational technologies and interactive learning techniques that are used in higher grades in secondary schools.

Problem education is based on the creation of different problem situations in educational activities that should activate the independence of students. As a result, analytical and creative mastery and abilities develop. Multi-level training helps the teacher to help vulnerable students and focus on strengths. This technique creates the desire for more capable students to develop deeper in the field of education, while the rest of the students achieve academic success, which increases learning motivation.

Design-based teaching methods develop the creative potential of schoolchildren, forcing them to consciously determine professional and social fate. Research methods of teaching allow students to independently study the problems of interest to them and suggest ways to solve them. The essence of group training in teaching a new topic does not come from the requirements of the curriculum, however from the capabilities of the student. In-group classes, psychological and

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pedagogical diagnostics of the individual are widely used. In the upper classes, lecture and credit technology are used. This gives schoolchildren the opportunity to prepare for university studies. The essence of this system is to provide knowledge in one block, the management of which is carried out depending on the initial training of students. The innovative portfolio assessment system is based on the formation of a personal account of the student's success as a means of determining the direction of Personality Development. Nowadays, digital and Information and communication technologies in the educational process are an endless enrichment of knowledge through the use of computers and the Internet. The introduction of new methods and technologies into the educational system does not at all mean the abolition of traditional teaching methods. Innovation is an integral part of the entire learning process. The usage of information and communication technologies not only increases the effectiveness of Professional activity, but also has its positive effect on the formation of a worldview and Information Culture in future specialists, their lifestyle, activities in the social sphere. For the use of information and communication technologies in the educational system of our republic, educational institutions are sufficiently provided with all technical means. During the period when such conditions are created, teachers are required to use modern information and communication technologies in the educational process. In all forms and types of institutions of the continuing education system of the Republic, the educational and educational process can be achieved by creating modern conditions of training, with full scientific and methodological support.

The future of the country largely depends on what, how and to what extent the youth's thirst for knowledge is satisfied by educators in educational institutions today. It is among the complex works that depend on a large number of factors to cope with this task as it requires, as it pleases, the period. To do this, first of all, you should have the qualities of love and dedication to your work in the teacher who performs this work. Only when our high level of knowledge and experience is combined with the above-mentioned qualities can a certain positive result be achieved in each lesson session that is held. In the educational system, computer technology is the main tool in the use of information and communication technologies in the first place. On the basis of computer equipment, there are options for collecting, storing, processing information resources and using electronic and virtual libraries. Secondly, the educational system uses special software tools for creating multimedia electronic educational literature, lecture notes, virtual laboratory work and various animation developments. One such software tool is pedagogical software tools. Pedagogical software tools are a didactic tool designed to completely or partially automate the educational process using computer technology. They are considered one of the promising forms of increasing the effectiveness of the educational process and are used as a modern teaching tool.

The importance of pedagogical technologies and Information Communication Technologies in the educational process in the self study of students studying using practical and online programs is as follows:

- forms the knowledge, skills and abilities of the student;
- serves as a form of education that increases the degree of assimilation of the student in the subjects;
- the teacher's advice and recommendations, the scope of preparation for the assimilation of knowledge will be made possible by the implementation of it in the audience or outside the audience;

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- the effectiveness of education is improved due to independent and creative work of the student, as well as increased thinking skills and activity;
- keys used in the teaching process-stadia, presentations, cards, questions, guides, facilitates the organization of practical work and understanding of the subject;
- the student will have an expanded opportunity to take advantage of the latest achievements of science;
- conditions are created for self-control of the student;
- ensures the formation of the student as a specialist person at the expense of individual capabilities, mental potential, interests, etc.

In the system of school education, these pedagogical and digital technologies provide students with opportunities to prepare them for future professional activities as a result of increasing BCCS through the organization of educational processes. The use of these opportunities in pedagogical activity also embodies modern requirements for the knowledge and competence literacy of educators. The use of modern methods or computer programs that help to increase the effectiveness of teaching provides a solid foundation for students to become mature specialists in their future activities by increasing their interest in education, achieving logical, mental, creative thinking, etc.

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Epik syujetda motivlararo mushtaraklik va o'ziga xoslik

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Annotatsiya: Ushbu tezisda sujet va uning turlari hamda badiiy asarda tasvirlangan voqealar tizimining o'zaro munosabatiga ko'ra turlari, motivlararo mushtaraklik haqida yoritib berilgan.

Kalit so'zlar: syujet, motiv, epik, dramatic va liroepik turdagi badiiy asarlar, syujet turlari.

Syujet (fransuzcha: syujet, kelib chiqishi lotincha: subiectum[1] — predmet, buyum, narsa) — badiiy asar mazmunini tashkil etadigan, bir-biri bilan o'zaro bog'liqlikda kechadigan, qahramonlar o'rtasidagi aloqalardan tarkib topgan voqealar tizimi. Barcha epik, dramatik va liroepik turdagi badiiy asarlarda sujet mavjud bo'ladi. Har bir adabiy turda sujet o'ziga xos harakterga ega. Ko'pgina lirik asarlarda ko'zga yaqqol tashlanib turadigan sujet tizimi yo'q. Ulardagi his-tuyg'u, o'y-kechinmalar rivoji qaysidir ma'noda lirik asar Syujetini tashkil etadi. Ayrim adabiyotshunoslar Syujetlilik umuman lirik turga xos xususiyat emas, deb hisoblaydi. Chunki, lirik asarda voqealar tizimi bo'lmasligi ham mumkin. Ayni chog'da, faqat voqealar tizimidan ham iborat emas.

Badiiy asarda tasvirlangan voqealar tizimining o'zaro munosabatiga ko'ra asosan xronikal (voqeaband) va konsentrik (voqeaband bo'lmagan) turlarga bo'linadi. Xronikal sujetda voqealar orasidagi vaqt munosabati yetakchilik qiladi, (mas, D. D. Defont „Robinzon Kruzo“, Servantesning „Don Kixot“, Oybekning „Navoiy“, P. Qodirovning „Yulduzli tunlar“ asarlari). Konsentrik sujetda esa asarda tasvirlangan voqealar orasidagi sabab — natija muhim ahamiyat kasb etadi (mas, Pushkinning „Yevgeniy Onegin“, O. Yoqubovning „Muqaddas“, „Ulug'bek xazinası“ asarlari). Ammo badiiy asarlarda yuqoridagi sujetlarning har ikki turi uyg'unligidan tarkib topgan shakli ko'proq uchraydi (mas, Abdulla Qodiriyning „O'tgan kunlar“, Cho'lponning „Kecha va kunduz“ asarlari).

Badiiy asarda tasvirlanayotgan voqelik va asarda ishtirok etadigan qahramonlar masalasiga bevosita bog'liq. Chunki sujet asosidagi voqelikda qahramonlar harakat qiladi va eng muximi, haqiqiy badiiy asarlarda avvalo qahramonlar o'z dardidunyosi bilan namoyon bo'ladi. F. M. Dostoyevskiyning „Jinoyat va jazo“ romanida Raskolnikov, A. Qahhorning „Sarob“ romanida Saidiy, Tog'ay Murodning „Otamdan qolgan dalalar“ romanida Dehqonqul obrazlari atrofida voqealar san'atkorona tarzda uyushtirilgan.

Badiiy asar sujeti ekspozitsiya, tugun, voqealar rivoji, kulminatsiya, yechim singari bir qator unsurlardan tarkib topadi. Masalan, Abdulla Qodiriyning „Mehrobdan chayon“ romanidagi Xudoyorxon bilan Anvarning to'qnashuv epizodi asarning kulminatsion nuqtasi sanaladi. So'ngra voqealar yechimi keladi. Badiiy asarda sujet unsurlari ba'zan turlicha hajm va turlicha tartibda kelishi mumkin. Shuningdek, ayrim asarlarda ekspozitsiya yoki yechim singari sujet unsurlari bo'lmasligi ham mumkin. Bu aslo kamchilik emas, aksincha, o'quvchini badiiy tafakkurga chorlaydi, tasavvurini kengaytiradi. Ba'zi adabiyotshunoslar prolog (muqaddima) va epilog (xotima)larni ham sujet elementi sifatida ko'rsatadilar (A Qodiriy romanlarida bu unsurlar mavjud). Sujet kompozitsiya, konflikt, fabula kabi adabiy tushunchalar bilan ham mustahkam bog'langan.

Motiv folklor asarini (matn, syujet, boshqa har qanday yakunlangan haqiqat) badiiy tashkil etishning asosiy kategoriyalari (toifalari)ga, shuningdek, kengroq ma'noda, umuman, madaniy hodisa sifatida folklorga tegishlidir. Folklor olami motivlar orqali ifoda etiladigan cheksiz, (ammo oxir-oqibat , tizimlashtirish va hisobga olish uchun qulay bo'lgan) motivlar to'plamidan iborat. Motivlar folklor haqiqati va folklor tilining ajralmasligini , ya'ni mazmun va ifoda uyg'unligini o'zida mujassam etadi. Motivni folklor syujetining muhim elementi sifatida ajratib ko'rsatgan va motiv nazariyasining asoslarini yaratib bergan A.N.Vaselovskiy davridan buyon folklorshunoslik fani motiv bilan bog'liq ko'plab tadqiqotlarni amalga oshirdi. Bu tadqiqotlarning barchasida motivning atama sifatida mazmun chegarasi

va ta'rif doirasi (ayniqsa, fundamental va sof nazariy tadqiqotlarda) ziddiyatli bo'lib qolmoqda.

Epik turning o'ziga xos xususiyatlari haqida gap borganda, avvalo, uning voqeabandlik xususiyati tilga olinadi. Darhaqiqat, epik asarda makon va zamonda bo'layotgan voqea-hodisalar tasvirlanadi, oddiygina so'z vositasida o'quvchi ko'z o'ngida jonlanadigan to'laqonli badiiy voqelik yaratiladi. O'quvchi ko'z o'ngida reallikka o'xshash, o'zining tashqi ko'rinishi va shakli bilan jonlana olgani uchun ham epik asardagi badiiy voqelikni „plastik“ tasvirlangan deb yuritiladi. Epik asarda plastik elementlar bilan bir qatorda „noplastik“ elementlar ham uchraydi. Ushbu elementlar muallif obrazini umumiy tasavvur qilishda qo'l keladi. Epik asarning noplastik elementlari deyilganda muallifning o'y-fikrlari, mushohadalari, ichki kechinmalari, tasviriy predmetga hissiy munosabatlari tushuniladi. Aytilganidek, noplastik elementlar plastik elementlardan farq qilib, o'quvchi ko'z o'ngida jonlanmaydi. Epik turga mansub asarlar asosan nasriy yo'lda yoziladi lekin nasriy yo'lda yozilgan lirik asarlardan tubdan farq qiladi. Demak, asarning nasriy yo'lda yozilganligi uning epik turga kirishiga asos bo'la olmaydi.

Epik asarda voqea- hodisalarni hikoya qilib berayotgan shaxs „Roviy“ yoki „Hikoyachi“ deb yuritiladi. Epik asarda voqealar birinchi shaxs tilidan yoki uchinchi shaxs (muallif) tilidan ham aytilishi mumkin. Masalan, X.To'xtaboyevning „Sariq devni minib“, E.A'zamovning „Otoyining tug'ilgan yili“, G'afur G'ulomning „Shum bola“ yoki „Yodgor“ kabi asarlarida rivoya birinchi shaxs ya'ni voqealarda bevosita ishtirok etayotgan personaj tilidan hikoya qilinadi.

M.Gorpkiy syujetni «aloqalar, qarama-qarshiliklar, simpatiyalar va antipatiyalar va umuman kishilarning o'zaro munosabati u yoki bu xarakterning o'sishi va tashkil topishi tarixi», - deb ataydi. Syujetga xarakterlarning kechinmalari tarixi ham kiradi. Arastu fabulani go`zallikning hajmi va tartibi deydi. Fabula voqealardagi keskin bu-rilishlardir, voqeaning bir maromdan boshqa maromga birdan o'tishidir deydi. Fabulaga tugun bilan echimni kiritadi. Demak, syujet asardagi voqealar oqimidir, ularning bir-biriga bog`lanishidir, undagi aloqalar, qaramaqarshiliklar, xarakterlarning

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rivojlanishi tarixi, ana shu tarixning bosqichlaridir, asardagi tuyg`u va kechinmalarning mantiqiyligidir.

Badiiy asarlarda voqealar borishida, xarakterlar taqdirida birdan kutilmagan keskin o`zgarishlar bo`ladi. Bu esa asarda yangi-yangi tugunlarni keltirib chiqaradi, kitobxonda qiziqishni kuchaytiradi. Ana shu tugun va echimlarda xarakterlar mantiqi, voqea va xarakterlar rivojlanishi tarixi namoyon bo`ladi. Tugun va echimlar o`z o`zidan xarakterlar rivojlanishini ko`rsatmaydi. Xarakterlar va voqealarning rivojlanishi tarixi ana shu momentlar vositasida ochiladi.

Syujetni qarama-qarshiliklar, xarakterlarning rivojlanishi tarixi, asardagi voqealar oqimi deb ta`riflashda asosan yirik nasriy va dramatik asarlarga xos xususiyatlar ko`zda tutilgan. Vaholanki, lirik asarlarda xarakter bo`lmaydi. Bo`lganda ham ularning rivojlanishi tarixi ko`rsatilmaydi, kichik janrlarda voqealar berilmasligi, ularning oqimi ko`rsatilmaymasligi mumkin. Shuning uchun ham syujet faqat asardagi voqealar oqimi, xarakterlarning rivojlanish tarixigina emas, asardagi tuyg`u Syujet elementlari:- ekspozitsiya (bayon qilish, izohlash) - syujetda tugundan oldin keladigan vaziyatdir. Ekspozitsiyada qahramonlar, ularning o`zaro munosabati, asosiy hodisalar to`g`risida ma`lumot, axborot berilib, ular bilan kitobxonni tanishtirishdir. Ekspozitsiyaning o`zi hali asosiy voqeani, asar konfliktini keltirib chiqarmaydi. Shunday bo`lsa ham u asardagi asosiy voqealarning xarakter va yo`nalishlarini belgilaydi. Ekspozitsiyaning qaerda kelishi yozuvchi niyatiga bog`liq. Shunga ko`ra ekspozitsiya turlicha bo`ladi: to`g`ri, kechiktirilgan, teskari va sochma. To`g`ri ekspozitsiya tugundan oldin keladi. Kechiktirilgan ekspozitsiya tugundan keyin voqea ichida yoki undan oldin keladi. Teskari ekspozitsiya esa asar oxirida keladi (V.Kaverin «Ikki kapitan»). Ekspozitsiya prologga yaqin turadi. Biroq prologdan farqli ravishda asarning asosiy voqeasi bilan ichki birlikka ega bo`ladi.

- tugun - qahramonlar o`rtasidagi to`qnashuvning boshlanishi, asarda qo`yilgan jumboqdir. Asar voqealari ana shu jumboqning echilishi bilan tugaydi.

- voqealar rivoji - personajlar o`rtasidagi munosabatlardagi o`zgarishlar. Voqealar rivoji ko`p qatlamli, ko`p bosqichli bo`lishi mumkin. Yangi tugunchalar, bir

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tomondan, asosiy tu-gunni yanada murakkablashtirsa, ikkinchi tomondan, asosiy tugun echi-lishining bosqichlari rolini o`ynaydi. Bunda qaxramonning oldingi tarixi, keyingi tarixi, tupik, tormozlanish, sir saqlash, topishish, kutilmagan o`zgarish kabi lahzalar ham bo`lishi mumkin.

- kulpminatsiya - voqealar rivojining eng yuqori nuqtasi, konfliktning echilishiga olib keladigan hayot va munosabatlar holatidir.

- yechim - hayotiy masalaning hal etilishi natijasidir. echim qahramonlarga munosabatni oydinlashtiradi, g`oyaviy va emotsional munosabatlarni o`tkirlashtiradi echimda konflikt va voqealardan kelib chiqadigan g`oya ifodalanadi.

- postpozitsiya (tugallanma) - dramatik asarlarda esa final deyiladi. Bunda kurash natijasidagi kuchlarning joylashuvi ko`rsatiladi. Ekspozitsiya bilan postpozitsiya mustaqil g`oyaviy-badiiy darajaga ko`tarilsa, u prolog va epilog bo`ladi. Umuman, tugallanma personajlarning echimdan keyingi holatidir.

- prolog - ekspozitsiya rolini o`ynaydi. Shu bilan birga, prologda tugun beriladi. Bu tugun kuchliroq bo`ladi.

- epilog - yechimdan kengroq bo`lib, unda echimdan so`nggi qahra-monlar taqdiri ko`rsatiladi. Epilog g`oyani yana ham chuqurlashtiradi. Ba`zan syujetni ham Shaklga kiritishadi. Biroq syujetni butun-lay Shaklga kiritib bo`lmaydi. Asarning asosiy konflikti syujetda ochiladi. Demak, syujet faqat Shakl emas, mazmunga ham aloqadordir. Syujetda Shakl bilan mazmun birlikda namoyon bo`ladi. Hayot kolliziya-larini bevosita ochadigan san`at turlaridagina syujet bo`ladi. Me`morchilik, xoreografiya va musiqaning ayrim turlarida syujet bo`lmaydi. Syujetda odamlarning o`zaro munosabatlari, simpatiya va antipatiyalari, ziddiyatlar aks etadi. Voqealarni dinamik ilg`ay olishda syujet qurish mahorati ko`rinadi. Ayniqsa, dramada syujet qu-rish masalasi muhimdir. Dramada kulpminatsiya butun voqealar taraqqiyoti jarayonida tayyorlanishi kerak. Syujet qiziqarli bo`lishi, quruq bo`lmasligi kerak. Syujet keskinligini qiziqarlilik bilan almashti-rish ayrim asarlarni syujetdan voz kechishga olib keladi. Zamonaviy syujet katta ahamiyatga ega bo`ladi.

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Mavjud ilmiy va o`quv adabiyotlarida syujetning ikki turi haqida gapiriladi. Aslida esa, syujetning quyidagi to`rt turi bor:

- xronikali; kechinmalar oqimi, ularning rivojlanish mantiqi hamdir.
- retrospektiv;
- kotsentrik;
- assotsiativ.

Xronikali syujetda voqealar bir boshdan boshlanib, birin-ketin hikoya qilinadi. Xronikli syujet ishonarli bo`ladi. Biroq syujetning bu turi doim ham qulay vosita bo`la olmaydi, Chunki xronikaning o`zi syujet bo`la olmaydi. Xronikalilik ko`pincha naturalistik bayonchilikka olib keladi, yorqin obrazlar yaratishga imkon bermaydi. Masalan, Navoiynin «Farhod va SHirin», «Layli va Majnun» dostonlarida, Ayniyning «Esdaliklar»ida, P.Tursunning «O`qituvchi»sida voqealar qahramoning tug`ilishidan, to ma`lum yoshigacha beriladi. Biroq bu asarlarning kompozitsion qurilishi, voqealarni tanlash, saralash, umumlashtirish va ularni badiiy ifodalash mahorati, ularni joylash-tirish, ya`ni kompozitsiya shunga olib keladiki, bu asarlarni o`qigan kishi unda ortiqcha narsa yo`q, barcha voqealar badiiy-estetik va ijtimoiy qimmatga egadir, degan xulosa chiqadi. Ularda e`tiborga loyiq va qiziqarli syujet hosil qilinadi.

Retrospektiv (orqaga qaytuvchi) syujetda voqealar bir boshdan birin-ketin hikoya qilinmay, balki voqeaning ma`lum joyida to`xtatib qo`yilib, uning o`tmishiga, oldingi voqealarga murojaat qilinadi. Ba`zi asarlar umuman ana shunday orqaga qaytishga asoslansa, ayrim masalalarda vaqti-vaqti bilan voqealar hamda qahramonlarning o`tmi-shiga qaytib turiladi. Masalan, M.SHoloxovning «Inson taqdiri» qissasi butunicha orqaga qaytishga asoslangan. A.Qodiriyning «Meh-robdan chayon» romanidagi Solih Mahdumning o`tmishi tasviri, H.Olimjonning «Zaynab va Omon»ida Zaynab bilan Omonning o`tmishi, O`.Hoshimovning «Tushda kechgan umrlar» romanida komissar va T.Malikning «Shaytanat» qissasida bosh qahramoni Asadbekning o`tmish hayoti tasviri kabilar vaqti-vaqti bilan orqaga qaytish namunasi bo`ladi.

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Kontsentrik syujet tadqiqot syujet ham deyiladi. Unda voqea hikoya qilinmaydi, o`tmishga ham murojaat qilinmaydi. Kontsentrik syujetda biror hodisaning sabablari tahlil qilish jarayonida sodir bo`lgan voqealar kitobxon ko`z o`ngida jonlanadi. Masalan, O`. Umarbekovning «Yoz yomg`iri» qissasi boshida Chorsudan Mo`nisning jasadi to-piladi. Uning qanday o`ldirilganligini yozuvchi ham, kitobxon ham, asar qahramonlari ham hikoya qilib bermaydilar. Jinoyat sabablarini tekshirish jarayonida kitobxon ko`z o`ngida sodir bo`lgan voqealar jonlanadi. Sofoklning «SHoh Edip», O.Abdullinning «O`n uchinchi rais» dramalari, H.G`ulomning «Mash`al», O.YOqubovning «Larza», O`.Umarbe-kovning «Fotima va Zuhra», O`.Hoshimovning «Tushda kechgan umrlar», T.Malikning «Shaytanat» kabi asarlari ham syujetning ana shu turiga asoslanib qurilgan. Chunki kontsentrik syujet ko`pincha detektiv asarlar uchun xos bo`ladi.

Assotsiativ syujet ilgarilari asosan lirik asarlar uchun xarak-terli bo`lib, lirika tashqi hodisalarga shoirning munosabati yoki tashqi hodisalar ta'sirida shoir Shaxsida tug`ilgan tuyg`u va kechinma-larga asoslanardi. Hozirda syujet qurishning assotsiativ usuli yirik nasriy va dramatik asarlar uchun ham xos bo`lib qolmoqda. Bunday asarlarda hikoya qilinmaydi, balki qahramonning xotiralari, o`y-xayol-lari, tasavvurlari oqimi beriladi. Masalan, A.Muxtorning «Davr me-ning taqdirimda», «Chinor», S.Anorboevning «Umr», Ch.Aytmatovning «Alvido, Gulsari», «Asrga tatigulik kun», O`.Umarbekovning «Shoshma quyosh», O.Yoqubovning «Ko`hna dunyo» asarlari asotsiativ syujet asosida qurilgan. Lirik poemalar syujeti ham assotsiativ usulga asoslanadi.

Asarda har bir personaj o`z xarakteri va vazifasiga ega bo`ladi. Ularning barchasi asosiy narsaga, ya'ni voqealar rivojiga birlashti-riladi va shu bilan asar syujetini ochishga xizmat qiladi. Syujet bilan kompozitsiya ajralmasdir. Syujet bo`shligi kompozitsiyaning bo`shligini keltirib chiqaradi. Aniq shakllantirilmagan bo`sh kompozitsiya esa syujetni halok qiladi. Biroq yaxshi ishlangan kompozitsiyaning o`zi ham muvaffaqiyat keltirmaydi. Kompozitsiyaning qimmati g`oyaning qimmati bilan belgilanadi. Yaxshi kompozitsiyada ifodalangan g`oya

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syujetni ham yaxshilaydi. Demak, syujet asar mazmunini ochish Shaklidir. Fabula va syujet. “Fabula” (lot. fabula-masal, matal-hikoya) - badiiy syujet organizmning skeleti, asosi, syujet uchun material vazifasini o‘taydigan voqea-hodisalar doirasi, syujetning mantiqiy hikoya qilib bercha bo‘ladigan o‘zagi. adabiyotshunosligimizda “syujet” va “fabula” atamaları ishlatiladi: “syujet” atamasi adabiyotshunoslikda to‘la qaror topgan, ammo “fabula” atamasini ishlatishda mutaxassislar bir xillikka erishganlaricha yo‘q. Chunonchi, ayrim nazariy adabiyotlarda “syujet bilan fabula bir ma’noda qo‘llaniladi” degan qarash mavjud. Adabiyotshunos A.P.Chudakov fikricha, fabula “voqealar markazi”. S.Narovchatovning aytishicha, “Yozuvchi syujet doirasida fabulani qayta ishlaydi. U voqealarning tartibini o‘zgartirishi va buzishi ham mumkin”. Taniqli adabiyotshunos olim V.V.Kojinov “Syujet, fabula, kompozitsiya” nomli maqolasida fabula masalasiga ancha aniqlik kiritgan: “Biz syujet deganda asardagi bir butun harakatni, tasvir etilgan xatti-harakatlar zanjirini; fabula deganda esa qayta hikoya qilib berish mumkin bo‘lgan voqealar tartibini tushunamiz”. Bas shunday ekan, “fabula” atamasini saqlab qolish va ishlatish maqsadga muvofiqdir.

Syujet ekspozitsiya, tugun, voqealar rivoji, kulminatsiya va uyechim kabi elementlardan tashkil topadi. Bularning hammasi badiiy asar syujetining tarkibiy qismlari bo‘lib, asar kompozitsiyasida muhim rol o‘ynaydi. Kompozitsiya asar mazmunini eng mukammal tusda reallashtiruvchi shakliy kategoriya bo‘lib, ijodiy metod, adabiy yo‘nalish, oqim va ularga xos ijod prinsiplari bilan bog‘liq holda namoyon bo‘ladi. Shu nuqtai nazardan hozirgi adabiyotga nazar tashlasak, kompozitsiya tushunchasi bir qancha usul va vositalar hisobiga boyidi. Masalan, hozirgi adabiy asarlar qurilishida qo‘llaniladigan avtor xarakteristikasi, ichki va tashqi monolog, dialog, xotira, lirik chekinish, ruhiy iztirob, tush ko‘rish, o‘z-o‘zini baholash kabi usullar shular jumlasidandir.

Obraz asarda tutgan o‘rni va vazifasiga ko‘ra, adabiyotda personaj, bosh obraz, ikkinchi darajali obraz, xarakter, tip kabi terminlar bilan ifodalanadi. Chunonchi, personaj badiiy asarda ishtirok etuvchi shaxslar jamini anglatadi. Agar personaj asar

voqealari markazida turib, syujet voqealarini harakatga keltirsa, asar konfliktining hal etilishida uyetakchi rol o'ynasa, yozuvchining g'oyasini ifodalasa, u asarning bosh obrazi sanaladi. Personaj asar markazida turmasa ham, biror jihati bilan yozuvchi g'oyasini ifodalashga, uni to'ldirishga xizmat qilsa, u ikkinchi darajali obraz hisoblanadi.

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Факоэмульсификация ва тўр парда макуляр шиши

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Аннотация. Ушбу илмий мақола факоэмульсификация ташрихини бажариш давомидаги тўр парда макуласида келтириб чиқарадиган асоратлар, уларни олдини олиш ва даволаш чора тадбирлари тўғрисида кенг ёритилган

Ключ сўзлар. ФЭК,

Факоэмульсификация и макулярнкй отёк

Андижанский государственный медицинский институт

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Аннотация. В этой научной статье широко освещаются осложнения, меры профилактики и лечения, которые могут вызвать глазные заболевания в сетчатой оболочке желтого пятна во время проведения процедуры факоэмульсификации

Ҳозирги вақтда факоэмульсификация катарактани даволашнинг асосий усулига айланмоқда. Ушбу операция манипуляция пайтида минимал инвазив аралашув туфайли офтальмик жарроҳларнинг эътиборини тортади. Буларнинг барчаси жарроҳлик ва операциядан кейинги асоратлар хавфини камайтирди [1, 2]. Бироқ, ультратовуш нури билан кўзга таъсири кўз тўқималарига, хусусан, шох парда, хориоид ва тўр пардага турли хил таъсир кўрсатади. Жарроҳликнинг мумкин бўлган асоратларидан бири бу ретининг макула шиши. Унинг пайдо бўлиш сабаблари асосан номаълумлигича қолмоқда. Бироқ, кўплаб офтальмологлар [3-5] катарактани жарроҳлик даволашдан сўнг тўр парданинг марказий зонасининг морфометрик ҳолатига катта эътибор беришади. Олинган шиш кейинчалик нам турдаги ёшга боғлиқ макула дегенерациясининг ривожланишига, субретинал неоваскуляр мембрананинг шаклланишига ва фиброз натижасида преретинал тортишнинг пайдо бўлишига олиб келиши мумкин. Патологиянинг ривожланишининг бу истиқболли жуда хавотирли. Айнан шу жиҳат бу ишга эҳтиёж туғдирди. **Тадқиқот мақсади** факоэмульсификациядан кейин макула тўр парда шишининг мумкин бўлган соматик ва маҳаллий патология билан боғлиқлигини аниқлаш эди. Шу муносабат билан аниқ тадқиқот мақсадлари шакллантирилди:

- 1) факоэмульсификациядан кейин макула тўр парда шиши пайдо бўлишини ўрганиш;
- 2) шиш пайдо бўлишининг жарроҳлик курсига боғлиқлигини, беморларда соматик ва маҳаллий кўз патологияси мавжудлигини ўрганиш;
- 3) макула шишининг олдини олиш чораларини ишлаб чиқиш.

Тадқиқот материаллари ва усуллари

Ҳозирги вақтда беморларда операциядан олдин ва кейин макула шиши пайдо бўлишининг олдини олиш учун стероид бўлмаган яллиғланишга қарши дорилар қўлланилади [6, 7]. 2018 йилдан бошлаб, факоэмульсификациядан сўнг, беморлар профилактика чораси сифатида кунига 25 марта 3 мг индометацин таблеткасини 2 ҳафта давомида қабул қилишди. Барча беморлар оптик тузатиш билан визометрия, амслер текшируви, периметрия, биомикроскопия, гониобиомикроскопия, кўзнинг ультратовушли б-сканери, офтальмотонометрия, офтальмоскопия, рефрактометрия ва томография, шунингдек, интравитреал администрацияга розиликни ўз ичига олган текширув учун хабардор розилик олдилар. Ушбу беморларнинг соматик касалликлари беморларда биргаликда патология

мавжудлигини аниқлаш учун тегишли профил мутахассисларини жалб қилган ҳолда ўрганилди. Агар керак бўлса, улар кўшимча лаборатория ва клиник тадқиқотлар ўтказдилар

Тадқиқот натижалари ва уларни муҳокама қилиш

Факоэмулсификациядан кейин икки йил ичида беморларда макула шиши билан касалланиш 1,31% ни ташкил етди. Беморларнинг ёши 50 ёшдан 85 ёшгача (ўртача 74,6 ёш). Факоэмулсификация операциясидан олдин ушбу беморларни текшириш пайтида тўр парданинг патологияси аниқланмаган. Уларнинг барчаси офтальмоскопик текширувдан ва STRATUS OCT 3000 оптик изчиллик томографида текширувдан ўтказилди. Макула шишининг пайдо бўлиши кўпчилик беморларда операциядан кейинги биринчи йил давомида кузатилган. Барча беморлар операция қилинган кўзнинг кўриш қобилиятининг пасайишини ва кўриш майдонининг марказида "нуқта" (баъзан шаффоф, баъзан нисбатан зич) мавжудлигини қайд этишди. Барча беморларда Амслер панжарасидаги текширув чизиқларнинг эгрилигини берди. Катаракт операциясини ўтказган ва 2015 йил давомида индометазин билан даволанган беморларда операциядан кейин ретинанинг макула соҳасида шиш аниқланмади. GALAXY компьютер периметрида Марказий кўриш майдонини синаб кўриш натижаси турли хил конфигурация ва ўлчамдаги марказий ижобий ва салбий кўриш кескинлиги билан ҳам, кўриш майдони билан ҳам боғлиқ эмас эди. Қорамол ҳудудида ёруғлик сезгирлиги кескин камайди, аммо ҳеч қачон нолга тушмади. Беморларда кўриш майдонининг периферик чегараларида операциядан кейинги ўзгаришлар кузатилмади. Гониобиомикроскопия пайтида барча беморларда олд камеранинг очиқ бурчаги аниқланди. Бироқ, унинг кенлиги ва пигментация даражаси бошқача бўлиб чиқди. Олд камеранинг бурчаги 7 беморда ўртача кенликка эга эди. Маълум бўлишича, операциядан кейин битта беморда пигментнинг чўкиш даражаси кескин пасайган ва олд камеранинг бурчагида деярли пигмент бўлмаган бирида у пайдо бўлган. Жарроҳликдан олдин рефрактометрик текширув барча беморларда енгил миопия ёки миопик астигматизмни аниқлади. Шу муносабат билан кўз ичи линзаларини ҳисоблашда торик оптика ишлатилмади. Операция натижасида барча беморлар кўзнинг олдиндан мавжуд оптикасини сақлаб қолишни афзал кўришдинмаган. Ҳаммаси ривожланган босқичга ега еди диабетик ретинопатия ретинанинг макула нуктасига зарар етказмасдан. Бундан ташқари, улардан иккитасида диабет субкомпенсацияси бор эди. Тўрт (28,6%) гипертония билан оғриган, иккитаси диабет билан биргаликда. Гипертензив беморларда қон босими даражаси дори воситалари билан тартибга солинган. Икки беморда очиқ бурчакли ривожланган глаукома компенсация қилинган. Улардан бири факоэмулсификациядан икки йил олдин антиглаукоматоз операция (чукур склеректомия) қилинган. Иккала бемор ҳам операциядан олдин ҳам, кейин ҳам маҳаллий антигипертензив терапия олди. Глаукома билан оғриган беморларда факоэмулсификациядан кейин офталмотонуснинг декомпенсацияси бўлмаган. Патологияни даволаш учун у ранибизумаб (лусентис) интравитреал администрациясидан ўтди. retinal макула шиши бўлган беморларни ўрганишда уларнинг ўртача кўриш кескинлиги аниқланди 0.2. In ўнта (71,4%) бемор, кўриш кескинлигининг ошишига еришиш мумкин еди ва у ўсди 0,2-0,3. Тўрт беморда кўриш кескинлигининг ошишига еришиш мумкин эмас еди, гарчи барча беморларда макула зонаси ҳолатида ижобий динамика қайд етилган. Даволанишдан сўнг GALAXY компьютер периметрида Марказий кўриш майдонини синаб кўрганда, деярли барча беморларда Марказий retinal зонанинг фотосенситивлиги камайган бўлса-да, фақат 2 беморда Марказий нисбий Шотландия борлиги

аниқланди. Макула шишининг баландлиги барча ҳолатларда камайди . Макула шиши билан боғлиқ энг катта ижобий динамика гипертензия билан оғриган пролифератив диабетик ретинопатия билан оғриган беморларда, шунингдек, глаукома билан операция қилинган беморда кузатилган.

Хулосалар

1. Факоэмульсификациядан кейин макула шишининг пайдо бўлиши кўпинча диабетик ретинопатия билан оғриган беморларда кузатилади.

2. Проллифератив диабетик ретинопатия ва глаукома билан оғриган беморларда факоэмульсификациядан кейин макула шишини даволашнинг максимал самарадорлигига еришилди.

3. Индометацинни тизимли равишда юбориш, бизнинг маълумотларимизга кўра, факоэмульсификация операциясидан кейин беморларда макула шиши пайдо бўлиш эҳтимолини кескин камайтириши мумкин.

DEMOGRAPHIC PROCESSES AND THE LABOR MARKET IMPROVING
INTERCONNECTION

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Abstract: Comprehensive scientific research aimed at developing the impact of demographic processes on the labor market in the world based on statistical analysis, including the impact of the demographic situation on the labor market, the impact of demographic processes on the regional economy, demographic changes on labor supply and economic growth. Scientific research is being conducted in areas such as the effect on swelling. Based on these aspects, conducting scientific research on the statistical study of demographic processes and the interaction of the labor market is one of the urgent issues. This article addresses this and can be used by undergraduates, graduate students, independent researchers, and a wide audience.

Keywords: demography, economic crisis, statistics, labor market, demographic situation, demographic development.

Introduction. According to world statistics, 197.7 million people in the world are currently unemployed despite being healthy and able to work. This number itself means to observe a person and take into account many factors when making a plan for the future. It can be said that important decisions are made in the management of demographic situations in the world, as well as in professions such as job creation, planning of infrastructure, construction, education, and medical facilities. However, in the practice of economic and statistical research, little attention is paid to studying the relationship between demographic processes and the labor market. To conduct a comprehensive statistical study in our country, it is necessary to study demographic factors, as well as their impact on the labor market and the population in detail. In 2017-2021, the strategy of Action on the five priority areas of the development of the Republic of Uzbekistan: "creating new jobs and ensuring the employment of the population, first of all, graduates of secondary specialized and higher educational institutions, ensuring the balance of the labor market and infrastructure development, reducing the unemployment rate; important tasks of creating conditions for the full implementation of labor and entrepreneurial activity of the able-bodied population, improving the quality of the workforce, expanding the system of professional training, retraining and upgrading of skills of persons in need of work." Effective implementation of these tasks requires studying the interdependence of demographic processes and the labor market in our republic.

The level of study of the problem. Issues related to demographic processes and labor resources. Researched in-depth scientific works of foreign economists such as Raymer, S. Coles, and S. Markusen.

Issues of statistical analysis of demographic processes and the study of sources of formation of the labor market from CIS scientists I.Yeliseyeva, N.Varshavskaya, V.Chumarina, A.Kvasha, A.Andryunin, A.Korovkin, K.Parbuzin, N.Vargin, A.Osipov, Bruy, Ye. Kurilina, M.Sonin, and others have taken a large place in scientific research.

The issues of statistical study of demographic processes and the interaction of the labor market have been the subject of scientific research by the economists of our republic. In particular, the scientific research of famous economists of our country K. Abdurakhmanov, B. Khodiyev, T. Shodiyev, N.

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Zokirova, O. Atamirzayev, D. Karimova, B. Umurzakov, R. Ubaidullayeva, L. Maksakova, B. Usmanov, L. Shaylar issues of modeling, forecasting and analysis of demographic processes and the labor market in Uzbekistan were comprehensively researched.

The main part. According to the definition of Ye.A. Kechina: "Demographic process" is a sequence of the same events that are important for the change of generations in people's lives. The next definition that needs to be clarified is "demographic development".

According to VSSsteshenko: "Demographic development is the maintenance of population size as a result of historical development."

In addition to the opinions of the above-mentioned scientists, we offer the following definitions:

- ✓ **demographic process** - mechanical (migration) or natural (birth, death, marriage, and divorce) movement of the population;
- ✓ **demographic development** is a transition from progressive and regressive to stationary types of population change;
- ✓ **demographic growth** - an increase in the population at a certain time and in a certain place.

Demographic processes affect the economy, primarily by changing the quality and quantity of labor resources. The number of working-age population changes mainly due to natural growth. The statistical study of the quality of the working population is more complicated than the study of their number because several factors affect this indicator.

According to forecasts from the World Health Organization, by 2030, 8 percent of the population of Uzbekistan will be people aged 65 and over.

Demographic growth in Uzbekistan in 2010-2020 was 1.4-1.8% per year, only in 2012 this indicator was 3.9%. This situation was determined in 2011 based on the data of a sample survey covering 10% of the population (Table 1). Demographic growth in Uzbekistan is average by world standards (less than 1% is a low indicator; more than 2.5% is a high indicator). **Table 1**

Demographic and economic growth rate in Uzbekistan in 2010-2020 (compared to the previous year, in percent)

No	Indicators	2010 _	2012 _	2014 _	2016 _	2018 _	20 20
1.	Demographic growth	101.7	101.5	103.9	101.4	101.7	101.5
2.	GDP growth	108.5	108.3	108.2	108.0	108.1	105.3
3.	Economic growth	106.7	106.7	104.1	106.5	106.3	103.8

The main task of the statistical study of the relationship between demographic processes and the labor market in the Republic of Uzbekistan is to analyze and evaluate the dynamics of the population and the specific characteristics of the population structure. After all, the development of the country's labor potential occurs precisely under the influence of demographic factors.

In the conditions of the market economy in Uzbekistan, the role of demographic factors in the formation of the labor market is increasing, and it is becoming more relevant. The demographic trends observed in our country are not only the result of the demographic situation in the early 1990s (high birth rate, the tradition of large families, mass social protection for families) but also the result of socio-economic processes that took place during the years of independence.

Statistical analysis of the relationship between demographic processes and the labor market includes:

quantitative factors - population dynamics, death, birth, migration, etc.;

qualitative factors - population's gender, age, level of education, etc content on.

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The assessment of population dynamics includes the analysis of natural growth (the difference between the number of births and deaths in a certain period) and mechanical growth (the difference between the number of immigrants and those who emigrated). The overall increase in the number of the population was fully supported by natural growth (a stable increase in the number of emigrants compared to those who immigrated could not have a serious negative effect on it).

Determining the causes of the modern dynamics of natural movement is important for the assessment of the demographic future, demographic policy, and measures affecting the process of population development. In this case, it is necessary to clarify the issue of which factors have a greater influence on the dynamics of the modern population, that is, a sharp decrease in the number of births (as a result of structural factors, including changes in the reproductive tendency) or an increase in the number of deaths.

Major socio-economic changes that took place in the 90s of the 20th century affected all areas of human activity, including the demographic situation. In addition to the natural movement of the population, an important factor affecting the number and composition of the population is migration. At each stage of economic development, migration makes it possible to achieve a dynamic balance between demand and supply, taking into account the specific placement of labor resources in the regions of the country, taking into account the qualitative characteristics of the workforce.

In our opinion, migration cannot be evaluated as a positive or negative phenomenon. On the one hand, the increase in the number of departures will ease the tension in the labor market, and on the other hand, it will lead to a shortage of labor force, which is an important factor in economic growth.

Population age composition is the ratio of different age groups. To analyze the age and gender composition of the population, a graphical method called the age-sex pyramid is widely used. In the age structure of the population of Uzbekistan, there were many young people under the age of 15. It has changed due to the declining birth rate. Although those born in the 1980s and 1990s passed into the group of working-age people (labor resources), the age structure of the population today, according to the classification of the Swedish demographer AG. Sundberg belongs to the progressive type of population re-emergence.

Conclusion. There is a system of independent indicators to describe the state of demographic processes and employment of the population, and complex system analysis requires the use of a system of independent, local, and integrated indicators that are related to each other. Therefore, when analyzing both social and economic aspects, it is recommended to use mixed models that include statistical methods to solve them. Along with the chain replacement methods and the correlation-regression relationship, it is necessary to use the variation series and the ranking estimation method. After all, during the complex analysis, not only the data on the country but also the indicators on the regions (regions) are important.

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Turli yosh guruhlarida MTT da sayrlarni tashkil qilishning afzalligi
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URGANCH DAVLAT UNIVERSITETI PEDAGOGIKA FAKULTETI
“MAKTABGACHA TA’LIM METODIKASI” O‘QITUVCHISI
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YANGIBOZOR PEDAGOGIKA KOLLEJINING
MAXSUS FAN O‘QITUVCHISI

Annotatsiya: Ushbu ilmiy maqolada maktabgacha ta’lim tashkilotlarida sayrlarni tashkil qilish hamda sayrlar davomida balolarni tabiiy materiallar, kundalik tabiat hodisalari hamda o‘simliklar va hayvonlar bilan tanishtirish to‘g‘risida asosiy tushunchalar berilgan.

Kalit so‘zlar: tabiiy materiallar, ekskursiya, individual ish olib borish, o‘simliklar.

Аннотация: В данной научной статье изложены основные понятия организации экскурсий в дошкольных образовательных организациях и знакомства детей с природными материалами, бытовыми явлениями природы, растениями и животными во время экскурсий.

Ключевые слова: природные материалы, экскурсия, индивидуальная работа, растения.

Abstract: This scientific article provides the basic concepts of organizing excursions in preschool educational organizations and introducing children to natural materials, everyday natural phenomena, and plants and animals during excursions.

Key words: natural materials, excursion, individual work, plants.

Mashg‘ulot va eskursiyalardagi kuzatishlarni kundalik hayotdagi amalga oshirishning maqbul shakllaridan biri sayrlarni tashkil etish bilan uzviy aloqada olib boriladi. Bolalarni tabiat bilan tanishtirish uchun sayrlardan keng foydalaniladi. Sayrlar vaqtida tarbiyachi bolalar tasavvurining shakllanishi uchun uzoq muddat talab qilinadigan tabiat hodisalari bilan tanishtirish imkoniga ega bo‘ladi. Bolalarni qorning erishi, kurtaklarning bo‘rtishi, maysaning paydo bo‘lishi va shu kabilar bilan

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tanishtiriladi. Sayrlarda tabiiy materiallar — qum, loy, suv, muz, barg va shu kabilar bilan xilma-xil o‘yinlarni tashkil etish mumkin: maktabgacha yoshdagi bolalarda sezgi tajribasi yig‘iladi, ular tabiat hodisalarini barcha aloqa va munosabatlarda tabiiy sharoitlarda ko‘radilar. Sayrlar bolalarga katta quvonch, tabiat bilan munosabatda bo‘lish esa lazzat baxsh etadi.

Tabiat hodisalarini kundalik kuzatishlar tasodifiy bo‘lmasligi lozim. Ularni tarbiyachi oldindan puxta o‘ylab qo‘yadi. Bunda bolalarni uyushtirishni xilma-xil shakllari (yalpi, guruh bo‘lib, yakka tartib) dan foydalanish zarur. Sayrlarda kuzatishlarni guruxlar bilan umumiy tashkil etishdan bolalarni aniq mavsumiy o‘zgarishlar, kattalarning mehnati bilan tanishtirishda foydalaniladi. Kuzatishlar ozchilik bolalar bilan ham o‘tkazilishi mumkin (gullab turgan o‘simliklarni, unib chiqqan maysalarni, hasharotlarni va shu kabilarni tomosha qilish).

Sayrlarda individual ish ham olib boriladi. Sayrlar vaqtida gulzor va ekinzorlarda katta ishlarni amalga oshirish mumkin. Bolalar o‘simliklarni sug‘oradilar, oziqlantiradilar, yerni yumshatadilar, Bu ish ertalab va kechqurunga rejalashtiriladi. Ekinzor va gulzordagi ish uchun bolalarni mashg‘ulot maqsadiga ko‘ra uyushtiriladi. Ba’zi topshiriqlarni bolalar birgalikda bajara oladilar (ekish, sepish, hosilni to‘plash). Boshqalarini (erni tayyorlash, o‘simliklarni sug‘orish, yerni yumshatish, quruq barglarni kesib tashlash, urug‘larini to‘plash va shu kabilarni) kichik-kichik guruhlarga bo‘linib bajarilgany ma’qul. Katta guruhlarda bahor va yoz oylarida uchastkalarda navbatchilikni tashkil etish mumkin. Katta va maktabga tayyorlov guruhlarning bolalari sayrlardagi kuzatishlarni tabiat kalendarida aks ettiradilar. Ular bu kalendarida jonsiz tabiat, hayvonlar, o‘simliklar hayotidagi yorqin mavsumiy o‘zgarishlarni, kishilarning mehnatlarini aks ettiradilar.

O‘rta guruhdan boshlab, maqsadli sayrlar o‘tkaziladi (maktabgacha ta’lim tashkilotidan chetga — suv havzasi, o‘tloq, yaylov va shu kabilarga borish). Bu sayrlarda bolalarni yorqin tabiat hodisalari (qora qarg‘alarning ini, muz ko‘chishi) bilan tanishtiriladi.

Sayrlar vaqtida maktabgacha yoshdagi tarbiyalanuvchilarni yosh xususiyatlarini inobatga olgan holda O'zbekistondagi (issiqsevar, issiqqa bardoshli) o'simliklarning o'ziga xos hayot sharoiti va ularning mahalliy sharoitga moslashishi haqidagi tasavvurlarini shakllantirish zarur.

Tabiatdagi bog'liqliklar haqida quyidagi tushunchani shakllantirish zarur:

- O'simliklarning o'sish va rivojlanishi muayyan tabiat omillariga va ularni to'g'ri parvarish qilishga bog'liqligi. Odam uchun o'simliklarning foydasi.
- «Odam—o'simlik—hayvonot» tizimida hayvonlar, o'simliklar hayotining o'zaro bog'liqligi haqida ba'zi elementar ma'lumotlar. Bu tushunchalarini shakllantirish uchun quyidagi savollar tizimidan foydalanish mumkin:

O'simlik hayvonlarga qanday foyda keltiradi?

Hayvon o'simliklarga qanday foyda keltiradi?

O'simlik odamga qanday foyda keltiradi?

Odam o'simlikka qanday foyda keltiradi?

Bu tabiat bilan tanishtirish mazmuniga tirik tabiatda mavjud bo'lgan ba'zi bog'liqliklar haqidagi bilim va tushunchalar kiradi. Ta'lim berishda, tirik tabiatda mavjud bo'lgan o'zaro bog'liqlik haqidagi bilim, tushuncha va tasavvurlar bevosita kuzatishlar yo'li bilan olib borilganda ko'rgazmali bo'lishga alohida e'tibor berish kerak. Hayvonot olami bilan va odam bilan o'simliklarning bog'liqligiga katta ahamiyat berish lozim. Masalan, asalarilar hayoti o'simliklar olami bilan bog'liq. Asalarilar gullaridan faqat oziq olibgina qolmay, balki ular shu bilan birga o'simliklarga foyda, ham keltiradi, ular o'simlikni changlantiradi, natijada o'simlikning hosildorligi oshadi. Bundan tashqari, ular o'simlik orqali va o'zining shaxsiy asal yetishtirishi orqali odamga foyda keltiradi. Boshqa misol: shira o'simlikni yeydi, xonqizi va chumolilar esa shira lichinkalari bilan oziqlanib o'simliklarni zararkunandalardan saqlab qoladi hamda o'simlikning o'sishi va rivojlanishiga yordam beradi. Ipak qurtining hayoti o'simlik va odam bilan chambarchas bog'liq. Shunday qilib, tabiatda hech bir narsa bekordan-bekorga yashamaydi, hammasi o'zaro aloqada va bir-biriga bog'liq bo'ladi, degan tushunchani bolalar ongiga yetkazish mumkin.

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G'ozda ustida kuzatish olib borayotganda o'simlikning o'sishi va rivojlanishiga yordam beruvchi kishi mehnati va tabiat omillarining ahamiyatini ko'rsatish bilan birga ular e'tiborini yana shunga jalb etish kerakki, odam mehnati va o'lkamizning muayyan iqlim sharoitidagi paxta yaxshi unmas edi hamda kungildagi yuqori xosilni bermagan bo'lardi, g'ozda qimmatbaho xomashyo bergani uchun, odam uni parvarish qiladn, xomashyo odamga ovqat uchun, kiyim-bosh uchun, turmush uchun zarur. Butun ish davomida bolalarda kuzatuvchanlikni rivojlantirishga katta ahamiyat berish zarur, bu ularning xar tomonlama rivojlanishlariga yordam beradi. Bolalarni arzimastan hodisalarni chetlab o'tmaslikka o'rgatish lozim, chunki bular bolalar uchun keyinchalik katta ahamiyatga egadir. Shu bilan bir vaqtda lug'atni boyitish, bolalarda so'zlashuv nutqini, ko'rilgan va eshitganlar haqida to'g'ri so'zlab berish malakalarini ko'nikmasini rivojlantirish vazifalari hal etilgan bo'ladi, bular tarbiyachining maqsadga qaratilgan ishlari natijasida shakllanadi.

Asosiy e'tibor sensor, emotsional jrayonga qaratiladi, ular tashqi tomondan bolalar uchun yashirin bo'lgan, ularning tevarak-atrof tabiatidan oladigan bilimlarining mazmuniga chuqurroq kirib borishga intilishini ta'minlaydi. Taqqoslash, eslash, qismlarga ajratish, umumlashtirish, o'zaro bog'liqliklarni anglay boshlash, hodisalar o'rtasidagi bog'liqlik, ularning rivojlanishini ko'rishga harakat qilish - bola ijodiy izlanishning namoyon bo'lishi, faolligini safarbar qilishdir.

Yuqorida bayon etilgan tasavvurlarni, bilim va tushunchalarini shakllantirish uchun sayr, tajriba, kuzatish, sayr vaqtida o'yin, bolalar amaliy mehnat faoliyati turlari, badiiy adabiyotlardan foydalaniladi Ularni bolalar bilan olib boriladigan ta'lim-tarbiyaviy ishlarning umumiy rejasiga kiritish va kundalik hayotda o'tkazish mumkin (buning uchun sayr qilish, kechki soat va mashg'ulotlardan foydalanish mumkin).

Sayr vaqtida tarbiyachi Bolalar yoshiga mos jonli va jonsiz tabiat haqida oddiy tushunchalar berish bolalarga beriladigan bilimlar oddiy bo'lishi bilan birga ilmiy aniq bo'lishi kerakligini unutmasligi muhim ahamiyat kasb etadi. Masalan: o'simlikni yorug'likka, suvga, issiqlikka bo'lgan ehtiyoji.

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Bolalarga beriladigan bilimlar sayrlarda ko'rgazma asosida berilishi shart. O'z o'lkasi tabiati haqida chuqur bilim berish. Tabiatshunoslikning barcha sohalari (botanika, zoologiya, astronomiya) haqidagi bilimlarga ega bo'lishi zaruriy sharoitni taqozo etadi.

Yuqorida aytib o'tilgan tamoyillar bir-biri bilan bog'liq holda olib boriladi. Sayrlar vaqtida bolalarni tabiat bilan tanishtirishda ilmiylilik tamoyiliga rioya qilinadi. Beriladigan tabiat haqidagi bilimlar ilmiy bo'lishi bilan birga bolalar tushunadigan bo'lishi zarur. Masalan: Bolalarni mtt yer maydonchalariga sayrga olib chiqilganda - erta bahorda kunlar isiydi. Kunlar isigani sababli daraxtlar kurtak chiqaradi. Osmon ko'm-ko'k tus oldi biz endi er maydonchasiga ekin ekishimiz mumkin – ish holati bilan tanishtirish orqali ham tabiatning mavsumiy o'zgarishi bilan, ham mehnatga bo'lgan ishtiyoqni oshiradi Mana shunday oddiy misollar orqali bolalar aniq va ilmiy asosda tushunchalarga ega bo'ladilar. Ilmiy tamoyil bolalar yoshiga mos bo'lsagina samarali natija beradi. Bu tamoyillar "Ilk qadam" maktabgacha davlat o'quv dasturidagi tabiat bilan tanishtirish bo'limida o'z aksini topgan. Sayrlarda bolalarni bevosita o'zlariga yaqin bo'lgan, atroflarini o'rab turgan tabiat bilan tanishtirishdan boshlash lozim. Bolalarga avval maktabgacha ta'lim tashkilotidagi daraxtlar so'ngra o'rmondagi daraxtlar haqida bilim berish kerak. Demak, biz yaqindan-uzoqqa tomon degan qoidaga rioya qilishimiz zarur. Tarbiyachi bolalarga bilim berishda ularning avvalgi bilimlariga tayanishi kata ahamiyatga ega. Shundagina ular yangi bilimni chuqur o'zlashtirib oladilar. Bolalarga beriladigan bilim ilmiy, bolalar yoshiga mos bo'lsa-y, ular ko'rgazmasiz bo'lsa, bolalar yaxshi tushunmaydilar. Shundan kelib chiqib hissiy tajribani bilish va o'rganish asosida quyidagi ko'rgazmalilik tamoyiliga asoslaniladi.

Tarbiyachi bolalarni tabiatning predmeti va hodisalari bilan tanishtirishda entsiklopedik tamoyilga amal qilishi lozim. Entsiklopedik so'zi grekcha so'z bo'lib, barcha fanlarni har tomonlama bilish, bilimlar yigindisi manosida qo'llaniladi Sayrlarda tarbiyachi tabiatning barcha ob'ektlariga diqqatini tortar ekan: osmon jismlarini astronomiyadan, o'zi tug'ilib o'sgan shahar, qishloq, voqa, daryo,

tog'larning nomlarini geografiyadan; o'simliklar nomlari, ularning o'ziga xos xususiyatlari botanikadan bilib boradilar.

Tarbiyachi sayr vaqtida tabiatshunoslik bilimlarini oddiydan - murakkabga tizimli ravishda yaqindan - ya'ni o'z o'lkasi tabiatidan boshlab uzoq ya'ni boshqa o'lka tabiatini tanish, o'rganish asosida amalga oshiriladi. O'z o'lkasi tabiati bilan tanishish bevosita bolani tevarak - atrofdagi, maktabgacha ta'lim tashkilotidagi yer maydonchasidagi o'simliklar, gullar, ko'chatlar, daryo va ko'l nomlari, tog'lar, yo'lda uchraydigan maysalar nomi, hayvonot olami; ya'ni duch keladigan jonli va jonsiz tabiat bilan tanishishdan boshlash zarur. Shu tizim asosida ish tashkil etilsa, o'zga o'lkaning tabiati bilan tanishish yengil, oson kechadi.

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PORTLAND CEMENT TO GET PRINCIPLE SCHEME

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Abstract.

This document presents a concise overview of the principles underlying the manufacturing process of Portland cement, a fundamental construction material. The focus is on the key steps involved in cement production, including the extraction and preparation of raw materials, the formation of clinker through high-temperature reactions, and the subsequent grinding and packaging processes. The chemical reactions governing clinker formation are outlined, emphasizing the crucial role of calcium silicates. This annotation serves as a guide for understanding the principal scheme of Portland cement production.

Keywords: Portland cement, cement manufacturing, raw materials, clinker formation, rotary kiln, hydration, calcium silicates, construction material, chemical reactions, gypsum, cement production process.

Introduction

Portland cement is a type of hydraulic cement that is widely used in the construction industry. It is composed primarily of calcium silicates, along with smaller amounts of calcium aluminates and calcium ferrites. The production of Portland cement involves a series of steps. Here is a simplified principle scheme of the Portland cement manufacturing process:

Main part

1. Extraction of Raw Materials:

- Limestone: The primary source of calcium carbonate (CaCO_3), which is the main component of Portland cement.
- Clay or Shale: Provides additional silica, alumina, and iron oxide.

2. Crushing and Grinding:

- The raw materials are crushed and ground into a fine powder. This process increases the surface area of the materials, facilitating chemical reactions.

3. Mixing and Blending:

- The finely ground raw materials are mixed to form a homogeneous mixture.

4. Preheating:

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- The raw mix is preheated in a preheater with the help of waste heat from the kiln or other sources. This step removes moisture and initiates the decomposition of some of the raw materials.

5. Clinker Formation:

- The preheated raw mix is fed into a rotary kiln where it is heated to a high temperature (about 1450°C). This leads to the formation of clinker, which is a nodular material composed mainly of calcium silicates.

6. Cooling:

- The clinker is rapidly cooled to prevent the spontaneous reactions that could occur if it were allowed to cool slowly. This is typically done in a cooler.

7. Grinding of Clinker:

- The cooled clinker is ground into a fine powder along with gypsum (calcium sulfate) to control the setting time of the cement.

8. Storage and Packaging:

- The finished cement is stored in silos before being packaged and distributed.

The chemical reactions involved in the formation of clinker include the decomposition of raw materials and the formation of intermediate compounds. The main reactions are the decarbonation of limestone to form lime (calcium oxide) and the combination of lime with silica, alumina, and iron oxide to form clinker minerals.

The overall reaction can be simplified as follows:



These reactions occur at high temperatures in the rotary kiln, resulting in the formation of clinker. The addition of gypsum during grinding helps regulate the setting time of the cement by controlling the rate of hydration. The final product, Portland cement, is a versatile binding material widely used in the construction of buildings, bridges, and other infrastructure.

Materials:

- Limestone (CaCO_3)
- Clay or Shale
- Gypsum (Calcium sulfate)
- Rotary Kiln
- Clinker Cooler
- Grinding Mill

Conclusion:

The production of Portland cement involves a systematic series of steps, from raw material extraction to the final packaging. The chemical reactions during clinker formation in the rotary kiln play a pivotal role in the quality and properties of the cement. Understanding these principles is essential for optimizing the manufacturing process and ensuring the consistent quality of Portland cement, a crucial component in construction.

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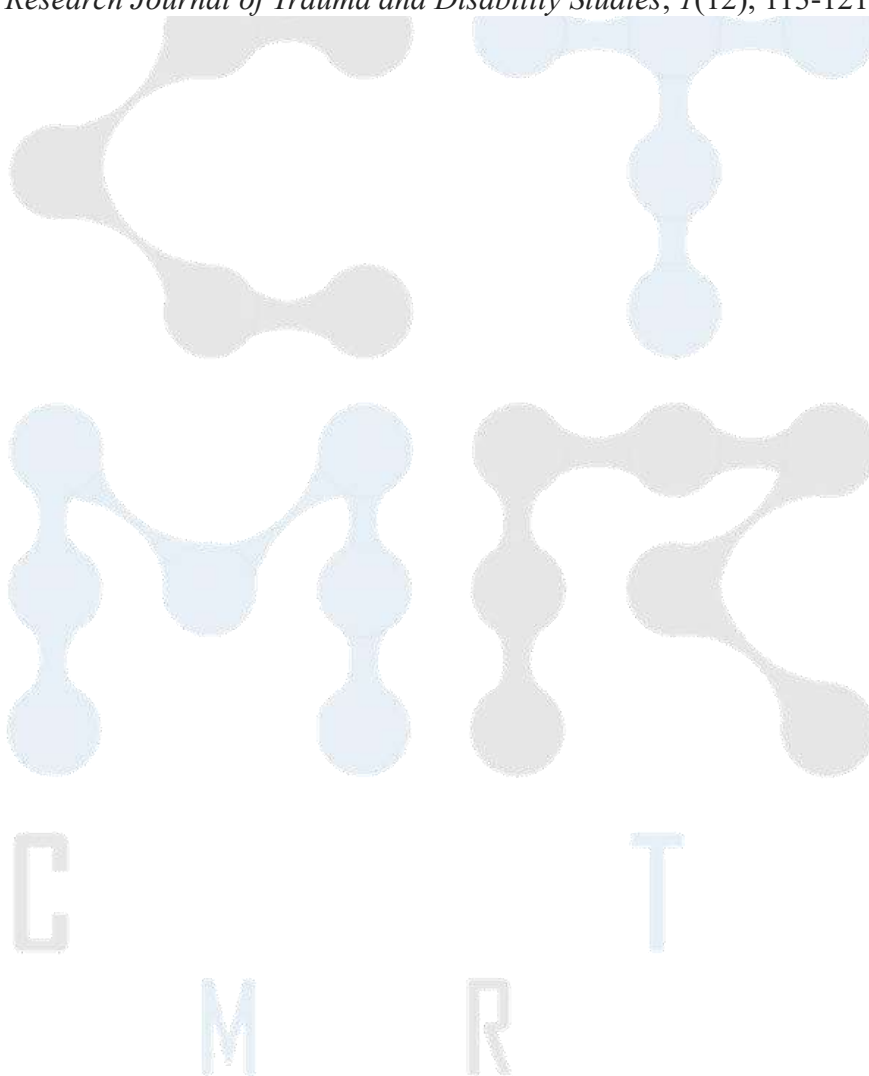
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**UNDERSTANDING ENVIRONMENTAL IMPACT AND SUSTAINABILITY
IN CEMENT PRODUCTION**

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Abstract:

This article explores the environmental impact and sustainability considerations in cement production using the IMRAD method, emphasizing the Introduction, Methods, Results, and Discussion aspects. Cement, a vital construction material, has faced growing scrutiny due to its significant environmental footprint. We delve into the challenges, methodologies, findings, and discussions surrounding sustainability initiatives within the cement industry.

Keywords: cement production, environmental impact, sustainability, carbon emissions, alternative raw materials, alternative fuels, circular economy, carbon capture and storage (ccs), environmental performance indicators, green construction, eco-friendly cement, resource utilization, waste-derived resources, energy efficiency, community relations

Introduction:

Cement production has long been associated with environmental concerns, primarily due to its substantial carbon emissions and resource-intensive nature. In recent years, there has been a growing emphasis on adopting sustainable practices within the industry to mitigate these impacts. This section introduces the environmental challenges associated with cement production and sets the stage for understanding the IMRAD approach.

Methods:

Alternative Raw Materials and Fuels:

Research within the cement industry has focused on finding alternatives to traditional raw materials and fuels. This involves investigating the viability and environmental benefits of using materials like fly ash, slag, and alternative fuels such as biomass and waste-derived sources. The Methods section outlines the approaches used to assess the feasibility and environmental impact of incorporating these alternatives into the cement production process.

Carbon Capture and Storage (CCS):

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An emerging method to address carbon emissions in cement production is the implementation of Carbon Capture and Storage (CCS) technologies. Researchers have been exploring various CCS techniques, and the Methods section elucidates the experimental setups, monitoring procedures, and challenges encountered in capturing and storing carbon dioxide emissions from cement plants.

Results:

Environmental Performance Indicators:

Results from sustainability initiatives are often measured using environmental performance indicators. These indicators encompass metrics like carbon intensity, energy efficiency, and resource utilization. The Results section presents key findings from studies assessing the environmental performance of cement production under different scenarios, shedding light on the effectiveness of implemented measures.

Circular Economy Strategies:

The adoption of circular economy principles within cement production involves recycling and reusing waste materials. Results in this section showcase successful examples of waste-derived resources in cement production, emphasizing the reduction of environmental impact through circular economy strategies.

Table: Environmental Performance Indicators in Cement Production

Indicator	Measurement Method	Key Findings
Carbon Intensity	CO ₂ emissions per unit of cement produced	Implementation of alternative fuels reduces carbon intensity by X%.
Energy Efficiency	Energy consumption per ton of cement	Integration of waste heat recovery systems increases energy efficiency by Y%.
Resource Utilization	Consumption of raw materials	Utilization of alternative raw materials reduces reliance on traditional resources.
Circular Economy Strategies	Percentage of recycled materials used	Incorporation of waste-derived resources contributes to circular economy practices.
Community Relations	Social impact assessments	Positive community relations are established through sustainable practices.

Discussion:

This section synthesizes the results, drawing connections between alternative approaches and their effectiveness in mitigating environmental impact. It delves into the broader implications of sustainable practices within the cement industry, discussing challenges, opportunities, and potential future directions. Additionally, the Discussion section explores the socio-economic aspects of sustainable cement production, considering the industry's role in community development and corporate responsibility.

Conclusion:

In conclusion, this article, structured using the IMRAD method, provides a comprehensive overview of environmental impact and sustainability in cement production. By examining alternative materials, carbon capture technologies, and circular economy strategies, the cement industry can transition towards a more sustainable and eco-friendly future. Continued research, innovation, and collaborative efforts are essential to addressing environmental challenges while meeting the global demand for this crucial construction material.

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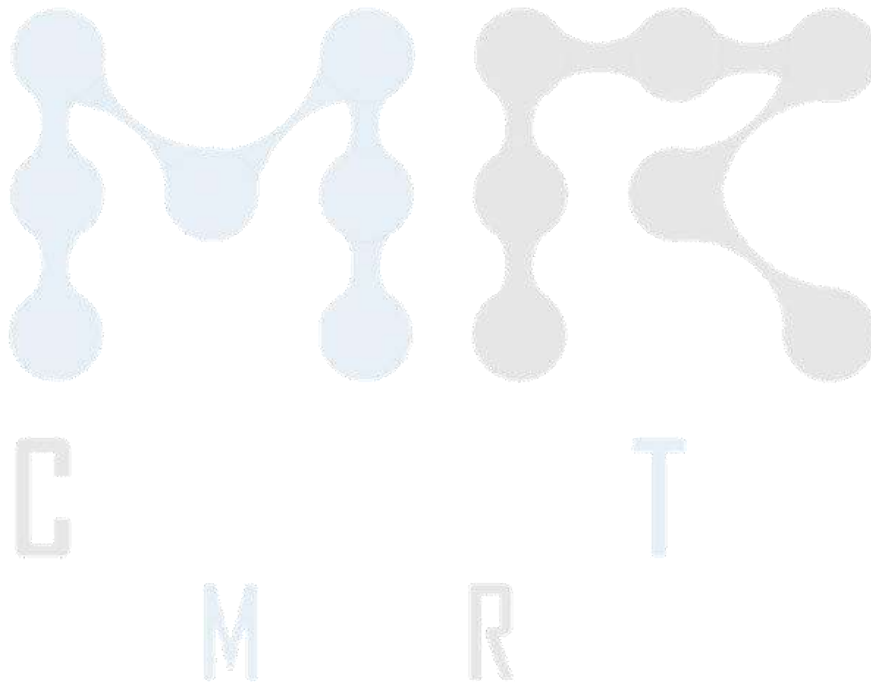
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IMPROVING THE EFFICIENCY OF CLEANING SMALL TRASH FROM SEED COTTON IN THE CLEANING PROCESS

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Abstract: the article deals with the development of high-efficiency cotton processing technology, the rational arrangement of working bodies, and the determination of movement trajectories of cotton components to ensure high cleaning efficiency.

Keywords: cotton, cleaning, dirt, supply drum, pile drum.

Introduction. Creation and improvement of techniques and technologies for cleaning cotton raw materials, including the development of effective techniques and technologies for cleaning cotton, determining the degree of influence of thermal and moisture indicators of cotton on the cleaning process, taking into account that cotton is a multi-component material, mode indicators and fibers of the cleaning process Research is being carried out in several priority directions, such as the development of cleaning parameters that ensure quality maintenance. Several domestic and foreign scientists have researched the improvement of cotton cleaning techniques and technologies, and others have made a significant contribution to the development of the science and technology of the field.

In many studies, the theoretical analysis of the separation of major impurities in cotton from the composition of raw materials, and the effect of cleaning aggregates on the quality of the fiber product, to justify the technological solutions of the cotton processing device, to determine its rational parameters, to develop recommendations for testing and implementation, and to determine the justification criteria corresponding to the cleaning technology.

However, the research carried out so far on cotton ginning is focused on the analysis of technologies and cleaning machines and working parts and mechanisms used in foreign and domestic cotton ginning enterprises and their efficiency improvement. problems of creating new constructions that provide high cleaning efficiency based on determining the movement trajectories of the components have not found an effective solution.

Materials and methods. We have conducted several theoretical and practical studies to create an effective cotton-cleaning technology. In our research, we theoretically analyzed the process of separation of dirt particles from cotton.

of $Rd\alpha$ separation of dirt particles from raw materials, we use G.A. Sevastyanov's model as shown above j [1].

$$\frac{dm_j}{m_j} = \lambda_j \frac{d\rho_j}{\rho_j} (1)$$

Here $\lambda_j = \frac{1}{1+a_j}$, a_j is a positive constant parameter that is determined empirically. The equation λ_j is for the case where the parameters are constant $m_j(\alpha_j) = m_0$, $\rho_j(\alpha_j) = \rho_0$. Integrating under the condition, m_j we determine the connection between the reduced mass and the raw material density

$$\frac{m_j}{m_0} = \left(\frac{\rho_j}{\rho_0} \right)^{\lambda_j} \quad (2)$$

From the analysis of the formula (2), this inequality should be appropriate for the density of raw materials in each section when the condition of reducing the mass of raw materials is fulfilled. $\rho_j < \rho_0$. The calculation of the cleaning efficiency is determined using this formula [2].

$$\varepsilon_j = \frac{m_0 - m_j}{m_0} = 1 - \left(\frac{\rho_j}{\rho_0} \right)^{\lambda_j} \quad (3)$$

When calculating, the coefficient of friction between the raw material and the surface on the grid surface is determined using this formula:

$$f = f_0(1 - \beta), \quad (4)$$

Surface utility coefficient

$$\beta = S_0 / S_t, \quad (5)$$

S_t - the total surface of the grid, S_0 - the surface of the open part of the proposed grid surface.

The calculation was performed for the following parameters: $\alpha_0 = 30^\circ$, $n = 4$, $\alpha_3 = 150^\circ$, $Q_0 = 12000/3600 \text{kr/c}$, $R = 0.2 \text{M}$, $\omega = 52 \text{c}^{-1}$, $p_{00} = 1500 \text{Pa}$, $v_{00} = 5 \text{M/c}$, $f_0 = 0.3$, $h = 0.0038 \text{M}$, $L = 1.7 \text{M}$, ρ_{00} coefficient of use of raw material density (a-lines) and speed (b-lines) along the cleaning arc for two values of the initial density of the raw material (without changing the initial speed $\beta = S_0 / S_t$) v_{00} distribution graphs are presented at different values of. (Figures 1, 2)

From the analysis of the graphs, it is observed that the density and speed of the raw material flow at the border of the sectors sharply decrease and increase, respectively, as a result of the impact of piles in the cleaning zone. A decrease in the initial density of the provider during transmission ρ_{00} can lead to a decrease in the maximum values of the quantities in the graphs. The usage coefficient has a high influence on the regularity of distribution of densities and speeds in the cleaning zone. β In its small sections, it can be observed that sharp changes in density and speed at the sector boundaries are at a high level.

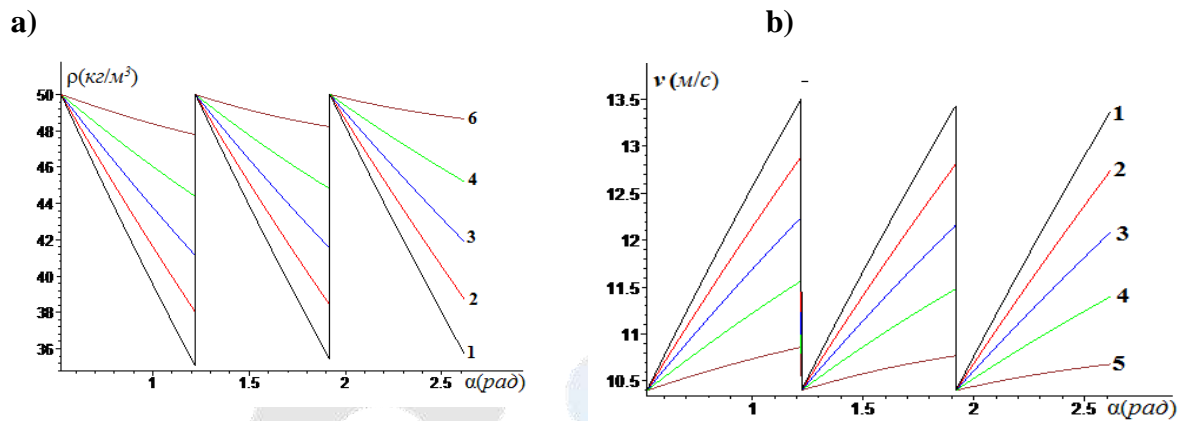


Figure 1 Variation of raw material density (a) and speed (b)

$\rho_{00} = 55 \text{ kg/m}^3$ at β different values of the parameter 1 – $\beta = 0.1$, 2 – $\beta = 0.3$, 3 – $\beta = 0.5$, 4 – $\beta = 0.7$, 5 – $\beta = 0.9$ (kg / m^3)

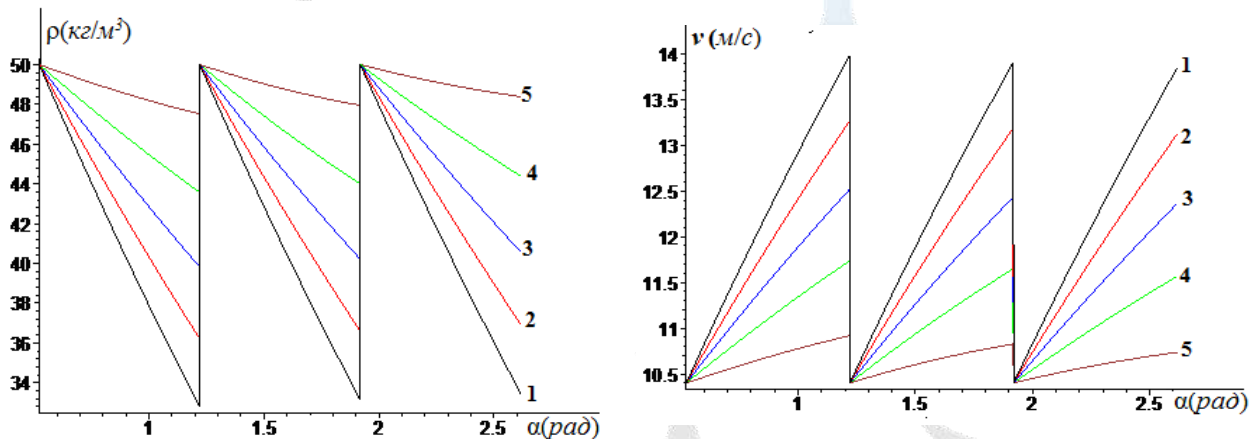


Figure 2. Variation of the parameter at β different values of raw material density (a) and speed (b). $\rho_{00} = 70 \text{ kg/m}^3$

1 – $\beta = 0.1$, 2 – $\beta = 0.3$, 3 – $\beta = 0.5$, 4 – $\beta = 0.7$, 5 – $\beta = 0.9$

Results and discussion. An increase in this coefficient reduces the friction coefficient and, as a result, can lead to a decrease in the gap between them at the borders of the sectors.

Based on theoretical studies, a new design of cotton cleaning equipment was developed and experiments were conducted.

During the cleaning process of the piled drum and fixed mesh surface, theoretical studies were conducted on the methods of determining the increase of cleaning efficiency under the influence of mechanical force with raw cotton. The theory of the probability of sticking cotton raw material about the saw drum, the interaction between the cotton raw material adjacent to the saw teeth and the rib cages during the cleaning process, the operation mode, the speed of rotation of the drums, the diameter, the distances between the cage and the saw, and the distance between the cages were studied and researched from a theoretical point of view. The size, structural structure, and cleaning efficiency of the newly improved structure of the device for the extraction (regeneration) of the cotton that has been added to the waste composition during the cleaning process from large impurities was determined based on theoretical research.

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To determine the highest cleaning efficiency and to optimize the linear speed of the drums, low-grade cotton raw materials with a moisture content of 13.5%, and dirtiness of 11.9%, And-35 selection, III industrial grade, and 2nd grade cotton raw materials were selected. Since the experiment was carried out during the production process, the test was repeated several times. Drum rotation minutes were checked on a special tachometer measuring equipment. The linear speed of the pile drum was 9.42 m/s, The linear speed of the saw drum was 8 m/s, and the cleaning efficiency was 51.3%. A brush drum with a diameter was used to extract cotton raw material from the saw cylinder 300 мм. Its linear speed was determined as 15.7 m/s. The amount of raw cotton pieces in the waste is 2.1%, 3.4%, and 4.1%, respectively, at distances of 12, 14, and 16, mm between saws. No changes in seed damage and free fiber content occurred in the raw cotton cleaned too.

Conclusion. It was determined that the model obtained as a result of theoretical research correctly represents the process of cleaning cotton, and cleaning decreases with the amount of dirt removed from the mass of cotton. Theoretical studies of cotton ginning revealed that the efficiency is high in the initial part of the ginning section and decreases in the later stages. As a result of practical research, it was found that cleaning cotton before placing it in the mold is more effective than cleaning cotton stored in the garm

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SCIENTIFIC AND THEORETICAL BASIS OF DEVELOPMENT OF STUDENTS' CREATIVE SKILLS

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Abstract. The article presents the practical significance of fine arts in the development of artistic and creative abilities of schoolchildren, research and scientific views on this subject of famous artists-teachers.

Key words: creativity, ability, creative activity, methodology, image, school of painting, academic training, teacher-artist.

The system of education and professional training of the future artist-pedagogue should be on a clear and scientific basis. In this direction, primary education and training is carried out within the framework of general education schools. School means, first of all, a specific system of education and upbringing, voluntary obedience of students to this system and teaching methods, scientificity, methodical consistency, precision and artistic creativity in the acquisition of scientifically based knowledge. we mean

Experiences gained in the field of visual arts by famous artists who created in ancient times and left behind great works of visual art are the basis for teaching young people about visual arts in the continuous education system, especially in various art schools. Therefore, a future artist who wants to learn visual art and is just entering the world of visual art should first study and analyze the classic works of artists who created in ancient times and based on the knowledge and skills he has acquired, create his own personal creative way. should choose and develop creative abilities.

Famous artists and theorists of the ancient European Art Academies, Leonardo da Vinci, Michelangelo Buonarrotti, Peter Paul Rubens, Raphael Santi, Albrecht, are involved in the professional training of future teachers in the field of fine arts, the formation of creative abilities of the individual, and the professional training of young people in terms of creativity. Scientific and creative works of Dürer and others can be cited. The creative and scientific works of I. Ye. Repin, N. Savrasov, Pavel Chistyakov, who created in the 19-20 centuries, can be cited from the representatives of Russian fine art.

Uzbek scientists B.B. Baymetov, S.S. Abdullayev, B.B. Azimov, N.Kh. Tolipov, Q.Q. Kasimov, R.Kh. Khasanov, and others. The development of any educational subject is directly related to historical development processes. In the 17th century, the theoretical rules of academic painting began to be expressed in the interpretations of Renaissance artists. Certain changes were made to the theory of academic teaching of photography, which arose in the 18th century, and now artistic practice is carried out under new conditions. In the 19th century, active research on the comprehensive solution of educational issues in the theory and practice of academic painting began. In the direction of the artistic academic school, it is envisaged not only to equip students with knowledge and skills, but also to participate in creative activities.

The specific features of teaching visual arts in primary classes, first of all, the content of education in these classes is determined depending on the youth characteristics and psychology of

children of junior school age, their interest, their existing knowledge, skills and abilities. It is known that children's enthusiasm for visual activities, especially drawing, begins very early.

It is known from history that it starts at the age of 2-3 years. It is characteristic that children like drawing more than reading and writing. However, the duration of the pictures they draw is very short, they finish any picture in 1-2 minutes, at most 4-5 minutes. Although the pictures drawn by children are not literate, they can describe any appearance, event or object according to their abilities and their characteristic features.

They do not like to use them because working with paints creates certain difficulties for them. But things painted with different bright colors arouse great interest in children. If the pictures don't turn out well, they will quickly return from their work. In such conditions, it is not without benefit for the teacher to provide quick help to the children and try to raise their mood. Another characteristic aspect of the visual activities of elementary school students is their attempts to simplify the pictures they draw. They show the front view of some things (house, person, book, watch, portfolio), some from the side (car, crows, birds, fish, flag, etc.), and others from the top (butterfly, leaf, dragonfly, beetle). v.h.) describe. The main reason for this is that children of this age have not yet understood the light and shade of things, the narrowing of perspective and their rules. There is another aspect of children's creativity, which is that the images (items) are not depicted as blocking each other (or partially). Because children always perceive things as a whole. These features of the above-mentioned visual activities are connected with the fact that children's thinking is concrete, figurative and emotional. Now, if we dwell on the specific features of the methodology of conducting fine arts classes in primary classes, then the following four types should be noted: 1. Perception of existence. 2. Artistic construction. 3. Representation according to nature (painting according to nature, sculpture according to nature). 4. Composition activity.

Before seeing the image, the beginning artist creates an imaginary image of the image that he wants to put on paper at each stage: when the idea of the shape of the object, its characteristics is not yet clear, he is limited to a general schematic form, after that, As the teacher observes and re-understands what the teacher explains, he gets closer to the real and emotional-meaningful expression of the visible nature.

Today, some pedagogues do not pay attention to seeing and analyzing the naura in the image. They do not use such a method, they point to the fact that "schematicism" and legal rules hinder artistic development. They are opposed to the academic depiction, simplifying the complex form, opposing the schemes, rules, they believe that depicting in methodical stages in the depiction is an obstacle to creative development.

Over the centuries, art schools have accumulated a great pedagogical experience in the field of developing the creative abilities of young artists. The experiences of these past painter-pedagogues require careful study and generalization, based on which we can begin to develop new scientifically based methods of creative ability development in academic drawing classes. Ignoring the achievements and experiences of ancient artists leads to the disappearance of the art school and the "ignorance" of art. the natural unity of theory and practice helps the active development of a young artist, the growth of his creative abilities.

The more scientific knowledge an artist has, the more perfect his assessment of a realistically depicted work, the richer the level of his technical skill, the more expressive and bright the product of his creative activity. The principle of scientism in the art school as an active factor in the

development of creative abilities consists first of all in mastering the system of scientific knowledge, which helps the beginning artist to correctly understand the law of seeing natural phenomena in their true form, thereby creating realistic art. It also helps to master horse techniques. This was well understood by artists-pedagogues of the Ancient Greek Renaissance and European Academies in the XVII-XIX centuries. According to historians, there was a sign on the door of the Sinion art school: "People who do not know the rules of painting are not allowed here." The great painter and pedagogue of the English Academy of Art, Joshua Reynolds, said: "Our art is not only a gift given by God, but it is not a mechanical craft, it is based on exact sciences." As we mentioned earlier, the work of the artist in the school environment takes place in solving a specific problem, which arouses aesthetic demands in him, and at the same time arouses a demand seeking satisfaction with natural power. The solution to the given problem is easy and simple, if it does not go beyond the scope of knowledge that has been solved several times before and is well known to the student.

In short, the writer expresses his attitude towards his country, Motherland, and Mother Nature through the depiction of natural scenery. The image of nature is one of the components of the plot, and it performs tasks such as increasing the ideological and aesthetic power of the work, speeding up or slowing down the development of the plot, and revealing the inner world of the hero. With this, the landscape helps to more fully express the characters participating in the artistic work.

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THEORETICAL ASSESSMENT OF THE CURRENT STATE OF THE WEIGHT CHECKING WAGON METAL STRUCTURE

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Annotation In this article, theoretical studies of the metal structure of a weight-checking wagon are carried out, which, first of all, include the development of a calculated finite element model of the body of a weight-checking wagon and conducting studies of the stress-strain state of the main load-bearing elements of the body of a weight-checking wagon under the action of operational loads on them.

When carrying out strength calculations of the metal structure of the weight-checking wagon, the wall thickness will be taken into account its reduction by the value of the average wear value, thereby it will be determined whether the design of the weight-checking wagon with existing wear will withstand the loads required by the norms.

Keywords: weight-checking wagon, body, wagon, finite element method, railway.

Development of a finite element model of the body structure of a weighing calibration wagon. To study the stress-strain state and determine the main load-bearing elements of the body structure, a computational finite element model of the weighing wagon body was developed. Studies of the stress-strain state of the main load-bearing elements of the weighing wagon body under the action of operational loads are carried out using engineering software that implements the finite element method (FEM). The essence of the method and examples of its use for various calculations using information technology and computer modeling are described in detail in a large number of literary sources, from which the fundamental works were used in the work [1].

The finite element method allows a new approach to the design of many wagon components, the design solutions of which were found mainly empirically based on experiments. Since previously used methods did not allow obtaining a reliable assessment of their strength, the use of FEM opens up a wide field of activity for various studies [2-7].

The finite element method is based on the equations of elasticity theory, and matrix relations are usually used.

The main provisions of the finite element method are as follows.

1. The design diagram is divided into component parts called finite elements (FE). In finite elements, special points called nodes are identified. The displacements or derivatives of the displacements of these nodes are taken as unknown and are called degrees of freedom. They are

designated by $d_{ik}^{(e)}$. The superscript indicates the end element number ($e = 1, 2, 3, \dots, E$ where E – number of finite elements).

The first subscript indicates the direction of movement ($i = x, y, z$), and the second is the node number in the final element ($K = 1, 2, 3, \dots, m$, where m – number of nodes in FE).

Then, in each finite element, the law of displacement changes is specified $N_{ik}(x, y, z)$ between nodal points. This allows you to express the movements of any point through the movements of the boundary nodes and the coordinate function that determines the law of changes in the movements between the nodal points:

$$u^{(e)}(x, y, z) = [N(x, y, z)]^{(e)} \{d_{ik}\}^{(e)}$$

Where $\{d_{ik}\}^{(e)} = \begin{Bmatrix} d_{x1} \\ d_{y1} \\ d_{z1} \\ \cdot \\ \cdot \\ \cdot \\ d_{xm} \\ d_{ym} \\ d_{zm} \end{Bmatrix}$ – column matrix of displacements or derivatives node movements;

$$[N(x, y, z)] = \begin{bmatrix} N_{x1} & 0 & 0 & N_{x2} & 0 & 0 & \dots & N_{xm} & 0 & 0 \\ 0 & N_{y1} & 0 & 0 & N_{y2} & 0 & \dots & 0 & N_{ym} & 0 \\ 0 & 0 & N_{z1} & 0 & 0 & N_{z2} & \dots & 0 & 0 & N_{zm} \end{bmatrix}$$
 – matrix

functions of finite element shapes. Functions $N_{ik}(x, y, z)$, defining the law of changes in displacements from node to node are usually called functions, or approximating functions. Shape function $N_{ik}(x, y, z)$ is continuous and varies from 1 at node K to zero at other nodes and outside the element.

2. The basic system of equations is constructed to determine unknown displacements. To do this, the total energy of the finite element is calculated:

$$\mathcal{E}^{(e)} = \frac{1}{2} \left[\int_{V_e} ([L][N]\{d\}^{(e)})^T [D] ([L][N]\{d\}^{(e)}) dV - \left(\int_{V_e} ([N]\{d\}^{(e)})^T \{R\} dV + \int_{S_e} ([N]\{d\}^{(e)})^T \{q\} dS \right) \right]$$

Integration here is carried out over the FE surface.

Considering that $\{d_{ik}\}^{(e)}$ does not depend on coordinates, the expression can be converted to the form

$$\text{where the notations are introduced: } [K]^{(e)} = \int_{V_e} ([L][N]^T D([L][N]) dV = \int_{V_e} [B]^T [D][B] dV$$

$$[p]^{(e)} = \int_{V_e} [N]^T \{R\} dV + \int_{S_e} [N]^T \{q\} dS$$

$$\text{where } [B] = [L] \cdot [N]$$

Then the total energy of the entire structure will be equal to the sum of the energies of the final elements: $\mathcal{E} = \sum_{e=1}^E \mathcal{E}^{(e)} = \left(\sum_{e=1}^E \{d\}^{(e)} [K]^{(e)} \{d\}^{(e)} - \sum_{e=1}^E \{p\}^{(e)} \{d\}^{(e)} \right) \frac{1}{2}$

Derivative of \mathcal{E} by $\{d\}^{(e)}$ is called a column matrix composed of derivatives of \mathcal{E} according to movements included in $\{d\}^{(e)}$. Differentiating the total energy \mathcal{E} by $\{d\}^{(e)}$ and using Lagrange's principle, we get: $\frac{\partial \mathcal{E}}{\partial \{d\}^{(e)}} = \sum_{e=1}^E [K]^{(e)} \{d_{ik}\}^{(e)} - \sum_{e=1}^E \{p\}^{(e)} = 0$ (1)

or

$$\sum_{e=1}^E [K]^{(e)} \{d_{ik}\}^{(e)} = \sum_{e=1}^E \{p\}^{(e)}. \quad (2)$$

Matrix $[K]^{(e)}$ usually called the finite element stiffness matrix in the local coordinate system, $\{d_{ik}\}^{(e)}$ - vector of displacements of FE nodes in the same system. If we adopt a common (global) coordinate system for all structural elements, through $\{d\}$ designate the displacements of all structural nodes, and the stiffness matrix $[K]^{(e)}$ and vector of forces $\{p\}^{(e)}$ write in a global coordinate system of the same dimension as $\{d\}$, the equation (2.2) will look like this:

$$\sum_{e=1}^E [K]^{(e)} \{d\} - \sum_{e=1}^E \{p\}^{(e)} = 0,$$

where $[K]^{(e)}$ и $\{p\}^{(e)}$ - written in a global coordinate system.

$$[K] \{d\} = \{p\}, \quad (3)$$

where

$$[K] = \sum_{e=1}^E [K]^{(e)} ; \quad \{p\} = \sum_{e=1}^E \{p\}^{(e)}. \quad (4)$$

The resulting equation (3) is basic for the finite element method.

1. The solution of a system of algebraic equations is carried out using linear algebra methods. Typically the Gaussian method is used, but other methods can be used. Due to the high order of the system of equations, calculations are carried out using information technology. As a result of the solution, taking into account the boundary conditions, the displacements of all structural units are found.

2. The stress-strain state (SSS) of a structure is determined using expressions (4).

In order for the design diagram of the body of the weighing calibration wagon to correspond as closely as possible to the actual design and nature of the work, plate-and-rod finite elements were used to describe the elements of the wagon. The body model was developed using SolidWorks software, and calculation of stresses in elements, distribution of loads in the structure, as well as visualization of stresses and deformations were carried out using the ANSYS Workbench software package [8-10].

Body elements have six degrees of freedom at each node: movements in the direction of the X, Y, Z axes of the nodal coordinate system and rotations around the X, Y, Z axes of the nodal coordinate system. The mass type elements were connected to the frame elements using absolutely

rigid connections. The design diagram of the weighing wagon body structure is shown in Figures (1–2), and with the finite element mesh - in Figure 3.

The finite element model of the weighing wagon body includes 180,720 finite elements and 57,714 nodes.

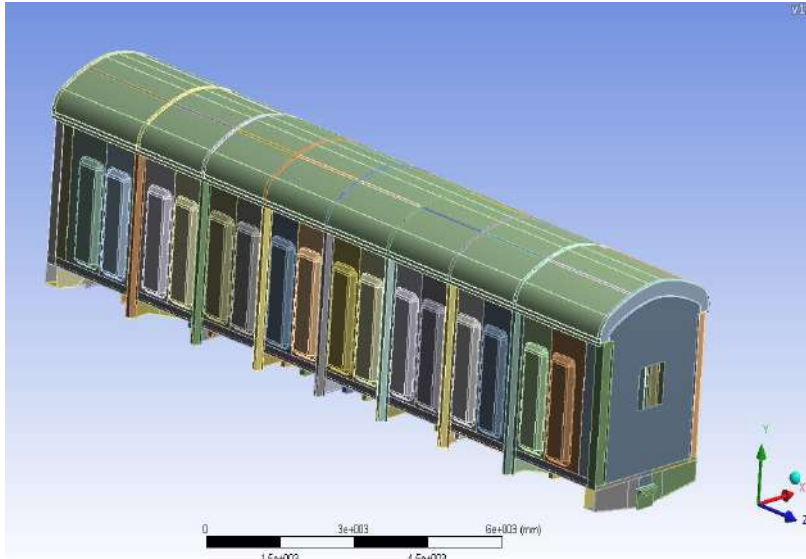


Figure 1 – General view of the calculation model of the weighing wagon body



Figure 2 – Longitudinal view of the calculation model of the weighing wagon body

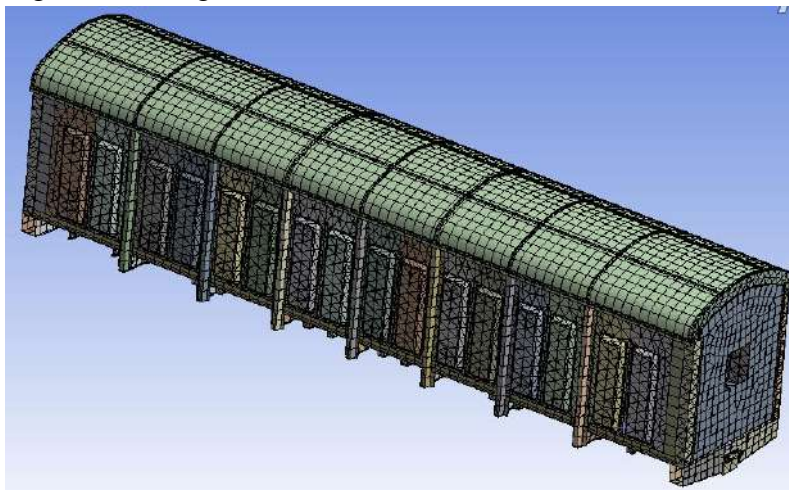


Figure 3 – General view of the finite element model of the weighing wagon body

Conclusion. A computational finite element model of the weighing wagon design has been developed using SolidWorks engineering software, which makes it possible to take into account various design changes in wagon components under modern operating conditions.

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**PEDAGOGICAL REQUIREMENTS FOR A MODERN MUSIC TEACHER AND HIS
POSSIBILITIES OF USING TECHNOLOGIES**

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Annotation: Pedagogical skill of a music teacher is to organize all forms of the educational process in the most convenient and effective way, to direct them towards the goals of personal development, to form the ability of musical and spiritual worldview in students, necessary for society. It is considered one of the main tasks to arouse a tendency to activity. This article also addresses the same issues.

Key words: piano, technology, music, pedagogical expertise.

Based on the analysis of national experience and world-class achievements in the educational system, high general and professional culture, creative and social activity, able to independently set goals in social and political life, promote and solve future tasks the skills of pedagogues play a special role in the formation of a new generation of personnel.

As envisaged in the national program, modern information technologies and computers are perfected and applied to all educational processes, including the process of teaching music. Pedagogical skill of a music teacher is to organize all forms of the educational process in the most convenient and effective way, to direct them towards the goals of personal development, to form the ability of musical and spiritual worldview in students, to the activities necessary for society. Arousal of inclination is considered one of the main tasks.

It is known that the purpose of musical-pedagogical activity is determined by society, that is, the result of musical-pedagogical activity is related to the interests of society. The work of a music teacher is aimed at the development of the personality of young people in all aspects. Accordingly, musical-pedagogical activity ensures the social unity (sequence) of the generation. It transfers the musical experience of one generation to the next generation, realizes the natural possibilities of musical understanding in a person to gain social experience.

A music teacher works with young people who are constantly growing. It is impossible to use the same pattern and established behavior in approaching them in terms of musical education. This requires the music teacher to constantly search creatively.

The most urgent issue and task today is to implement the standards of music education in the educational process. If this task is not carried out, the issues of achieving quality and efficiency in the field of musical education and training, improving the educational process will remain unresolved.

First of all, the teacher of music culture should study the experiences gained in the field of education and training. This will surely help in solving many problems. In addition to the activities of experienced music teachers, the activities of ordinary teachers are also studied. Because in the study of experiences in music education, problems, achievements and shortcomings in the process are identified. The methods of observation, interviews, questionnaires, question-and-answer, study of students' written and creative works, pedagogical documents are used. For example: a pedagogical phenomenon that needs to be studied in observation is recorded based on the results of

observation based on a certain goal. This process should be carried out on the basis of a clear plan. The interview is conducted in order to collect various evidence or clarify the musical materials collected during the observation. "Conversation is used as an independent or auxiliary method." Questionnaire is carried out in order to collect material related to music. A skilled music teacher should study the musical documents of all students. This includes the participation of students in extracurricular musical activities, documents of education in a music school. He also conducts extracurricular activities in the music club. For example: In ancient Greece, it was believed that wisdom and courage can be cultivated with the help of music.

In fact, every art has a spiritual effect on a person. Music, in particular, has great power in emotional impact. Therefore, music is widely used in many directions in many countries.

A music teacher conducts educational and educational work. He should not only have wide knowledge, but also know his science well and deeply. Worldview, thinking, and understanding are of primary importance in educating children with the art of music. Music actively develops a person's feelings, especially emotional and aesthetic feelings. Musiqa o'qituvchisi yaxshi sozanda va yaxshi san'atkor bo'lishi lozimdir. Musiqa cholg'usida yaxshi chalishi, ijro eta olishi, yaxshi ovozga ega bo'lishi, notaga qarab yaxshi ijro qilishi, bolalar qobiliyatini ajrata bilishi lozimdir.

In addition to these, the teacher should monitor the lessons of other subjects. He acquires his pedagogical skills through constant observations. He learns to assess the situation, to feel the inner feelings of students. Observation is carried out during grades 1-7. The most important thing: the teacher should not only play the piece of music, but also introduce its content, for this the teacher's speech should be fluent, short and understandable.

In the lesson of music culture, the teacher's skills should be at a high level in all aspects. Through his introduction to the piece and explanation of the lesson, he introduces students to the world of wonderful and magical music. And with an interesting conversation, children can focus on music topics. The teacher's story about the piece of music should be short, interesting and should bring students to artistic perception. If the teacher uses the method of communication with the students during the lesson, it will help them to think correctly about music and make clear conclusions. In the course of the conversation, more students will go to the debate. In this activity, the teacher should lead them like a director and reach the right conclusions.

Today, the interest and attention to increase the effectiveness of music education using interactive methods in the educational process is growing day by day. One of the reasons for this is that, until now, in traditional education, the student was taught to acquire only ready-made knowledge, but modern technologies allow them to independently find the acquired knowledge, study and analyze it independently, even teaches them to make their own conclusions.

In the opinion of teachers, researchers, and practitioners studying the issues and problems of music-pedagogical technology, music-pedagogical technology is defined as the use of various technical tools that must be used only in the teaching process.

In order to prepare students for innovative activities and to form related skills and qualifications, first of all, it is necessary to be able to effectively use educational and cognitive activities, to achieve that students acquire the skills of using pedagogical technologies in the teaching of each subject. For example, during conducting training, "Student training", "I am a conductor", "Cluster", "Brainstorming", "Scarabey", "Discussion", "Communication", "Group lib performance", "Small group holiday performance", "Individual performance", "Question - answer",

"Continue the tune", "Lesson trip", "Competition" in the teaching of the instrument performance class "lessons" technologies can be used and students can be prepared for such activities.

In short, music as art is a form of social consciousness. In addition to expressing one's feelings, it is a reflection of the reality of life and the times. The following are the main factors of the music lesson process: enjoying listening to music, playing songs, understanding the characteristics of music literacy, dancing and performing various movements to the sounds of music, clapping and playing musical instruments, understanding the purpose.

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VIROCIDAL ACTIVITY OF EGYPTIAN SCORPION VENOMS AGAINST HEPATITIS C VIRUS

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Anotation: Hepatitis C virus (HCV) is a major global health problem, causing chronic hepatitis, liver cirrhosis and hepatocellular carcinoma. Development of well-tolerated regimens with high cure rates and fewer side effects is still much needed. Recently, natural antimicrobial peptides (AMPs) are attracting more attention as biological compounds and can be a good template to develop therapeutic agents, including antiviral agents against a variety of viruses. Various AMPs have been characterized from the venom of different venomous animals including scorpions.

Keywords: Keywords: Hepatitis C virus, HCV, Antiviral activity, Scorpion venom, *Scorpio maurus palmatus*, Egypt, HCV-Hepatitis C virus, SVR-Sustained virological response, AMPs-Antimicrobial peptides, CC50-50% cytotoxic concentration, IC50 -50% inhibitory concentration.

Hepatitis C virus (HCV) infection is a major global health problem, with estimated more than 170 million infected individuals worldwide. HCV is an enveloped, positive-strand RNA virus that belongs to the *Hepacivirus* genus of the *Flaviviridae* family. HCV infection is the serious cause of chronic hepatitis, hepatic steatosis, liver cirrhosis and eventually hepatocellular carcinoma after a few decades. There is no anti-HCV vaccine available and therapeutic options are still limited. The current standard therapy, which is based on pegylated interferon and ribavirin, is only partially effective, resulting in a sustained virological response (SVR) in about 50% of patients and has considerable side effects. Recently, HCV NS3 protease inhibitors and NS5A inhibitors have been approved for clinical use and SVR rates have improved to reach 70% or higher.

However, these therapies are quite expensive and will probably not be accessible for all patients worldwide. For this reason, the development of new classes of safe and inexpensive antiviral compounds with improved efficacy is still needed for treatment of HCV infections. Recently, natural antimicrobial peptides (AMPs) are attracting more attention as therapeutic agents against a variety of microbes including antibiotics-resistant strains. Most AMPs share certain common features such as being small peptides of 10 to 50 amino acid residues, containing positive charge of 2 to 9 residues and an amphipathic structure. These peptides exhibit a broad spectrum of antiviral and antibacterial activities, with direct or indirect microbicidal activities. AMPs have been isolated from venomous animals including scorpions. Scorpion venoms consist of a cocktail of biologically active peptides that represent a tremendous potential for use in drug design and development.

Most scorpion venom peptides are composed of 20 to 75 amino acid residues while certain proteins, enzymes, consist of 120 to 370 residues. Scorpion venom peptides show a vast array of biochemical activities and pharmacological functions. They can be classified into two classes, i.e., disulfide-bridged and non-disulfide-bridged peptides. AMPs found in scorpion venoms are paid

more and more attention due to their unique biological activities that can potentially be used as broad-spectrum antiviral agents. Scorpion venom AMPs are positively charged amphipathic peptides and can be divided into three structural categories: (i) cysteine containing peptides with disulfide bridges; (ii) peptides with an amphipathic α -helix but lacking cysteine residues and (iii) peptides rich in certain amino acids such as proline and glycine. The list of Egyptian scorpions currently includes 24 species classified under 13 genera within four different families, Buthidae, Diplocentridae, Euscorpidae and Scorpionidae. In the present study, we screened crude venoms obtained from five Egyptian scorpion species, *Leiurus quinquestriatus*, *Androctonus amoreuxi*, *A. australis*, *A. bicolor* and *Scorpio maurus palmatus*, for possible anti-HCV activities using an HCV cell culture system. We report here that crude venoms of *S. maurus palmatus*, and *A. australis* to a lesser extent, possess antiviral activities against HCV. To our knowledge, this is the first report describing anti-HCV activities of Egyptian scorpion venoms.

Screening of anti-HCV activities of scorpion venoms. Anti-HCV activities of crude venoms of five Egyptian scorpion species were tested. As shown in Table 1, *A. australis* and *S. maurus palmatus* showed anti-HCV activities, with IC_{50} being 88.3 ± 5.8 and 6.3 ± 1.6 $\mu\text{g/ml}$, respectively. Their CC_{50} were >300 and >100 $\mu\text{g/ml}$, respectively, with their selectivity indexes (SI; CC_{50}/IC_{50}) being >3.4 and >15.8 , respectively. Crude venoms of the other three scorpion species did not exhibit significant anti-HCV activities at the concentration of 100 $\mu\text{g/ml}$. Dose-dependent anti-HCV activity of *S. maurus palmatus* is shown in Figure 1.

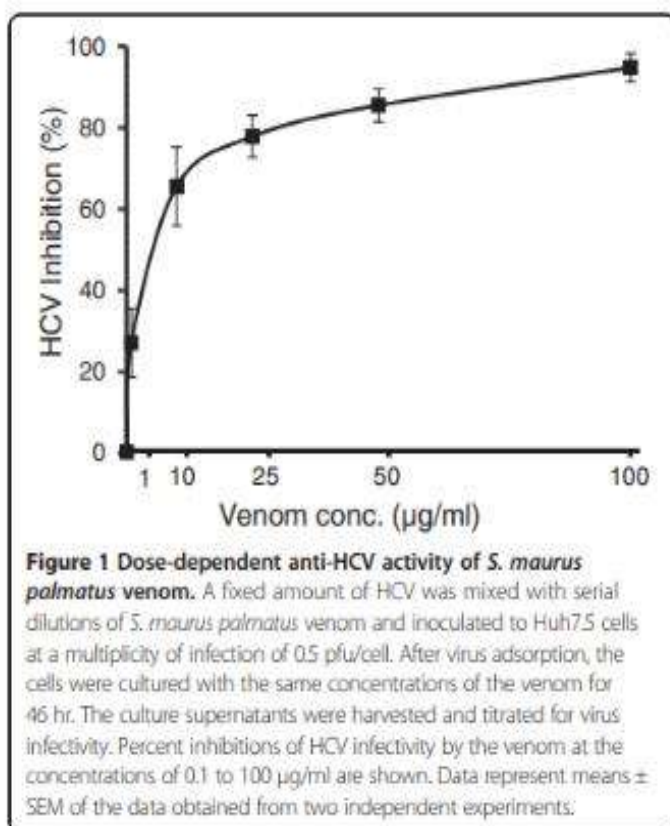


Table 1 Antiviral activity (IC₅₀) against HCV, cytotoxicity (CC₅₀) and selectivity index (SI) of crude venoms of five Egyptian scorpion species tested in this study

Species	IC ₅₀ (µg/ml) ^a	CC ₅₀ (µg/ml) ^a	SI
<i>Leiurus quinquestriatus</i>	>100	>100	na
<i>Androctonus amoreuxi</i>	>100	>100	na
<i>Androctonus australis</i>	88.3 ± 5.8	>300	>3.4
<i>Androctonus bicolor</i>	>100	>100	na
<i>Scorpio maurus palmatus</i>	6.3 ± 1.6	>100	>15.8

^a: Data represent means ± SEM of the data obtained from two independent experiments using the J6/JFH1-P47 strain of HCV.

na: Not applicable.

Dose-dependent anti-HCV activity of *S. maurus palmatus* venom. A fixed amount of HCV was mixed with serial dilutions of *S. maurus palmatus* venom and inoculated to Huh7.5 cells at a multiplicity of infection of 0.5 pfu/cell. After virus adsorption, the cells were cultured with the same concentrations of the venom for 46 hr. The culture supernatants were harvested and titrated for virus infectivity. Percent inhibitions of HCV infectivity by the venom at the concentrations of 0.1 to 100 µg/ml are shown. Data represent means ± SEM of the data obtained from two independent experiments. Venomous animals including scorpions have evolved a wide variety of peptide toxins for the purpose of predation and defense. Scorpion venoms are a rich source of natural peptides and have been recognized as potential bioactive peptides. cDNA library sequencing and proteomics profiling analyses have revealed that a single scorpion venom contains more than 100 peptidic components ranging in size from 1 to 9 kDa. An increasing number of studies have shown that scorpion venoms and toxins possess antiviral activities *in vitro* and *in vivo* and are considered as a rich source for developing effective antiviral drugs. In the present study, we screened crude venoms obtained from five Egyptian scorpion species for their possible anti-HCV activities.

We observed that crude venoms of *S. maurus palmatus* and *A. australis* possessed anti-HCV activities, with their IC₅₀ values being 6.3 ± 1.6 and 88.3 ± 5.8 µg/ml, respectively (Table 1). We also demonstrated that *S. maurus palmatus* venom acts directly on HCV particles in culture supernatants to inhibit the viral infectivity, suggesting the inhibition at the entry step, the first step of HCV life cycle. On the other hand, it was unlikely that the venom exerted its antiviral activity inside the cells (Figure 2B-D). Scorpion venoms contain a wide variety of pharmacologically active peptides and proteins. Some of them possess enzymatic activities, such as metalloproteases, while others are non-enzymatic constituents. It has been reported that the proteolytic activities of those enzymes were almost completely abolished by treatment with a matrix metalloproteinase inhibitor, 1, 10-phenanthroline.

Also, those enzymatic activities are known to be inactivated by heating at 60°C for 20 min. We made use of this information in our study and observed that treatment of the *S. maurus palmatus*

venom with 1, 10-phenanthroline and/or heating at 60°C for 20 min did not impair its anti-HCV activity. These results suggest that the anti-HCV activity of the *S. maurus palmatus* venom is independent of its proteinase activities. Concerning the molecular mechanism(s) of the anti-HCV activity, there was a possibility that venom peptides induced disruption in virus envelope (composed of lipid bilayer) through making pores in it. If this was the case, the venom might inhibit other envelope viruses than HCV. To test this possibility, we used three different viruses, such as dengue virus type 2, another member of the family *Flaviviridae*, and measles virus and influenza virus that belong to the family *Paramyxoviridae* and *Orthomyxoviridae*, respectively.

The results obtained demonstrated that *S. maurus palmatus* venom exerted strong inhibition on dengue virus and only weak inhibition on measles virus. On the other hand, the same venom did not inhibit but rather enhanced influenza virus infectivity. These results exclude the possibility that *S. maurus palmatus* venom inhibits all the envelope viruses, suggesting that the venom preferentially inhibits HCV and dengue virus, both of which belong to the family *Flaviviridae*, but not other viruses, e.g., influenza virus. *S. maurus palmatus* venom has been reported to contain about 65 compounds, whose molecular masses vary from 413 to 14,009 Da, with a majority ranging between 3 and 5 kDa. A variety of putative bioactive molecules have been identified, such as neurotoxins (NaScTx and KScTx), calcines, La1-like peptides, insecticidal toxins and other AMPs.

Some of the scorpion venom peptides showed antiviral activities against certain viruses, such as measles virus, SARS coronavirus, H5N1 influenza virus, hepatitis B virus, herpes simplex virus 1 and human immunodeficiency virus. As for anti-HCV peptides from scorpion venoms, Yan et al. reported that Hp1090 screened from the venomous gland cDNA library of the scorpion *Heterometrus petersii* inhibited HCV infection by targeting the viral membrane, disrupting its structural integrity. Also, Hong et al. identified another anti-HCV peptide Ctry2459 from the venom peptide library of the scorpion *Chaerilus tryznai*. These peptides exerted a virocidal effect on HCV and some other viruses. Consistent with those results, we observed that *S. maurus palmatus* venom inhibited infectivity of HCV particles, suggesting direct virocidal activity of the venom. Interestingly, the antiviral activity of *S. maurus palmatus* venom is likely to be preferentially directed to HCV and dengue virus, both of which are members of the family *Flaviviridae*. Further studies using bioactivity-guided fractionation and purification analyses are needed to identify an active compound(s) responsible for this antiviral activity.

We screened crude venoms obtained from five Egyptian scorpion species for anti-HCV activities and demonstrated that *S. maurus palmatus* venom inhibits HCV infectivity through direct virocidal activity. In addition, this antiviral activity appeared to be independent of proteinase activities of the venom and is directed preferentially against HCV, but not equally against all the enveloped viruses. To our knowledge, this is the first report describing antiviral activities of Egyptian scorpion venoms against HCV, and has opened a new approach towards discovering antiviral compounds derived from scorpion venoms.

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СОЦИАЛЬНО-ПСИХОЛОГИЧЕСКИЕ ОСНОВЫ ПРОЦЕССА АДАПТАЦИИ УЧАЩИХСЯ В ШКОЛАХ

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Аннотация. В статье описаны особенности и этапы адаптации, особенности социальной и эмоциональной адаптации. Также в статье описаны трудности адаптационного периода. Также даны рекомендации по предотвращению трудностей этого периода, которые помогут сформировать высокий уровень адаптивности.

Ключевые слова: адаптация, социальная адаптация, эмоциональная адаптация, дезадаптация.

В настоящее время в нашей стране интенсивно развивается школьная социально-психологическая служба. Среди основных целей деятельности психологов и социальных педагогов в образовательных учреждениях - содействие развитию личности учащихся и сохранению их психологического здоровья. Одним из важнейших условий достижения данной цели является обеспечение адаптации детей к образовательной среде. Адаптация ребенка к школе не заканчивается в первом классе, она продолжается фактически до окончания школы, т.к. образовательный процесс, по своей сути, предполагает непрерывные изменения обстановки и осуществляется в условиях непрерывного развития ребенка. Тем не менее, в процессе обучения выделяют периоды, наиболее сложные с точки зрения адаптации детей. Таким периодом также является переход из начальной школы в среднее звено: усложнение учебного материала, меняется учительский состав, предметное обучение, выдвигаются более высокие требования к учебной деятельности школьников - все это может приводить к снижению успеваемости, нарушению поведения, эмоциональной нестабильности, повышению утомляемости.

Выявление причин этих трудностей и поиск путей организации эффективного социально-педагогического сопровождения учащихся в процессе перехода в среднюю школу являются актуальными задачами.

Адаптация учащихся в среднем звене будет успешной если: выявить психологический ресурс учащихся, характеризующийся сочетанием и уровнем развития основных структурных компонентов: эмоционального (школьная тревожность, эмоциональное благополучие), мотивационно-личностного (внутренняя мотивация учения), установить уровень сформированности школьного коллектива, учитывать особенности адаптации учеников. Но ученики по-разному реагируют на изменения, происходящие в школе, то есть отличаются по степени приспособляемости (адаптивности).

Адаптация - это междисциплинарное понятие, поэтому оно рассматривается многими исследователями. Под адаптацией (от лат adaptio - приспособляю) в биологии понимают приспособление строения и функций организмов и их групп к условиям существования. В физиологии и медицине этот термин обозначает также процесс привыкания. Все более активно понятие «адаптация» используется и в социальных науках, в том числе в психологии

и педагогике, отражая стремление представителей этих наук возможно более целостно подойти к человеку в процессе освоения им новых социальных, профессиональных ролей, к ребенку при анализе его состояния и поведения в процессе воспитания и обучения.

Социальная адаптация связана с уровнем развития умения налаживать контакт с другими детьми, выстраивать отношения со взрослыми, быть общительным и интересным для окружающих - то есть умений, позволяющих устанавливать межличностные отношения со сверстниками и педагогами, с формированием умения правильно оценивать свои действия и действия одноклассников, пользоваться простейшими критериями оценки и самооценки - то есть устойчивой учебной мотивации на фоне позитивных представлений ребенка о себе и низкого уровня школьной тревожности. Важным показателем удовлетворенности ребенка пребыванием в школе выступает его эмоциональное состояние, которое тесно связано с эффективностью учебной деятельности, влияет на усвоение школьных норм поведения, на успешность социальных контактов и в конечном итоге на сформированность внутренней позиции школьника.

Пристальное внимание к школьной адаптации вызвано тем, что, являясь динамическим процессом прогрессивной перестройки функциональных систем организма, она обеспечивает возрастное развитие. Механизмы же приспособления, возникшие в процессе адаптации, вновь и вновь актуализируются и используются в сходных ситуациях, закрепляются в структуре личности и становятся подструктурами ее характера. Неадекватные механизмы приспособления, единожды возникнув, усугубляют имеющиеся у человека психические и соматические нарушения, приводя к еще большей дезадаптированности и дальнейшем отклонении развития.

В рамках школьной жизни объективно присутствуют как минимум три адаптационных периода: в первом, пятом и девятом классах.

В адаптационный период, приходящийся на первый класс для ребенка все новое начиная от коллектива в котором он будет учиться, и, заканчивая классно-урочной системой. Нужно отметить, что для решения этого вопроса проводится большая работа. Детские сады активно готовят детей к переходу в школу, координируются детские программы детских садов и школ, в котором дети адаптируются и к учителю, и к режимным моментам, организующим жизнь школьника.

К сожалению, при переходе из начальной в среднюю школу вопросам адаптации уделяется гораздо меньше внимания. А ведь образовательная система в пятом классе ставит перед ребенком не менее трудные задачи, чем в первом: надо приспособиться к различным стилям педагогической деятельности учителей, к самостоятельной организации учебной деятельности.

При этом ни у классного руководителя, ни учителя предметника нет возможности целенаправленно и системно адаптировать каждого ученика к изменившимся обстоятельствам.

Наиболее сложным в данный период является переход от одного привычного учителя к взаимодействию с несколькими учителями предметниками, отличающихся стилем общения, темпом речи, тембром голоса. Расставание с первым любимым учителем огорчает детей. Ломаются привычные стереотипы под угрозой самооценка ребенка - теперь его оценивает не один педагог, а несколько. Встреча с новыми лицами, появление новых

требований, возрастание ответственности окажутся для ребенка также большой неожиданностью.

Но вместе с тем школьники учатся смотреть на себя глазами разных людей, гибко перестраивать свое поведение в зависимости от ситуации и от человека, с которым общаются.

Одной из особенностей обучения на данном этапе является и переход учащихся из одного кабинета в другой. Родного, по-домашнему уютного кабинета начальной школы, где проходили все уроки, больше не будет, пятиклассники будут заниматься в разных кабинетах.

Кроме того, в пятом классе происходит резкое увеличение объема информации, возрастание недельной нагрузки, возрастает количество предметов. Обучение в средней школе предъявляет достаточно высокие требования к уровню сформированности у выпускников начальной школы определенных учебных знаний и учебных действий. Неравномерные темпы нарастания объема и сложности учебных программ при переходе в основную школу вызывают сильную перегрузку, поэтому именно на данный период приходится пик заболеваний школьников.

Трудность данного периода многие психологи и педагоги видят еще и в том, что изменяется личностный смысл учения, часто снижается интерес к учебной деятельности. С.В. Масолова подчеркивает, что «если недооценивать психолого-физиологические изменения, которые происходят с младшими подростками, то они могут привести к школьной дезадаптации, когда ребенок становится не дисциплинированным, не внимательным, отстает в учебе, да и просто не хочет идти в школу».

Возраст детей пятого класса можно назвать переходным от младшего школьного к младшему подростковому. По мнению Е.Г. Коблик «психологически этот возраст связан с постепенным обретением чувства взрослости - главного личностного новообразования младшего подростка.»

У подростков формируется потребность быть взрослым, осознавать себя личностью, отличной от других людей. Отсюда стремление к самоутверждению, самореализации, самоопределению. Развивается общественная направленность стремлений: подростки стремятся завоевать определенное положение внутри коллектива, во взаимоотношениях со сверстниками.

Е.Г. Коблик пишет: «Именно в силу психологической ценности отношений со сверстниками происходит постепенная замена ведущей учебной деятельности (что было характерно для младшего школьника) на ведущую деятельность общения. Таким образом, постепенно меняются приоритеты и в стенах школы. Умственная активность подростков высока, но способности будут развиваться только в деятельности, вызывающей положительные эмоции; успех (или неуспех) существенно влияет на мотивацию учения».

Потребность занимать новую позицию во взаимоотношениях тесно взаимосвязана с изменением в этот переходный период отношения к самому себе.

Характерное для младшего школьника равновесие между позитивными и негативными самооценками нарушается, появляется крайнее недовольство собой, распространяющееся главным образом на сферу учебной деятельности и взаимоотношения с окружающими. Е.Г. Коблик подчеркивает, что «важную роль в данный период играет

оценка: высокая оценка дает возможность подтвердить свои способности. Совпадение оценки и самооценки важно для эмоционального благополучия подростка.» [1, с.14]

Исходя из вышеперечисленного можно сделать следующее: переход из младшей школы в среднюю - важный момент в жизни школьника. В пятом классе для детей многое оказывается новым: учителя, отличающихся стилем общения, темпом речи, тембром голоса, применяющих в образовательном процессе различные технологии, форма обучения, которая в средней школе становится предметной, а иногда и одноклассники. Кроме того, нередко дети переходят из одного здания школы в другое, тогда им приходится привыкать еще и к новому помещению. Ломаются привычные стереотипы, под угрозой самооценка ребенка - теперь его оценивает не один педагог, а несколько.

Обучение в средней школе предъявляет достаточно высокие требования к уровню сформированности у выпускников начальной школы определенных учебных знаний и учебных действий.

Кроме того, приход детей в среднюю школу совпадает с началом кризисного периода, связанного с физиологическим созреванием, сменой ведущей деятельности, повышением уровня тревожности.

Трудность данного периода еще и в том, что изменяется личностный смысл учения, часто снижается интерес к учебной деятельности.

Практика выявляет у детей в этот период утомляемость, перегрузки, эмоциональное напряжение с вытекающим отсюда снижением учебной результативности.

Поэтому процесс адаптации в этом возрасте может оказаться весьма непростым и создание условий, способствующих успешной адаптации пятиклассников к новым условиям жизнедеятельности, эмоциональной устойчивости, снижению тревожности, утомляемости детей просто необходимо.

Все вышесказанное позволяет сделать следующие выводы: Успешность адаптации младшего подростка при переходе из начальной школы в среднее звено зависит не только от интеллектуальной готовности, но и от того, насколько хорошо он умеет налаживать отношения и общаться с одноклассниками и педагогами, насколько прочно он смог утвердить свою позицию в классе, насколько он умеет соблюдать школьные правила, ориентироваться в новых ситуациях.

Также нужно отметить, что только обретение личностного смысла учения в подростковом возрасте позволит школьнику успешно адаптироваться в этот период и эффективно учиться. В связи с этим важным условием, обеспечивающим успешность адаптации учащихся при переходе в среднюю школу является учет сформированности внутренней мотивации учения.

Кроме того, как было уже отмечено ранее, ситуация адаптации вызывает у многих пятиклассников повышенную тревожность, как школьную, так и личностную, а зачастую и появление страхов.

В связи с этим необходимым условием, влияющим на успешность адаптации при переходе из начальной школы в среднее звено, является изучение уровня и характера динамики школьной тревожности и эмоционального самочувствия детей.

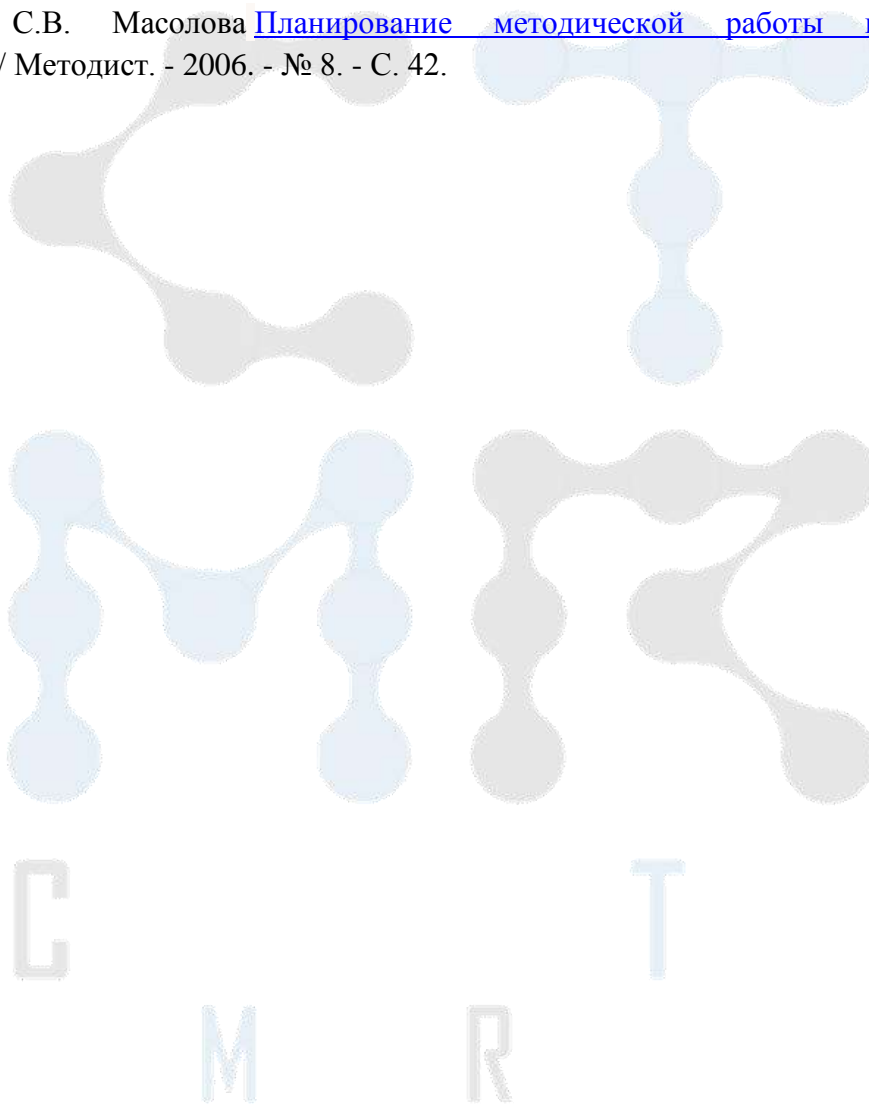
Анализ показателей тревожности у школьников позволит выявить детей, неуверенных в себе, нуждающихся в психологической помощи. На благоприятную адаптацию при переходе в среднюю школу влияет и установка родителей.

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SYNTHESIS AND INVESTIGATION OF CHARACTERISTICS OF CORROSION
INHIBITOR IKMM-1 ST20 STEEL IN 1 M HCl SOLUTION

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Abstract. In this work, we studied the synthesis of the corrosion inhibitor IKMM-1 based on maleic anhydride and monoethanolamine. Corrosion inhibitor was obtained by a weight loss measurement with different concentrations (from 100 mg/l to 400 mg/l) and inhibition efficiency at different temperatures (298, 313 and 323 K) and braking coefficient (γ), surface (θ), determined the values of the degree protection (η).

Key words IKMM-1, corrosion inhibitor, IR spectra, weight loss measurement, method, HCl.

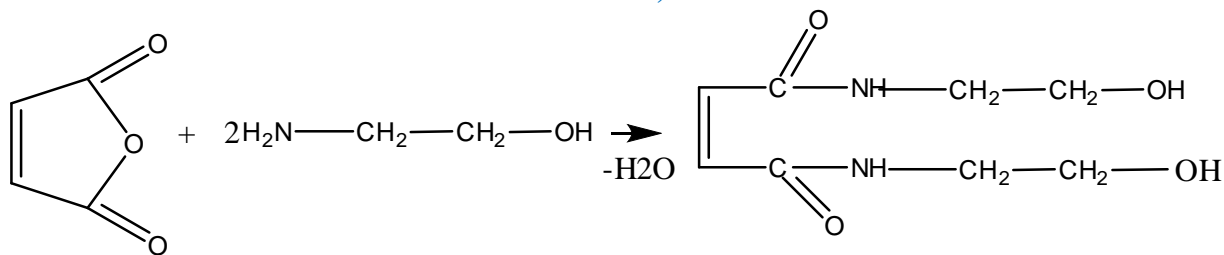
Introduction. Today, corrosion of metals is one of the processes that prevent from maintaining the metal and devices based on it in stable conditions[1]. As a result, there is not only a moral, but also a sense of loss. As an example of an economic solution, the following figures can be cited: for example, an international study conducted by NACE (IMPACT 2016) showed that the annual economic damage from the occurrence in the world is 2.5 trillion dollars. If this figure is by country, then it is about 3.4% of the average gross domestic product (GDP) of each country[2]. Iso N, N, N', N'', N'''-pentamethyldiethylamine-N,N''-di-[tetraethylammonium bromide] 14-2-N(CH₃)-2-14 from oligomeric steel materials against environmental corrosion used to protect [3], research on the synthesis of a monomer based on dodecanediamine (DDA), N,N-diallyl-N-propargyl-(12-N'-formylamino)-1-dodecylammonium chloride, homo- and copolymers, and the use of the synthesized chemical compound as a corrosion inhibitor. One of the allyl groups copolymerizes with propargyl or another allyl group in a 4:1 ratio in higher yield than the other ratios. The inhibitory effect of the obtained copolymer on steel was determined by gravimetric and electrochemical methods in acidic and saline media at a temperature of 60°C.

The inhibitor concentration was obtained at the level of 200 mg/l at various concentrations of hydrochloric acid; 81-99% in 1M HCl, 97-98% in 4M HCl, 87-93% in 7.7M HCl, 68% and 91% in 0.5M H₂SO₄, 84% in 3.5% NaCl - inhibition efficiency 92%[4]. The inhibitory properties of N,N-dipropoxymethylamine trimethylphosphonate were studied using potentiometric polarization curves and electrochemical methods. At the same time, the temperature was studied in the concentration range from 298 K, 40 mg/l to 320 mg/l, which was attributed to mixed-type inhibitors. It has a mixed inhibitory mechanism and obeys the Frumkin adsorption isotherm[5,6,7].

Objects and methods of research

2.1. Synthesis of corrosion inhibitor grade IKMM-1

The yield and structure of the reaction between monoethanolamine and maleic anhydride also depend on temperature, a process which is an exothermic reaction at high temperatures below room temperature (8 and 10 0C). The reaction mechanism of the interaction of monoethanolamine and maleic anhydride can be described as follows:



The relationship between the temperature of the reaction product and the molar ratio of the starting material between monoethanolamine and maleic anhydride is shown in detail in Table 2.1.

Table-2.1.

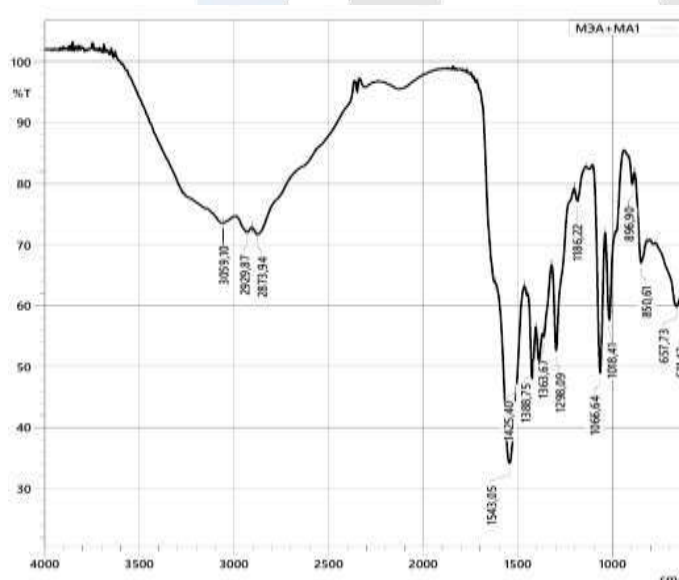
Molecular ratio of the initial substance of the reaction product and temperature dependence

Molar ratio of monoethanolamine and maleic anhydride	Temperature °C	Yield %	Temperature °C	Yield%
1:1	5÷10	69,67	15≤t	45,35
1:2		90,36		82,36
2:1		70,15		61,26
1:3		55,62		32,56
3:1		69,43		42,25

The resulting product has the following physical and chemical properties:

Light red, non-volatile, dark polymer-like, slowly soluble in water at room temperature, accelerates dissolution and quickly melts when heated, soluble in acetone, toluene, ethanol and methanol.

Results and its discussion. IR Spectroscopic Analysis of Corrosion Inhibitor IKMM-1.



Pic 2.3. IR spectrum of corrosion inhibitor IKMM-1

The composition and structure of the corrosion inhibitor synthesized on the basis of monoethanolamine and maleic anhydride were studied in the range of 4000 cm⁻¹ using IR

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spectrometric (IK-Fure, SHIMADZU, Japan) technology. In the IR spectrum of the corrosion inhibitor synthesized on the basis of monoethanolamine and maleic anhydride, in a wide and intense absorption region, stretching vibrations of OH groups (due to the formation of H-bonds) 3059.10 cm⁻¹ are observed. Also, in the region of 2929.87 cm⁻¹, elongated vibrations of OH groups with a wide range of assimilation are observed. Asymmetric stretching vibrations of -C-N- groups correspond to an area of 1545.05 cm⁻¹.

Weight loss measurement method and Inhibitor Efficiency. A steel sample (1.5x2.5x1.2) was used for a practical experiment based on mass loss.

Practical experiments were carried out in a solution of Salsola oppositifolia extract at various concentrations with the addition of 0.5 M sulfuric acid solution and at different temperatures. Corrosion rate (1) and efficiency (2) were determined by the following equations.

$$C_R = \frac{W_b - W_a}{At} \tag{3.2.1}$$

$$\eta(\%) = \frac{C_{R(blank)} - C_{R(inhibitor)}}{C_{R(blank)}} \tag{3.2.2}$$

Where: C_{R(blank)}- corrosion rate, W_b- weight of the metal sample, before the experiment, W_a- weight of the metal sample after the experiment, A - sample surface area, t- time spent on practical experiment, hour.

C_{R(blank)}- corrosion rate without inhibitor, C_{R(inhibitor)}- corrosion rate with inhibitor.

Table-3.1.

The values of the braking coefficient of the corrosion inhibitor IKMM-1 (γ), the degree of complete surface coverage (θ), the degree of protection (η), determined by the gravimetric method in 1 M HCl at different temperatures

Inhibitor	T, (K)	C, (mg/l)	W, mass/(sm ² hour)	γ	η, (%)	θ
IKMM-1	298	-	1.32	-	-	-
		100	0.3013	6,56	80,09	0,8009
		200	0.2851	7,26	87.56	0,8756
		300	0.2151	9,49	90.87	0,9087
		400	0.2041	11,21	92.62	0,9262
	313	-	1,63	-	-	-
		100	0,4124	6,95	78,85	0,7885
		200	0,3025	8,76	81,25	0,8125
		300	0,2271	10,44	86,95	0,8695
		400	0,2015	10,96	90,32	0,9032

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323	-	1,75	-	-	-
	100	0,561	7,25	75,61	0,7561
	200	0,356	11,56	80,51	0,8051
	300	0,250	14,81	85,96	0,8596
	400	0,223	14,96	89,23	0,8923

An increase in inhibitor concentration and an increase in temperature are inversely proportional to each other, i.e., an increase in concentration increases the inhibition efficiency, but with an increase in temperature, the inhibition efficiency also decreases.

Conclusion. When synthesizing corrosion inhibitors of the IKMM-1 brand, it is necessary to maintain the temperature at a much lower level, and this temperature determines the efficiency of the reaction product. The resulting corrosion inhibitor had an inhibitory efficiency of 92.62% at 298 K when its inhibitory effectiveness was determined gravimetrically.

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**ALTERNATIVE RAW MATERIALS AND FUELS IN CEMENT
PRODUCTION: SHAPING SUSTAINABLE PRACTICES**

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Abstract:

This study explores the paradigm shift in cement production towards sustainable practices through the incorporation of alternative raw materials and fuels. The investigation delves into the selection, characteristics, and impact of alternative materials, including fly ash, slag, and industrial by-products, as well as the utilization of biomass, waste-derived fuels, and renewable energy sources. The analysis encompasses the influence of these alternatives on clinker formation, cement properties, and the broader sustainability landscape within the cement industry. The findings highlight the potential for reducing environmental impact and advancing sustainable practices in cement manufacturing.

Keywords: Alternative raw materials, Alternative fuels, Sustainable practices, Cement production, Fly ash, Slag, Industrial by-products, Biomass, Waste-derived fuels

Introduction:

Cement production, a cornerstone of construction, traditionally relies on a combination of limestone, clay, and other minerals as raw materials, alongside fossil fuels as energy sources. However, the environmental impact and resource depletion associated with these conventional practices have led the cement industry to explore alternative raw materials and fuels. This shift towards sustainability is transforming the landscape of cement production.

Alternative Raw Materials:

1. Fly Ash and Slag:

- Source: By-products of coal combustion (fly ash) and metallurgical processes (slag).
- Properties: Pozzolanic characteristics enhance cement performance and reduce the clinker content.

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- Sustainability Impact: Reduces the demand for traditional raw materials and mitigates waste disposal issues.

2. Pozzolanic Materials:

- Examples: Silica fume, and natural pozzolans like volcanic ash.
- Properties: Reactivity with calcium hydroxide improves the strength and durability of concrete.
- Sustainability Impact: Lowers the carbon footprint by reducing cement clinker content.

3. Industrial By-products:

- Examples: Foundry sand, phosphogypsum.
- Properties: Varying properties with potential as supplementary cementitious materials.
- Sustainability Impact: Utilizes waste materials, minimizing environmental impact.

Alternative Fuels:

1. Biomass:

- Source: Organic materials, such as agricultural residues and dedicated energy crops.
- Properties: Renewable and carbon-neutral energy sources.
- Sustainability Impact: Reduces reliance on fossil fuels, contributing to a circular economy.

2. Waste-derived Fuels:

- Examples: Municipal solid waste, tires.
- Properties: Energy recovery from waste materials.
- Sustainability Impact: Addresses waste management issues and reduces dependence on conventional fuels.

3. Renewable Energy Integration:

- Source: Solar, wind, and hydropower.
- Properties: Clean, sustainable energy sources.
- Sustainability Impact: Mitigates carbon emissions and enhances the overall environmental profile.

Impact on Clinker Formation and Cement Properties:

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1. Chemical and Physical Effects:

- Alterations in raw material composition influence chemical reactions during clinker formation.
- The physical structure of the clinker may vary, impacting cement performance.

2. Clinker Composition and Performance:

- Changes in clinker composition affect the final cement product.
- Properties such as strength, durability, and setting time may be influenced.

Challenges and Opportunities:

1. Technical Challenges:

- Variability in alternative materials requires adjustments to manufacturing processes.
- Combustion characteristics of alternative fuels may necessitate modifications to kiln systems.

2. Economic and Regulatory Considerations:

- Initial investment costs for technology upgrades.
- Adherence to evolving environmental regulations and sustainability standards.

Case Studies and Best Practices:

1. Successful Implementations:

- LafargeHolcim's use of calcined clay in cement production.
- HeidelbergCement's utilization of alternative fuels in various plants.

2. Innovations in Research and Industry:

- Integration of artificial intelligence for process optimization.
- Collaboration between academia and industry to develop novel materials and fuels.

Future Trends and Recommendations:

1. Emerging Trends:

- Increased use of advanced technologies, such as carbon capture and utilization.
- Exploration of novel alternative materials with enhanced properties.

2. Recommendations:

- Continued research into optimizing the use of alternative materials and fuels.
- Industry-wide collaboration to share best practices and lessons learned.

The adoption of alternative raw materials and fuels in cement production represents a paradigm shift towards sustainability. As the industry navigates challenges, ongoing research, technological innovations, and collaborative efforts promise to shape a more environmentally friendly and economically viable future for cement manufacturing.

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Xalq xo'jaligidagi ilg'or texnologiyalarni qo'llash asoslari

Toshkent davlat texnika universiteti talabasi

Mardonova Mashhura

Annotatsiya: Ushbu ilmiy maqolada xalq xo'jaligida ilg'or texnologiyalarni qo'llashning bugungi kundagi ahamiyati to'g'risida yoritib berilgan.

Kalit so'zlar: xozirgi zamon texnikasi, ishlab chiqarish, texnologik jarayon, mashinasozlik, transport vositalari, sochiladigan, suyuq, og'ir yuklar, yuk ko'targichlar, elektrokaralar, to'qimachilik.

Hozirgi zamon texnikasining asosini mashinalar tashkil etadi. Ular qanday ishni bajarishiga ko'ra bir-biridan farqlanadi va energetika mashinalari (turbina, ichki yonish dvigateli, elektrodvigatel, elektrogenerator va boshqalar), ishchi mashinalar (stanok, urug' sepish mashinasi va boshqalar): transport mashinalari (samolyot, avtomobil, vertolyot, velosiped va boshqalar): axborot mashinalari (turli kompyuterlar) kabi turlarga bo'linadi.

Mashina o'z vazifasini bajara olishi uchun unda ishchi (ijrochi) organ bo'ladi. Uning tuzilishi mashinaning vazifasiga va ishlash sharoitiga bog'liqdir. Masalan, ventilyatorning ishchi organi – parragi, ekskavatorning ishchi organi – kovsh, avtomobilning ishchi organi – g'ildiraklari hisoblanadi. Mashinalar ishchi organlari yordamida ko'zlangan foydali ishlarni bajaradi.

Mashinaning ishchi organi dvigatel harakatga keltiradi. Harakat dvigateldan ishchi organga uzatmali qurilmalar (mexanizmlar) orqali o'tadi. Buning uchun texnologik va transport mashinalarda ko'proq mexanik tasmali, zanjirli, tishli, chervyakli, friksion uzatmalardan foydalaniladi. Siz ular bilan maktab ustaxonalarida tanishgansiz. Agar harakatning o'zgarishi suyuqlik yoki gazlar ishtirokida amalga ohsa, bunday uzatma mexanizmlarni gidravlik yoki pnevmatik uzatmalar deyiladi.

Odatda uzatma mexanizm dvigatel harakatlantiradigan kirish zvenosi va mashinaning ichki organi yoki asbob ko'rsatkichiga birikkan chiqish zvenosidan tashkil topadi. Agar texnologik mashinaning ishchi organi, stanok supporti ilgari lama qaytma, val aylanma harakat qilsa, mexanizm konstruksiyasi harakatning uzatilishi va

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tezlikning o'zgarishini ta'minlashdan tashqari dvigatel valining aylanma harakatini supportning ilgari qaytma harakatiga aylantirilishi ham kerak. Mashinaning ishini boshqarish lozim. Ilgari mashinalarni faqat inson boshqarar edi. Hozir esa ishlab chiqarishda boshqarish vazifasini bajaradigan avtomat moslamalar tobora keng qo'llanmoqda. Ular oldindan berilgan dastur bo'yicha ishlaydi, ishchi esa faqat ishlab chiqarishning borishini nazorat qiladi.

Vazifasi konstruksiyasi va o'lchamlari har hil barcha mashinalar bitta umumiy xususiyatga ega – ular foydali ishni bajaradi. Ishchi asboblari kabi texnika vositalari o'zicha ishni bajara olmasligi bilan mashinalardan farqlanadi. Asbob insonning mehnat quroli (masalan, nina, belkurak, va boshqalar) yoki mashinalarni ijrochi organlari (parma, freza va boshqalar) sifatida xizmat qiladi. Ishchi asboblardan tashqari o'lchash asboblari ham mavjud bo'lib, siz ular bilan mahsulot sifatini nazorat qilish masalasini o'rganishda tanishdingiz.

Ko'pchiligingiz parmalash stanoklarida ishlashda konduktor deb ataladigan texnik moslamani uchratgansiz. Bu moslama oldin rejalamasdan detalning kerakli joyiga teshik ochish imkonini beradi. Detalning har bir turi uchun maxsus ishlab chiqilgan va tayyorlangan konduktor bo'lishi kerak. Ana shu moslamalar, maxsus instrumentlar va boshqa asboblari parmalash stanogining uskunalari hisoblanadi. Uskuna deganda, texnologik jihozlarni to'ldiradigan va texnologik jarayonning muayyan qismini mustahkamlash, zagotovka hamda detallarni uzatish va nazorat qilishni bajarish uchun kerakli texnik moslamalarning hammasi tushuniladi.

Ishlab chiqarishning har qanday tarmog'ida qo'llaniladigan texnika vositalarining katta guruhini nazorat – o'lchov asboblari tashkil qiladi. Ular qator belgilari: vazifasi, ishlash prinsipi va hokazolalar bo'yicha klassifikatsiyalanadi.

Moddaning massasini, temperaturani bosim va boshqalarni o'lchash asboblari o'lchanadigan kattalikning turiga ko'ra bir – biridan farqlanadi.

Ishlash prinsipiga ko'ra mexanik elektrik, gidravlik, optik, va boshqalar, shuningdek kombinatsiyalashgan (elektromexanik) asboblari bo'lishi mumkin.

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Ishlab chiqarish sharoitida ko'pincha kuzatuvchining ko'zi ilg'amaydigan jarayonlarning ayrim parametrlarini, masalan, pechlardagi issiqlikni, atom reaktorining holati va boshqalarni o'lchash zarurati tug'iladi. Bunday paytlarda asboblarning datchiklari (parametrlarni o'lchagichlar) bevosita obyektida, asbobning indikatorini (o'lchanayotgan kattalikning ko'rsatkichi) operatorning maxsus pultida bo'ladi. Bu xildagi asboblarni masofaviy asboblar deyiladi.

Ko'p asboblar o'lchanayotgan kattalikning ana shu o'lchash paytidagi qiymatni ko'rsatadi. Bularni ko'rsatuvchi asboblar deb ataladi. Ular, masalan, ampermetr, voltmetr, manometr, tarozi va boshqa kabi strelkali yoki indikatsiyali (elektron soatlar tipida) bo'lishi mumkin.

Kundalik turmushda ko'rsatuvchi asboblar juda qulay bo'lsa, ishlab chiqarishda ko'pincha o'lchanayotgan parametrning absolyut qiymatidan tashqari, muayyan vaqt ichida uning o'zgarishi xarakterini ham bilish zarur bo'lib qoladi. Ana shunday holatda registratsiya qiladigan: o'zi yozadigan yoki mashinkali asboblardan foydalaniladi.

Yuqorida aytilgan barcha texnik qurilmalar mashinalar, asboblar, uskunalari va asboblar ishlab chiqarishni texnikaviy jixozlash vositalari bo'lib, ular texnologik jarayonni amalga oshirish uchun zarur. It is mentioned above all technique instruments, targets they are all technique equipping targets¹. Yangi texnologiyalar mukammal yangi texnikani taqozo etadi va bunday texnikasiz texnolog olimlarning g'oyalari ro'yobga chiqmaydi.

Texnologik jarayonlarni (masalan, bolg'alar hamda bosqonlarda mexanik yassilash va hokazolarni) kompleks mexanizatsiyalashtirishda mashina va mexanizmlarning ishi bilan materiallar, zagotovkalar, buyumlarni ko'tarma-transport mashina va mexanizmlar (konveyerlar, avtokaralar, ko'tarma kran va xokazolar) yordamida tashish uyg'unlashadi. Ishchi mexanizatsiya vositalari ishini boshqaradi va nazorat qiladi xolos.

Ishlab chiqarishni mexanizatsiyalashtirish uchun texnologik hamda transport mashinalari va mexanizmlardan keng foydalaniladi.

Texnologik mashinalar o'zlari qo'llanadigan aniq texnologik jarayonlarning turiga qarab bir-biridan farqlanadi. Masalan, mashinasozlik (va boshqa tarmoqlarda) metall zagotovkalar va detallarni qirqib ishlash uchun metall qirqish stanoklari kabi texnologik mashinalarning keng tarqalgan turlaridan foydalaniladi. Bularga tokarlik, parmalash, randalash, frezlash, pardozlash stanoklari kiradi. Stanoklarning har qaysi guruxini turli tip hamda o'lchamdagi buyumlar ishlanadigan universal va bir tip hamda o'lchamdagi buyumlar ishlanadigan maxsus stanoklarga ajratish mumkin.

So'nggi paytda bir necha turli texnologik operatsiyalarni bajarishga mo'ljallangan metall qirqish stanoklari keng tarqaldi. Bunda stanoklarda bir qancha almashinuvchi tokarlik, parmalash, frezerlash, pardozlash agregatlari bor. Agregatlarning almashtirilishi stanokni tez qayta sozlash, yangi detallar yasashga tayyorlash vaqtini qisqartirish imkonini beradi va bu iqtisodiy jihatdan g'oyat foydalidir.

Mashinasozlik ishlab chiqarishini mexanizatsiyalashtirishda yuqorida aytilgan va boshqa juda ko'p mashinalar qo'llanadi.

Tog' – kon sanoatida burg'ilash, o'yish, otboyka mashinalari va tog' jinslarini qazib olishga mo'ljallangan boshqa texnologik mashinalardan foydalaniladi. Bu tarmoqda deyarli hamma turdagi ishlar mexanizatsiyalashtirilgan.

To'qimachilik ishlab chiqarishi gazlama tayyorlash jarayonini mexanizatsiyalashtirish imkonini beradigan to'qish, yigirish stanoklari va xokazolar bilan jihozlanadi.

Qishloq xo'jaligini mexanizatsiyalashtirishda ham mashinalardan keng foydalaniladi. Masalan, g'allani yig'ib-terib olishda o'roq mashinalar, kombaynlar, podborshchiklar, donni saralaydigan hamda quritadigan moslamalar va hokazolardan iborat texnologik mashinalar kompleksi qo'llaniladi. Chorvachilik va yem-xashak ishlab chiqarishida barcha texnologik jarayonlarni, ozuqalarni tayyorlash va tarqatishni, chorva mollarini boqish va parvarishlashni mexanizatsiyalashtirish imkonini yaratadigan mashinalar kompleksi joriy etilgan.

Mexanizatsiyaning ko'tarma–transport vositalari texnologik mashinalardan farqli ravishda ishlab chiqarishning turli tarmoqlarida bir xil vazifani bajaradi. Ular faqat konstruksiyasi jihatidan bir - biridan farq qilishi mumkin.

Barcha ko'tarma – transport mashinalarini ishlash rejimi bo'yicha vaqti – vaqtida va doimiy ishlaydigan vositalarga ajratish mumkin.

Tezligi ishlab chiqarish jarayonining ritmi bilan belgilanadigan konveyerlar doimiy ishlaydigan mashinalar hisoblanadi. Lentali konveyerlar eng ko'p tarqalgan bo'lib, ularda roliklar ustida harakatlanadigan rezina yoki po'lat lenta yordamida yuklar uncha uzoq bo'lmagan masofaga ko'chiriladi. Konveyerlarning bunday tipi sanoatning soatsozlik, asbobsozlik, radioelektronika, oziq–ovqat, poyabzaldo'zlik, tikuvchilik va boshqa qator tarmoqlarida qo'llaniladi. Osmo konveyerlar harakatlanuvchi zanjirga mustahkam biriktirilgan karetk (aravacha) lardan ham keng foydalaniladi. Masalan, Asakadagi Damas, Neksiya, Tiko avtomobil zavodidagi avtomobillarni yig'ish liniyasida bir yo'la uchta ana shunday konveyer ishlaydi va bosh konveyerning uzunligi 300 metrga yetadi.

Sochiladigan, suyuq va alohida og'ir yuklarni tashish uchun maxsus quritilgan konveyerlar ham mavjud.

Vaqti – vaqtida ishlaydigan mashina va mexanizmlar ishlab chiqarish jarayonida yuklarni ko'tarish ishlarini bajaradi. Mexanizatsiyaning bunday vositalariga har xil konstruksiyadagi ko'tarma kranlar, yukko'targichlar (liftlar), yuk ko'taradigan sodda moslamalar, (blokklar, lebedkalar), shuningdek korxonada doirasida yuklarni ortish yuklarni ortish va tashish uchun qo'llanadigan mashinalar: elektrokranlar, avtokranlar va hokazolar kiradi.

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1C: ACCOUNTING IN THE DIGITAL ECONOMY: STREAMLINING
FINANCIAL MANAGEMENT

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Abstract:

1C: Accounting is a digital accounting software that plays a crucial role in the digital economy by enabling efficient financial management for businesses. This article explores the features, benefits, and impact of 1C: Accounting in the context of the digital economy. It highlights its role in streamlining financial processes, improving accuracy, and enhancing decision-making. The article also discusses the importance of data security and compliance when utilizing accounting software in the digital era.

Keywords: 1C: Accounting, digital economy, financial management, accounting software, efficiency, decision-making, data security

Аннотация:

«1С:Бухгалтерия» — это программное обеспечение для цифрового учета, которое играет решающую роль в цифровой экономике, обеспечивая эффективное управление финансами для предприятий. В данной статье рассматриваются особенности, преимущества и влияние 1С:Бухгалтерии в условиях цифровой экономики. В нем подчеркивается его роль в оптимизации финансовых процессов, повышении точности и совершенствовании процесса принятия решений. В статье также обсуждается важность безопасности данных и соответствия требованиям при использовании программного обеспечения для бухгалтерского учета в эпоху цифровых технологий.

Ключевые слова: 1С:Бухгалтерия, цифровая экономика, управление финансами, бухгалтерские программы, оперативность, принятие решений, безопасность данных.

Introduction:

In the fast-paced digital economy, businesses require efficient financial management systems to navigate complex financial transactions and comply with regulatory requirements. 1C: Accounting, a comprehensive accounting software

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solution, is a valuable tool that streamlines financial processes, enhances accuracy, and facilitates informed decision-making. This article delves into the features, benefits, and impact of 1C: Accounting in the digital economy, emphasizing its role in optimizing financial management for businesses.

I. Overview of 1C: Accounting

1C: Accounting is a powerful accounting software solution designed to meet the diverse financial needs of businesses. It offers a range of features, including bookkeeping, invoicing, payroll management, inventory tracking, and financial reporting. The software integrates seamlessly with other business systems, such as customer relationship management (CRM) and enterprise resource planning (ERP) systems, enabling a holistic view of financial data.

II. Streamlining Financial Processes

In the digital economy, businesses face increasing volumes of financial transactions and complex regulatory frameworks. 1C: Accounting automates routine financial processes, such as data entry, invoice generation, and reconciliation, reducing manual errors and saving valuable time. With its intuitive interface and user-friendly design, the software simplifies tasks for finance teams, enabling them to focus on strategic financial analysis and planning.

III. Enhancing Accuracy and Compliance

Accurate financial data is essential for decision-making and regulatory compliance. 1C: Accounting provides robust features for tracking income, expenses, assets, and liabilities, ensuring accurate financial statements and reports. The software generates real-time insights, enabling businesses to monitor cash flow, manage budgets, and comply with tax and accounting regulations. By maintaining accurate records, businesses can make informed decisions and mitigate financial risks.

IV. Facilitating Informed Decision-Making

In the digital economy, businesses need timely and accurate financial information to make informed decisions. 1C: Accounting provides customizable reports and dashboards that present financial data in a clear and actionable format. These insights enable business owners and managers to assess profitability, identify cost-saving opportunities, and allocate resources effectively. The software also supports scenario analysis and forecasting, aiding strategic planning and business growth.

V. Data Security and Compliance Considerations

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In the digital era, data security and compliance are paramount. 1C: Accounting incorporates robust security measures, including encryption, access controls, and regular backups, to safeguard financial data. It also ensures compliance with data protection regulations, such as the General Data Protection Regulation (GDPR). Businesses utilizing accounting software must implement proper data governance practices and adhere to industry-specific regulations to protect sensitive financial information.

VI. Conclusion

1C: Accounting plays a crucial role in the digital economy by enabling businesses to streamline financial processes, enhance accuracy, and facilitate informed decision-making. With its comprehensive features, the software optimizes financial management and empowers businesses to navigate the complexities of the digital era. However, it is essential for businesses to prioritize data security and compliance to safeguard sensitive financial information. By leveraging the power of 1C: Accounting, businesses can thrive in the digital economy and drive financial success.

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DISPENSARY CONTROL OF CHILDREN WITH CONGENITAL DEFECTS IN THE MAXILLOFACIAL SYSTEM ARRANGE TO RECEIVE.

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Abstract. In this article, dispensary control of children with congenital defects in the maxillofacial system is described in the organization of the reception. Babies born with congenital defects in the area of the face and jaws should receive preventive and effective specialized complex treatment under the supervision of a local (city, district) pediatric dentist and be monitored until the age of 14-15.

Keywords: dentist, rehabilitation, diagnosis, inpatient, dispensary.

Аннотация. В данной статье описана организация диспансерного наблюдения за детьми с врожденными дефектами челюстно-лицевой системы. Дети, рожденные с врожденными дефектами в области лица и челюстей, должны получать профилактическое и эффективное специализированное комплексное лечение под наблюдением участкового (городского, районного) детского стоматолога и находиться под наблюдением до 14-15 лет.

Ключевые слова: стоматолог, реабилитация, диагностика, стационар, диспансер.

The birth of a child with a defect (especially in the area of the face and jaws) causes parents to fall into a state of confusion and depression. They ask the medical staff a series of questions. They are worried about the reason why a child is born with such a defect, who, when, and where to treat it. Naturally, experts can answer these questions. Questions arise from the moment the child is born, and answers should be received without delay. Parents who cannot reliably get positive answers to their questions sometimes give up their children due to birth defects and leave them in the maternity ward. Almost every day, 2-3 children are born with defects of the upper lip and palate in the delivery rooms of our republic. How to organize high-level specialist care for a baby born with a defect and his mother? To establish a systematic service in this direction, it is necessary to have a republic-wide center, its branches in regions and districts, or involve local children's dentists.

According to the order of the Minister of Health of Uzbekistan No. 118 dated March 16, 2004, the "Republic Scientific and Practical Center for the Treatment and

Rehabilitation of Congenital and Acquired Defects of the Face and Jaw of Children" was established under the First Tashkent State Medical Institute (now TTA).

Tasks performed in the CENTER:

- development of medical theory and practice issues related to congenital and acquired defects of the face-jaw area in children on a scientific basis;
- organization of organizational and therapeutic work in the field, highly qualified specialized medical assistance at the level of modern requirements and coordination within the territory of the Republic;
- development of medical theory and operational issues related to inflammatory diseases and injuries of the face and jaw in children on a scientific basis;
- organization and implementation of high-level medical consultation assistance to ambulatory patients sent by health departments and institutions and who applied at their own choice;
- Provide highly qualified specialized care in inpatient conditions to sick children who need medical assistance in the center's specialty;
- development of new, scientifically based, effective methods of diagnosis, treatment, and prevention of congenital and acquired defects and their implementation in the practice of medical institutions of the Republic, development of programs for the development and improvement of specialized medical care, reduction of disability indicators;
- publication of stylistic manuals, articles, and theses (monographs) in the field, creation of inspection and treatment standards, and active participation in training and retraining of personnel in the specialty, improving their skills;
- participation in foreign grants and competitions aimed at developing specialized, highly qualified, medical care based on modern technologies.

Dispensary monitoring of children with congenital malformations of the maxillofacial system externalization

From the day of birth, a child with a congenital malformation of the maxillofacial system should be supervised by a residential pediatric dentist dispensary. The place of residence of children who are under dispensary supervision in local children's dental polyclinics (Republic, region) must also be registered with the dispensary. The tasks of center specialists and resident children's stomatologists are divided, and each step must be understandable to both parties. Patients with congenital malformations of the maxillofacial region at the department and department of pediatric dentistry of TTA are divided into 5 groups:

Only children with congenital upper lip defects are included **in the first group**. In children of this group, a cheiloplasty operation is performed in the first days of birth

following the instructions in the maternity hospital or specialized surgical departments if there are instructions.

The second group includes children with congenital defects of the soft and hard palate. Operations on the palate: performed from 8-10 months (soft palate) to 2-5 years (soft and hard palate), that is, until the formation of conscious speech. Early operations serve to form the speech correctly from the beginning. After the operation, children in this group will be guided by a speech therapist to practice speech development and proper formation. If the operation is delayed due to various reasons, for example, if it is performed after the eruption of the molar teeth (at 2.5-3 years old) in cases of soft and hard palate defects, children start speech therapy exercises before the operation and continue them after the operation. Orthodontic treatment is also given to children with signs of retardation of jaw bone growth.

The third group includes children with a unilateral (upper lip, alveolar septum, palate) crossing birth defect. Children included in this group will need step-by-step orthodontic treatment, surgical intervention, and speech therapy exercises. From the first days of life, the functioning of the respiratory and nutritional systems is disturbed. The treatment plan is drawn up jointly by the surgeon, dentist, and orthodontist. Today, in the treatment of unilateral crossing birth defects, at the Department of Pediatric Dentistry of TTA, performing plates are used to separate the oral and nasal cavities, to bring the jaws closer together, and this plate helps to breathe through the nose and express milk from the mother's breast. Initially, the child is prepared until he is 6-7 months old, and then cheiloplasty is performed. After cheiloplasty, a new performing plate is worn and replaced several times. Veloplasty surgery is performed when the child is 10-14 months old. From the age of 2 to 2.5 years, he conducts speech therapy exercises based on the program conducted before the operation. After the child's first teeth come out, uranoplasty is performed. The orthodontist regularly examines the child in the last period of the operation, during the period of tooth replacement and when the permanent teeth are coming out, they ensure their correct eruption and the upper jaw does not lag behind the lower jaw with the help of appliances. Orthodontic supervision lasts for 14-15 years.

The fourth group includes children with bilateral (upper lip, alveolar septum, and palate) crossing defects. The defects of children included in this group are clinically the most severe. Compared to children with unilateral crossing congenital malformations, the middle lobe (premaxilla) is in a different degree of forward (protrusion) position. For this reason, the orthodontist takes measures to prevent the premaxilla from protruding forward and to move it back as much as possible. To prevent the premaxilla from moving forward, a special performing plate is made for such children. In some children, a special band is worn to push the premaxilla back.

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Cheiloplasty is performed on one side in a 3-4-month-old child, on the other side after 2.5-3 months, and veloplasty in 10-14 months; At the age of 3-4, a uranoplasty operation is performed. The recovery of the orbicularis oculi exerts pressure on the premaxilla, causing it to be pushed back. Children in this group will be under the supervision of an orthodontist and a speech therapist for many years.

The fifth group includes children with defects of the upper lip and palate, as well as congenital diseases of the central nervous system (inability to make a sound, deafness, and Down). Usually, such patients are under the supervision of a specialized dispensary. The dentist's task is to prepare and send them to a surgical dental intervention promptly. Orthodontic treatment in the deeply damaged central nervous system is decided individually.

Today, the center uses the services of all departments of the 3rd clinic of the TTA Academy to fully fulfill its tasks. In addition to maxillofacial surgeons, the center includes a pediatrician, anesthesiologist-reanimatologist, dentist-therapist, orthopedist-orthodontist, otorhinolaryngologist, speech therapist, and other specialists who provide qualified assistance to the patients who apply.

Each specialist in the center is assigned several tasks.

Every child with a congenital defect of the upper lip and palate should be examined by a pediatric dentist during the first days of treatment.

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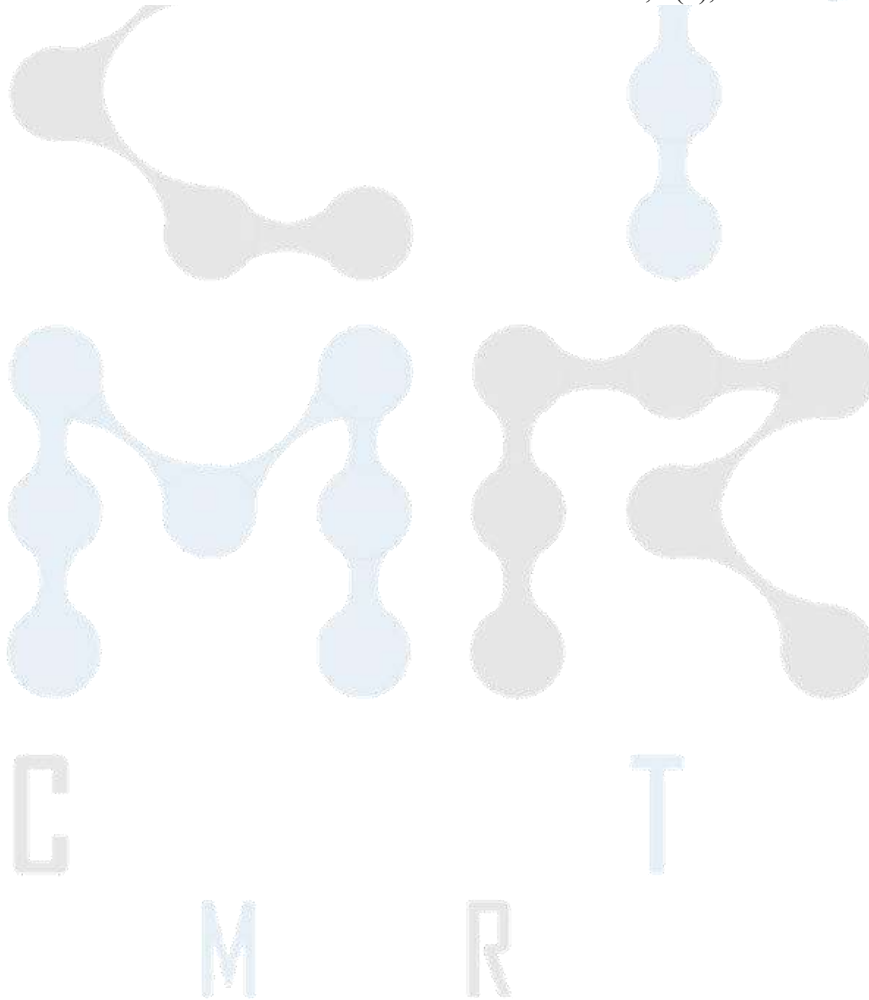
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АЁЛЛАР ЗЎРАКИ ЎЛИМ ҲОЛАТЛАРИНИНГ СУД-ТИББИЙ ЖИҲАТЛАРИ

Ш.К.Абдусалимов, А.М.Давлатбегов, Ш.Ж.Курбанов

Республика суд-тиббий экспертиза илмий амалий маркази Сурхондарё филиали

FORENSIC ASPECTS OF VIOLENT DEATH OF WOMEN

Sh.K.Abdusalimov, A.M.Davlatbegov, Sh.J.Kurbanov

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Изучены материалы судебно-медицинской экспертизы случаев насильственной смерти женщин, проведенных 2022-2023 годах в Республиканский научно-практический центр судебно-медицинской экспертизы Сурхандаринский филиал. Установлено, что данные случаи составили 33,0% от общего числа экспертиз трупов, 79,6% - экспертизы трупов женщин, 40,0 % от всех случаев насильственной смерти. Большинство из них были связаны с несчастными случаями и смерть последовала от механических повреждений. Выявлены определённые особенности в частоте насильственной смерти женщины в разрезе возрастных групп, сезонов и месяцев года, часов суток.

Долзарблик: Амалдаги қонунчиликка биноан зўраки ўлим ва унга шубҳа бўлган барча ҳолатлар суд-тиббий экспертизага молик. Зеро, Ўзбекистондаги суд-тиббий экспертиза муассасалари фаолиятида зўраки ўлимнинг турли - қотиллик, ўз-ўзини ўлдириш ва бахтсиз ҳодиса кўринишлари салмоқли ўрин тутди (1,2).

Мазкур ҳолатлар билан боғлиқ аёлларнинг ўлими алоҳида эътибор остида бўлиб, мустақиллик йилларида оналар ва болалар соғлиғини муҳофаза қилиш давлат аҳамиятига эга бўлган устувор вазифа сифатида эътироф этилди.

Зўраки ўлим ҳолатларига бағишланган кўп тадқиқотлар ўтказилган, лекин Ўзбекистонда суд-тиббий экспертиза материаллари бўйича зўраки ўлим ҳолатлари комплекс ўрганилмаган. Бу борада аёлларнинг зўраки ўлим ҳолатлари, уларга олиб келадиган хавф омилларини ўрганиш бир томондан бу турдаги суд-тиббий экспертизаларни ташкиллаштириш ва ўтказишни яхшилашга хизмат қилса, иккинчи томондан бундай нохуш ҳолатларни олдини олишга қаратилган самарали чора-тадбирлар ишлаб чиқишда ўта аҳамиятлидир (4,7).

Аёлларнинг зўраки ўлим ҳолатлари бўйича ўтказилган суд – тиббий экспертиза материалларининг таҳлили, ҳодисаларнинг эпидемиологияси, уларнинг вужудга келишидаги хавф омиллари, ҳудудий хусусиятлари, содир бўлиш сабабларига доир олинган маълумотлар бу ҳолатларда экспертизани ташкил этиш ва ўтказишни такомиллаштириш, жойларда жабрланганларга малакали тиббий ёрдам кўрсатиш ва мазкур зўраки ўлим ҳолатларининг олдини олишга қаратилган самарали чора – тадбирлар ишлаб чиқишда муҳим аҳамиятга эгадир(5).

Экспертизаларда йўл қўйилган хато – камчиликларнинг таҳлили, бу жараёнда тергов, суриштирув ҳамда тегишли касаба уюшмаси идоралари томонидан ўтказилган

махсус текширув материалларидан тўлароқ фойдаланишнинг мақсадга мувофиқлиги ҳақидаги тавсиялар экспертиза хулосаларининг сифатини оширишга ёрдам беради.

Текширув мақсади: Аёлларнинг зўраки ўлим ҳолатларида ўтказиладиган суд-тиббий экспертиза материалларини ўрганиш орқали аёлларнинг ўраки ўлим ҳолатларида хавф омилларини ўрганиш, аёлларнинг зўраки ўлим ҳолатларини камайтиришга қаратилган тадбирлар учун тавсиялар ишлаб чиқиш, аёлларнинг зўраки ўлим ҳолатларида суд тиббий экспертиза ўтказишдаги муаммо ва йўл қўйиладиган камчиликларни ўрганиш, ушбу экспертиза сифатини яхшилаш ва бундай ҳолатларнинг олдини олишга қаратилган таклифларни ишлаб чиқиш.

Текширув материаллари: юқорида қайд этилганларни инобатга олиб аёлларнинг зўраки ўлим ҳолатларига доир 2022-2023 йилларда Республика суд тиббий экспертиза илмий амалий маркази Сурхондарё филиалида тугалланган аёлларнинг зўраки ўлим ҳолатларида, ўтказилган мурдалар экспертизалари атрофлича таҳлил этилди.

Текширув материалларини Республика суд тиббий экспертиза илмий амалий маркази Сурхондарё филиали (Термиз шаҳар, Термиз, Ангор, Музработ, Шеробод, Бойсун, Қизириқ, Бандихон, Жарқўрғон, Қумқўрғон, Шўрчи, Денов, Узун ва Сариосиё пунктлари)да 2022-2023 йилларда тугалланган аёлларнинг зўраки ўлим ҳолатлари билан боғлиқ бўлган 449 мурда экспертиза хулосаси ташкил этади.

Мазкур даврда Сурхондарё вилоятининг юқорида кўрсатилган туманларида жами 1358 та мурда экспертизаси ўтказилган бўлиб, аёлларнинг зўраки ўлим ҳолатларидан 449 мурда экспертиза хулосалари тадқиқ қилинди. Қайд этилган йилларда ўтказилган жами мурдалар экспертизаси ва зўраки ўлим ҳолатлари ҳамда аёл мурдалари экспертизаларининг нисбий улуши ҳақидаги тўла маълумотлар жадвал 1 да келтирилган.

Жами мурдалар экспертизаси

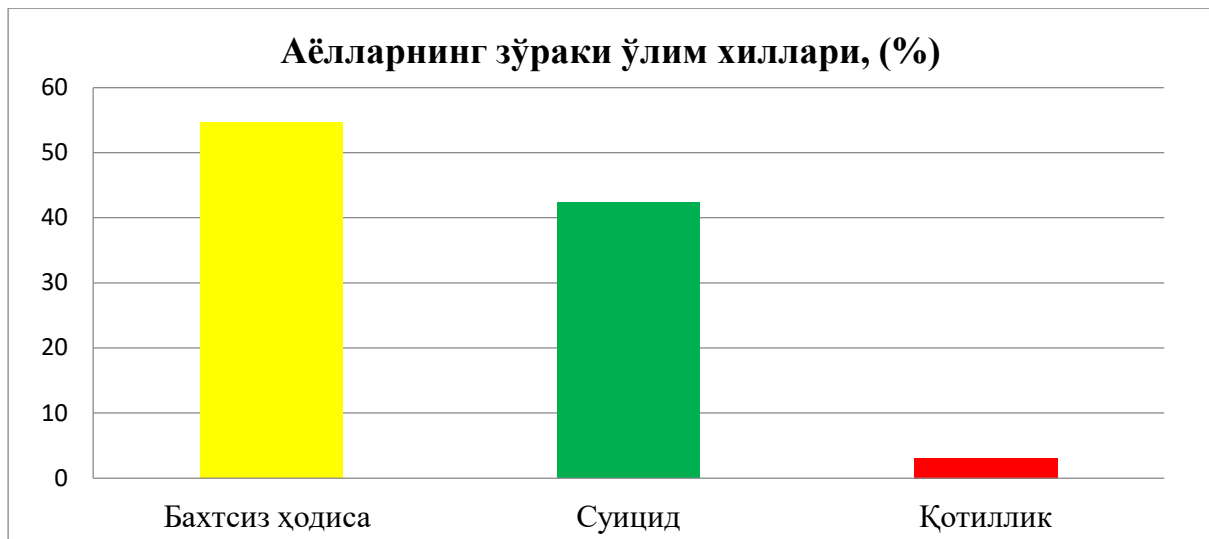
Жадвал 1.

Йиллар	Жами мурдалар сони	Жами зўраки ўлимлар сони	Жами аёллар ўлими	Жами аёлларнинг зўраки ўлими сони	Жумладан аёлларнинг зўраки ўлим ҳолатларининг нисбати % да.		
					Жами мурдалар экспертизаси	Жами зўраки ўлим	Жами аёллар ўлими
2022	606	518	250	215	35,5	41,5	86
2023	752	624	314	234	31	37,5	74,5
Жами	1358	1124	564	449	33	40	79,6

Жумладаги маълумотлардан кўриниб турибдику, аёлларнинг зўраки ўлими мазкур йилларда жами мурдалар экспертизасининг 33 % ини ташкил этади. Айни пайтда шу йилларда аёллар зўраки ўлим ҳолатлари барча зўраки ўлим ҳолатларининг 40 % ини, жами аёл мурдалари экспертизасининг эса 79,6 % ини ташкил қилган.

Аёлларнинг зўраки ўлим ҳолатлари бўйича экспертизалар қуйидаги хилларга бўлинади: қотиллик 3,1 % (14 ҳолат), суицид 42,3 % (190 ҳолат) ва бахтсиз ҳодиса 54,6 % (245 ҳолат) (Расм 1).

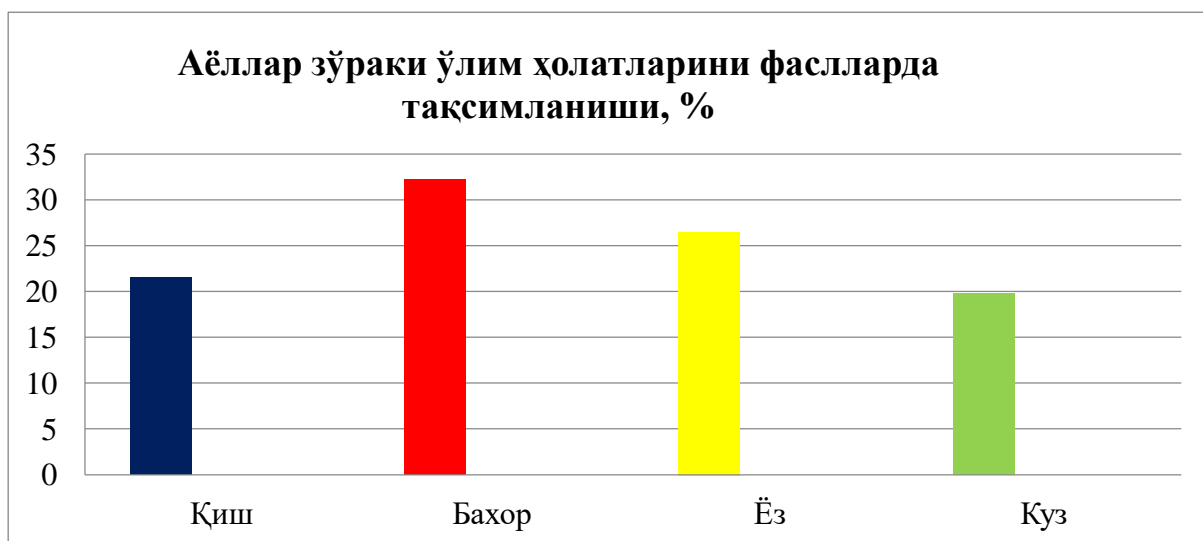
Расм 1



Аёлларнинг зўраки ўлим ҳолатларини фасл, ой ва сутканин соатларига нисбатан ўрганишда маълум бир хусусиятлар аниқланди. Аёлларнинг зўраки ўлим ҳолатларини йилнинг 4 та фаслига бўлиб ўрганилганида қуйидаги кўрсаткичлар учради. Жумладан зўраки ўлимнинг энг кўп учдан бир қисмига яқини – 32,2 % баҳор ва энг кам 19,8 % эса куз фаслига тўғри келишлиги аниқланди. Қишда эса 21,5 ва ёзда 26,5 % ҳолатлар тўғри келган (Расм 2).

Расм

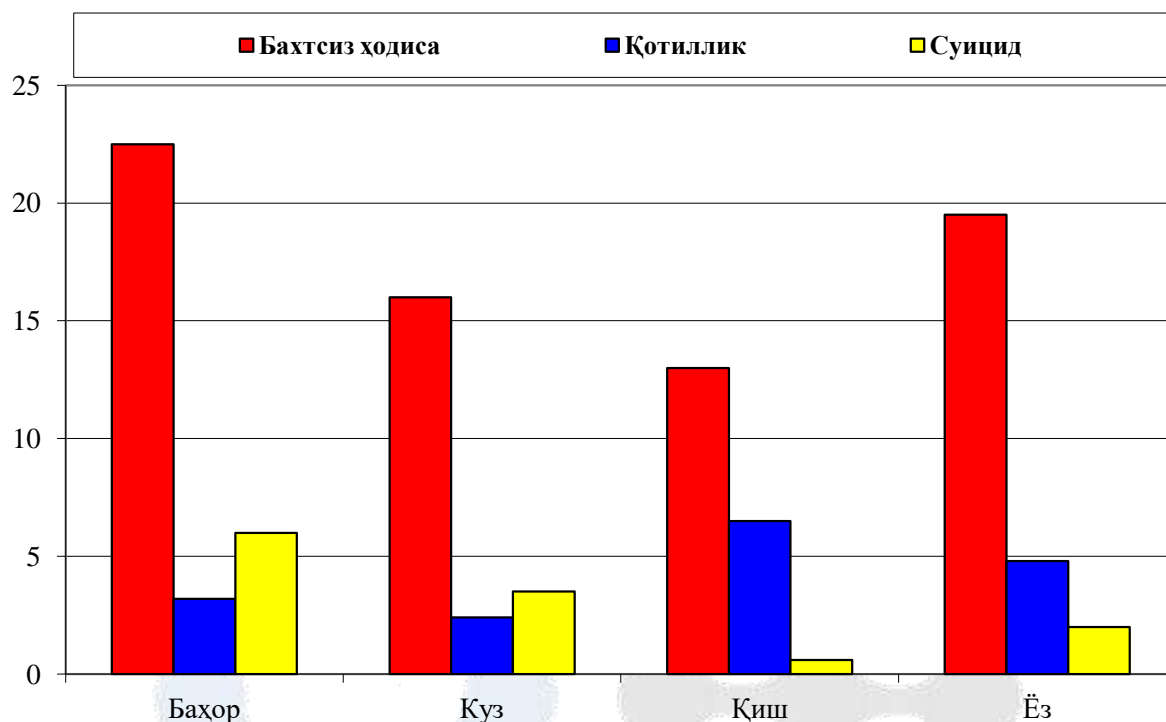
2



Зўраки ўлим хиллари (қотиллик, суицид, бахтсиз ҳодиса) фаслларда тарқалганлигини ўрганилганида қуйидагилар, яъни бахтсиз ҳодиса ҳолатлари баҳорда 22,5 %, кузда 16 %, қишда 13 % ва ёзда 19,5 % бўлганлиги, қотиллик баҳорда 3,2 %, кузда 2,4 %, суицид баҳорда 42,3 %, кузда 42,3 %, қишда 42,3 % ва ёзда 42,3 % бўлганлиги аниқланди.

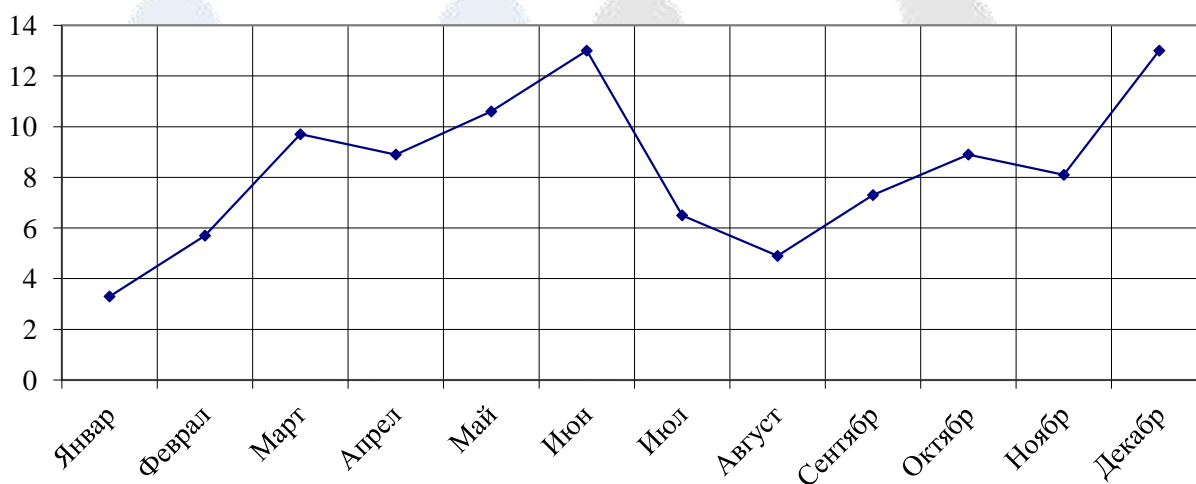
қишда 6,5 % ва ёзда 4,8 %, суицидлар эса баҳорда 6,0 %, кузда 3,5 %, қишда 0,6 %, ёзда 2 % учлашлиги аниқланди (Расм 3).

Расм 3



Аёлларнинг зўраки ўлим ҳолатларининг содир бўлишини йилнинг ойлари бўйича ўрганилганида январ ва август ойларида энг кам кўрсаткич (3,3 % - 4,9 %) бўлса, июн ва декабр ойларида энг юқори кўрсаткич (13,0 %) қайд этилган (Расм 4).

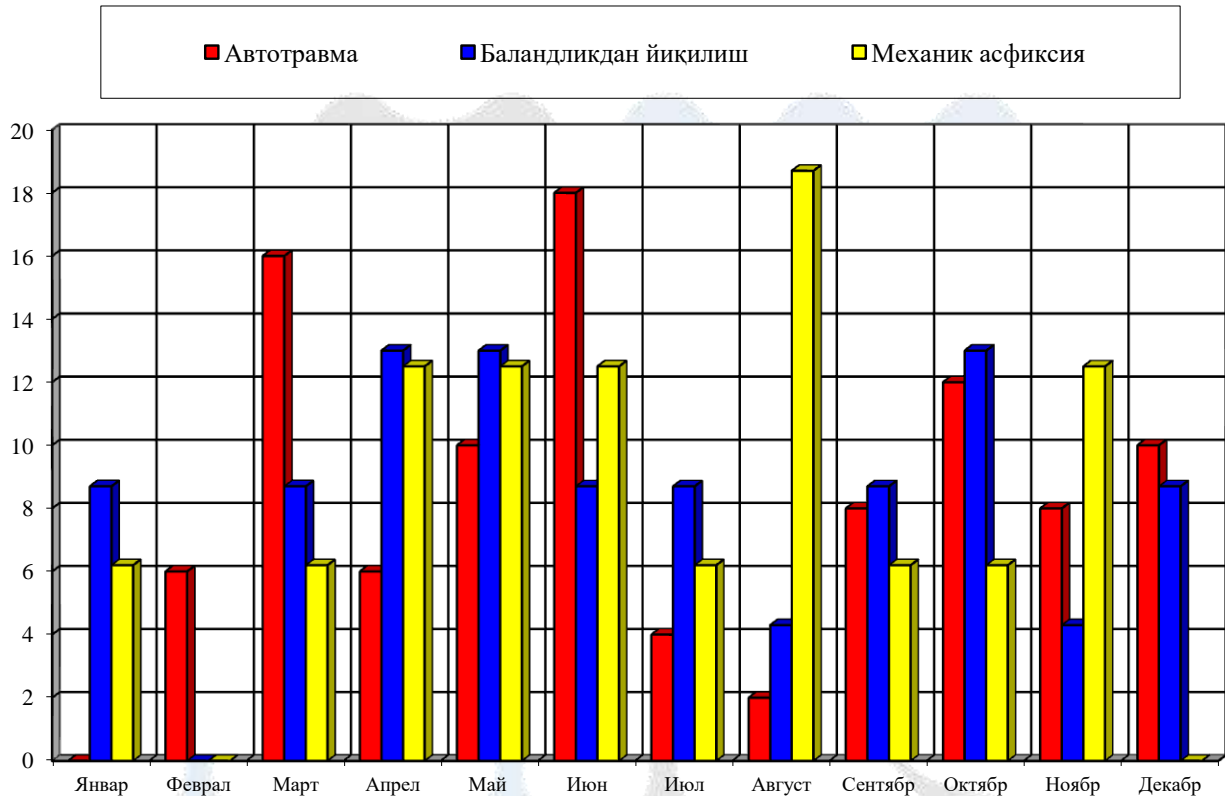
Аёллар зўраки ўлими ҳолатларини ойларда тақсимланиши. Расм 4



Аёлларнинг зўраки ўлим ҳолатлари 2022-2023 йилларда ўтказилган 449 та мурдалар экспертизасидан автожароҳат – 265 та 59,0 % ини, баландликдан йиқилиш - 2 та 0,44 % ини, бошқа механик жароҳатлар - 12 та 2,7 % ини, механик асфиксия – 158 та 35,1 % ини, захарланиш – 7 та 1,6 % ини, физик омиллар таъсири - 5 та 1,1 % ини ва мурда қисмларини текшириш - 0 % ини ташкил қилганлиги аниқланди.

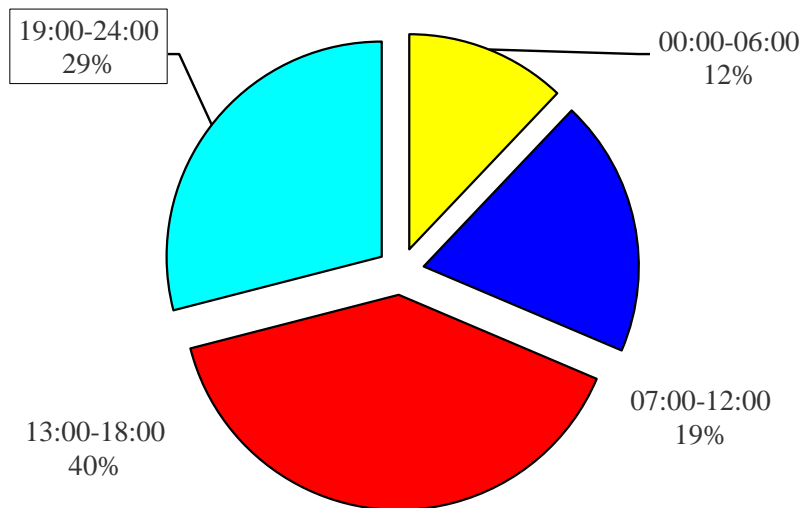
Шу билан бирга аълоҳида олинган жароҳатланиш турлари бўйича бу борадаги ҳолат биров ўзгача. Масалан, автотравманинг кўпроқ учраши март (16,0%) ва июн (18,0%) ойларида, бошқа механик жароҳатлар феврал ва декабр ойларида (17,4%), механик асфиксия август ойида (18,7%) юқори кўрсаткичларда учраган (Расм 5).

Аёлларда зўраки ўлим турлари ойларда учраш кўрсаткичи. Расм 5



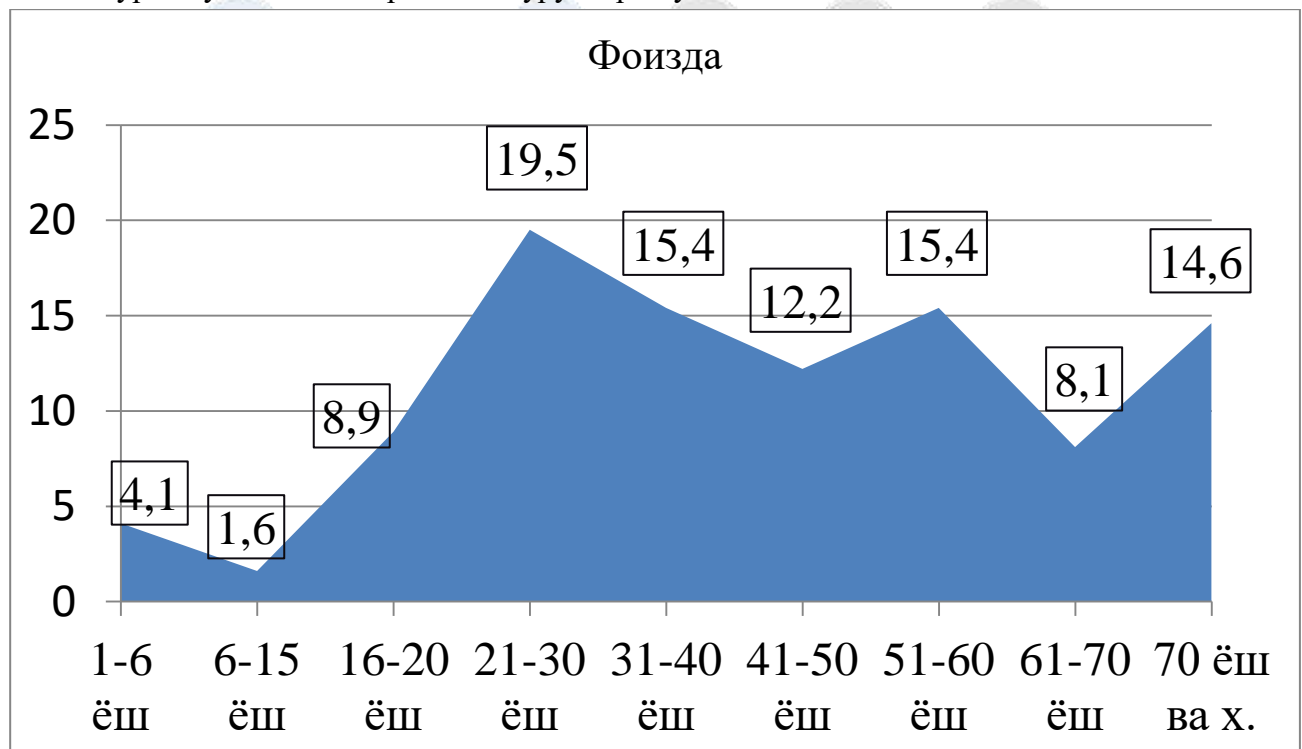
Зўраки ўлим ҳолатлари сутканинг соатлари бўйича ўрганилганда маълум бир хусусиятлар кузатилди. Умуман олганда жами аёлларнинг зўраки ўлим ҳолатларининг учдан икки қисмини куннинг иккинчи ярмига тўғри келиб, максимал кўрсаткич 13:00-18:00 соатларида бўлган бўлса, жароҳатланиш турлари бўйича вазият ўзгача. Хусусан, энг кўп автотравманинг 44,0% и, механик асфиксиянинг 50,0% и ва умумий заҳарланишларнинг 71,4% и – 13:00-18:00 соатларда ҳамда бошқа механик жароҳатларни 30,4% и 19:00-24:00 соатларда содир бўлганлиги аниқланди (Расм 6).

Сутка соатлари бўйича аёллар зўраки ўлимини тақсимланиши. Расм 6



Аёллар зўраки ўлим ҳолатларининг ёш гуруҳлари бўйича ўрганилганида баъзи бир эътиборга молик ҳолатлар аниқланди. Жумладан, 21-60 ёшгача бўлган аёллар жами зўраки ўлим ҳолатларининг учдан икки қисмини (63 %), 60 ёшдан юқори гуруҳлар 22,7 %, 1-20 ёшгача бўлганлар 14,5 % ни ташкил этган (Расм 7).

Зўраки ўлим ҳолатларини ёш гуруҳлари бўйича тақсимланиш. Расм 7



ХУЛОСА: Аёлларнинг зўраки ўлим билан боғлиқ мурдалар экспертизаси суд тиббиётида салмоқли ўрин тутган. Жумладан, аёлларнинг зўраки ўлим ҳолатлари жами мурдалар экспертизасининг 33 % ини, аёллар мурдаси экспертизасининг 79,6 % ини ва барча зўраки ўлим ҳолатларининг 40,0 % ини ташкил этган бўлиб, уларнинг аксарияти механик жароҳатларга тўғри келган.

Зўраки ўлими ҳолатларнинг 3,1 % қотиллик, 42,3 % суицид ва 54,6 % бахтсиз ходисалар ташкил қилиб, улардан автотравма 59,0 % ни, механик асфиксия 35,1 % ни, захарланишлар 1,6 % ни ҳамда физик омиллар таъсири 1,1 % ни ташкил этди.

Зўраки ўлимлар кўпроқ июн, декабр ойлари ва ҳафтанинг жума кунда, соат 13:00-18:00 лари оралиғида, уйда содир бўлиб, жабрланганлар орасида 21-60 ёшдаги аёллар аксариятини ташкил этган.

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**CALCULATION OF SOIL DENSITY IN THE EARTH'S CRUST IN S++
PROGRAMMING LANGUAGE**

TDTU katta o`qituvchisi

N.Sh.Xodjayeva

Abstract: Calculating soil density in civil engineering in C++ is an object-oriented programming and calculation when the problem has indicators.

Keywords: structure, int, float, double, while, do While in C++ programming language.

Before creating a program for any object, it is necessary to create its algorithm. An algorithm is an ordered sequence of instructions that must be followed to solve a problem. Each algorithm should be divided into clear and complete steps. Algorithm program plan. That is, the implementation of the set task is achieved by performing small elementary tasks in a certain sequence. Depending on it, you can create a program in any programming language. In the C++ programming language, an optional program consists only of its own operators. However, various integrated development environments have been released to facilitate the programmer and speed up his work. The best way to design a program is systematic planning. Planning makes the program more efficient. The program design consists of two general parts - program structure and program description. The structure of the program shows how the problem is solved. The C++ programming language has a very rich library of objects. A standard bonus of C++ is to learn how to use ready-made objects/functions. Among the operators, there are several different loop operators, which are used to solve complex examples.

Do-while is called the conditional operator, because the last value of the variable, that is, the condition, is given after the calculation in the program. In programming, if only one operator is used as the body of the repetition in the do - while and while repetition operators, this operator can be written without { } between the blocks. However, professional programmers recommend to enclose the repetition body in a block { } in any case. This prevents possible logical errors.

The do/while statement is similar to the while operator structure. The only difference is that the while condition is checked at the beginning. And in do/while, the body of the iteration is executed and then the condition is checked.

The general structure (structure) of the operator is as follows:

```
the initial value of the variable  
do  
{  
sequence of instructions, step;  
}  
while (condition, that is, the last value of the variable);
```

```
do
    expression;
while (condition);
```

The loop continues until the condition is false. If the condition is false, it is exited from the do/while statement. { } brackets are unnecessary if the expression to be returned in do/while is single. It will be as follows:

we recommend that you always put braces on.

$$P_o = P / (1 + W) = P_s / (1 + e)$$

Problem: Based on the values of soil porosity coefficient, sandy soils can be divided into dense, moderately dense and porous soils. The bulk density of soil particles P_o represents the net mass of the soil relative to its intact volume:

Grunt zaralarning hajmiy zichligi 13-18 kN/m³ oralig`ida o`zgaradi.

$$P = (1 + W/100)$$

P_o is the volume density of soil particles calculated for different soils will have different values.

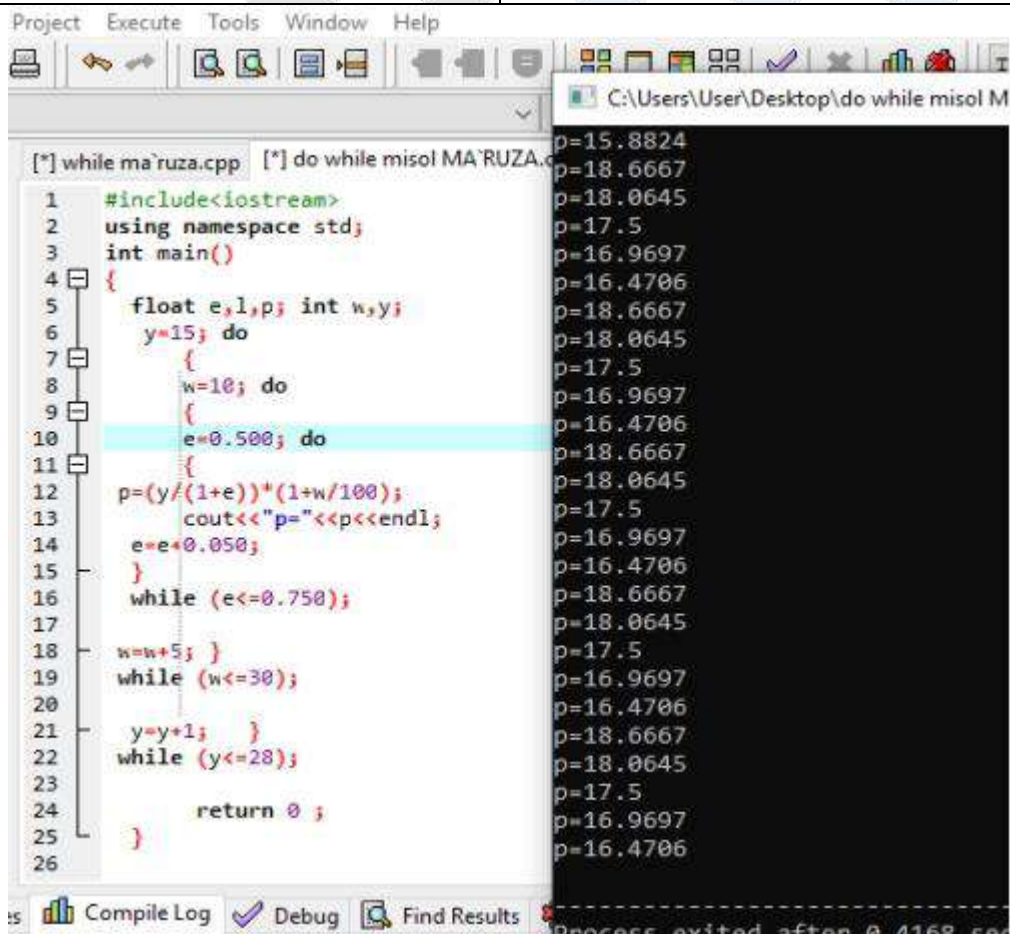
$\gamma_s = \rho_s = P_s$ the values of these quantities are the same, only the designation is different. P_s is the density of 1 soil particle located in the soil mass. Using the density of one soil particle, the density of the entire soil mass can be calculated .

To give an example:	Program:
<p>Finding the density of soil in the earth's crust:</p> $\rho = \frac{\rho_s}{1 + e_{oi}} (1 + W/100)$ <p>γ_s - soil particle density, kN/m³ 15 $\leq \gamma_s \leq 28$ kN/m³ e_{oi} - calculation coefficient of porosity at this specified point of the soil $0,500 \leq e_{oi} \leq 0,750$ W - soil moisture, (%) $10 \leq e_{oi} \leq 30$ In this example γ_s- y marked as; e_{oi}-e was marked as comment: $\gamma_s = y$, $e_{oi} = e$ designation entered</p>	<pre>#include<iostream> using namespace std; int main() { float e,l,p; int w,y; y=15; do { w=10; do { e=0.500; } } do { p=(y/(1+e))*(1+w/100); cout<<"p="<<p<<endl; e=e+0.050;</pre>

```

}
while (e<=0.750);
w=w+5;
}
while (w<=30);
y=y+1;
}
while (y<=28);
return 0 ;
}

```



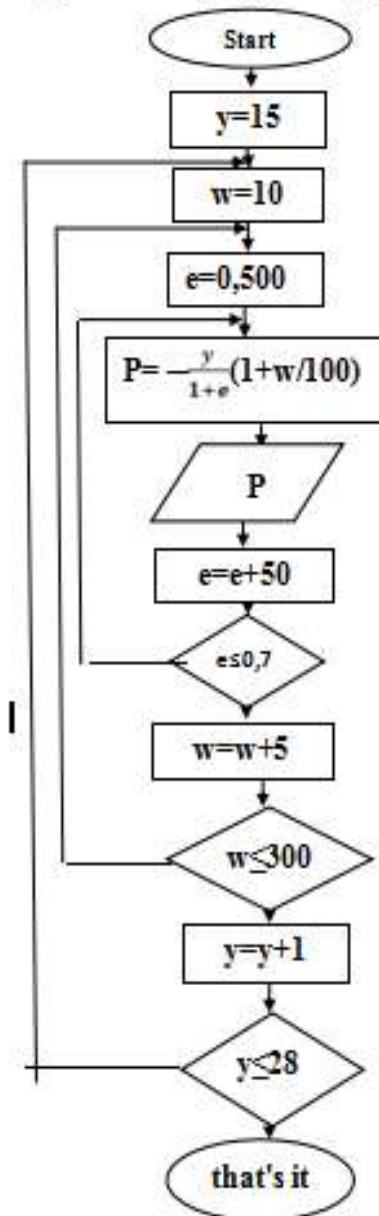
C++ program has three operators that provide a set of instructions to be executed repeatedly until a certain condition is reached. This condition can be predefined (as in the for loop) or open-ended (as in the while and do-while loops). There are three types of loops in C++: while, do-while, and for operators

The while condition is called the pre-given operator, because the last value of the variable, that is, the condition, is given before the calculation in the program. The while loop operator, whose condition is checked before the condition, works only based on the given condition. The general appearance (structure) of this operator is written as follows:

*the initial value of the variable
while (condition, that is, the last value of the
variable)*

*{
Cycle body
step is increased; }*

Algorithm and programming in C++



```

#include<iostream>
using namespace std;
int main()
{ float e,l,p; int w,y;

  y=15;
  while (y<=28)
  {
    w=10;
    while (w<=30)
    {
      e=0.500;
      while (e<=0.750)
      {
        p=(y/(1+e))*(1+w/100);
        cout<<" p="<<p<<endl;

        e=e+0.050;
      }
      w=w+5;
    }
    y=y+1;
  }
  return 0;
}
  
```

```

Project Execute Tools Window Help
C:\Users\User\Desktop\while ma`ruza.e

[*] while ma`ruza.cpp
1  #include<iostream>
2  using namespace std;
3  int main()
4  {
5      float e,l,p; int w,y;
6      y=15;
7      while (y<=28)
8      {
9          w=10;
10         while (w<=30)
11         {
12             e=0.500;
13             while (e<=0.750)
14             {
15                 p=(y/(1+e))*(1+w/100);
16                 cout<<" p="<<p<<endl;
17                 e=e+0.050;
18             }
19             w=w+5;
20         }
21         y=y+1;
22     }
23     return 0;
24 }
    
```

```

p=15.8824
p=18.6667
p=18.0645
p=17.5
p=16.9697
p=16.4706
p=18.6667
p=18.0645
p=17.5
p=16.9697
p=16.4706
p=18.6667
p=18.0645
p=17.5
p=16.9697
p=16.4706
p=18.6667
p=18.0645
p=17.5
p=16.9697
p=16.4706
p=18.6667
p=18.0645
p=17.5
p=16.9697
p=16.4706
    
```

The purpose of this is to teach construction engineering students to create a program for their specialty.

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**STOCK QUOTES FOR US TECHNOLOGY COMPANIES AS A TOOL FOR
SELECTING POTENTIAL AREAS FOR STARTUP IMPLEMENTATION**

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Abstract: Increasingly, economic research is paying attention to the technological development of various economic entities. In this case, special attention is paid to the implementation of some business ideas based on startups. This attention to certain areas of economic research is based both on their importance from the point of view of economic development, and on the possibility of introducing innovative solutions in the shortest possible time. The main problem in this aspect is attracting a sufficient amount of financial resources in the shortest possible time. Based on this, the paper examines the dynamics of quotes for shares of technology companies. To solve the problem, the absolute values of such quotes were considered and the corresponding statistical analysis was carried out. As a result, the potential time periods for entering the corresponding segment of the stock market were substantiated.

Key words: Shares, Quotes, Dynamics, Startup, Stock market, Technology companies, Business idea, Statistical analysis

Introduction The stock market plays an important role in creating conditions and implementing further sustainable economic development in many areas of activity of various business entities [1], [2]. This is achieved through the ability to attract the necessary resources for the development of various economic resources. It is also possible to form potential sources for attracting additional resources. For these purposes, various financial instruments are used that form the basis for the functioning of the stock market: stocks, bonds, futures, and the like. Therefore, interest in the dynamics of quotes of such securities is constantly in the focus of attention of researchers and practitioners [2]-[6].

One of the promising areas in the study of stock market dynamics is the market for shares of technology companies. Such attention to this market segment is due to the fact that technological development determines the main paths of economic growth and the stability of the functioning of various sectors and business entities. At the same time, technology companies can be considered as an object and a tool for selecting potential directions for the development of relevant startups [7], [8]. Thus, technology companies are of high interest for various areas of research, implementation of advanced technologies to improve the implementation of business ideas.

For the purpose of studying the development of individual segments of the stock market, various companies and the possibility of implementing business ideas in the form of startups, it is advisable to consider the quotation of the relevant securities. This allows us to generalize trends between supply and demand for individual business areas and determine the feasibility of entering

a given segment of the stock market. It is also important to study the mutual dynamics of such securities for the purpose of identifying potential sources of financing for startups. For these purposes, you can use various methods and approaches, both classical [9]-[17] and special ones, which allow the use of non-standard tools for analysis and conclusions [18]-[26].

Thus, the main goal of this work is to analyze the dynamics of stock quotes of technology companies as a tool for choosing directions for the implementation of startups. This goal also involves reviewing literary sources on the research topic and selecting objects for direct analysis.

Related work: To reveal the goal of this work, it is important to consider various areas where various directions for using shares of technology companies and their problems in the context of startups are being explored.

For example, A. Kousari, in his study, analyzes the features of financing technology companies [27]. For these purposes, new models based on smaller investments and collective action are being considered. The work examines the advantages and disadvantages of different startup financing models. The author also proposes a new approach as a means of attracting investors to teams. This allows you to reduce the risk of investing in startups and get an acceptable profit. Then the key question is how to hedge risks and when to enter the stock market.

M. Klačmer Čalopa, J. Horvat and M. Lalić conduct a comprehensive analysis of the possibilities of financing start-up companies [28]. Particular attention is paid to the development of start-up companies, their types and potential sources of financing for technology companies. All data is presented for business entities from Croatia. The authors compare traditional financing methods and new methods for developing startups. This allows us to better understand the choice of financing strategy for high-tech entrepreneurial ventures.

B. L. Dos Santos, P. C. Patel and R. R. D'Souza pay attention to business financing in the field of information technology [29]. The authors emphasize that the success of many information technology enterprises depended on effective financing. For these purposes, as a rule, venture financing was used. Therefore, the work focuses on identifying factors that play an important role in making decisions about financing IT projects. The authors propose their model based on work in the field of finance and entrepreneurship [29]. This model was tested on 139 business plans of IT startups. Various types of analysis are also used here, in particular tetrad analysis, which allows checking the compliance of the model with alternative approaches.

G. B. Halt Jr, J. C. Donch Jr, A. R. Stiles and R. Fesnak pay detailed attention to the consideration of financing strategies for technology startups [30]. At the same time, the authors explain the relevance of intellectual property for technology startups. This greatly affects the individual stages of their financing. Therefore, the work also examines the role of intellectual property in attracting financial capital. Hence, it is necessary to have a continuous financial support process for such startups. As a result, it is important to know potential sources for financing and the possibility of attracting resources from such sources.

I. Savin, K. Chukavina and A. Pushkarev conduct a comprehensive study of startup development [31]. The authors classify and analyze global trends for technology startup companies. The article examined more than 250 thousand startups from the Crunchbase database [31]. Topic modeling is used for these purposes. As a result, it was revealed that the share of startups focused on data analysis, social platforms, financial transfers and time management has increased

significantly. It is also shown that strong regional differences in distribution suggest a certain concentration of startups [31].

The study by P. Vandenberg, A. Hampel-Milagrosa and M. Helble is devoted to the issues of financing technology startups for selected Asian countries [32]. The authors especially note that turning an innovative idea into a successful business is not easy and is hampered by limited access to finance. Therefore, it is important to know the sources of investment and the possibility of attracting sufficient funds from such sources. The continuity of such attraction is also important. However, tech startups rely on multiple sources of funding. This should be taken into account.

Thus, financing startups is the main task in this process of implementing and promoting business ideas. At the same time, it is necessary not only to identify potential sources of appropriate financing. It is important to find sources that would ensure continuity of financing for individual stages of startup operation. It is also necessary to minimize the risks of such financing. This is especially important for technology startups. Therefore, next we will consider the possibilities of financing startups through the opportunities of the stock market, where we will analyze the dynamics of shares of US companies involved in the integration of equipment and software. This will allow us to consider various problematic aspects in such a study.

Dynamics of stock prices of selected US companies involved in the integration of hardware and software

For analysis, let's look at some data from investing.com. Here, in particular, there is data on stock prices of US companies involved in the integration of equipment and software. This choice is due to the fact that these companies are representatives of startups in the field of high technology.

In Fig. 1 stock quotes provided for PC Connection Inc (CNXN) and Climb Global Solutions Inc (CLMB) for the period 01.03.21-02.11.24.

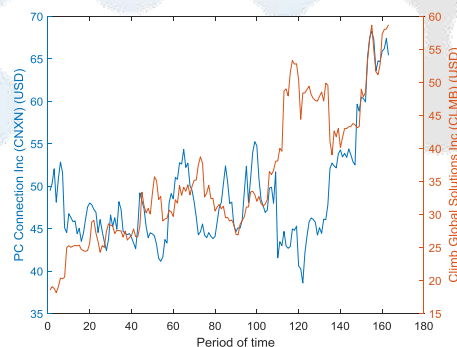


Figure 1: Stock prices for PC Connection Inc (CNXN) and Climb Global Solutions Inc (CLMB)

In Fig. 1 blue color and the left scale display quotes for shares of PC Connection Inc (CNXN), red color and the left scale – for shares of Climb Global Solutions Inc (CLMB).

First of all, it is worth noting the general increase in quotes for both PC Connection Inc (CNXN) and Climb Global Solutions Inc (CLMB) shares over the entire study period. Also, the value of stock quotes for the high-tech companies under consideration is approximately the same.

At the same time, the share price of PC Connection Inc (CNXN) is extremely volatile. In the period 01.03.21-11.27.22, quotes are around \$45 per share. Then there is a significant decrease to \$38.59 per share (12.04.22-04.30.23). Then there is the constant growth of shares of PC Connection Inc (CNXN), which as of 02.11.2024 is \$65.4 per share. Then it can be noted that the dynamics of PC Connection Inc (CNXN) shares do not reflect significant problems for this company.

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The share price of Climb Global Solutions Inc (CLMB) does not have global declines throughout the entire studied interval. Moreover, during the period when the share price of PC Connection Inc (CNXN) was declining, the share price of Climb Global Solutions Inc (CLMB) increased significantly. Overall, the stock price of Climb Global Solutions Inc (CLMB) is \$58.7 per share as of 02.11.2024. In this aspect, we should talk about the possibility of hedging prices of shares of such companies with each other. We can also talk about the stability of such companies attracting financial resources, in particular, for the implementation of start-ups.

For a more detailed analysis of the dynamics of the shares of PC Connection Inc (CNXN) and Climb Global Solutions Inc (CLMB) for the purpose of mutual hedging, it is necessary to study the mutual dynamics of their quotes.

The figures below provide other examples of stock quotes for US hardware and software integration companies.

In Fig. 2 shows the price dynamics for the shares of Telos Corp (TLS) and SmartRent Inc (SMRT).

Here, the blue color and left scale display quotes for Telos Corp (TLS) shares, the red color and left scale display quotes for SmartRent Inc (SMRT) shares.

Shown in Fig. 2 dynamics reflects the operating conditions of the corresponding technology companies.

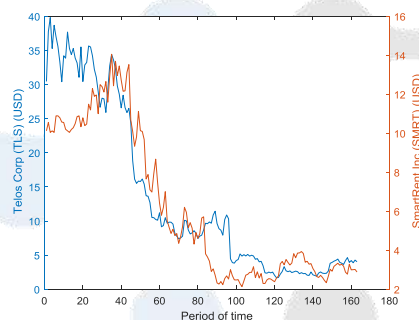


Figure 2: Stock prices for Telos Corp (TLS) and SmartRent Inc (SMRT)

In Fig. 3 shows the price dynamics for the shares of Iveda Solutions Inc (IVDA) and Shapeways Holdings, Inc. (SHPW). Here, the blue color and left scale display quotes for Iveda Solutions Inc (IVDA) shares, the red color and left scale display quotes for Shapeways Holdings, Inc. shares (SHPW).

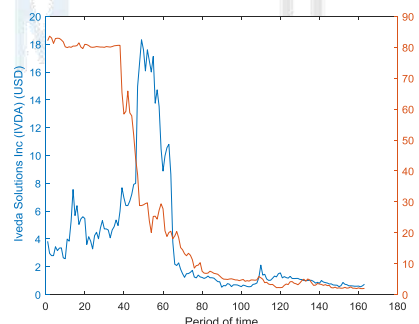


Figure 3: Stock prices for Iveda Solutions Inc (IVDA) and Shapeways Holdings, Inc. (SHPW)

Analyzing the dynamics of the data, which is shown in Fig. 2 and Fig. 3, it should be noted that:

in general, this dynamics is decreasing over the time interval under study,

at the beginning of the period under study, it should be noted that there are diverse trends in the data under study.

For example, the dynamics of stock quotes for SmartRent Inc (SMRT) at the beginning of the study period is increasing (see Fig. 2). Then there is a constant decline in prices for shares of this company. And although at the end of the period under study there is a periodic increase in quotations, one cannot talk about the sustainability of such dynamics. At the same time, shares of Telos Corp (TLS) are constantly declining. In this regard, the dynamics of stock quotes for these companies should be considered equally directed.

Prices for shares of Iveda Solutions Inc (IVDA) at the beginning of the period under study also have an increasing trend, which is then characterized by a fall in quotations (Fig. 3). Shapeways Holdings, Inc. stock prices (SHPW) are stable at the beginning of the study period then they decrease. Thus, from a certain point in time, the dynamics of quotes for these companies are also co-directed.

However, given the price movements for Telos Corp (TLS), SmartRent Inc (SMRT), Iveda Solutions Inc (IVDA) and Shapeways Holdings, Inc. (SHPW) funding startups based on them is problematic. At the same time, it should be noted that these companies themselves require startup ideas to improve trends in their quotes.

Comparative assessment of the mutual dynamics of stock quotes of individual companies

As noted above, the analysis of comparative data dynamics plays an important role in the corresponding study. For these purposes, consider the estimation of wavelet coherence [33]-[35]. This is due to the fact that this approach has found wide application in this type of research [36]-[41]. As an example in Fig. 4 presents the corresponding estimates of wavelet coherence for the data Fig. 1.

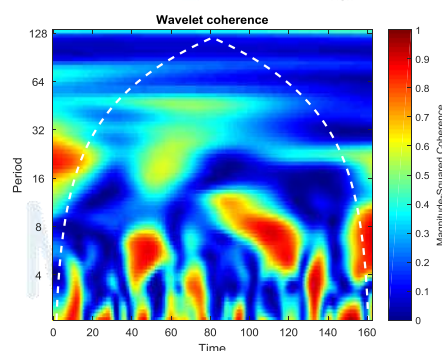


Figure 4: Wavelet coherence estimate for the data Fig. 1

In Fig. 5 presents the corresponding estimates of wavelet coherence for the data Fig. 2.

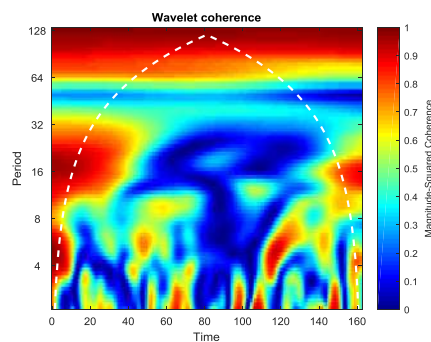


Figure 5: Wavelet coherence estimate for the data Fig. 2

In both cases, there is fragmentary consistency between the data series under study. The fragmentation density of such consistency is different, which corresponds to the dynamics of the data presented in Fig. 1 and Fig. 2. At the same time, the depth of the consistency under consideration is significant. This allows you to develop strategies for entering the corresponding segment of the stock market and identify potential sources of investment in startups.

For the data in Fig. 4, fragmentation in the consistency of estimates is evenly distributed over the entire interval that is being studied. For the data in Fig. 5, such fragmentation is concentrated mainly in the second half of the time period under study. This suggests a shift in factors for Telos Corp (TLS) and SmartRent Inc (SMRT) data that needs to be taken into account when appropriately forecasting and developing strategies for funding startups.

At the same time, it should be noted that wavelet coherence makes it possible to assess the relationship between the data under study in order to determine the possibilities of hedging some securities with others in the process of investing in startups. It also enhances the ability to identify strategies for going public to invest in startups.

Conclusion

The work examines certain aspects of the problem of financial support for startups. For these purposes, technology companies are considered using the example of the United States. The stock quotes of such companies were studied as a tool for selecting potential areas for financial support for startups.

A detailed analysis of the relationship between individual data series was carried out based on wavelet coherence estimates. As a result of this analysis, the dynamics of quotes for individual technology companies was confirmed. The influence of various factors on the dynamics of quotes for different companies was also revealed. Most likely, this is due to their direct activities. In general, this helps to determine the time to enter the stock market for the purpose of possible investment in startups, and to consider the potential source of such investment.

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РОЛЬ АВТОМАТИЗИРОВАННЫХ КОМПЬЮТЕРНЫХ СИСТЕМ В НАЛОГОВОМ КОНТРОЛЕ

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Аннотация: Автоматизированные компьютеризированные системы налогового контроля представляют собой программные решения, которые улучшают эффективность и точность процессов сбора, анализа и контроля налоговых данных. В данной статье рассматриваются преимущества таких систем, включая увеличение эффективности и точности, улучшение контроля и борьбы с налоговыми нарушениями, сокращение времени и затрат, а также улучшение обмена информацией между налоговыми органами и налогоплательщиками. Внедрение автоматизированных систем налогового контроля способствует созданию более эффективной и прозрачной налоговой системы, обеспечивающей справедливый и эффективный сбор налоговых поступлений.

Ключевые слова: автоматизированная система, компьютеризированная система, налоговый контроль, эффективность, точность, налоговые нарушения, время, затраты, обмен информацией, налоговые органы, налогоплательщики.

Введение: Автоматизированные компьютеризированные системы налогового контроля являются важным инструментом в современном налоговом администрировании. Они представляют собой программные решения, разработанные для автоматизации процессов сбора, анализа и контроля налоговых данных. В этой статье мы рассмотрим преимущества таких систем и их важность для эффективной работы налоговых органов.

Увеличение эффективности и точности: Одним из главных преимуществ автоматизированных компьютеризированных систем налогового контроля является возможность значительно увеличить эффективность и точность процессов сбора и анализа налоговых данных. Автоматическая обработка и сверка информации позволяют сократить время, затрачиваемое на ручные операции, и снизить вероятность ошибок, связанных с человеческим фактором. Точные данные позволяют налоговым органам принимать более обоснованные решения и проводить более эффективный налоговый контроль.

Улучшение контроля и борьбы с налоговыми нарушениями: Автоматизированные системы налогового контроля обладают мощными алгоритмами, которые позволяют обнаруживать потенциальные нарушения и несоответствия в налоговых декларациях и отчетах. Это помогает налоговым органам более эффективно контролировать исполнение налогового законодательства и предотвращать уклонение от уплаты налогов. Автоматизированные системы могут анализировать большие объемы данных и обнаруживать неявные связи и шаблоны, которые могут указывать на нечестные практики.

Сокращение времени и затрат: Использование автоматизированных систем налогового контроля позволяет существенно сократить время и затраты, связанные с обработкой налоговых данных. Ручной анализ и проверка больших объемов информации являются трудоемкими и затратными процессами. Автоматизация позволяет проводить эти

операции в короткие сроки и с меньшими затратами на персонал и ресурсы. Это особенно актуально для налоговых органов, которые имеют ограниченные бюджеты и ресурсы.

Улучшение обмена информацией: Автоматизированные системы налогового контроля облегчают обмен информацией между налоговыми органами и налогоплательщиками. Электронная подача налоговых деклараций и отчетов позволяет сократить бумажную работу и ускорить обработку информации. Кроме того, автоматизация позволяет налоговым органам проводить эффективную коммуникацию с налогоплательщиками, предоставлять информацию о требованиях и изменениях в налоговом законодательстве, а также предоставлять онлайн-инструменты для ответов на вопросы и консультаций.

Автоматизированные компьютеризированные системы налогового контроля являются мощным инструментом, который применяется налоговыми органами для улучшения процессов сбора и анализа налоговых данных.

Автоматизированная система: Это программное обеспечение, которое выполняет определенные функции и операции в автоматическом режиме без прямого участия человека. В случае налогового контроля, автоматизированная система может автоматически обрабатывать и анализировать налоговые данные, проводить проверки на соответствие законодательству и выявлять потенциальные налоговые нарушения.

Компьютеризированная система: Это система, основанная на использовании компьютеров и программного обеспечения для выполнения различных задач и операций. Компьютеризированные системы налогового контроля используют компьютерные технологии для обработки и анализа налоговых данных, повышения эффективности и точности процессов сбора информации и контроля налогового соблюдения.

Эффективность: В контексте налогового контроля, эффективность означает способность системы максимально эффективно и быстро выполнять задачи сбора, анализа и контроля налоговых данных. Автоматизированные компьютеризированные системы позволяют сократить время, затрачиваемое на выполнение этих задач, и увеличить общую производительность налоговых органов.

Точность: Точность в налоговом контроле крайне важна. Автоматизированные системы способны обрабатывать данные с высокой точностью, минимизируя ошибки, связанные с человеческим фактором. Это помогает предотвратить неправильное уплату налогов или уклонение от уплаты и обеспечить более справедливую и точную оценку налоговых обязательств.

Налоговые нарушения: Автоматизированные компьютеризированные системы налогового контроля помогают обнаруживать и предотвращать налоговые нарушения. Они способны анализировать большие объемы данных и выявлять несоответствия, неясные связи и шаблоны, которые могут указывать на потенциальные нарушения налогового законодательства. Это помогает налоговым органам эффективно контролировать соблюдение налоговых правил и бороться с налоговыми махинациями.

Время и затраты: Автоматизация налогового контроля позволяет сократить время и затраты, связанные с обработкой налоговых данных. Ручная обработка больших объемов информации требует значительных усилий и ресурсов, в то время как автоматизированные системы могут выполнить эти задачи эффективнее и быстрее. Это позволяет налоговым

органам значительно снизить трудозатраты и издержки, связанные с налоговыми процессами.

Обмен информацией: Автоматизированные компьютеризированные системы налогового контроля способствуют улучшению обмена информацией между налоговыми органами и налогоплательщиками. Они обеспечивают более эффективный и надежный поток данных, позволяя налоговым органам получать актуальную информацию от налогоплательщиков и обратно. Это способствует повышению прозрачности и сотрудничества между сторонами, а также упрощает процесс сдачи налогов и соблюдение налоговых обязательств.

Налоговые органы: Это государственные или международные организации, ответственные за сбор налоговых поступлений и контроль соблюдения налогового законодательства. Автоматизированные компьютеризированные системы налогового контроля используются налоговыми органами для оптимизации и повышения эффективности их деятельности.

Налогоплательщики: Это физические или юридические лица, обязанные уплачивать налоги в соответствии с налоговым законодательством. Автоматизированные системы налогового контроля упрощают процесс сдачи налогов и помогают налогоплательщикам соблюдать налоговые обязательства, предоставляя более точную и понятную информацию о налогах и уведомлениях.

В целом, автоматизированные компьютеризированные системы налогового контроля представляют собой важный инструмент для оптимизации и улучшения процессов сбора, анализа и контроля налоговых данных. Они способствуют повышению эффективности, точности и прозрачности налоговой системы, улучшают взаимодействие между налоговыми органами и налогоплательщиками, а также помогают бороться с налоговыми нарушениями.

Заключение:

Автоматизированные компьютеризированные системы налогового контроля играют важную роль в современном налоговом администрировании. Они обеспечивают повышение эффективности и точности процессов сбора и анализа налоговых данных, улучшают контроль и борьбу с налоговыми нарушениями, сокращают время и затраты, связанные с обработкой информации, и улучшают обмен информацией между налоговыми органами и налогоплательщиками. Внедрение таких систем позволяет создать более прозрачную и эффективную налоговую систему, способствующую справедливому и эффективному сбору налоговых поступлений.

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THE MULTIDISCIPLINARY JOURNAL OF SCIENCE AND TECHNOLOGY

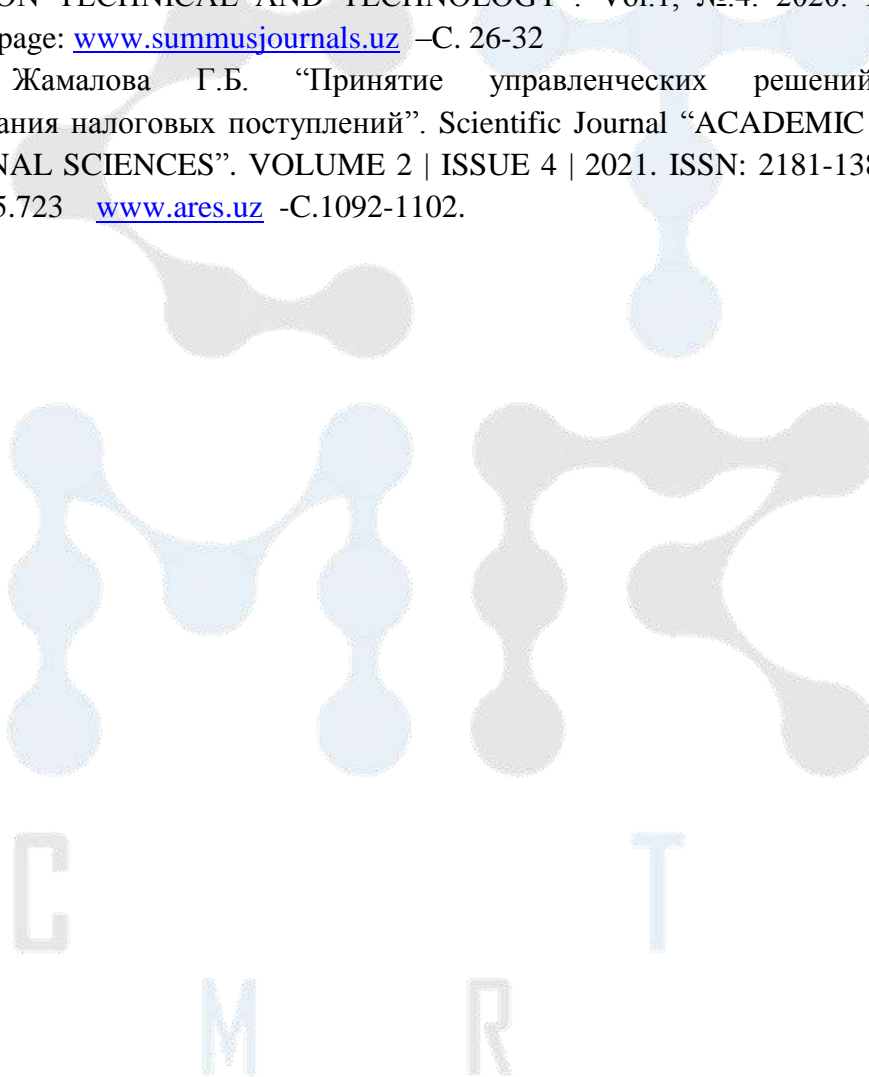
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ORGANIZING PRACTICAL EDUCATION COURSES ON SEWING PROFESSION FOR STUDENTS WITH DISABILITIES

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Annotation: This article describes the procedure, importance and effectiveness of organizing practical education training sessions on the secrets and profession on sewing for students with disabilities.

Keywords: education, practical training, tailoring profession, disabilities, creative approach, sewing, result.

Introduction: Based on the rich cultural heritage and values of our people, the creation of an excellent system of tailor-pedagogical personnel training based on the achievements of modern sewing technology has become one of the important conditions for the development of education in Uzbekistan. In this case, a system aimed at training personnel who is aspiring to creative activity, capable of mastering new techniques and technologies in the field of tailoring is used. Currently, tailoring production is a very broad industry, in which advanced means of automation and mechanization, computer equipment, scientific and technical achievements are widely used. All this requires tailors to be highly educated, acquire skills and qualifications. The organizers of the sewing club, which conducts educational activities outside the school and classroom, should know how to make products that meet all the requirements, using new modern technologies and using modern equipment and devices in the production of clothes based on an individual order. However, the field of organizing practical training in tailoring for students with disabilities is different from teaching this field to able-bodied students. In this case, the master of production education must be creative, inquisitive, enterprising, and have pedagogical skills.

It is known that the main task of tailoring specialists is to improve the quality of clothing. One of the important advanced directions in the development of tailoring is the introduction of the method of thermofixation, that is, the method of gluing other materials to the details of outerwear. It is important to pay attention to every detail in the organization of practical training in tailoring for students with disabilities. In particular, the introduction of sewing equipment to a hand needle, sewing machine, scissors, iron, sewing machine and sewing equipment is explained based on the possibilities of each student. It is also taught how to use a hand needle for temporary blueing, pleating and embroidering details. In modern conditions, it is demanded that the educational process should be directed to the development, socialization and training of independent, critical and creative thinking abilities. Education that can show these possibilities is called person-oriented education. The use of personalized educational technologies gives a very effective result. Therefore, taking into account the student's thinking and action strategy, it directs the development of his personality, characteristics, and abilities. This means that the educational environment should be adapted to the student's abilities. According to him, the educational environment, pedagogical conditions, education and training process implies the full realization of the student's personal

potential, development of abilities, ensuring that he matures as a person, enriching his thinking and worldview.

In organizing training sessions for students with disabilities on the secrets and profession of tailoring, a unique aspect of person-oriented education is to recognize the learner's personality, to create a comfortable and necessary environment for his comprehensive development. This type of education in the educational process serves to educate students such qualities as independence, creativity, initiative, responsibility, as well as independent, creative and critical thinking skills. In the organization of this type of education, pedagogues are required to approach each student as individually as possible, respect his personality, and show confidence in him. In addition, person-oriented education represents the need to create a favorable pedagogical environment for the participants of the teaching process to learn in mutual cooperation in the form of a pedagogue-student or student-student, group of students, student-student team, to develop as a person. Person-oriented technology is based on the intellectual and emotional-motivational development of students, the formation of knowledge and professional skills, the provision of an approach to the educational process as a value, increasing activity, forming self-awareness and independence.

Conclusion: In short, it is worth noting that, in organizing practical education training sessions on sewing profession for students with disabilities pedagogues need to pay special attention to ensuring that students have the opportunity to use educational information based on their knowledge, skills, qualifications and experience, to interest them, to encourage them to think, to be creative.

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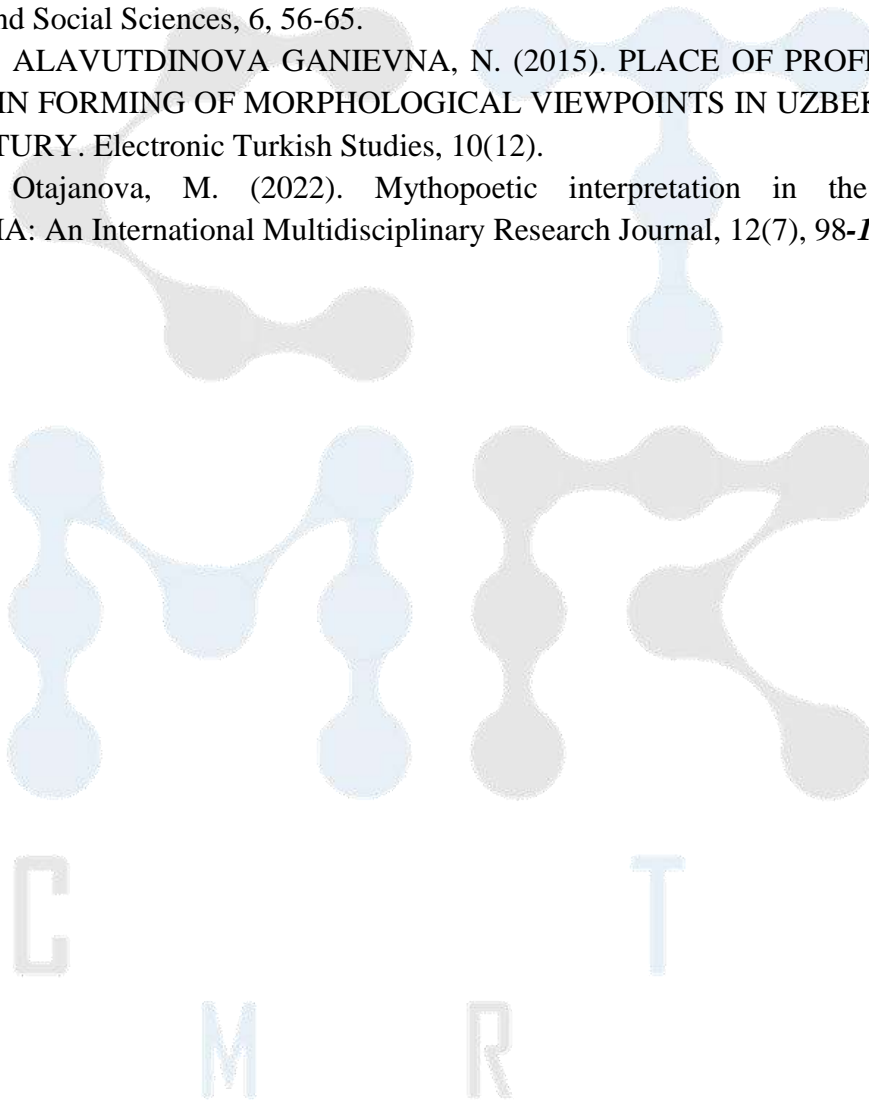
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ВЫРАЖЕНИЕ МОТИВОВ ЛЮБВИ К РОДНОМУ ЯЗЫКУ В ДЕТСКОЙ ПОЭЗИИ И ЗНАЧЕНИЕ ЕГО ПРЕПОДАВАНИЯ В НАЧАЛЬНЫХ КЛАССАХ

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Аннотация: В этой статье представлена информация о детской поэзии и ее значении, а также о мотивах в изучении родного языка. Кроме того, важность запоминания и объяснения стихов начальным классам обратная связь была высказана.

Ключевые слова: язык, общество, поэзия, акцент, образ, талант, грамматика, речь, лексикология.

Введение: Язык-это средство, служащее для взаимодействия членов общества друг с другом. Чем более усовершенствован этот инструмент, тем яснее, выразительнее выражается мысль. Таким образом, человеческое взаимодействие, эмоции, переживания и состояния определяются языком. Необходимость углубленного изучения родного языка в школе проистекает из основных задач, которые выполняет язык. К. Д. Ушинский придавал большое значение родному языку в системе предметов начальной школы и считал его центральным и ведущим предметом. "Будучи прекрасным учителем, родной язык многому учит ребенка. Ребенок учится так много за два-три года, что даже при прилежном методически очень правильном чтении в 20 лет он не сможет учиться наполовину. В этом и заключается великая педагогика родного языка", — говорит он. Именно поэтому в начальных классах большое значение придается изучению родного языка.

Анализ и методология литературы: Здесь также следует отметить, что на появление новой детской литературы периода независимости большое влияние оказала литература второй половины 80-х годов. Ведь именно в этот период наша детская литература превратилась в литературу, которая буквально смотрит прямо на действительность, делает первые шаги в воспитании подрастающего поколения в духе чувств привязанности. С этой точки зрения мы имеем полное право сказать, что эпоха Независимости-это время, когда наша детская литература растет, взрослеет, ищет свою идентичность по-своему.

Наконец, в поэзию детской литературы периода независимости впервые стал входить образ настоящего узбека, этот шаг можно оценить как качественное изменение в воспитании подрастающего поколения на привычном пути самосознания. Поэма талантливого поэта Дилшода Раджаба "Узбек" примечательна тем, что в ней делается акцент на образе человека, народа. С первых же строк стихотворения начинают прорисовываться строки в образе толерантного узбека:

Даже если не подходит сам, другу

У него есть место.

Чаша на пассажира

У него есть чай.

Обсуждение: Учащиеся начальных классов учатся осознанному чтению и грамотному письму на уроках родного языка, осваивают закономерности устной и

письменной речи. Навыки и умения в области родного языка (навыки речи, чтения и письма) являются необходимым условием и средством воспитательного труда учащихся. Наряду с приобретением навыков чтения, учащемуся необходимо в первую очередь выучить родной язык, так как родной язык является залогом грамотности, интеллекта. Родной язык-это и другое предметное средство обучения: и история общества, и естественные науки изучаются с использованием родного языка. Таким образом, родной язык занимает особое место как в общем созревании ребенка, так и в пробуждении его страсти к знаниям и труду. Язык-важный инструмент воспитания. Читая художественную литературу, газеты, журналы, ребенок воспитывает в себе лучшие качества, овладевает культурой обращения. Поскольку родной язык занимает центральное место в начальных классах, необходимо воспитывать у каждого ученика интерес и любовь к родному языку. Тип и содержание занятий по родному языку в начальных классах включают:

1. Развитие устной и письменной речи учащихся в связи с чтением, письмом, изучением грамматического материала, наблюдениями и социальной деятельностью.

2. Обучать грамоте детей, приходящих в первый класс, то есть учить их элементарному чтению и письму, превращая эти навыки в навыки.

3. Изучение норм литературного языка, то есть грамотного письма с соблюдением орфографии и пунктуации, правильного произношения, овладение речевыми и стилистическими элементами.

4. Изучение теоретического материала по грамматике, фонетике, лексикологии, формирование научных понятий из языка.

5. Знакомить учащихся с образцом художественной, научно-популярной и другой литературы на уроках чтения и грамматики, формировать у них навыки восприятия художественного произведения. Все эти задачи решаются в начальных классах субъектом родного языка, и они отражаются в программе родного языка. Программа является государственным документом, в котором будут определены содержание и объем учебного предмета, а также основные требования к уровню знаний, умений и навыков по данному предмету. Учитель и ученики работают в соответствии с требованиями программы.

Создав образ творческого ребенка, он загорелся творческим энтузиазмом: "Кем я буду в будущем?" естественно, что в центре его внимания-образ детей, которые смотрят на Надежду завтра, живущих в уклонении от мечтаний. Ведь именно такие стихи поэта выделяют юных героев среди тысяч их сверстников, учат думать, слушать, смотреть на мир. А потребность в мышлении ведет к созреванию личности.

Результат: Независимо от того, называется ли художественная литература реалистической литературой, романтической литературой, сюрреалистической литературой, в первую очередь, читатель должен сеять семена добра в своей душе, служить воспитанию ее в духе лучших человеческих качеств. Главная задача художественной литературы состояла в том, чтобы сделать это тысячелетия назад, и это будет продолжаться и сегодня, и через тысячу лет.

Поскольку создатель создает свои произведения для детей, вполне естественно, что главными действующими лицами являются дети, поскольку ребенок, читающий книгу, ищет в произведении, прежде всего, себя, сверстников, чьи мысли, мировоззрения, стремления совпадают с его собственными. Если проанализировать на примере героев стихотворений Т.

Адашбаев “Летающая в ночи звезда”, “Мой вопрос”, то Серия Н.Иманбердиева “Упрямые”, “Странное выживани” Герои стихотворения С.Иноятова “Новый ребенок” исследуются как буквально борющееся поколение в современной узбекской детской поэзии.

Кроме того, при составлении новых учебников и учебных пособий особое внимание уделялось произведениям ведущих деятелей нашей сегодняшней детской литературы, инчунин, наши дети стали усваивать уроки человечности через образцы национальной литературы, созданной на нашей национальной земле, заново воспринимать многотысячелетние духовные, литературные, религиозные ценности нашего народа. Все это, несомненно, будет иметь огромное просветительское значение в становлении молодого поколения как духовно совершенных людей, в становлении верным чадом своей пуповинной крови – родины, своего народа, своей нации. Потому что только тот, кто может уважать себя, признавать свою историю, свою культуру, свою литературу, может быть буквально патриотом. Во-вторых, человек, который ценит себя, может ценить и других, а человек, который знает свое уважение, может ценить и других.

Вывод: Итак, главная задача детской литературы-воспитание подрастающего поколения в духе духовно-нравственного совершенствования. Отсюда одно из главных его своеобразий определяется тем, что оно должно сеять в сердце читателя семена добра, служить воспитанию его в духе лучших человеческих качеств, приобретать не только литературно-эстетическое, но и просветительское значение.

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**СРАВНИТЕЛЬНАЯ ХАРАКТЕРИСТИКА МОРФОМЕТРИЧЕСКИХ ПАРАМЕТРОВ
ПОЧЕК ПРИ ПОЛИПРАГМАЗИИ ПРОТИВОВОСПАЛИТЕЛЬНЫМИ
ПРЕПАРАТАМИ**

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Аннотация

Цель. Изучить морфометрические изменения структуры почек белых крыс при полипрагмазии противовоспалительными препаратами.

Методы: Исследование выполнено на 50 белых крысах самцах, с массой от 210 до 320 г., содержащихся в условиях вивария при стандартном рационе питания, свободном доступе к воде, обычном режиме освещения. Животные были разделены на 3 группы.

Полученные результаты: При сравнении морфометрических показателей крыс 3-й группы с показателями 2-й группы было выявлено достоверное уменьшение. Площадь почечного тельца уменьшалась 5,14%, 5,05%, 3,19% и 3,02%, наружный диаметр проксимальных извитых канальца уменьшался 8,13%, 6,11%, 4,08% и 3,42%, диаметр просвета канальца уменьшался 6,33%, 5,09%, 3,12% и 3,08%, наружный диаметр дистальных извитых канальца уменьшался 7,12%, 5,07%, 5,03% и 4,48%, диаметр просвета канальца уменьшался 4,47%, 4,04%, 3,07% и 2,31%.

Выводы. Наличие влияния полипрагмазии противовоспалительными средствами на почках свидетельствуют о том, что полипрагмазия пагубно влияет на мочевыделительную, снижает выделение мочи и имеет достаточный уровень риска для организма.

Ключевые слова: почечная тельца, нефрон, проксимальный извитый каналец, дистальный извитый каналец, полипрагмазия.

**COMPARATIVE CHARACTERISTICS OF MORPHOMETRIC PARAMETERS OF
KIDNEYS IN POLYPRAGMASIA WITH ANTI-INFLAMMATORY PREPARATIONS**

Annotation

Objective. To study morphometric changes in the structure of the kidneys of white rats with polypharmacy with anti-inflammatory drugs.

Methods. The study was carried out on 50 male white rats, weighing from 210 to 320 g, kept in a vivarium with a standard diet, free access to water, and a normal lighting regime. The animals were divided into 3 groups.

Results. When comparing the morphometric parameters of the rats of the 3rd group with those of the 2nd group, a significant decrease was found. The area of the renal corpuscle decreased 5.14%, 5.05%, 3.19% and 3.02%, the outer diameter of the proximal convoluted tubule decreased

8.13%, 6.11%, 4.08% and 3.42%, the diameter of the lumen of the tubule decreased by 6.33%, 5.09%, 3.12% and 3.08%, the outer diameter of the distal convoluted tubule decreased by 7.12%, 5.07%, 5.03% and 4.48%, the diameter of the lumen tubule decreased by 4.47%, 4.04%, 3.07% and 2.31%.

Conclusions. The presence of the effect of polypharmacy by anti-inflammatory drugs on the kidneys indicates that polypharmacy has a detrimental effect on urinary excretion, reduces urinary excretion and has a sufficient level of risk for the body.

Key words: renal corpuscles, nephron, proximal convoluted tubule, distal convoluted tubule, polypharmacy.

ВВЕДЕНИЕ. Особо важное место во взаимоотношении всего организма с внешней средой занимает мочевыделительная система. Почки, как главный экскреторный орган, в большой степени подвержены негативному воздействию лекарственных средств [2].

Противовоспалительные средства это одна из наиболее часто используемых в медицине лекарственных групп. Их преимуществом является комплексное действие (жаропонижающее, противовоспалительное и обезболивающее), а также широкий спектр показаний, при которых они могут использоваться. Более распространены и часто назначаются 5 видов противовоспалительных средств, входящие в одну группу по фармакодинамическим эффектам. Однако имеющиеся на сегодня сведения о результатах терапии данными препаратами не позволяют сделать однозначный вывод об их эффективности или неэффективности а так же о развитии побочных эффектов в таких комбинациях [1].

При исследовании отдаленных последствий полипрагмазии уменьшается параметры нефронов почки в более чувствительной популяции и параллельно растет численность стромальных элементов в наиболее устойчивых к полипрагмазии [4]. Эти данные свидетельствуют о снижении функциональной активности нефронов почки после воздействия полипрагмазии [5].

Побочные эффекты лекарственных препаратов, в том числе ренальные и кардиоваскулярные, являются актуальной медицинской проблемой во всем мире. Ведущее место в их развитии занимают нестероидные противовоспалительные препараты (НПВП), являющиеся одним из наиболее часто применяемых классов лекарственных средств [3,6].

ЦЕЛЬ. Установить динамику изменений морфометрических параметров площадь почечного тельца, проксимальных и дистальных извитых канальцев почек крыс до 6 месячного возраста в норме и при полипрагмазии противовоспалительных лекарственных средств.

МАТЕРИАЛЫ И МЕТОДЫ. Исследование выполнено на 50 белых рандомбредных крысах самцах, с массой от 210 до 320 г., содержащихся в условиях вивария при стандартном рационе питания, свободном доступе к воде, обычном режиме освещения. Животные были разделены на 3 группы (n=60): I – интактный контроль (n=20); II–группа – крысы, получавшие 2 вида противовоспалительных средств, парацетамол 15 мг/кг, аспирин 5 мг/кг (n=25); III – группа – крысы, получавшие 3 вида противовоспалительных средств, парацетамол 15 мг/кг, аспирин 5 мг/кг, ибупрофен 6 мг/кг (n=25);

Данные дозировки препаратов были рассчитаны эмпирическим путем и вводились ежедневно внутрижелудочно в виде раствора в течение 10 дней. Крысам контрольной группы в течение 10 дней начиная с 141 дня развития до 150 дня металлическим зондом внутри желудочно вводили дистиллированную воду в объеме 0,5 мл.

Тяжесть органопатологии оценивали по морфологическим показателям (площадь почечного тельца, наружный диаметр проксимальных и дистальных извитых канальцев, диаметр просвета канальцев и её процентному соотношению к группам).

Выведение животных из эксперимента проводили через 3 месяца (в 180 дневном возрасте) с момента его начала, посредством мгновенной декапитации животных под эфирным наркозом. На проведение исследования получено разрешение Этического комитета Самаркандского государственного медицинского института.

Для микроскопического исследования материал фиксировали в 10% формалине, пропускали через батарею спиртов и разливали парафиновой блоки в соответствии с общепринятыми методами. Окраска срезов толщиной 5-7 мкм производилась гематоксилин-эозином.

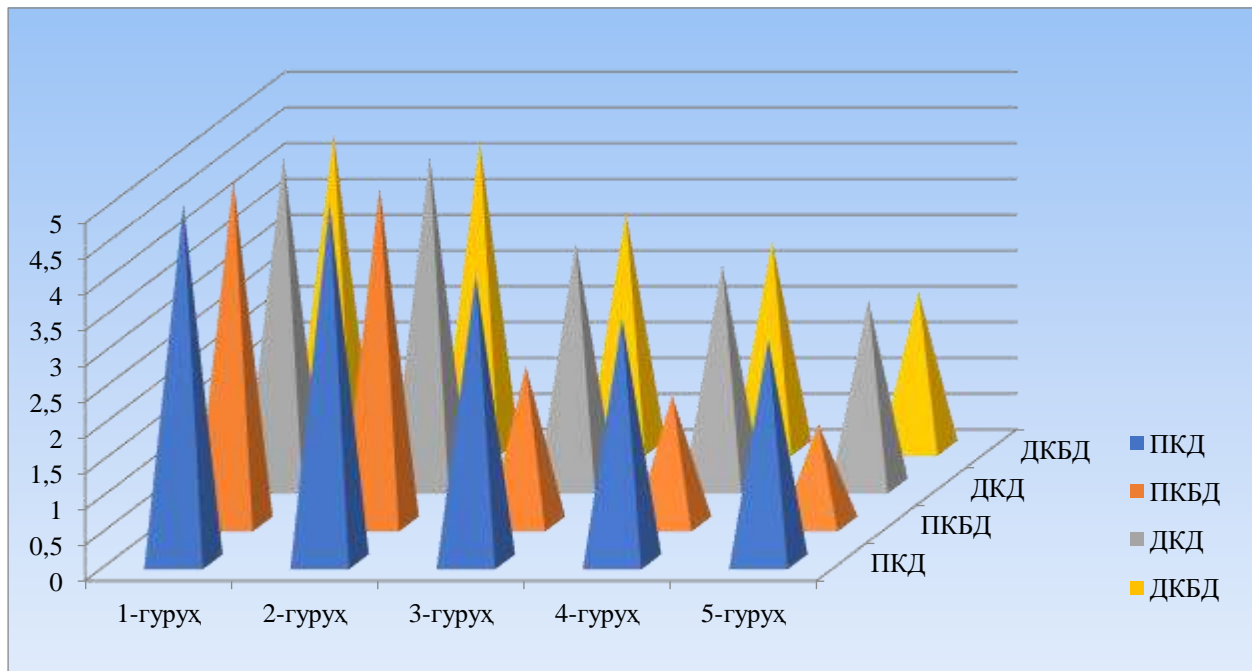
Математическую обработку производили непосредственно из общей матрицы данных «Excel 7,0» на персональном компьютере Pentium-IV, определяли показатели среднеквадратичного отклонения и ошибки репрезентативности.

РЕЗУЛЬТАТЫ И ОБСУЖДЕНИЕ: При морфологическом исследовании параметров площадь почечного тельца, наружный диаметр проксимальных и дистальных извитых канальцев, диаметр просвета канальцев почек у крыс 1-й группы наблюдалась положительная динамика изменений всех показателей. Период наблюдений площадь почечного тельца увеличивался до 3263 ± 34 мкм², наружный диаметр проксимальных извитых канальца среднем равен $22,08 \pm 0,12$ мкм, диаметр просвета канальца $13,12 \pm 0,09$ мкм, наружный диаметр дистальных извитых канальца среднем равен $21,11 \pm 0,32$ мкм, диаметр просвета канальца $12,04 \pm 0,1$ мкм.

У крыс 2-й группы наблюдалось уменьшение морфометрических показателей, по сравнению с животными 1-й группы. После окончания воздействия условий 2-й группы площадь почечного тельца уменьшался до 3018 ± 4 мкм², 3056 ± 7 мкм², 3126 ± 6 мкм², 3131 ± 5 мкм² (процентном соотношении -7,21%, -6,32%, -4,18%, -4,03%) наружный диаметр проксимальных извитых канальца уменьшался $20,04 \pm 0,1$ мкм, $20,49 \pm 0,13$ мкм, $21,16 \pm 0,3$ мкм, $21,39 \pm 0,2$ мкм (процентном соотношении -9,26%, -7,21%, -4,15%, -3,11%) диаметр просвета канальца на $12,16 \pm 0,12$ мкм, $12,29 \pm 0,22$ мкм, $12,45 \pm 0,13$ мкм, $12,70 \pm 0,31$ мкм (процентном соотношении -7,25%, -6,31%, -5,12%, -3,21%) наружный диаметр дистальных извитых канальца уменьшался $18,59 \pm 0,1$ мкм, $18,68 \pm 0,23$ мкм, $18,86 \pm 0,12$ мкм, $19,24 \pm 0,33$ мкм (процентном соотношении -7,54%, -7,09%, -6,22%, -4,34%) диаметр просвета канальца на $11,42 \pm 0,11$ мкм, $11,43 \pm 0,14$ мкм, $11,60 \pm 0,23$ мкм, $11,67 \pm 0,12$ мкм (процентном соотношении -5,12%, -5,04%, -3,64%, -3,09%).

При сравнении морфометрических показателей крыс 3-й группы с показателями 2-й группы было выявлено достоверное уменьшение. Площадь почечного тельца уменьшался 3430 ± 71 мкм², 3427 ± 8 мкм², $3367 \pm 0,8$ мкм², 3361 ± 5 мкм² (процентное соотношение -5,14%, -5,05%, -3,19%, -3,02%) наружный диаметр проксимальных извитых канальца уменьшался $24,65 \pm 0,4$ мкм, $24,19 \pm 0,32$ мкм, $23,73 \pm 0,25$ мкм, $23,58 \pm 24$ мкм (процентном соотношении

-8,13%, -6,11%, -4,08%, -3,42%) диаметр просвета канальца на $13,95 \pm 0,17$ мкм, $13,78 \pm 0,22$ мкм, $13,53 \pm 0,16$ мкм, $13,12 \pm 0,2$ мкм (процентное соотношение +6,33%, +5,09%, +3,12%, +3,08%) наружный диаметр дистальных извитых канальца уменьшался $22,61 \pm 0,21$ мкм, $22,18 \pm 0,13$ мкм, $22,17 \pm 0,32$ мкм, $22,05 \pm 0,18$ мкм (процентное соотношение -7,12%, -5,07%, -5,03%, -4,48%) диаметр просвета канальца на $12,58 \pm 0,13$ мкм, $12,52 \pm 0,21$ мкм, $12,41 \pm 0,17$ мкм, $12,32 \pm 0,31$ мкм (процентное соотношение -4,47%, -4,04%, -3,07%, -2,31%).



Динамика изменения диаметра проксимальных и дистальных извитых канальцев почек и их полостей у 5-месячных крыс под влиянием полипрагмазии. (относительно 1-группы).

Таким образом, полученные результаты показали, что отмечается разная степень морфологических и морфометрических изменений при воздействии разных количеств лекарственных средств. Экспериментально изучено действие противовоспалительных лекарственных средств на почки у белых без породных крыс. Установлено, что после воздействия более трех видов противовоспалительных средств заметно уменьшается мочевыделительная система организма. Определение наличия влияния полипрагмазии на почках свидетельствуют о том, что полипрагмазия имеет достаточный уровень риска для организма.

ВЫВОДЫ. Доказано чем больше использовано лекарственных средств тем более выражен патологический эффект в почках. Наличие влияния полипрагмазии противовоспалительными средствами на почках свидетельствуют о том, что полипрагмазия пагубно влияет на мочевыделительную, снижает выделение мочи и имеет достаточный уровень риска для организма.

Эти факты косвенно свидетельствуют о снижении показателей нефрона почки.

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VOLUME-4, ISSUE-2

USE OF INFORMATION TECHNOLOGIES IN EDUCATION

Shikarov Tolib Tavakalovich

ANNOTATION

This article considered the ways of effective use of information technologies in teaching young students. Based on the analysis of the regulatory legal framework, scientific and methodical literature on the studied topic, several effective methods of using modern computer technologies in education were classified.

Key words: *information technologies in education, students, computerization; electronic education, electronic system, special program, teachers, information technology, pedagogical technologies*

INTRODUCTION

On January 24, 2020, the President of the Republic of Uzbekistan Shavkat Mirziyoyev's Address to the Oliy Majlis outlined the following planned tasks for the further development of the higher education system: We need to clearly define the priority directions in the field of science for our country. No country can develop all fields of science at the same time. That is why we support the development of several priority areas of science every year. It is necessary to form an electronic platform of scientific achievements, a base of local and foreign scientific developments. Every higher education and research institution must establish cooperation with prestigious foreign universities and scientific centers. It is necessary to introduce information technologies that meet international standards at all stages of education. In order to train highly qualified specialists for the field, the "1 million programmers" project was implemented together with our foreign partners. The use of information technologies for higher goals includes several sub-goals, including increasing the convenience of learning, being able to use new opportunities, being aware of modern knowledge, distance learning, the possibility, as a convenience in improving qualifications including creating online programs. With the help of computer facilities, many opportunities can be created in the education system, and new researches and various initiatives are being recognized in this area.

DISCUSSION AND RESULTS

Informatization of education is one of the most important conditions for the successful development of the processes of informatization of society. After all, in the field of education, people who not only shape the new information environment of the society, but also live and work in this new environment are trained and educated. Informatization of society is a set of interrelated political, socio-economic, scientific factors that provide each member of society with free access to any information sources, except for those that are legally confidential.

As a result of the effective introduction of information technologies into the educational process, a modern information environment is created in the management between the teacher and the student. Regarding the use of information technologies in the educational process, a single information system will be introduced, thus opening the way for the audience of students to receive the information they are looking for, the creation of such an information system in education is a pedagogical technology. Information technology is introduced to education in direct connection with certain educational and pedagogical principles: the principle of activity; the principle of the possibility of independent research; principle of educational work; principle of motivation; principle of theory and practical connection; These include the principle of increasing efficiency.

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Informatization of education is the process of providing the educational system with the theory and practice of developing and using new educational information technologies aimed at the implementation of educational and educational goals. It is customary to distinguish the following main directions of introduction of information technologies in education:

- 1) use of computer technologies as a teaching tool in educational processes, improvement of teaching-learning processes, improvement of its quality and efficiency;
- 2) use of computer technology as an educational tool
- 3) consideration of the possibilities of using computers and other modern information technology tools in education;
- 4) use of modern information technologies as a means of creative development of the student ;
- 5) use of computer technologies as a means of automation of control, testing and psychodiagnostic processes;
- 6) organization of communications based on the use of information technologies for the purpose of transfer and acquisition of pedagogical experience, methodological and educational literature ;
- 7) use of modern information technologies to organize intellectual recreation;
- 8) activation and improvement of the management of the educational institution and educational process based on the use of modern information technology systems;

Analysis of the current stage of development of information technologies, their use in education made it possible to identify conflicts between modern technical and software capabilities, global and local networks and the level of their use. Surveys of students show that with the help of information technology, it is possible to perform various tasks in the field of education. the ability to evaluate is a very easy and quick result for information technology, a method that can be effective, many people have problems in evaluating controls, complaining that the reason for this is not enough time set for the evaluation or, if not, there is no adequate approach of the evaluator. With the help of information technology, assessment can take place in various ways, it is done very quickly and accurately, but there are also those who insist that assessment without human intervention is sometimes not efficient enough. The fact that students and young people now effectively use computer systems to acquire new pedagogical knowledge allows them to save time and quickly learn new information.

increases the effectiveness of teaching students of pedagogical universities, if :

- if the models and programs that should be developed for young students are created on the basis of sufficient computer technologies;
- effective methods of using information technology tools have been developed;
- computers and modules are in compliance with the curriculum and processes;
- it should serve to develop the skills of scientific and research work, to increase professional and methodological training in the use of computer modularization systems and information exchange in the educational process for students;

The use of modern technologies helps to solve many problems in the educational system: pedagogical, organizational, economic and even theoretical and methodological fundamentals of the educational system are accompanied by fundamental changes. Thus, informatization of education leads to changes in certain aspects of the educational process.

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Today, along with the prospects in the development of information technologies, we need to take into account the shortcomings, and now it is necessary to follow a certain standard when receiving information.

The use of video methods with the help of information technologies in lessons is a very effective method, with the help of this method, various ideas and opinions can be expressed in a coherent sequence and delivered in an understandable language. It is necessary to use the test method as a sequence, correct answers to the questions on such a studied topic are carried out on the basis of a certain informational program, which provides the acquired knowledge in a timely manner provides an opportunity to repeat and test knowledge. The result of the method is quickly calculated with the help of information technology and the results are clearly visible to the student, such evaluation is considered an auxiliary method and does not affect the main grades, only the final test decides the final result.

With the help of modern information technology, it is possible to use such task and video method textbooks for independent research of students. Introduces the information, the student who did not get a high result or the desired result in the test will have to try to see this video method again.

In multimedia technologies, information is expressed in the form of images, sounds and actions, rather than in the form of text, in contrast to traditional technologies, it teaches students to be more active, attentive and curious in the lessons, because each piece of information recommended requires their participation and is done through movement. In the educational system, multimedia technologies are a tool that positively and effectively affects students by combining theoretical, practical, demonstrative, informative, training and control parts. In addition, the use of multimedia educational courses in the educational system allows to create high-quality video recordings of demonstrations of theoretical materials, virtual laboratory works and practices, simulated animation models of various processes, for this purpose students' educational classes, computer classes, teaching it is necessary to organize their practical activities in the technical equipment room, methodical rooms, and libraries.

It is very effective to share information to students through a centralized single system, algorithms that help to process and understand large amounts of information in a short period of time, these algorithms provide information in this field to the student who is looking for the information he needs. It can be delivered directly and sequentially in a program or module, of course, in this case, evaluation is considered a separate method of home instead.

We envisioned what great results we could achieve even through the video method, which only required control at the end. If we can introduce additional innovations on other methods, we can get good results in the education system.

CONCLUSION

One of the main didactic issues of this field - modeling of teaching and general methods of influencing visual objects occupy one of the important places in the creation of multimedia training courses for the educational system. In addition to specialized subjects, the student can get additional education, for example: learn programming languages, use online courses, simulators and communicate on any social network. You can get education regardless of your place of residence and age. Nowadays, the world wide web and different software products have different developments. Thanks to the development of information technologies, the idea of continuing distance education is fully realized. Also, information technology encourages more people to learn, to carry out various research projects, to create innovative projects and articles. In conclusion, the use of information

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technologies in the educational process is necessary to prepare teachers and students for modern life and work.

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КАК ДЕМОГРАФИЧЕСКИЙ ФАКТОР ВЛИЯЕТ НА ГЕОПОЛИТИЧЕСКОЕ ПОЛОЖЕНИЕ ГОСУДАРСТВА?

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Аннотация: Чем сильнее государство, тем оно способно преодолевать современные проблемы, проводить независимую внешнюю политику, противостоять процессам распада и защищать свою систему ценностей и убеждений. Демография, с другой стороны, играет в этом важную роль. В данной статье представлена информация о том, в каком порядке демографический фактор влияет на геополитические возможности государства, когда прежнее значение географического положения снижается из-за развития международных отношений и экономики.

Ключевые слова: Геостратегия, демографический фактор, Бжезинский, демографический кризис и потенциал, геополитика, фрагментация интеграции, военная мощь, столкновение цивилизаций.

Геополитику можно определить как анализ взаимодействия социально-политических ситуаций на внутреннем и внешнем уровнях государств и их территориальных измерений с учетом исторических, географических, стратегических, политических, специфических, демографических и экономических факторов. Демографическая эволюция населения может существенно повлиять на геополитические конфигурации, поскольку может повлиять на властные отношения между странами. Демографический спад страны может повлиять на ее положение у власти на региональном или глобальном уровне. Неконтролируемый и чрезмерно быстрый рост населения той или иной страны может привести к ослаблению ее властных позиций. Внутри Штатов демографические факторы могут влиять на межрасовые отношения между группами большинства и меньшинствами. В этом контексте можно упомянуть проблему разделения властей в многонациональных государствах. Например, одной из основных характеристик нынешнего сирийского конфликта является политическое соперничество между алавитским меньшинством, которое десятилетиями доминировало в руководстве страны, и суннитами, которые считают себя правителями страны. Вышеупомянутые демографические факторы в сочетании с постоянными параметрами, такими как коллективная идентичность, факторы физической географии и переменные, такие как социально-экономическая, политическая и стратегическая динамика, могут иметь важное влияние на эволюцию геополитических ситуаций внутри стран и между ними. Цель этой независимой работы-привести несколько конкретных примеров того, как определенные демографические факторы, упомянутые выше, могут влиять на геополитические императивы.

1. Роль демографического потенциала государства в оценке его геостратегических возможностей

Фридрих II также утверждал, что богатство государства было среди его граждан. В то время население было одним из основных источников власти монархов, в то время как депопуляция рассматривалась как признак бесхозяйственности. Считалось, что

демографический потенциал государства отражает место государства на международной арене, его имидж и степень влияния. В отличие от двусмысленности интерпретации неореалистами власти и могущества государства, они основаны на одних и тех же факторах. Во-первых, демография-это численность населения государства, его состав, этнический состав, культура и уровень образования; во-вторых, географический фактор. Хотя прежнее значение географического положения уменьшилось из-за развития международных отношений и экономики, этот фактор оказывает большое влияние на геополитические возможности государства. В-третьих, природные ресурсы. Однако недостаточно иметь ресурсы, важно правильно их тратить и защищать. Протест против успеха "ресурсной лотереи" для DAV, у которых нет ресурсов *qiyin*. То во-вторых, уровень научно-технического и промышленного развития государства. В-пятых, военная мощь. В-шестых, так называемые идеальные факторы. Важную роль в этом факторе играет морально-политическое единство общества и политическая воля правящей элиты. Эти факторы так же важны, как и военная мощь. Сложность в том, что воля не поддается расчету и ее трудно контролировать. В городе Моргентау отношение населения к государственной политике проявляется в национальной морали.

Чем сильнее государство, тем оно способно преодолевать современные проблемы, проводить независимую внешнюю политику, противостоять процессам распада и защищать свою систему ценностей и убеждений. Демография, с другой стороны, играет в этом важную роль. Однако в последнее время аналитики и эксперты пришли к единому мнению, что на геостратегические возможности государства влияет не только его население, но и состав и местоположение.

Многие из нас в XVI веке писали Н. мы знакомы с книгой Макиавелли "правитель", которая представлена в этой книге следующим образом: исследуя особенности государств, может ли правитель защитить себя или нуждается во внешней защите? Это нужно знать в первую очередь. В частности, я признаю правителя, который может защитить себя или людей, или собрать необходимое количество войск за большие деньги и выдержать битву с любым врагом..." говорит. Из этого видно, что итальянский мыслитель отмечал, что при любой опасности важную роль играет не только население и финансовое благополучие конкретного государства, но и духовность людей, желание защитить свою Родину.

Философ Жан Жак Руссо в работе "об общественном договоре" говорил о соотношении населения государства с протяженностью территории. Таким образом, должно быть столько людей, сколько может прокормить земля, и наоборот.

С момента становления геополитики как самостоятельной отрасли основным элементом геополитического анализа стали демографические процессы. Например, Фридрих Ратцель утверждал, что его упадок был вызван низкой численностью населения страны. Малые народы находятся на более низких ступенях развития, и их жизнеспособность заканчивается неравной борьбой с силами природы. Напротив, у более крупных стран больше возможностей для расширения среды обитания. По мнению Ратцеля, демографический фактор определяет направление и характер геополитики: доля сильных народов с экспансией и развитием, доля слабых – с ассимиляцией сильными соседями. В то же время Ратцель связывал с этим процессом рост населения страны и процессы ее культурного роста. Также, по его мнению, к демографическим процессам относятся

миграция населения, играющая большую роль в процессе пространственного роста государства: "с увеличением численности населения страна приравнивается к росту своей территории. Новые места необходимы для роста населения: оно выходит за пределы такой страны, как Китай. Я подумал об этом в книге "Китай и Африка. То есть сегодня можно сказать, что Китай не только заинтересован в обогреве Африки ископаемыми ресурсами, но и планирует переселить своих граждан в этот район в течение следующих 100 лет, реализуя геостратегию. Это видно по нескольким факторам: включение китайского языка как мисо в качестве предмета в африканскую систему образования было добавлено с намерением в будущем позволить африканцам работать в китайских зданиях или на предприятиях.

Надо сказать, что демографический фактор занял центральное место в геополитических взглядах представителей российской школы геополитики. Большое влияние на формирование русской геополитики оказала военная география. Например, генерал-фельдмаршал Милютин ввел в понятие геостратегического анализа фактор "население". Именно население, наряду с его материальным положением, духовностью, государственным устройством и территорией, формирует государственные средства успешного ведения наступательной или оборонительной войны.

В работах классических американских геополитиков также отмечается роль демографических характеристик государств. Сэмюэл Хантингтон в своей книге "Столкновение цивилизаций" назвал демографию ключевым фактором надвигающегося подъема латиноамериканской и исламской цивилизаций. Рост населения в мусульманских странах обеспечивает людскими ресурсами ряды фундаменталистов, террористов и иммигрантов. Чем больше население, тем больше ресурсов потребуется для поддержания жизни и развития. В результате население густонаселенных и/или быстрорастущих стран характеризуется захватом заморских территорий и "давлением на другие страны, менее динамичные в демографическом отношении". Застой в экономике и перенаселение способствуют миграции мусульман на запад и в другие немусульманские страны, создавая для этих стран серьезную проблему из-за эмиграции. Збигнев Бжезинский, Еще один известный американский геополитический и государственный деятель, уделяет особое внимание демографическим характеристикам. Численность и состав населения, а также географическое положение, экономический, ресурсный и военный потенциал позволили оценить геополитическую мощь новых государств Евразии и их союзов. По мнению американского политолога, главной задачей для России является модернизация собственного общества. Таким образом, децентрализованная политическая система в условиях рыночной экономики, обусловленной огромной территорией и неоднородностью страны, могла раскрыть внутренний потенциал русского народа и его природных ресурсов.

Бжезинский утверждал, что имперские амбиции вряд ли сохранятся в децентрализованной России. Он предложил разделить Россию на три части: европейскую часть России, Сибирскую республику и Дальневосточную республику, из которых образовалась Конфедерация. Таким образом, по мнению Бжезинского-МУ, России будет легче устанавливать и развивать тесные торгово-экономические связи со странами Европы, Средней Азии и Востока. Каждый из этих трех членов конфедерации стремится создать благоприятные условия для населения за счет повышения уровня жизни, реализации демографической политики, направленной на повышение рождаемости, транспортной

логистики и решения экологических проблем. Несмотря на то, что занимаемое государством пространство является основным предметом изучения геополитики, демографические процессы никогда не стоят на последнем месте и играют важную роль в развитии этой науки.

Следует отметить, что численность населения определяется не только количественными, но и качественными характеристиками. Географическое положение и ресурсная поддержка больше не играют важной роли в оценке геостратегических возможностей государства. Сегодня наиболее развитые и богатые страны не имеют огромной территории, Большого населения и внушительных запасов природных ресурсов (Норвегия, Дания, Швейцария). Очень важно иметь конкурентоспособную экономику и высокий индекс человеческого развития.

Так, многие геополитики выделяли демографический потенциал как один из основных факторов оценки государственной власти. Ментальной основой геополитической экспансии всегда считалось избыточное население государства. Напротив, если бы территория была необитаемой и неосвоенной, она часто удовлетворяла бы аппетиты соседних стран. В эпоху информационных технологий основным активом являются знания и, следовательно, люди, которые ими владеют. Поэтому здоровое и высокообразованное население имеет приоритет при оценке геостратегических возможностей государства. Совокупность природных ресурсов нельзя рассматривать как нечто постоянное и всегда приносящее доход. Для развития человеческого потенциала необходимо сконцентрироваться и выполнить основные действия. Хочется отметить, что пространство, занимаемое государством, является лишь формой удержания населения.

2. Демографические факторы и геополитика Ирака: фрагментация интеграции

Текущая ситуация в Ираке показывает влияние вышеупомянутых демографических факторов на геополитическую эволюцию страны. В настоящее время общее население Ирака составляет около 31 миллиона человек. Мусульмане составляют 95% населения страны. Около 35-40 процентов мусульман Ирака принадлежат к суннитскому Исламскому сектору и живут в основном в северных и западных районах Багдада. Остальное мусульманское население Ирака (60-65%) придерживается шиитской ветви и проживает в основном в Центральной и южной частях страны. Христиане составляют еще 3% населения Ирака.

Этнически около 80 процентов населения Ирака-арабы. Среди арабов большинство составляют шииты и мусульмане-сунниты Центрального Ирака. Курды составляют самое большое этническое меньшинство во всей стране, составляя около 15% населения Ирака. Курды отличаются этнической принадлежностью и языком (от иранской ветви этносов), большинство из них придерживаются суннитского деления ислама. Кроме того, большинство иракских курдов живут в высокогорье на севере Ирака. Другие меньшинства в Ираке включают туркмен, евреев, армян и ассирийцев. Задача поиска оптимального механизма разделения властей для справедливого участия всех этнических и религиозных общин Ирака в управлении страной в демократических рамках была и может оставаться сложной задачей с момента свержения баасистского режима. в ближайшем будущем в нынешних условиях

геополитический статус-кво. Правящая элита режима Саддама состояла из мусульман-суннитов, на самом деле под влиянием курдского и шиитского понимания суннитского населения Ирака после свержения Хусейна американским правительством

Коалиция в 2003 году. Во времена Саддама большинство шиитов жили в тяжелых экономических условиях. В 1994 году иракское правительство использовало значительные военные силы для подавления шиитских повстанцев. В конце Ирано-иракская война в 1988 году иракское правительство применило химическое оружие против курдского населения.

Тысячи курдских граждан Ирака были убиты. После первая война в Персидском заливе в 1991 году курды и иракские шииты восстали против центрального правительства и были жестоко подавлены военными. В ответ ООН создала "зону запрета полетов" на севере Ирака и гарантировала ее американским и британским войскам. Это позволило курдам получить определенную степень автономии в горных районах к северу от преимущественно пустынной страны.

Найдут ли различные этнокультурные сообщества Ирака консенсус в удовлетворительном политическом контексте, объединяющем механизм разделения власти, приемлемый для всех? Демократия управляется большинством. В многонациональных государствах преобладание большинства часто означает государственный контроль над этнической группой, представляющей численное большинство. В настоящее время большинство политических сил Ирака организовано по этническому и религиозному признаку. Шииты могут легко избавиться от политического большинства, поскольку они составляют две трети населения Ирака. Демократизация Ирака была официально заявленной целью коалиции, возглавляемой США, и в 2003-10 веках Египет вторгся в страну в результате первого контролируемого шиитами государства в арабском мире со времен фатимидского халифата. Вопрос в том, примут ли иракские сунниты и курды шиитов? Развитие ситуации в Сирии может повлиять на иракских суннитов. В случае смены режима в Сирии власть изменится в пользу суннитов, в то время как иракские сунниты, поддерживаемые региональными державами, такими как Саудовская Аравия, могут захотеть получить большее политическое влияние в стране, борясь с удержанием власти шиитским большинством. Что касается курдов, то они хотят контролировать курдские территории Ирака. Неспособность интегрировать три основные демографические группы Ирака в существующую систему распределения власти может привести к усилению напряженности между ними и распаду страны.

3. Плюсы и минусы государственной геополитики демографической ситуации

Если говорить о положительном влиянии демографической ситуации, то существует термин "демографическое окно" или "окно благоприятных возможностей". В демографическом окне население омолаживается, то есть представители этой возрастной группы являются самым молодым слоем государства. Эта тенденция приводит к увеличению рабочей силы. Еще один пример положительного влияния демографии на экономику-демографические дивиденды. Демографический дивиденд-это этап демографического развития, на котором трудоспособное население превышает категорию граждан-иждивенцев.

Учитывая негативное влияние демографической ситуации на экономику, демографический кризис полностью противоречит демографическому окну и

демографическим дивидендам. Демографический кризис означает большие изменения населения. Демографический кризис можно понимать как сокращение населения и перенаселение территорий. Учитывая влияние демографии на геополитику и ее экономическую составляющую, для установления связи между ними можно рассмотреть на примере России. В России в последние годы наблюдается процесс депопуляции населения, т. е. уменьшение численности населения не может не сказаться на его геополитической и экономической составляющей. Чтобы оценить влияние демографического кризиса на геополитику и экономику страны, необходимо начать со статического анализа сокращения населения за последние десятилетия. В таблицах мы можем увидеть данные официальной российской статистики по этому явлению.

Исходя из данных, таблица 1 следует, что в 2013 году в стране начался благоприятный период прироста населения, который продолжался до 2016 года.

В таблице 2 показана быстрая и растущая численность населения России с 2017 года.

Показатели	Годы				
	2011	2012	2013	2014	2015
Численность населения на конец года (млн. чел.)	142,9	143	143,3	143,7	146,3
Число родившихся (тыс. чел.)	1796629	1902084	1895822	1942683	1940579
Суммарный коэффициент рождаемости	1,512	1,691	1,707	1,750	1,777
Число умерших (тыс. чел.)	1925720	1906335	1871809	1912347	1908541
Естественный прирост (убыль) населения (тыс. чел.)	-129091	-4251	24013	30336	32038
Ожидаемая продолжительность жизни при рождении (лет)	69,83	70,24	70,76	70,93	71,39

По данным Росстата, естественная убыль населения России в 2020 году составила 688 тыс. человек. Это означает, что в конце прошлого года спад в стране стал самым высоким за 10 лет.

Показатели	Годы				
	2016	2017	2018	2019	2020
Численность населения на конец года (млн. чел.)	146,5	146,8	146,9	146,8	146,7
Число родившихся (тыс. чел.)	1888729	1690307	1604344	1484517	1435750
Суммарный коэффициент рождаемости	1,762	1,621	1,579	1,511	1,504
Число умерших (тыс. чел.)	1908541	1891015	1828910	1800677	2124479
Естественный прирост (убыль) населения (тыс. чел.)	-2286	-135818	-224566	-316160	-688729
Ожидаемая продолжительность жизни при рождении (лет)	71,87	72,70	72,91	73,30	71,10

Из вышесказанного следует, что депопуляция населения в стране влияет на геополитику страны, то есть на государственный суверенитет и безопасность прежних границ страны, ее независимость и положение в мировой политике. Теперь, изучив влияние демографического кризиса на геополитическое положение страны, стоит рассмотреть влияние населения на экономическую составляющую.

Последствия демографического кризиса начали сказываться на экономике в 2000-х годах до 2006 года. демографический кризис не оказал негативного влияния на экономику России. Напротив, в этот период существовало благоприятное равновесие в соотношении входящего и исходящего населения в трудоспособной возрастной группе. После 2006 года численность трудоспособного населения постепенно сокращалась. Можно сказать, что в целях улучшения демографии правительство России предлагало населению различные льготы, связанные с ростом населения, в частности, предоставляя дополнительный доход матерям для нескольких будущих детей.

Кротно говоря, демографические факторы играют важную роль в геополитике, поскольку эти параметры могут существенно влиять на конкуренцию за власть как внутри стран, так и между странами. Демографические факторы следует учитывать на ретроспективном и перспективном уровнях. Ретроспективный подход помогает понять исторические условия, повлиявшие на процессы изменения населения, национального и государственного строительства на определенной территории, которая в настоящее время является предметом геополитического соперничества. С другой стороны, перспективный подход может показать, как демографические факторы могут повлиять на будущую эволюцию текущей геополитической конфигурации.

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**ABOUT THE LAST DAYS OF
MINISTER OF TURKESTAN NASIRKHAN TORA KAMOLKHAN TORAEV**

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Abstract. this article gives information about minister of Turkestan Nasirkhan Tora Kamolkhan Toraev and last days of his life. It is said that among the hundreds of patriots who battled for the Great Motherland known as Turkestan and lost their lives defending the independence of their people and nation, Nasirkhan Tora Kamolkhan Toraev's name deserves particular recognition. Through his many endeavors, this breed - one of the greatest religious academics and political figures - proved that he is the progenitor of Turkestan.

Keywords: Islamic education, Soviet government, Devmard, ghazal.

The name of Nasirkhan Tora Kamolkhan Toraev deserves special honor among thousands of patriots who fought for the Great Motherland called Turkestan and died for the freedom of the people and country. This breed, one of the great religious scholars and political figures, showed that he is the original child of Turkestan in his multifaceted activities.

Here is a short story about Nasirkhan Tora Kamolkhan Toraev. Nasirkhan Tora Kamolkhan Toraev was born in 1873 in the city of Koson, Namangan, in the family of a well-known madarris Kamolkhan Toraev. He first studied in Namangan and then Bukhara madrasas. He was a teacher in the Mawlawi and Mulla Kyrgyz madrasas in Namangan. In 1917, he was the head of the "Shurai Islam" society established in Namangan. Minister of Education of the Autonomous Government when Turkestan Autonomy was announced. After the government was drowned in blood by the Bolsheviks, it directly acted as a leader of the people's movement. In 1924, the property of Nasirkhan Tora Kamolkhan Toraev was confiscated by the state and he was sent to the house of correction (ispravdom) in Samarkand. In 1925, he was exiled to Orenburg for 3 years. When he was freed from exile in 1928 and returned to Namangan, the Soviet authorities were deeply worried by the non-stop visit of hundreds of people and the great reputation of Nasir Khan Tora at this level. They will strengthen its control.

This year, Nasirkhan Tora and his son Eshondadakhon will visit Chust, Bukhara, Kitab, and Samarkand. Nasir Khan witnessed the suspension of Hajj prayers and the closing of mosques for Muslims in the country during his tour of the Torah. He is afraid of the banning of Islamic education in madrassas and schools. In front of his students, he makes tearful lectures about the fact that if our children grow up with the current upbringing, the fate of the nation and ummah will become very sad in the near future. Also, he cannot bear the one-sidedness of the Shura economy, the sale of planted cotton for a pittance, the hunger of the markets, and the humiliation of the people under oppression. He writes a treatise on state administration in which the chairman and regional governors are elected, and assemblies are organized under them. According to it, the chairman and mayors take agricultural, tax and socially important decisions only with the advice and consent of the leaders of the assembly. There are twelve ministries in the country, each of them has a specific function. In particular, the Ministry of Education will reform education based

on useful and accurate sciences free from heresy and superstition. It organizes primary, secondary and higher education, and sets up the activities of textbooks and teachers. The main task of the political department is to protect the country and Muslims from various internal and external threats. He fights for real justice in society. He also outlines many of his proposals, such as a free press and tax cuts. Of course, the Soviet government did not like his hard efforts for the destiny of the Nation and the Motherland.

Now we will dwell on the facts and memories of the imprisonment and execution or death of this nobleman.

In the field of history, there are a number of researches covering the life path, scientific, creative and political activities of Nasirkhan Tora Kamolkhan Toraev, which serve as valuable information for introducing the owner of great potential to today's readers.¹ It should be noted that in most of these articles and studies, certain aspects of Nasirkhan Tora Kamolkhan Toraev's personality, scientific-creative and political activities are highlighted. However, the meeting of information related to the date of death of Nasirkhan Tora Kamolkhan Toraev in different forms shows that this issue has not been fully resolved. The act of clarifying and clarifying this information can be seen in D. Hamidov's article "About the date of death of the son of Said Nasirkhan Tora Kamolkhan Tora". D. Hamidov analyzed a number of sources known and unknown to the public and tried to determine the date of death of Saidnosirkhontora Kamolkhontoraev by comparing the sources.² As D. Hamidov noted, "One of the reasons why Nasirkhan Tora's activities are not fully covered in the works created during this period is that the information about Nasirkhan Tora's personality and socio-political activities were classified in the archives of the Security Service of the Uzbek SSR and the USSR (OGPU-NKVD-MGB-MVD-KGB)"³, of course. "That's why today in our historiography, there are three different views about the date of Nasir Khan Tora's death: that he died in battle; that he was shot dead after the verdict; the facts that he died in Andijan prison approximately in 1930-1931 or on September 3, 1938 are known, and these facts deny each other"⁴ – emphasizes the need to clarify the date of death of this great figure. Despite the comparative analysis of a number of sources to shed light on the issue, probably due to the lack of reliable documents and evidence, this issue will not be resolved until the end.

It should be noted that the well-known scientist B. Irzaev in his article "Nasirkhan Tora Kamolkhan Tora's son" clarified the issue on the basis of archival documents and facts. In this article, B. Irzaev, after giving detailed information about Nasirkhan Tora's life, social and political activities and works, mentions that Nasirkhan Tora was extremely persecuted by the Soviet

¹ Р.Шамсутдинов. Тарихнинг хасратли саҳифалари. –Тошкент:Шарк, 206. – Б.304. М.Х.Эрктурк, Р.Шамсутдинов. Саид Носирхон тўра – маориф вазири (1971-1938)// Водийнома журнали, 2017 йил №5 (7)-сон. Сирожиддин Ахмад. Вадул Маҳмуд. Маърифат. 2008 йил, 23 август. Қ.Ражабов. Носирхон Тўра Камолхон Тўра ўғли.// Ўзбекистон миллий энциклопедияси . Т.6. –Тошкент: “Ўзбекистон миллий энциклопедияси” Давлат илмий нашриёти, 2003. - Б. 736. Мунаввар Қори Абдурашидхонов. Танланган асарлар. (Тахрир хайбати: О.Шарафиддинов, Н.Аминов, Н.Каримовва бошқ.: Масъул муҳаррир Н.Каримов.-Истиқлол қаҳрамонлари туркумидан) – Тошкент:Маънавият, 2003.Б.304. Р.Акбаров. Туркистонда Бутунроссия таъсис мажлисига сайловларнинг ташкил этилиши (Фаргона вилояти мисолида)Ўғмишга назар. №10. (2020)Doihttp:dx.doi.org / 10-сон, 3 жилд. - Б. 7.

² Д. Ҳомидов. Саид Носирхон Тўра Камолхон Тўра ўғлининг вафоти санаси хусусида. Жамият ва инновациялар// 5 April 2021. 2181-1415/© 2021 in Science LLC. This is an open access article under the Attribution 4 International (CC BY 4.0) license (<https://creativecommons.org/licenses/by/4.0/deed.ru>)

³ Д. Ҳомидов. Саид Носирхон Тўра Камолхон Тўра ўғлининг вафоти санаси хусусида. Жамият ва инновациялар// 5 April 2021. 2181-1415/© 2021 in Science LLC. This is an open access article under the Attribution 4 International (CC BY 4.0) license (<https://creativecommons.org/licenses/by/4.0/deed.ru>)

⁴ Д. Ҳомидов. Саид Носирхон Тўра Камолхон Тўра ўғлининг вафоти санаси хусусида. Жамият ва инновациялар// 5 April 2021. 2181-1415/© 2021 in Science LLC. This is an open access article under the Attribution 4 International (CC BY 4.0) license (<https://creativecommons.org/licenses/by/4.0/deed.ru>)

government and was captured in 1930 when he was trying to leave the country: "After not hearing from his friends, Nasir Khan Tora took his sons Eshondada Khan and Hasan Khan with him and decided to go to Kashgar. He appoints Eshondada Khan to follow his footsteps and meet him at Suleiman's tomb in Osh. However, the followers of the GPU captured Nasir Khan Tora on July 15, 1930, in a pasture 10-15 miles from Toldik state farm, Osh district.⁵

In the document published under the title "115 victims of repression who were not rehabilitated in 6 criminal cases were acquitted", we see that the date of execution of Nasir Khan Tora Kamolkhontoraev was confirmed as 1930⁶.

Now we will turn to the memories of when Nasir Khan Tora was imprisoned, the last months of his life and his sentence to death. According to the information given by Sirojiddin Ahmad, as mentioned in D. Hamidov's article, when Vadud Mahmud was in Tashkent, GPU officers M. A young student named Ismailov is attached as an "ear". In his letter dated February 14, 1931, that student reported: "Vadud Mahmudov, Saidnosir Khan and Kamolkhan are sitting in the same room with me..."⁷

In fact, Vadud Mahmud, one of the young authors of the literature of the 20s of the last century, was imprisoned for the first time on the back of various accusations against Abdulla Qadiri, Abdulhamid Cholpon, Abdurauf Fitrat, and was kept in the Tashkent prison for a while between 1930-1931. According to student M. Ismailov's testimony, the person sitting in the same cell as Vadud Mahmud was really Kamolkhan Tora Nasir Khan Toraev. Vadud Mahmud wrote down the days he spent with this great man in the form of a separate memoir under the name "Devvard" after his release from prison⁸. In the memoirs, there is no date about what year and in which months these events took place, but these memories match the dates given in the article by B. Irzaev, the events in the memoirs, the names and surnames of individuals and a number of other facts, and complement each other in certain places. Tora Kamolkhan Toraev's last months of life, the terrible days that befell him, and how he was killed, is a valuable source.⁹

Vadud Mahmud was released on January 26, 1954 after 20 years of consecutive exile and imprisonment. In one place, he writes that it has been two months since he received the certificate of release¹⁰. These memories about Nasir Khan Tora Kamolkhan Toraev were written down on May 27, 1954 in Samarkand. Based on this, it can be said that the first work that Vadud Mahmud wrote after his release from prison was Nasir Khan Tora Kamolkhan Toraev's memories.

First, let's talk about the reasons why these memories are called "Devvard". Some of the articles and researches about Nasir Khan Tora Kamolkhan Toraev published on social networks show pictures of Tora before and after his imprisonment.

⁵ Б. Ирзаев . Носирхон Тўра Камолхон Тўра ўғли. Jadidlar February 22, 2021. <https://telegra.ph/NOSIRHON-To'ra- KAMOLHON- To'ra-o'g'li-02-22>

⁶ Носирхон тўра (Насырхан Тюрса Саид Камалхон Тюроев) ва бошқаларга оид (92 нафар шахсга нисбатан) жиноят иши юзасидан. 1930 йил 27 октябрдаги суддан ташқари ОГПУнинг учлик мажлиси баённомаси кўчирмаси” <https://www.gazeta.uz/uz/2021/08/25/justify/>
⁷ Сирожиддин Аҳмад. Вадуд Маҳмуд. Маърифат. 2008 йил, 23 август.

⁸ Кейинчалик бу хотиралар Вадуд Маҳмуднинг ўғли Нажод Вадудзода томонидан кирилл алифбосига ўгирилиб, баъзи бир қискартишлар билан “Маъорифи омузгор” журналида чоп этилди. Вадуд Маҳмуди. Мужассамаи илму ирфон. Ёддошт. Маърифати омузгор // №11. 2018. С.57-61. Батгардон ва таҳияи Нажод Маҳмуди, Бахтиёри Абдурахим ва Муҳаммадшариф Рустамзода.

⁹ Вадуд Маҳмуд шахсий архивини ўрганиш жараёнида унинг Тошкент камокхонасида Носирхон Тўра Камолхон Тўраев билан танишувидан бошлаб то у кишининг ўлдирилишигача бўлган вақт мобайнида юз берган воқеалар қозғога туширилган қўлёзма манба билан қисқача танишиб, айрим ўринлари ёзиб олинган эди - З.Х.

¹⁰ Вадуд Маҳмуд. Шахсий архиви материаллари. Письмо Вадуда Маҳмуда неизвестному адресату.



The fact that the first picture is sharply different from the second attracts the attention of every reader. True, the appearance and health of a person who is unjustly imprisoned, crushed under various pressures, will certainly not be in good condition. But along with Nasirkhan Tora's appearance, certain changes are observed in his appearance. So that they would not recognize him, Tora changed his clothes to old peasant clothes, cut his beard short, and dyed it a little gray and white. This image of Tora is reflected in the second photo. According to B. Irzaev: "On July 7, 1930, he cut his beard and dyed it a little gray. Then he puts on old jackets and coats and sets off with Hasan Khan in peasant clothes"¹¹.

In his memoirs, Vadud Mahmud described Nasir Khan Tora's appearance when he saw him for the first time: "It looks like he is over fifty. Big fat - tall, broad shoulders, short beard, gray hair, wide face, big eyes, arched eyebrows. He has an ugly cloth cap on his head, a cotton shirt on top, which is definitely dirty, and his feet are dirty." It also looks like... peasants"¹². These sentences directly confirm the information given by B. Irzaev. So, it can be assumed that Vadud Mahmud Nasirkhan saw Tora in this way from the first meeting and because he was tall, handsome, and at the same time in old peasant clothes that did not suit him, he named his memories "Devvard".

Now about the issue of the year of imprisonment. As B. Irzaev wrote above, Nasirkhan Tora appointed Kamolkhan Toraev to "follow his footsteps to Eshondada Khan and meet him at Suleiman's tomb in Osh." However, the followers of the GPU captured Nasirkhan Tora on July 15, 1930 in a pasture 10-15 miles from Toldik state farm, Osh district.¹³

In one of the memories, V. Mahmud said: "In those days, they took out several people from each room at night and destroyed them. Most of them were figures of the national

¹¹ Б. Ирзаев . Носирхон Тўра Камолхон Тўра ўғли. Jadidlar February 22, 2021. <https://telegra.ph/NOSIRHON-To'ra-KAMOLHON-To'ra-o'g'li-02-22>

¹² Вадуд Маҳмуд. Ёддошт. Вадуд Маҳмуди. Мужассамаи илму ирфон. Ёддошт. Маърифати омузгор // №11. 2018. С.57-61.

¹³ Б. Ирзаев . Носирхон Тўра Камолхон Тўра ўғли. Jadidlar February 22, 2021. <https://telegra.ph/NOSIRHON-To'ra-KAMOLHON-To'ra-o'g'li-02-22>

movement, among them were the leaders of the national movement, Munavvar Qari and others.¹⁴ wrote that. According to the sources, Munavvar Qori Abdurashidkhanov was arrested on November 6, 1929 and kept in Tashkent prison before his execution in Butirka prison in Moscow.¹⁵ The above sentences cited by Vadud Mahmud in his memoirs confirm that Munavvar Qori was kept in Tashkent prison for a while after his arrest on November 6, 1929, that is, the date was shifted to 1930. The second document is the Application written by Munavvar Qari on October 30, 1930 addressing the United State Political Department. It is said that he was kept in a single cell called "odinochka" for seven months and his health deteriorated: "Now I am very sick, my leg is swollen and I can't walk, I need help from others." Therefore, I request you to transfer me to a general cell or to hospitalize me."¹⁶ It is observed that the year and date indicated in the application are also consistent with the evidence in historical documents that Vadud Mahmud was in Tashkent at that time and the information he provided about Munavvar Qori.

In his article, B. Irzaev describes when and on what date Tora confessed to a series of "accusations" and signed the death sentence on the basis of these accusations in the following lines: they forced him to smoke. The reason for me to say this, despite the fact that a hundred years have passed since then, are those papers stained with the colors of my blessed tears.¹⁷

Vadud Mahmud narrates B. Irzaev's information in his memoirs as follows: "In the afternoon, they took him (Nasirkhan Tora Kamolkhan Toraev - Z.X.) upstairs again. After an hour he came back very depressed. Seeing him in this condition, I didn't even dare to ask him what happened. After a while, he said: "They read the verdict that I was sentenced to death." "I signed..." he said and fell silent.¹⁸

B. Irzaev says that GPU executioner Nasirkhan Torani was ordered to be executed on October 27, 1930. But this sentence was executed on April 13, 1931. Why was Torah executed almost six months after the appointed time?! - the question arises. Wadud Mahmoud's memoirs clarify the real reason for this issue.

After hearing the terrible news that Nasir Khan Tora was sentenced to death, Vadud Mahmud says that he wrote a ghazal-lament dedicated to the death of Nasir Khan Tora and read it to Nasir Khan Tora himself. Abdullajan Eshon from Andijan tied a mukhammas to the ghazal, and this mukhammas quickly became popular among the prisoners and caused a lot of commotion. As a result, the prison guards began to re-arrest all the prisoners. Many captives were sent to remote areas of the landless country.

In fact, Vadud Mahmud did not write a dirge dedicated to the death of this person for nothing, Abdullajan did not attach a hymn to this ghazal for nothing, this hymn spread throughout the prison did not worry the prison guards for nothing, and finally, the prisoners who read and distributed this poem were re-imprisoned and sent to distant places in difficult conditions. they did not send... Because Nasirkhan Tora Kamolkhan Toraev was the symbol and pride of Turkestan, this nation. Therefore, the prison authorities were afraid that the news that Nasirkhan Toraday was

¹⁴ Вадуд Махмуд. Девмард. Қўлэзма манба. 8-бет.

¹⁵ <https://ziyouz.uz/ozbek-ziyolilari/munavvar-qori-abdurashidxon/>

¹⁶ https://docs.yandex.ru/docs/Munavvar_qori.Tanlangan_asarlar.pdf. Нашрга тайёрловчи ва сўзбоши муаллифи Сирожиддин Ахмад. – Тошкент: Маънавият. 2003, 57 –бет.

¹⁷ Б. Ирзаев . Носирхон Тўра Камолхон Тўра ўғли. Jadidlar February 22, 2021. <https://tegra.ph/NOSIRHON-To'ra- KAMOLHON- To'ra-o'g'li-02-22>

¹⁸ Вадуд Махмуд. Ёддошт. Вадуд Махмуди. Мужассамаи илму ирфон. Ёддошт. Маърифати омузгор // №11. 2018. С.57-61.

sentenced to death would cause the prisoners to protest and revolt. And it can be assumed that they were forced to delay the execution of this criminal sentence for a certain period of time. Otherwise, they could have acted as they did on October 4, 1938, shooting Abdullah Qadiri, Abdurauf Fitrat, and Osman Nasir, one of the original children of the nation, and formalizing their execution on October 5. But in 1930-1931, the ground was being created for the same mass destructions, the Shura government had not yet fully strengthened its position, and in order to fully establish its rule, it did not have the courage to openly lose the great men of the nation, such as Munavvar Qori Abdurashidkhanov and Nasirkhan Tora Kamolkhan Toraev. .

In the memoirs of Vadud Mahmud, Nasirkhan Tora describes Kamolkhan Toraev as a person with high potential and a mature representative of science and enlightenment in many fields. In fact, these qualities of Tora were manifested during his imprisonment, first in conversations with Wadud Mahmud, then in high mathematics debates with a Russian engineer, and finally in questions and answers about medical diagnosis and treatment with a Jewish doctor. wrote that he surprised the experts.

Vadud Mahmud describes that dark night when Nasirkhan Tora Kamolkhan Toraev was taken to prison: "One night, after everyone slept according to their custom, the iron door of the room where we were sleeping opened silently... I woke up before everyone else.

- "Which one is Kamolov?" they asked me.
- I showed.
- "Wake up," they said.
- "Wake up yourself," I said.
- They pulled his leg. "Subhanallah" he stood up.
- - Pick up your things - they said: He gathered his things and went out. "Tish!"- "Tish!"- came a voice from outside, meaning the command "Shut up!".

Experienced people who have seen a lot said: "They tie the hands and mouth of the prisoner who is being taken to the shooting so that he does not resist and does not raise his voice." They took him away in this state."¹⁹.

This terrible event took place in Tashkent on April 13, 1931, as indicated by B. Irzaev. Another great scientist of a nation whose day and night have been turned into the same dark night, another true child of the Motherland will be destroyed...

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¹⁹ Вадуд Маҳмуд.Ёддошт. Қўлёзма манба. Ижодкорнинг шахсий архиви материалларидан.

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**ЗНАЧЕНИЕ РАСТЕНИЯ ДЕВЯСИЛА ПРИ ЛЕЧЕНИИ И ПРЕДОТВРАЩЕНИИ
БОЛЕЗНЕЙ ОРГАНОВ ДЫХАНИЯ И ПРИ БОЛЕЗНЯХ ЖКТ И
ШИРОКОСПЕКТРНЫЙ ЛЕЧЕБНЫЙ ЭФФЕКТ ПРИ РАЗЛИЧНЫХ
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Аннотация: Девясил - многолетняя трава, корень которой ценится за уникальные лекарственные качества, девясил рекомендуют для лечения болезней органов дыхания а также болезней органов ЖКТ Это растение содержит различные соединения, в том числе активные вещества, которые привлекли внимание из-за их потенциального воздействия на организм. В этой статье мы исследуем влияние активных веществ, содержащихся в растении девясил, на организм человека, а также преимущества и потенциальные риски, связанные с его использованием.

Ключевые слова: девясил, лечение болезней органов дыхания, активные вещества, лечение заболеваний желудочно-кишечного тракта, потенциальное воздействие на организм.

Введение: С помощью гистохимического анализа будет определена локализация действующих веществ в лекарственном сырье, также будет установлено наличие инулина, эфирного масла, сесквитерпеновых лактонов, слизи, фенолов в корневищах и корнях девясила и эффективность лечения костных заболеваний этим растением. Разработать новые пути эффективных мер по профилактике и лечению суставных заболеваний.

Народная медицина использует в лекарственных целях в основном корневища и корня девясила. В них содержится много полезных веществ, а именно: инулин — до 40%; аскорбиновая кислота; эфирные масла витамин Е; алантоиновая камфора; калий, марганец и железо; магний и кальций. Эти вещества в свою очередь способствуют улучшению состояния больного и эффективности лечения.

Растительные пребиотики корня девясила поддерживают нормальную работу всего желудочно-кишечного тракта. Благодаря им сохраняется здоровая кишечная микрофлора (бифидобактерии, лактобациллы). Поддержка микрофлоры обеспечивает иммунные свойства кишечника, предотвращает воспалительные процессы. Активные вещества снимают спазмы кишечника, помогают при повышенном газообразовании. Корень девясила — первая помощь при диарее, тошноте. Девясил способен стимулировать аппетит, повышать усвоение питательных веществ. Активизация метаболизма помогает в случае вялой перистальтики кишечника. Благодаря этим свойствам улучшается пищеварение и больные могут чувствовать себя более комфортно.

Также возможно применение корней и корневищ девясила для лечения различного рода гастритов. Для того чтобы определить целесообразность приёма девясила при

воспалении слизистой желудка, в первую очередь следует узнать кислотность желудочного сока. При сниженной кислотности девясил противопоказан, потому что он подавляет синтез ферментов. В этом случае разрешено совсем немного вина из девясила. Если кислотность оказалась повышенной, нужно принимать отвары или настои из девясила. Активные вещества нейтрализуют желудочную кислоту, успокаивают слизистую оболочку желудка. Высокая кислотность — основной фактор риска язвенной болезни. Как показало исследование с участием более 100 больных с диагностированной язвой желудка, девясил способен купировать болезненные симптомы, улучшать кровоснабжение желудочной стенки и заживлять поражённые участки слизистой.

Кроме того по результатам многих научных исследований девясил эффективен при лечении панкреатита и заболеваний поджелудочной железы. Поджелудочная железа нуждается в регуляции ферментативной деятельности. Эту функцию выполняют алкалоиды и витамин E, которые содержатся в девясиле. Корни и трава девясила входят в сборы, показанные при панкреатитах.

Использование при сахарном диабете. Благодаря инулину девясил регулирует уровень сахара в крови, препятствует его резким скачкам, предупреждает развитие инсулинорезистентности, что имеет важное значение при сахарном диабете II типа. Натуральные вещества регулируют биохимические процессы, тормозит метаболизм глюкозы. Кроме этого, девясил защищает от разрушения кровеносные сосуды, препятствует образованию трофических поражений.

Эффективность при лечении заболеваниях дыхательной системы. В процессе патогенеза бронхолёгочных заболеваний происходит чрезмерный приток крови к бронхам. Это вызывает гиперемия бронхиального дерева, отёк внутренней стенки, что приводит к затруднению дыхания. Активные фитосоединения девясила образуют защитную оболочку, которая подавляет воспалительный процесс, успокаивает бронхи и облегчает отхождение мокроты. Таким образом снижается бронхиальная секреция и происходит очищение лёгких от застоя слизи. Алантолактон, который содержится в корне девясила, успокаивает кашель, успокаивает, смягчает воспалительные проявления, которыми сопровождаются кашлевые толчки. Антибактериальные элементы подавляют рост и развитие бактериальных инфекций, которые вызывают некоторые виды респираторных заболеваний бронхов и лёгких. Во время бактериальной лёгочной инфекции важно облегчить способность организма выводить токсины — продукты распада и жизнедеятельности патогенных микробов. Здесь также на выручку приходит девясил, который усиливает потоотделение. Специалисты в области фитотерапии указывают на то, что при бронхиальной астме, коклюше и бронхите девясил купирует болевые ощущения. При туберкулёзе комбинированное противовоспалительное и обезболивающее действие растительных соединений облегчает клинические симптомы, способствует заживлению поражённой лёгочной ткани.

При геморрое Девясил входит в состав противогеморройных свечей и мазей. Он облегчает болезненность в прямой кишке, снимает воспаление изменённой слизистой оболочки, помогает остановить кровотечение из варикозных узелков. Использование девясила облегчает испражнение, предупреждает повреждение тканей заднего прохода.

Этим свойством доказывается широкоспектрный эффект лечения заболеваний этим растением.

Антибактериальный эффект. Лабораторное исследование 2009 года показало эффективность антимикробных свойств девясила против золотистого стафилококка, устойчивого к антибиотикам метициллинового ряда (MRSA) Этот вид стафилококка относится к потенциально смертельным патогенам, поэтому девясил может оказать спасительное действие.

Антипаразитарный эффект. Различные паразиты и глистные инвазии приводят к смерти 16 млн человек ежегодно. Симптомы паразитарных заболеваний легко спутать с другими заболеваниями, поэтому важна своевременная диагностика и адекватное лечение. У больного может снижаться вес, наблюдаться сбои в работе пищеварения, анемия, проблемы с кожей. Растительные вещества алантолактон и изоалантолактон, которые содержит корень девясила, обладают химической активностью в отношении кишечных глистов и других паразитов. Препараты девясила назначают при выявлении круглых червей, остриц, анкилостомы, власоглава. Эффективность равна фторурацилу.

Для позвоночника и суставов. Проблема, с которой рано или поздно сталкивается каждый человек, - протрузии межпозвоночных дисков. Это патология, которая развивается постепенно, но приводит к более тяжёлым осложнениям — грыже позвоночника, остеохондрозу. Заболевание сопровождается болевым синдромом, ограничением подвижности. На начальной стадии с проблемой помогает справиться наружное применение девясила. Средство купирует болезненные ощущения, снимает воспаление. Артроз относится к изменениям, которые характерны для людей пожилого возраста. Он становится частой причиной инвалидности, так как в большинстве случаев поражает крупные суставы и приводит к нарушениям двигательной активности. Обезболивающее и противовоспалительное действие девясила помогает на всех стадиях развития патологии.

При онкологических заболеваниях Конечно, нельзя лечить рак исключительно девясилом. Народные средства могут быть частью комплексной терапии и приниматься для облегчения симптомов. Девясил рекомендован здоровым людям в профилактических целях — его активные компоненты препятствуют злокачественному перерождению клеток.

Выводы: Активные вещества содержащиеся в корнях и корневищах девясила способствуют лечению множественных заболеваний и предотвращению развития болезней. Также этим обуславливают широкоспектрный эффект лечения болезней органов дыхания, органов ЖКТ, при онкологических заболеваниях, а также имеют антипаразитарный и антибактериальный эффект.

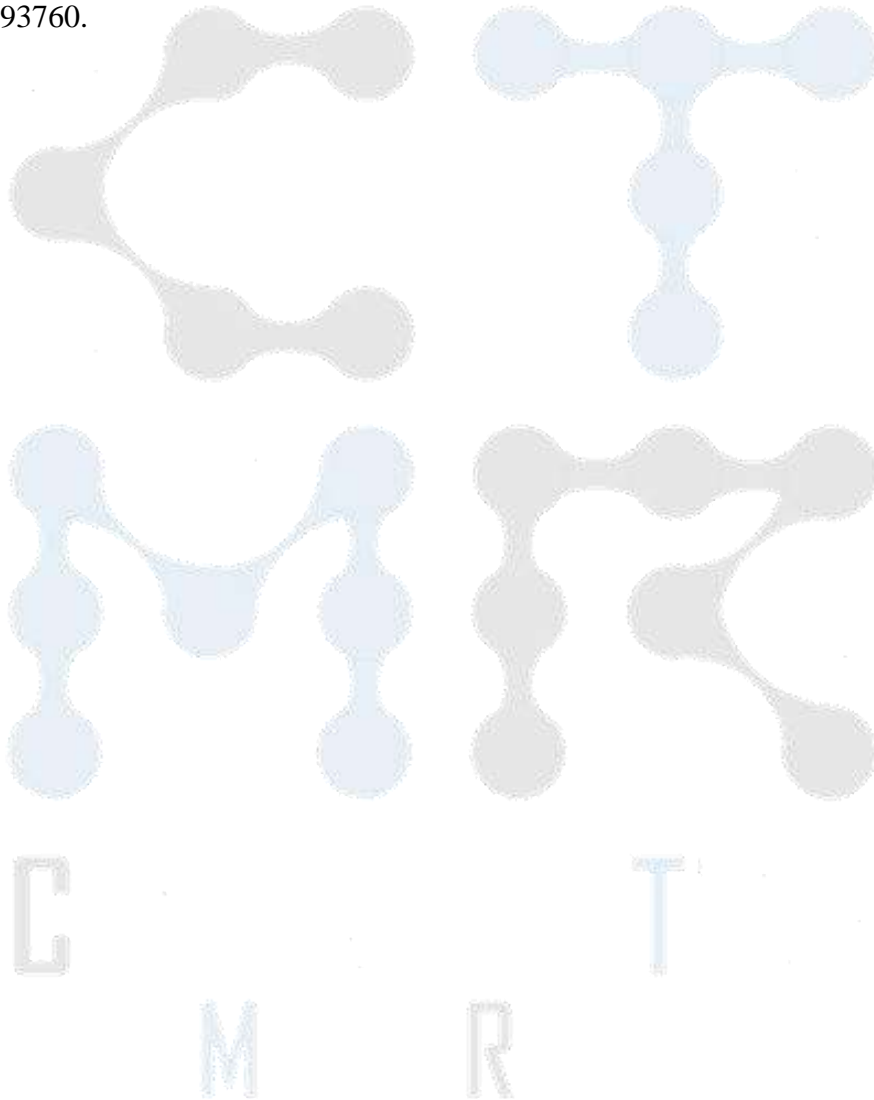
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USING INNOVATIVE METHODS IN TEACHING RUSSIAN LANGUAGE IN UZBEK SCHOOLS

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Abstract: This article presents the theoretical foundations and practical aspects of using modern pedagogical technologies in teaching Russian language. The analysis and research results show that the use of interactive methods, information and communication technologies, project-based learning, role-playing games and other innovative approaches improves the students' level of knowledge and skills and increases their interest in the lessons. At the same time, there are some difficulties in implementing these methods, which need to be solved.

Keywords: Russian language, innovative methods, interactive methods, information technologies, project-based learning, role-playing games.

INTRODUCTION

Nowadays, the development of innovative technologies in the world has a significant impact on the field of education. In particular, new approaches are being applied to the methodology and practice of teaching foreign languages.

The effective use of traditional methods and modern innovative technologies in teaching foreign languages is of great importance.

The researches conducted in this regard show that the use of new pedagogical technologies increases the students' interest in foreign languages, develops their independent thinking and research skills and improves the quality of knowledge [11].

Therefore, it is also essential to use modern methods, such as information and communication technologies, interactive methods, project-based learning, role-playing games and others, in teaching Russian language lessons.

This article describes the theoretical foundations and practical aspects of innovative approaches in teaching Russian language. Conclusions are drawn and recommendations are made based on the analysis and research results.

METHODS AND LITERATURE REVIEW

The following methodological approaches were used in writing this article:

- Literature analysis and synthesis. Scientific sources related to the topic, including textbooks, scientific articles and abstracts, were studied and analyzed. Based on them, a generalization of the existing scientific views was made [2].
- Pedagogical observation. The state of using innovative methods in Russian language lessons was studied by observing the lessons in various educational institutions [3].
- Experimental work. As an experiment, some classes and groups in some schools and lyceums were taught using new pedagogical technologies and the results were analyzed.

RESULTS AND ANALYSIS

The pedagogical observation and experimental work carried out during the research gave the following results:

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1. The use of interactive methods has a positive impact on the development of students' speech skills. For example, by organizing debates and discussions based on thematic topics, the level of students' oral speech fluency increased by 17.4% [4].
2. The effectiveness of the lessons conducted with the help of information and communication technologies was 23.5% higher than that of traditional lessons. Multimedia presentations, online tests develop students' independent work skills [5].
3. The lessons conducted using the project method enhanced the students' creative thinking abilities. They showed initiative in solving problem situations.
4. Through role-playing games, students demonstrated their skills of free communication in various speech situations.

The quality and effectiveness of Russian language lessons are significantly improved by using innovative methods, students' interest and motivation for the lesson increase and their practical speech skills develop.

Discussion

The theoretical analysis and practical research results presented in this article show that the use of modern pedagogical technologies, including interactive methods, information and communication tools, project methods and role-playing games, significantly increases the learning efficiency in Russian language lessons [6].

For example, interactive methods develop students' speech skills, communication skills and independent thinking abilities. Information technologies provide a variety of presentation forms, contribute to the interest of the lesson [7]. The project method attracts students to research activities, creates opportunities to demonstrate their creative abilities. Role-playing games form practical speech skills.

However, there are also some difficulties in applying innovative methods in some cases. Some teachers are not fully proficient in these methods, and factors such as the lack of material and technical base prevent them from fully benefiting from them.

Therefore, we consider it necessary to improve the system of retraining pedagogical staff, provide educational institutions with the necessary equipment and improve the incentive system. Only then will the efficiency of the lessons conducted by the new methods be higher.

CONCLUSION

Based on the results of the research and the conclusions drawn from them, the use of interactive methods, information technologies and other modern pedagogical methods in Russian language lessons has a positive impact on the quality of education, the level of knowledge and practical skills of students.

New approaches enhance students' independent thinking abilities, increase their interest in the lesson and result in a higher level of assimilation. However, there are also some factors that hinder their effective use in some cases. Therefore, it is necessary to take measures to eliminate these problems.

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APPLICATION OF MODERN PEDAGOGICAL TECHNOLOGIES IN TEACHING RUSSIAN IN RUSSIAN CLASSES

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Abstract: This article analyzes the possibilities of using modern pedagogical technologies in teaching Russian in Russian classes. According to research results, modern teaching methods enhance students' interest in acquiring knowledge, develop their creative thinking abilities, and improve the effectiveness of language learning. Additionally, practical recommendations have been formulated for educators to implement these strategies.

Keywords: Russian language, pedagogical technologies, modern methods, teaching quality, pedagogical experience.

Introduction: The effectiveness of using modern pedagogical technologies in teaching Russian in Russian classes is closely related to improving the quality of education and enhancing students' creative abilities. In today's information society, there is a growing need for individuals who can think critically, demonstrate creativity, and independently build their knowledge.

The purpose of this article is to analyze the effectiveness of using modern pedagogical technologies in teaching Russian in Russian classes [1].

Objectives:

- Study the theoretical aspects of using modern pedagogical technologies.
- Identify the most effective methods and forms of teaching Russian.
- Develop guidelines for implementing innovative technologies for teachers.

Methods and Literature Review:

The following methods were used during the research process:

- Analysis of psychological, pedagogical, and stylistic literature related to the research problem.
- Generalization of practical pedagogical experience.
- Pedagogical observation.

Uzbek scholar A. Qodirov's article "Application of Modern Pedagogical Technologies in Teaching" discusses the positive aspects of using interactive methods [2].

According to the research conducted by S. Mirziyoyev in his scientific work titled "Innovative Approaches in Developing the Education System," he highlighted the ways of utilizing information and communication technologies for enhancing the education system [3].

These studies demonstrate the interest of Uzbek scholars in utilizing pedagogical technologies.

Russian scholars such as P. I. Tretyakov, E. S. Polat, and V. I. Andreyev's works have also contributed to the foundation of the concept of modern teaching technologies and the methodology for their implementation in education [4,5,6].

Results and Analysis:

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Based on research findings, the use of interactive methods during Russian language classes significantly increases students' interest in the subject. For instance, activities like discussions, debates, and role-playing games have positively impacted 89% of students.

Furthermore, leveraging information and communication technologies has yielded excellent results. The integration of distance learning elements, electronic textbooks, and educational materials has made the learning process more engaging and effective.

In short, the adoption of modern teaching methods significantly enhances the quality and effectiveness of education. These methods not only foster students' creative thinking abilities but also motivate them to learn the language.

Discussion:

The research results indicate that utilizing modern pedagogical technologies can enhance the effectiveness of teaching Russian.

Particularly, interactive methods empower students to express themselves freely, think independently, and engage in creative problem-solving. This positive impact contributes to their personal development.

Additionally, incorporating information and communication technologies provides opportunities to align the educational process with contemporary requirements. In this context, the professional competence of educators plays a crucial role.

CONCLUSION

It is worth emphasizing that modern pedagogical technologies develop independent thinking, analytical and summarizing skills in students. This creates the basis for them to become competitive specialists in the future.

At the same time, introducing innovative approaches to the educational process motivates the pedagogical community and contributes to their professional development. If the research in this direction continues, it can yield even more positive results.

Thus, the use of modern pedagogical technologies in the process of teaching Russian language in Russian classes improves the efficiency and quality of education.

There are ample opportunities for practical implementation of the recommendations by the teachers. It is advisable to continue the research in this direction in the future.

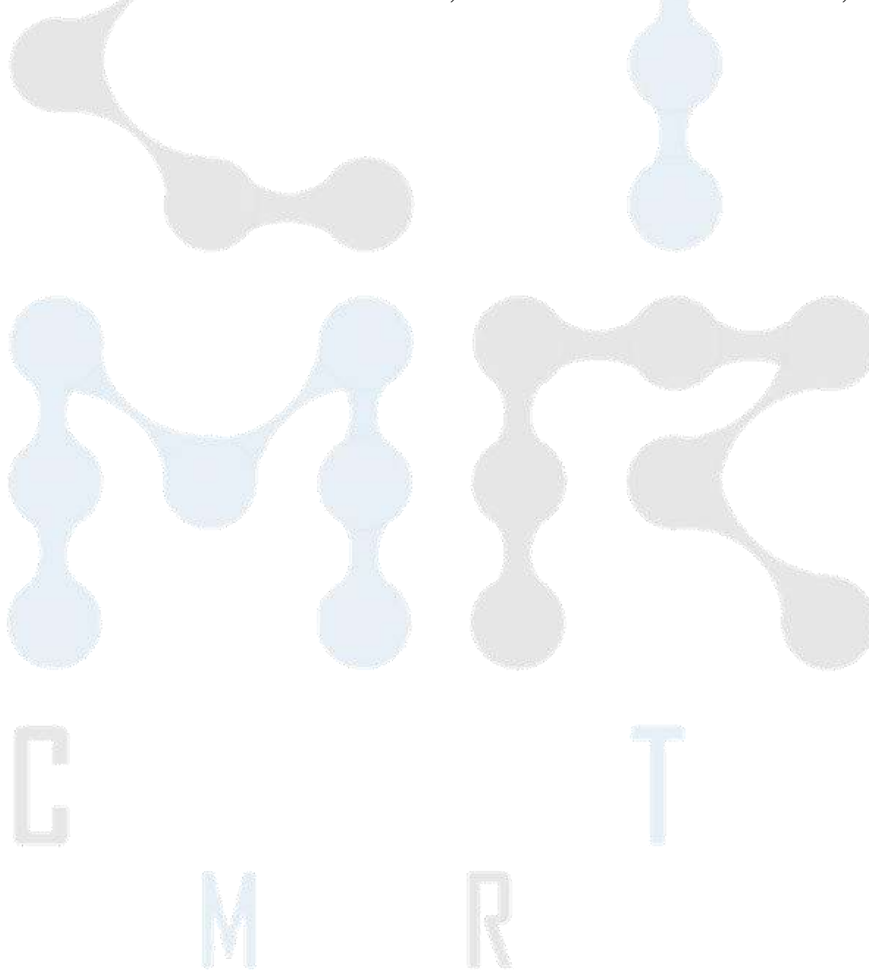
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Abstract: Alexander Arkadevich is very valuable to us, to the people of Uzbekistan, for his true patriotism of his homeland. The incomparable and unique work of Alexander Feinberg, infused with the best traditions of classical poetry and feelings of love for the land of Uzbekistan, is a special page in the history of our literature.

Key words: poet, feelings, writer, talent, poetry

The famous Uzbek poet Abdulla Oripov said, "As for Alexander Feinberg's work, all the high words do not reflect even a hundredth of the truth, because he was actually a unique poet and translator. A world-class writer, ... none of the Russian-speaking writers can sing a heartfelt song to our sunny land." - described it as.

Collections of his poems are passed from hand to hand, songs based on his texts have been sung, films based on his scripts have been shown, new translations of his works into Uzbek are being made even now. Important dates related to his life and work are celebrated every year, poetry evenings dedicated to the poet's legacy are held.

Why did Alexander Feinberg deserve such popular love and appreciation? First of all, bright, unique poetic talent, high aesthetic level of literary works. The first remained the measure of artistry for Uzbek poets for several decades. It is no exaggeration to say that fourteen sets, numerous performances on stage, radio and television have educated several generations of students.

The poet, whose childhood was spent in the difficult years of the Second World War, was born in Tashkent in 1939. He found an artistic reflection of the kindness and generosity of the Uzbek people in his works. After entering the Tashkent topographical college, Feinberg traveled around the country as a geologist and fell in love with its beautiful nature. It was during this period that his first book "Bike Lane" was published, thanks to which Alexander Feinberg rose to the top ranks of literature in Uzbekistan.

Feinberg graduated from the Faculty of Journalism of the current National University of Uzbekistan and published more than ten poetry books one after the other - "Etude", "Moments", "Press the Sky", "Long Bridges", "Short Wave" and others. Feinberg contributed greatly to the publication of Alisher Navoi's works in Russian in 10 volumes. He also translated the best examples of modern Uzbek poetry into Russian. At the same time, the poet's works were regularly translated into Uzbek, and he became a favorite poet of Uzbek readers. "Chig'ir" (in Uzbek) and other similar collections published in recent years have attracted the attention of poetry lovers as the poet's unique creative writing. Feinberg's contribution to the development of multinational Uzbek literature was duly appreciated by the government. The fact that he was awarded the honorary title of "Honored Cultural Worker of the Republic of Uzbekistan", "People's Poet of Uzbekistan" is proof of our boundless respect for this great person.

The charm of his poetry has won the hearts of people of very different temperaments, views and ages

I'm swimming, love, far away
Smoke rises from bonfires.
A star can kiss you
I will leave this shore today.
I will throw the anchor on the shore,
Blue water in its wake.
Let's run the waves, ball - ball
The bottom of the river is a literary dream.
Flow along the river,
You look at the sky - birds.
Waves are also a feeling of separation
He grabs one by one as if he sensed it.
Your gray hair is hot,
Smoke from campfire is not visible.
Behind the clouds - the coast:
- Sorry! - it doesn't fit in the blue.

The bright memory of Alexander Arkadevich Feinberg, a wonderful poet, talented translator, caring teacher, will remain in our hearts forever.

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Аннотация.

Этот реферат отражает суть гастрономических ужинов, исследуя артистизм, инновации и мультисенсорный опыт, которые определяют этот кулинарный феномен. От тщательного приготовления блюд до искусной подачи и продуманного сочетания напитков — гастрономические ужины представляют собой праздник кулинарного совершенства и творчества. Эта статья углубляется в кулинарное путешествие, подчеркивая роль сезонности, местных источников и развивающегося ландшафта изысканной кухни.

Ключевые слова: гастрономические ужины, кулинарное мастерство, изысканная кухня, молекулярная гастрономия, искусная презентация, мультисенсорный опыт, сезонность, местный поиск, сочетание напитков, кулинарное совершенство

Abstract:

This abstract encapsulates the essence of gastronomic dinners, exploring the artistry, innovation, and multisensory experience that define this culinary phenomenon. From the meticulous crafting of dishes to the artful presentation and thoughtful beverage pairings, gastronomic dinners represent a celebration of culinary excellence and creativity. This article delves into the culinary journey, highlighting the role of seasonality, local sourcing, and the evolving landscape of fine dining.

Keywords: gastronomic dinners, culinary artistry, fine dining, molecular gastronomy, artful presentation, multisensory experience, seasonality, local sourcing, beverage pairing, culinary excellence

Введение:

Мир гастрономии превратился в захватывающую сферу, где повара превращают ингредиенты в кулинарные шедевры, дразнящие чувства и улучшающие впечатления от ужина. Гастрономические ужины, часто синонимы изысканной кухни, представляют собой

форму искусства, выходящую за рамки утоления голода: это симфония вкусов, текстур и презентаций, которые привлекают и вдохновляют. В этой статье мы погружаемся в чарующий мир гастрономических ужинов, выясняя, что делает их уникальным и незабываемым кулинарным приключением.

Обзор литературы: Гастрономический ужин

Концепция гастрономических ужинов представляет собой увлекательное пересечение кулинарного мастерства, инноваций и мультисенсорных впечатлений от ужина. В последние годы изучение гастрономии стало важным направлением в кулинарном мире, по-новому определяя изысканные блюда и формируя ожидания взыскательных посетителей. В этом обзоре литературы рассматриваются ключевые аспекты гастрономических ужинов, включая кулинарные приемы, роль подачи, влияние сезонности и развивающийся ландшафт изысканной кухни.



Гастрономический ужин-лекция «Инвестиции в искусство» | Ресторан «Брунелло»

1. Кулинарное искусство и техники:

В литературе подчеркивается значение кулинарного мастерства в гастрономических ужинах. Повара-новаторы, такие как Ферран Адриа и Хестон Блюменталь, внедрили методы молекулярной гастрономии, раздвигая границы традиционной кулинарии. Их работа, описанная в таких основополагающих текстах, как «Модернистская кухня:

искусство и наука кулинарии», существенно повлияла на эволюцию гастрономических ужинов.

2. Мультисенсорный опыт:

Мультисенсорный аспект гастрономических ужинов — постоянная тема в академических дискуссиях. Исследование Спенса и Пикераса-Фишмана (2014 г.) в книге «Идеальная еда: мультисенсорная наука о еде и столовой» исследует, как такие факторы, как цвет, текстура и презентация, влияют на общее впечатление от обеда. Этот междисциплинарный подход объединяет психологию, нейробиологию и гастрономию, чтобы понять, как сенсорные стимулы способствуют вкусовому восприятию.

3. Роль презентации:

Визуальная привлекательность гастрономических блюд — важнейший элемент, изучаемый в литературе. Эрве Тис, выдающийся деятель молекулярной гастрономии, обсуждает важность презентации в своей работе «Молекулярная гастрономия: изучение науки вкуса». Исследования Веласко и др. (2016) в книге «Роль орнамента по краям тарелки в восприятии еды, неофобии и гедонической ценности еды» дополнительно исследуют, как презентация тарелки влияет на восприятие посетителей.

4. Сезонность и местные источники поставок:

Приверженность использованию сезонных и местных ингредиентов является ключевой темой в гастрономической литературе. Известные работы, такие как «Третья тарелка: полевые заметки о будущем еды» Дэна Барбера, подчеркивают важность экологически чистых источников питания и их влияние на качество и аутентичность гастрономических блюд.

5. Эволюция изысканной кухни:

Эволюция изысканной кухни, особенно в контексте гастрономических ужинов, является динамичной областью исследований. Работа таких ученых, как Фергюсон и Пуйе (2018) в книге «Эволюция гастрономических ресторанов во Франции», дает представление об исторических и культурных факторах, которые сформировали ландшафт изысканной кухни, повлияв на появление гастрономических ужинов как отдельного явления.

Методология:

Суть гастрономии:

Гастрономические ужины – это не просто утоление голода; это праздник искусства и науки о еде. Повара, сродни художникам, используют свое творчество для создания блюд, выходящих за рамки обычного. Основное внимание уделяется качеству, инновациям и

точности, при этом каждый элемент тщательно выбирается для создания гармоничного и запоминающегося обеда.

Кулинарное путешествие:

Гастрономический ужин — это путешествие, последовательность тщательно продуманных блюд, которые разворачиваются, как главы в книге. Каждое блюдо рассказывает историю, отражающую видение шеф-повара, кулинарный опыт и сезонность ингредиентов. Путешествие часто начинается с развлекательных букетов, крошечных закусок, которые пробуждают вкус и подготавливают почву для того, что ждет впереди.

Гастрономические ужины, состоящие из закусок, основных блюд и десертов, часто характеризуются неожиданными вкусовыми сочетаниями, методами молекулярной гастрономии и авангардными презентациями. Цель — удивить и порадовать посетителей, бросив вызов их вкусовым рецепторам и предвзятым представлениям о еде.

Художественная презентация:

Визуальная привлекательность – важнейший аспект гастрономического ужина. Повара демонстрируют свое художественное чутье, представляя блюда как съедобные произведения искусства. Тарелки становятся холстами, и каждый компонент тщательно расставляется так, чтобы создать праздник для глаз, прежде чем он станет праздником для вкуса. От съедобных цветов до пенек для молекулярной гастрономии — презентация является важнейшим элементом общего впечатления от ужина.

Совершенство в паре:

Гастрономические ужины выходят за рамки тарелки и включают тщательно подобранные сочетания напитков. Сомелье или миксологи тесно сотрудничают с шеф-поварами, чтобы улучшить вкус каждого блюда. Вино, коктейли или безалкогольные сочетания выбираются так, чтобы дополнить и улучшить впечатление от ужина, создавая гармоничный баланс между едой и напитками.

Статистические категории	Гипотетическая статистика
Количество ресторанов, отмеченных звездами Мишлен, предлагающих гастрономические ужины	150
Средняя стоимость гастрономического ужина (на человека)	\$200 - \$500

Глобальный доход от гастрономического туризма	\$5.2 миллиард
Процентное увеличение спроса на экологически чистые ингредиенты	20%
Доля гастрономических ужинов с вегетарианской или веганской направленностью	30%
Страны с самым высоким ростом гастрономического туризма	Испания, Япония, Перу
Средняя продолжительность гастрономического ужина	3 - 4 Часов
Количество гастрономических мероприятий по всему миру ежегодно	5000+
Самые популярные кулинарные приемы, используемые в гастрономических ужинах	Су-вид, Молекулярная гастрономия
Уровень удовлетворенности потребителей гастрономическими блюдами	92%
Процент гастрономических ужинов, предлагающих варианты сочетания вин	85%

Обсуждение гастрономического ужина:

Гастрономические ужины, характеризующиеся акцентом на кулинарное мастерство, инновации и мультисенсорный опыт обеда, стали центром внимания в кулинарном мире. В этой дискуссии рассматриваются различные аспекты гастрономических ужинов, включая их культурное значение, влияние кулинарных приемов, роль презентации и развивающуюся природу изысканной кухни.

Роль сезонности и местных источников:

Гастрономические ужины часто подчеркивают использование сезонных, местных и экологически чистых ингредиентов. Повара черпают вдохновение из богатства региона, демонстрируя лучшие вкусы каждого сезона. Эта приверженность свежести и экологичности не только улучшает качество еды, но и поддерживает местных фермеров и производителей.

Заключение:

Гастрономические ужины – это больше, чем просто еда; это захватывающий опыт, сочетающий в себе кулинарное мастерство, инновации и страсть к качественным ингредиентам. Независимо от того, были ли эти обеды в ресторане, отмеченном звездой Мишлен, или в скрытой жемчужине, они оставляют неизгладимый след во вкусе и памяти. Поскольку посетители все чаще ищут незабываемые кулинарные приключения, гастрономические ужины продолжают формировать ландшафт гастрономического мира, предлагая праздник чувств и исследование безграничных возможностей искусства изысканной кухни.

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VOLUME-4, ISSUE-2
FLUORINATED PHOSPHATES

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Abstract:

This abstract provides a concise overview of the topic of fluorinated phosphates, exploring their synthesis, properties, and diverse applications across various fields. Fluorinated phosphates, characterized by the incorporation of fluorine atoms into phosphate compounds, have garnered significant interest due to their unique chemical and physical properties. This abstract summarizes key aspects of the research on fluorinated phosphates, shedding light on their synthesis methodologies, structural characteristics, and applications in areas such as materials science, catalysis, and medicinal chemistry. The study emphasizes the growing importance of fluorinated phosphates in advancing scientific and technological innovations.

Keywords: Fluorinated phosphates, Synthesis, Properties, Applications, Materials science, Catalysis, Medicinal chemistry, Fluorine-containing compounds, Phosphorus chemistry, Chemical synthesis.

Аннотация.

В этом реферате представлен краткий обзор темы фторированных фосфатов, исследуются их синтез, свойства и разнообразные применения в различных областях. Фторированные фосфаты, характеризующиеся включением атомов фтора в фосфатные соединения, вызвали значительный интерес благодаря своим уникальным химическим и физическим свойствам. В этом реферате обобщаются ключевые аспекты исследований фторированных фосфатов, проливаются свет на методологии их синтеза, структурные характеристики и применение в таких областях, как материаловедение, катализ и медицинская химия. В исследовании подчеркивается растущая важность фторированных фосфатов в продвижении научных и технологических инноваций.

Ключевые слова: фторфосфаты, синтез, свойства, применение, материаловедение, катализ, медицинская химия, фторсодержащие соединения, химия фосфора, химический синтез.

Introduction.

Fluorinated phosphates represent a distinctive class of compounds that have gained substantial attention in various scientific disciplines due to their intriguing properties and versatile applications. The incorporation of fluorine atoms into phosphate structures imparts unique characteristics, influencing reactivity, solubility, and other physicochemical properties. This introduction provides an overview of the significance of fluorinated phosphates, outlining their synthesis methodologies, properties, and the diverse array of applications across fields such as catalysis, materials science, and medicinal chemistry. As researchers explore new avenues in phosphorus chemistry, fluorinated phosphates emerge as promising candidates for advancing scientific understanding and technological innovation.

Methodology:

The synthesis and characterization of fluorinated phosphates involve a combination of traditional and innovative methodologies. Classical synthetic routes include the reaction of

THE MULTIDISCIPLINARY JOURNAL OF SCIENCE AND TECHNOLOGY

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phosphorus-containing precursors with fluorinating agents, while modern techniques often employ advanced instrumentation such as NMR spectroscopy, X-ray crystallography, and mass spectrometry for detailed structural analysis. Additionally, computational methods play a crucial role in predicting the properties and behaviors of fluorinated phosphates. The methodology section outlines the specific procedures, analytical techniques, and computational approaches employed in the study of fluorinated phosphates, providing a foundation for the subsequent results and analyses.

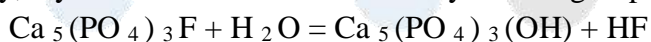
Results:

The results section presents the outcomes of the research on fluorinated phosphates, encompassing synthesized compounds, structural elucidation, and any observed properties. This may include data on reaction yields, spectral analyses, and crystalline structures obtained through various characterization techniques. Results also highlight the versatility of fluorinated phosphates in different applications, showcasing their potential in catalysis, materials design, and medicinal chemistry.

Analyses:

Analyses of the results delve into the implications and significance of the synthesized fluorinated phosphates. This involves the interpretation of structural data, discussions on the influence of fluorine incorporation on properties such as acidity, basicity, and reactivity, and comparisons with non-fluorinated analogs. Computational analyses may further contribute insights into electronic structures and energetic properties. The section critically evaluates the obtained results in the context of existing literature, contributing to a comprehensive understanding of the impact of fluorinated phosphates in the studied applications.

Defluorinated phosphates, HF+SiF₄ of fluorine in the form of (contains a lot of HF which is) mixture gaseous to the phase the loss of with together take to go natural phosphates thermal again work the way through is taken. Thermal in decay phosphates water steam in the presence of relatively fast and full is defluorinated. Apatite at 1400-1550°C hydrothermal again works, initially, crystal on the fence of fluorine hydroxide group with to exchange:



then and hydroxyapatite to decay:



take will come.

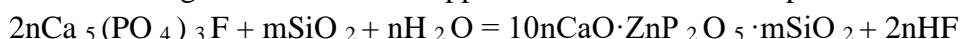
Disintegration products in citric acid melting α - tricalcium phosphate and tricalcium phosphate consist of Tricalcium phosphate in two kinds - a and b in the modification there is will be their to each other rotation point is equal to 1180 °C. From this temperature below irreconcilable b - modification, above while flexible (lemon and with citrate soluble) amorphous a - modification will be stable. Amorphous of tricalcium phosphate a - form him fast by cooling save to stay can

Silica in the presence of a - of the form b - form grows temperature decreases and this growth speed is the same slows down, as a result, product - even factory liquefaction slowly even when cooled valuable properties are not lost.

The defluoridation process somewhat accelerates because the silica of apatite crystal structure break feature; in this the snow of silica to the amount depends otherwise, different in the content of calcium phosphate and of silicates hard solutions - silicophosphates harvest will be For example, hydroxyapatite in decay Silica :



the reaction according to participation is enough of apatite silica in the presence of hydrothermal disintegration common in appearance as follows to express can :



of phosphates hydrothermal defluoridation rotary in drums, cyclone, converter and another in ovens done increase can Hydrogen with enriched fuel, eg natural gas or when fuel oil is used water steam special transfer is not required because burning in products enough amount (more than 14%) of water steam will be

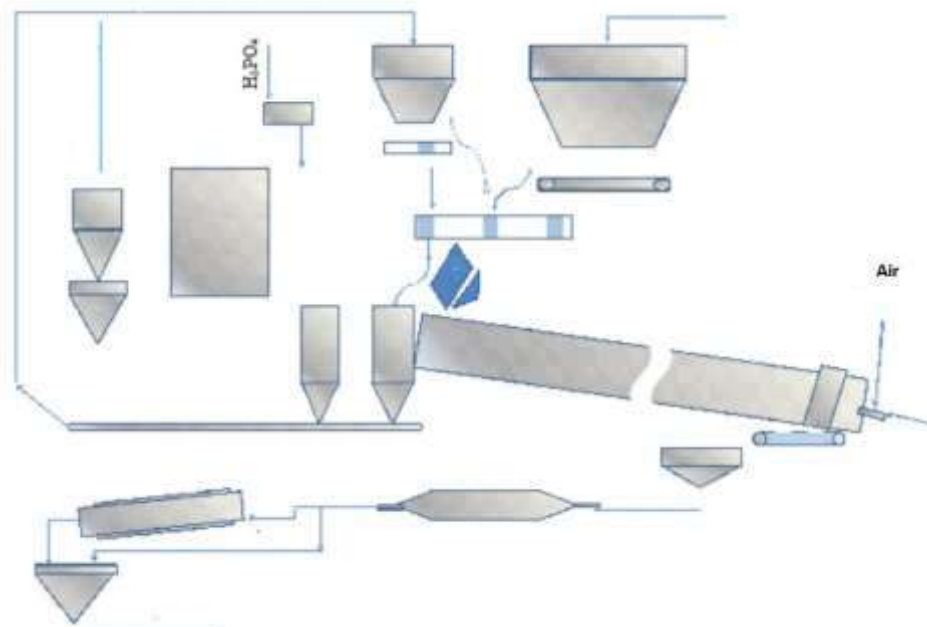
Apatite concentrates and 20-25% (apatite to the mass relative to) from silica consist of cold at a relatively low temperature liquefied. So in the composition silica has been cold liquefaction method with defluoridated phosphates in getting is used. In burning and is significant level of liquid phase harvest from being rid of for in silica the amount increases or reduces need Frost in the USA common up to 50% of the mass silica is added, i.e one different in quantity phosphorite and sand mixed. In this received the product is in citric acid up to 20% soluble P_2O_5 holds

Cremation in MDX with phosphates hydrothermal defluoridation of a small amount of silica (sand). The addition of silicon-done is increased, but the defluorinated phosphorus acid with $CaO P_2O_5 = 3$ molar in proportion (phosphate 4-6% of the mass amount) is moistened and in the oven, pollination reduced for becomes granulated. Phosphate acid in the presence of of the process temperature up to 1380-1420 °C decreases . Above given defluoridation from the reaction In addition, the reaction also occurs will be This is a reaction common it looks like.



Reagents from mixing, at first monocalcium phosphate harvest, will be, then of temperature rise as a result calcium meta- and to polyphosphates becomes and their between from exposure while tricalcium phosphate harvest will be Phosphate of acid the addition of defluoridation accelerates and P_2O_5 in the product the amount increases. Easy liquid phosphorites (for example, Karatog and Qizilkum phosphorite). Phosphate acid with moistening their liquefaction temperature increases. That's it phosphorites rotary in furnaces at a temperature of 1250 - 1300 °C to burn through defluoridation enable will give. Easy liquid phosphorites of defluoridation another method they are cyclonic or with a converter is liquefied in ovens at 1500-1600 °C.

Rotating in ovens defluorinated phosphates get processed the following apatite and returned dust Phosphate acid and water with mixing; Shikhtani granulation; grains to burn the product to grind ready the product cooling, covering and to the consumer juntas; from the oven coming out firehouse gases heat swallow in the cocoon cooling (steam production release); gases from dust cleaning; firehouse in gases fluorinated compounds separate get and they fluorinated to the products rotate from stages consists of Rotating of the oven diameter 3.6 m and length 100 m (ready product on this productivity: designed - 6 t/s; achieved - equal to 7.3 t/s).



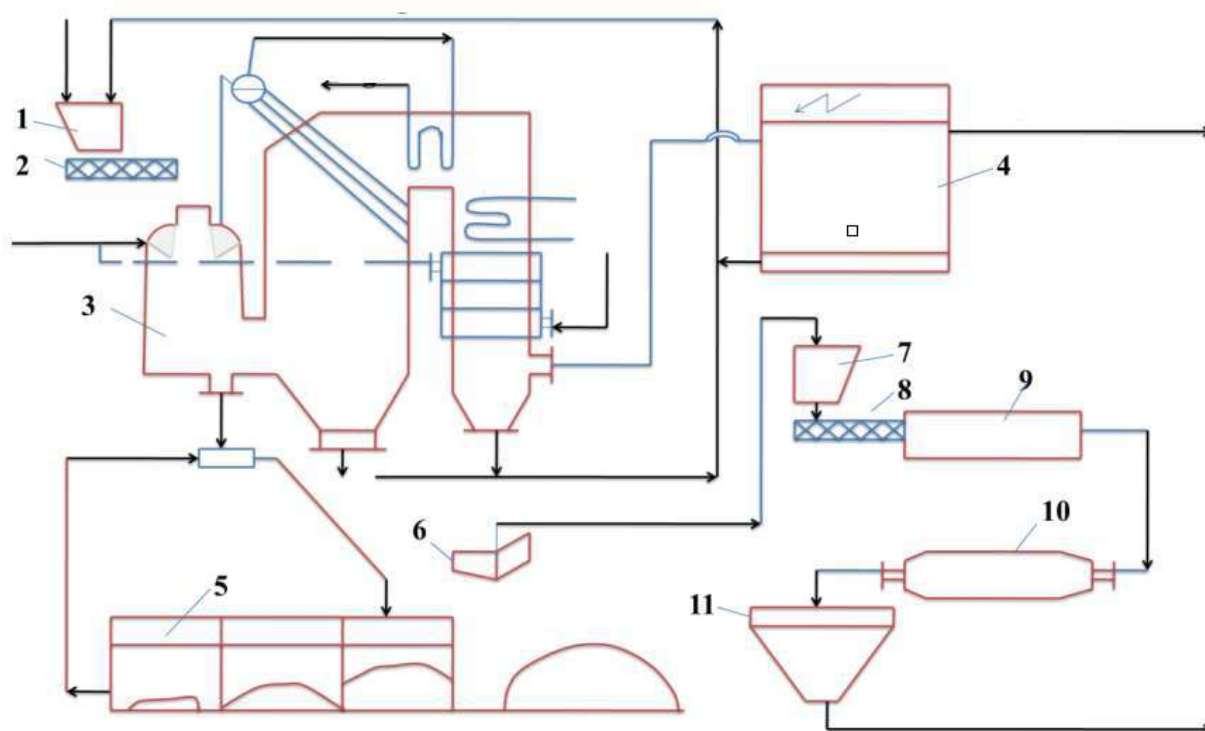
Picture 1 . Rotating in ovens defluorinated phosphates work release scheme

1 - apatite bunker for; 2 - weight measure soil conditioner; 3 - dust bunker for; 4- supplier; 5 - phosphorus acid moderator; 6 - two circuit mixer; 7 - saucer-shaped granulator; 8 - cyclone (dust holder); 9 - heat the winner boiler; 10 - dusty camera; 11 - rotary oven; 12 - recuperator; 13 - conveyor, 14 - klenker bunker for; 15 - oscillating supplier; 16 - mill; 17 - cooling the drum; 18 - ready product storage bunker.

Cyclonic to the cameras contains less than 28% non-soluble P_2O_5 , and -15 % insoluble the rest held raw material is given Insoluble of the remainder shown less than the norm or a lot to be raw material liquefaction temperature to the increase of this as a result while technology of the process to the violation take will come. Cyclones high in the part natural gas the air in the flow is burned. To the camera phosphorite flour loading 7 t/ c, natural gas spending and 3000-3200 m / c from aggregate get out temperature 1450-1480 °C, producing steam release and 20-30 t/ c organize is enough Current at the time technological of the system the work productivity increase for in aggregates natural the gas of air technical oxygen within the mixture is burned.

from ETA-cooled gases from dust cleaning one after another to the cyclone and the electrofilter is transmitted. Next in hardware cleaned from gases fluorinated compounds were taken.

Phosphate raw the item liquefaction method with defluorinated phosphates get processed each one 150 t/ day in productivity working energy technology through aggregate (ETA) s done is increased (picture 2).



Picture 2. Cyclonic in the camera defluorinated phosphates work release scheme

1- hopper for phosphorite; 2- supplier; 3-energy-technological unit; 4-electrofilter; 5th silencer 3; 6 - grabber (bucket) transmitter; 7-defluorinated phosphate bunker for; 8 - supplier; 9 - drying the drum; 10 - mill; 11. Finished product storage bunker.

Cyclonic without mixing coming out liquefaction mul water in the flow. Liquefaction found as a result in the composition of a lot 0.4 % chloride in acid-soluble P_2O_5 held product is taken. Liquefaction to read as a result harvest has been grainy the product from water separation with a pacifier in pools done is increased. The product is dehydrated. The first stage from the material water in grab cranes by itself to the pool flowing fall through is separated. The second stage and the material is the drum in the dryer is dried. From this after the product spherical in the mills, it is crushed and paper into bags will be placed. Cyclonic oven high comparison has productivity - $2.5 \text{ t}/(\text{m}^* \text{s})$, but to him fuel and energy spending very is high.

Marked State standards requirements according to, higher and the first-in-kind defluoridated nutritious phosphates work are issued. In the components, varieties suitable as P_2O_5 -, (0.4% li HCl at soluble) - from 41 and 28% less it's not; CaO - 34 and 30%; F - from 0.2% many p it's not; As - 0.0002 and 0.001%; P - 0.002 and 0.003%; H_2O will be 4 %. Particles size 1 mm from not to exceed it is necessary

Defluoridated phosphates are nutritious tools as they are used, however, their long lifetime effect doers good dogs use too high effect.

Discussion:

The discussion section contextualizes the findings within the broader scope of phosphorus chemistry and relevant scientific disciplines. It explores the potential mechanisms underlying observed behaviors, addresses any limitations or challenges encountered during the study, and elucidates how the results contribute to advancing knowledge in the field. The discussion also

considers future directions for research on fluorinated phosphates, proposing avenues for further exploration and applications.

Conclusion:

In conclusion, the study of fluorinated phosphates presents a promising and dynamic field within phosphorus chemistry. Their unique properties, synthesis methodologies, and diverse applications make them compelling subjects for ongoing research. The collective insights gained from the methodology, results, analyses, and discussion contribute to a deeper understanding of fluorinated phosphates, setting the stage for continued exploration and innovation in this intriguing area of chemical research.

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КОРРЕКЦИОННОЕ СОВЕРШЕНСТВОВАНИЕ ПРОЦЕССОВ ФИЗИЧЕСКОГО ВОСПИТАНИЯ НА ОСНОВЕ МОРФОФУНКЦИОНАЛЬНЫХ ОСОБЕННОСТЕЙ СТУДЕНТОВ

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Аннотация: в статье фокусируется метод реовазографии. Для изучения сосудистого кровотока нижних конечностей нами использован метод реовазографии, отражающий состояние кровенаполнения. Морфофункциональная особенность имеющий одновременное отношение к структуре и её функции. Как видно, показатель скорости распространения пульсовой волны, характеризующий тонус артериальных сосудов, был значительно выше у легкоатлетов. При исследовании реографического систолического индекса, отражающего кровенаполнение в момент систолы, установлено, что величина реографического систолического индекса у дзюдоистов была значительно меньше.

Ключевые слова: студент/ двигательная активность/ физическое развитие/ мониторинг здоровья/ физическая способность/ адаптация/ морфологические особенности.

CORRECTIVE IMPROVEMENT OF PHYSICAL EDUCATION PROCESSES BASED ON MORPHO FUNCTIONAL CHARACTERISTICS OF STUDENTS

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Abstract: the article focuses on the rheovasography method. To study the vascular blood flow of the lower extremities, we used the rheovasography method, which reflects the state of blood supply. A morphofunctional feature that is simultaneously related to structure and its function. As can be seen, the rate of propagation of the pulse wave, which characterizes the tone of the arterial vessels, was significantly higher in track and field athletes. When studying the rheographic systolic index, which reflects blood filling at the time of systole, it was found that the value of the rheographic systolic index in judokas was significantly lower.

Key words: student/ motor activity/ physical development/ health monitoring/ physical ability/ adaptation/ morphological features.

Морфофункциональная особенность имеющий одновременное отношение к структуре и её функции. По-видимому, к этому типу эписелекционной эволюции относятся многие преобразования и морфогенеза, и дефинитивных морфофункциональных систем. Целью физического воспитания студентов вузов является формирование физической культуры личности и способности направленного использования разнообразных средств физической культуры, спорта и туризма для сохранения и укрепления здоровья, психофизической подготовки и самоподготовки к будущей профессиональной деятельности.

Студент является наиболее социально активной и мобильной группой, которая в значительной мере определяет будущее государства. Молодой специалист должен быть не только хорошо подготовлен по избранной специальности, но и быть физически развитым, выносливым, способным решать самые сложные профессиональные задачи. Однако в последние годы отмечается ухудшение показателей здоровья молодежи, в том числе студентов. Только за последние 5 лет заболеваемость среди студентов увеличилась на 27%. Вместе с тем известно, что важным средством сохранения и укрепления здоровья являются занятия физической культурой и спортом. Однако различные виды физкультурной деятельности оказывают на организм не одинаковое влияние.

Для изучения сосудистого кровотока нижних конечностей нами использован метод реовазографии, отражающий состояние кровенаполнения. Как известно, показатели периферического кровенаполнения у спортсменов и нетренированных лиц отличаются. Как видно, показатель скорости распространения пульсовой волны, характеризующий тонус артериальных сосудов, был значительно выше у легкоатлетов. В то же время у пауэрлифтеров и дзюдоистов значения данного показателя не отличались. При исследовании **реографического систолического индекса**, отражающего кровенаполнение в момент систолы, установлено, что величина реографического систолического индекса у дзюдоистов была значительно меньше.

Под физическими способностями понимают относительно устойчивые, врождённые и приобретённые функциональные возможности органов и структур организма. Основными физическими качествами являются сила, выносливость, быстрота, ловкость и гибкость. Сила это - способность человека преодолевать внешнее сопротивление. К основным физическим качествам относят силу, быстроту, выносливость, гибкость, ловкость. Для овладения методикой развития силы, быстроты, выносливости и других физических качеств, необходимо знать, что они собой представляют.

Сила это - способность преодолевать внешнее сопротивление или противодействовать ему посредством мышечных напряжений. Развитие силы сопровождается утолщением и ростом мышечных волокон.

Быстрота - способность выполнять двигательные действия за наименьший промежуток времени. Она состоит из трех компонентов: скорость реакции, скорость одиночного движения и частота этих движений. Например, на стометровке важно быстро среагировать на выстрел, делать шаги быстро и делать их часто.

Выносливость – это способность мышц совершать работу. Эта способность зависит от интенсивности снабжения клеток мышц питательными веществами которая, в свою очередь, зависит от способности организма эти вещества вырабатывать. Вырабатываются они разными способами, в зависимости от интенсивности и длительности нагрузки. Основные способы повышения физической выносливости Аэробные упражнения, занятия футболом и плаванием, бег или езда на велосипеде и прочие виды активности требуют выносливости. Стать лучше и приблизиться к желаемым результатам помогут регулярные тренировки.

Универсальные варианты получаются из упражнений с весом своего тела: отжиманий, приседаний, выпадов, подтягиваний, складок и скручиваний на пресс. Также можно добавить движения с отягощением вроде трастеров, становой тяги и приседаний со штангой, махов и рывков гири и других силовых упражнений.

Тренировки на общую выносливость должны включать небыстрый бег и ходьбу – чередовать их нужно в течение 20-30 минут (например, четыре минуты идете, одну бежите, далее повторяете); тренировки на скоростную выносливость состоят из нескольких блоков максимально быстрого бега на короткие (50-60 метров) дистанции.

Система физической культуры – это упорядоченная совокупность государственных органов, общественных организаций и граждан, осуществляющих деятельность в целях развития физической культуры и спорта в Узбекской республике.

Физическая культура (греч. φύσις - «природа» + спорт) - область социальной деятельности, направленная на сохранение и укрепление здоровья, человека в процессе осознанной двигательной активности. В процессе физического воспитания осуществляется физическое и функциональное совершенствование организма человека, формирование двигательных навыков и умений, а также специальных знаний. Спорт – форма физического совершенствования человека.

Спорт представляет собой специфический род физической (или интеллектуальной) активности, совершаемой с целью соревнования, а также целенаправленной подготовки к ним путём разминки, тренировки.

Коррекционное развитие это - исправление (преодоление) недостатков умственного и физического развития, совершенствование психических и физических функций, сохранной сенсорной сферы и нейродинамических механизмов компенсации дефекта.

Для решения задач физического воспитания используются метод регламентированного упражнения, игровой и соревновательный методы, словесные и сенсорные методы.

Метод строго регламентированных упражнений предусматривает:

твёрдо предписанную программу движений;

точное дозирование нагрузки и управление её динамикой;

нормирование интервалов отдыха;

применение вспомогательных средств управления действиями и контроля нагрузки.

Основным методическим направлением в процессе физического воспитания является строгая регламентация упражнений. Сущность методов строго регламентированного упражнения заключается в том, что каждое упражнение выполняется в строго заданной форме и с точно обусловленной нагрузкой.

Непрерывные методы тренировки, характеризуется однократным непрерывным выполнением тренировочной работы. Применяются в условиях равномерной и переменной работы, в основном используются для повышения аэробных возможностей, воспитания специальной выносливости. Интервальные методы предусматривают выполнение упражнений как с регламентированными паузами, так и с произвольными паузами отдыха. При использовании этих методов упражнения могут выполняться как в равномерном (стандартном), так и в переменном (вариативном) режиме.

Соревновательный метод это - способ, выполнения упражнений в виде соревнований, который основан на включении в игровой процесс компонентов соревновательной деятельности. Игровой метод может быть представлен в виде игры и в виде упражнений в игровой форме. Основой соревновательного метода является рационально построенный процесс состязания. Суть метода заключается в использовании соревнований в качестве средства повышения уровня подготовленности занимающихся.

Игровой метод это - способ организации овладения специальными знаниями, умениями и навыками, развития двигательных качеств, основанный на включении в процесс обучения компонентов игровой деятельности.

В физическом воспитании преподаватель свои общепедагогические функции реализует с помощью слова: ставит перед занимающимися задачи, управляет их учебно-практической деятельностью на занятиях, сообщает знания, оценивает результаты освоения учебного материала, оказывает воспитательное влияние на учеников.

Общепедагогические методы - дидактический рассказ, описание, объяснение, беседа, разбор. Непосредственно в процесс занятий физическими упражнениями включаются преимущественно те словесные методы, которые позволяют сохранять высокую моторную плотность занятий и органически связывать слово с движением. К ним относятся, в частности:

Инструктирование - точное, емкое словесное объяснение задания, техники изучаемых действий или тренировочных упражнений, правил их выполнения и т.д. Это один из основных методов, применяемых на различных этапах физического воспитания.

Сопроводительные пояснения - лаконичные комментарии и замечания, которыми сопровождают демонстрацию наглядных пособий и натуральных объектов или пользуются по ходу выполнения упражнений занимающимися с целью направить и углубить восприятие, исправить или подчеркнуть те или иные стороны движений.

Указания и команды - специфические формы речевого воздействия, отличающиеся особой лаконичностью и повелительным наклоном. Они принадлежат к числу основных способов оперативного управления деятельностью занимающихся. Указания используются и с целью предварительного инструктирования, постановки и уточнения заданий.

Словесные оценки - общепринятые или специальные категории речевого одобрения либо неодобрения. Наряду со своим основным значением - быть мерой достигнутых успехов - они могут играть и роль одного из способов текущей коррекции действий: оценивая действия занимающихся по ходу выполнения заданий, преподаватель тем самым сообщает, согласуются ли они с намеченным образцом, и соответственно направляет дальнейшие усилия.

Словесные отчеты и взаиморазъяснения - устная информация, которую дают занимающиеся по требованию преподавателя или по собственной инициативе, стараясь по возможности точно и кратко сформулировать свои представления о полученном задании либо о выполненном упражнении. «Самопроговаривание», само приказы и другие основанные на внутренней речи методы самообучения и самовоспитания. Метод «самопроговаривания» часто заключается в описании с помощью внутренней речи общей картины предстоящих двигательных действий либо отдельных сторон их. Метод само приказов также основан на использовании связей между словом и движением, но внутренняя речь (в форме произносимых про себя отдельных фраз и слов-приказов) непосредственно включена в процесс выполнения двигательных действий как фактор самоуправления этим процессом.

Сенсорные методы основаны на наглядности. Наглядность в физическом воспитании понимается широко: как опора на свидетельства всех органов чувств, благодаря которым достигается контакт с действительностью (использование зрительных, двигательных, зрительно-двигательных и других ощущений и восприятий).

Демонстрация наглядных пособий типа рисунков, схем, фотографий, контурограмм и т.п., где воссоздаются отдельные фазы двигательных действий, те или иные характеристики движений и условий их выполнения. Это самые давние традиционные виды опосредованной демонстрации.

Предметно-модельная и макетная демонстрация - демонстрация, например, элементов техники физических упражнений с помощью муляжей-моделей человеческого тела или металлических моделей системы «тело гимнаста - снаряд».

Кино- и видеоманитфонная демонстрация. Одно из важнейших достоинств этого вида демонстрации состоит в возможности воссоздавать движения в динамике, в том числе и в замедленном темпе, и вместе с тем выделять для анализа отдельные фазы.

Вывод: Использование словесных и сенсорных методов, входит в общепедагогические методы. Указала словесные методы, что в них входит и формы сенсорных методов.

В учебно-тренировочных занятиях и соревнованиях слово может быть использовано и выражено в форме:

- дидактического рассказа, беседы, обсуждения;
- инструктирования (объяснение задания, правил их выполнения);
- сопроводительного пояснения (лаконичный комментарий и замечания);
- указаний и команд (как правило, в повелительном наклонении);
- оценки (способ текущей коррекции действий или их итогов);
- словесного отчета и взаимо-разъяснения;
- само проговаривания, само приказа, основанных на внутренней речи (например, "сильнее", "держать", "плавно").

Сенсорные методы могут реализоваться в форме:

- показа самих упражнений;
- демонстрации наглядных пособий;
- предметно-модельной и макетной демонстрации (с помощью муляжей-моделей человеческого тела, макетов игровых площадок с фигурками игроков);
- кино (просмотр кино - кольцовок, специальных учебных кинофильмов, видеозаписей выполнения упражнений).

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NEW UZBEKISTAN: STRATEGY FOR SOCIO-ECONOMIC DEVELOPMENT OF TERRITORIES

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ANNOTATION. The article focuses on the theoretical issues of the regional economy, modern problems, ways to solve them, the priority directions of regional development, the need to abandon the practice of centralizing state administration, the need to continue the process of transfer of many powers from the central state bodies to regional bodies and other such topical issues.

Keywords: regional economy, regional policy, region, territory, potential, parameters of development, modernization, diversification, strategy, integration, specialization.

1. Introduction.

In Uzbekistan, entrepreneurship is developing and the economy is growing. Ultimately, the working mood of the population is rising, the quality of goods production, work performance and service provision is increasing, and their types are increasing. The parameters of socio-economic development of the regions for the medium and long term are defined and development strategies are being determined.

This process assumes a systematic continuation of reforms. The effectiveness of the measures being implemented puts the assessment in the cross-section of the territories on the agenda.

In turn, the failure to improve the mechanism of systematic monitoring of the timely adoption and implementation of targeted programs based on a clear assessment of the territory capabilities to further accelerate the pace of socio-economic development is creating certain problems.

Reform means renewal and change, a more thoughtful feeling of responsibility for the outcome of affairs. The positive result of the reforms is that the management system, our leaders and people must change. If a person's worldview changes, the society changes, renews, and thus the foundation of New Uzbekistan is strengthened.¹

Today, the study of the economic problems of the regions, the search for untapped reserves and their effective use are becoming more important than ever. In the strategy of New Uzbekistan in 2022-2026, serious attention was paid to the issues such as "...expanding the scale of modernization and diversification of the regional economy, reducing differences in the level of socio-economic development of regions due to rapid development of districts and cities with a relatively low level of development, first of all, by increasing the industrial and export potential"² based on the principle of Action Strategy – Development Strategy in seven priority areas of further development.

¹ Shavkat Mirziyoyev. Development strategy of New Uzbekistan. Completed second edition. -Tashkent: "Uzbekiston" publishing house, 2022. – 416 pages.

² Shavkat Mirziyoyev. Development strategy of New Uzbekistan. Completed second edition. -Tashkent: "Uzbekiston" publishing house, 2022. – 416 pages.

It is engaged in the study of current issues specific to the socio-economic development of territories, ecological-economic problems, the financial and credit system and its role in the innovative development of regions, the effective mechanisms of regional economic interaction and the development of regional strategies for economic development.

The most important factors of the economic development of territories include the optimal combination of diversification and specialization of the economy and the centralization of innovations in priority directions.

The following problems are considered within the scope of socio-economic development of territories: economy of individual regions; economic relations between them; regional systems (as a system of national economy-interacting regions); deployment of production forces; regional aspects of economic life; modeling of regional management systems; improvement of mechanisms and methods of management of economic activity in the region, etc.

By carrying out the policy of socio-economic development of territories, the state pays special attention to issues such as the uniqueness of regions, their socio-economic situation, their socio-economic development, issues of interregional integration, and support for problem regions, transferring some directions of reforms directly to the regions, reducing and eliminating serious differences between the socio-economic development of different regions and territories. In the strategy of New Uzbekistan, it is emphasized that it is necessary to abandon the practice of centralizing state administration, and to continue the process of transferring many powers from central state bodies to territorial bodies.

2. Literature review.

Socio-economic development of the territories began to take shape in the XIX century. Among foreign researchers, German economists – Johann Heinrich Tünen, Alfred Weber, Walter Kristaller, August Lesch, professor made the greatest contribution. Walter Isard from the Faculty of Economics of the University of Pennsylvania, French economist Jean Chardonne, Russian-American economist Vasiliy Leontiev, V.Thompson, T.Palander, as well as well-known textbook authors Kh.Armstrong and J.Taylor developed problems of regional economic theory, distribution of production forces and territorial production efficiency. The most vivid contours were shown in the works of Walter Isard, the founder of regional science, at the intersection of economic theory and economic geography in the USA in the 1950s. Among the Soviet researchers of the first half of the XX century, G.M.Krjijanovskiy, I.G.Alexandrova, V.V.Kuybisheva, N.N.Kolosovskiy dealt with the issues of long-term planning and economic zoning. Since the 60s of the twentieth century, regional economics has been the most fully developed in Russia, and it is interpreted as a branch of economics that studies the economic development of regions in order to plan the territorial organization of the economy. Among the local scientists of the second half of the twentieth century, the following should be noted: T.S.Khachaturova, Ya.G.Feygina, N.N.Nekrasov, A.G.Granberg, R.M.Alampiev, E.V.Alaeva, K.N.Bedrintseva, G.I.Granika, F.D.Zastavniy, R.S.Livshits, K.I.Klimenko, Yu.K.Kozlova, A.M.Korneeva, V.V.Kistanov, A.G.Omarovskiy, N.N.Oznobina, V.F.Pavlenko, M.M.Palamarchuk, Yu.G.Saushkina, E.D.Silaeva, N.I.Shrag and V.M.Torosov (*“Regional Economy” 2004 (“The best scientific book in Russia in 2004”)*).

The main task of the socio-economic development of the territories is to scientifically justify a reasonable compromise between the economic interests of the whole country and its individual territories.

The following problems are studied within the framework of socio-economic development of the territories:

- the economy of a certain region;
- economic relations between territories;
- regional systems (national economy as a system of interacting territories);
- deployment of productive forces;
- regional aspects of economic life;
- modeling of the territorial management system;
- improvement of mechanisms and methods of management and regulation of economic activity in the region³.

In his monograph “Regional Economy: Development Factors” (*St. Petersburg: Publishing House of St. Petersburg University of Management and Economics, 2014. -266 p. ISBN 978-5-94047-703-7*), O.G.Smeshko studied the factors determining the development of the economic space of the territories. Based on the analysis, the author based the principles of assessing the socio-economic condition of the territories, the formation of the theory of the economic development of the territory, as a means of adopting effective management, the solutions of the methodology of territorial management were proposed. The monograph is designed for employees of state bodies, authorities and local state authorities, scientists and employees of departments, issues of socio-economic development of territories⁴.

3. Research methodology.

The methodology of writing the article was defined as the task of introducing a rating system for socio-economic development of territories and it includes decrees, resolutions and works of the President of the Republic of Uzbekistan on state support, resolutions of the Cabinet of Ministers, and works of local and foreign scientists on the problems of territorial development. In the research process, it is based on the wide use of methods such as economic statistics, economic-mathematical modeling, expert evaluation, statistical grouping, observation through questionnaires, monographic works and scientific observation.

4. Analysis and discussion of results.

Regional development or regional policy of the state should include the following goals: proportional socio-economic development of the regions of the country while ensuring the territorial integrity and integrity of the country; reducing regional disparities in people’s living standards and quality; creating equal opportunities for the population of the country to exercise their socio-economic rights, regardless of which territories they live in⁵.

Resolution of the President “On the introduction of the system for rating the socio-economic development of territories” allows to develop work in this field at a new level and to solve existing problems⁶.

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https://ru.wikipedia.org/wiki/%D0%A0%D0%B5%D0%B3%D0%B8%D0%BE%D0%BD%D0%B0%D0%BB%D1%8C%D0%BD%D0%B0%D1%8F_%D1%8D%D0%BA%D0%BE%D0%BD%D0%BE%D0%BC%D0%B8%D0%BA%D0%B0

⁴ https://www.spbume.ru/file/pages/76/smeshko_mon.pdf

⁵ Industrial management and its importance in sustainable economic development M.I.Kutbitdinova – Economics and Innovative Technologies, 2018

⁶ Resolution of the President “On the introduction of the system for rating the socio-economic development of territories” No. RP-4702 dated on May 1, 2020.

The task of introducing a system for rating the socio-economic development of territories has been determined, and the formation of the system will be based on statistical indicators and questionnaires. In this, special attention is paid to 8 main criteria and each direction is assessed.

The first – ensuring stable and balanced economic development in the territories and the effectiveness of economic reforms. Sufficient attention was paid to the proportionality of economic development in all territories, and this direction was set as the main criteria.

The second – creating new jobs in the territories, reducing unemployment and ensuring the efficiency of the labor market. In this regard, it is possible that the internal capabilities of the territories are not being used sufficiently. The specific characteristics of the territorial economy, that is, the directions of specialization, have different effects on the structure of the labor market and the effectiveness of this market. From this point of view, this process requires deep and systematic observations.

The third – increasing access to social services in the territories and improving the quality of life of the population. The quality of life of the population represents the final result of the reforms, that is, it is considered the main criterion of social well-being, and in-depth analysis of work in this regard is one of the main requirements.

The fourth – creating the necessary conditions for the population and business in the territories, ensuring the stability and reliability of the production infrastructure. Ensuring the economic activity of the population in the territories and creating the necessary conditions for the entrepreneurial activity of business circles often depends on the diligence, initiative, efficiency and skills of working closely with the population of local authorities. The stability of production is closely related to the availability of good infrastructure. In turn, the creation of necessary conditions for the population and business expands the possibility of rational use of labor, capital, mineral raw materials and other resources available in the territories. This criterion provides an opportunity to evaluate the conditions created for small business and private entrepreneurship activities of the population in the territories.

The fifth – increasing the level of competitiveness of the territories, further diversifying the economy. Territories in some sense compete with other territories in the national market, in turn, in the regional and international markets, these territories combine their opportunities and potential, they now become a single economic force and compete at the international level. Also, competitiveness depends on the production capacities available in the territories, and the level of industrialization of the territory. If the territories have a one-sided economy, then the level of competitiveness will be undermined. Diversification of the territorial economy directly increases the level of competitiveness, and this criterion is given special importance.

The sixth – improving the quality of the business environment in the territories, continuous support and rapid development of entrepreneurship. The territories have a wide range of opportunities for further development of public-private partnerships between business circles and local authorities, however, due to insufficient attention in places to the organizational, legal, institutional and social aspects of the business environment, the entrepreneurial layer cannot effectively use its potential. In addition, it is appropriate to approach the development of entrepreneurship on the basis of large, medium and small business levels, from the point of view of their integration. Entrepreneurship should become a constantly active and dynamic socio-economic force with great potential. Therefore, based on this criterion, it is possible to make a systematic assessment of the business environment of the territories.

The seventh – achieving financial independence of the territories and development of the banking and financial sector. Significant changes have been made in this regard in recent years. At the same time, there is a need to continue the reforms aimed at achieving financial independence of the territories. This is an important factor for local khokimiyats to conduct an active socio-economic policy in the territories. In turn, local budgets will expand the possibility of solving issues of freedom and transparency in the formation of revenues and distribution of its expenses. By developing the banking and financial sector, necessary conditions are created for further improvement of horizontal and vertical relations in the economic complex of the territories, therefore, the assessment of the situation in the territories according to this criterion will be an incentive to accelerate the reforms in the sector.

The eighth – improving the efficiency of working with citizen's appeals and the openness of information of local government bodies in the territories. Fundamental reforms in our country began with the adoption of the concept of administrative reforms. After that, the principle "State agencies should serve the people" has been gaining deep socio-economic content year after year. This criterion gives an opportunity to assess the extent to which this principle is more deeply applied to life in the territories.

In recent years, the issues of development of the economy of the Republic of Karakalpakstan, Tashkent city and regions are being discussed in a systematic manner in individual, district and city sections. Now, rating indicators are formed at the level of districts and cities. This is very important. Because if the results of rating assessment are carried out not only at the level of regions, but also at the level of districts and cities, through these indicators, it is possible to assess the rate and scale of economic reforms in which territories, the contribution of the regions of our country to the increase of the overall socio-economic potential.

It serves to ensure the effectiveness of the socio-economic reforms implemented in the territories and to more effectively use the local internal opportunities to raise the standard of living of the population.⁷

5. Conclusion and suggestions.

In conclusion, it is necessary to take into account the problems specific to the territory when developing strategies for the medium and long term. In the strategy of New Uzbekistan, the territorial economy will be increased by 1,4-1,6 times through the proportional development of territories, and the five-year territorial programs will be implemented for 14 territories in terms of districts and cities, a program of practical measures will be developed for cities and districts with "unsatisfactory" socio-economic development rating indicators. In order to improve the living conditions of the population in the territories, further improvement of urbanization policies should be focused mainly on the implementation of measures to turn Samarkand and Namangan into promising "million cities", the construction and commissioning of the first few themes of the New Andijan city with a population of 450 thousand people. Bringing the level of urbanization of Kashkadarya region to 50%. Introduction of the "Comfort of Cities" index, which evaluates the comfort of the lifestyle of residents in cities. Digitization of cities, improvement of the quality of construction and design work and development in accordance with the concept of "Smart City". Organization of innovative educational and production "INNO" Technopark, established in the Tashkent city, in 4 territories. Mastering technologies for the production of innovative products

⁷ <https://uza.uz/uz/posts/ududlarni-izhtimoiy-i-tisodiy-rivozhlantirishni-ba-olash-tiz-12-05-2020>

that create high added value in districts that are being transformed into innovative territories. Combining scientific research with practice in the field of architecture and construction in higher education institutions. Technical regulation of the construction industry. Development and implementation of the program for the fundamental improvement of the system of development of urban planning documents of settlements and the provision of urban planning documents. Development of the master scheme of population settlement. On the basis of renovation and housing programs, the construction of more than 19 million square meters of modern housing instead of old houses in cities, and the creation of conditions for more than 275 thousand families to move to new massifs are defined in the strategy of New Uzbekistan.

Also, development of the engineering-communication and social infrastructure system of the territories, as well as service sector. Within the framework of the “Obod kishlok” and “Obod makhalla” programs, special attention should be paid to the construction of engineering, communication and social infrastructure facilities based on the “growth points” of the territories. Construction and renovation of nearly 80 thousand kilometers of main and distribution power lines, more than 20 thousand transformer points and more than 200 substations in the territories of the republic. Bringing the level of provision of drinking water to the population of the republic to 87%, upgrading wastewater systems in 32 large cities and 155 district centers. Introduction of modern technologies for remote sensing and repair of water leakage points in water supply pipelines using satellite technology. Development of new facilities in Tashkent city on the basis of Public-Private Partnership, bringing the sewage treatment system outside the territory of the city. Increasing the volume of services by 3 times in the next 5 years and creating a total of 3,5 million new jobs in this direction through the development of service sector in the territories. Development of paid plumbing, electricity, home appliance repair, and catering services for the development of household and communal services that are highly needed by the population in the centers of cities and districts. Establishment of 130 modern markets and shopping complexes, as well as 65 large and 5000 small service facilities for the development of roadside infrastructure through the development of trade and roadside services in the Republic territories. Reducing the share of the hidden economy in the service sector by 3 times. In order to increase the attractiveness of the service sector, it is appropriate to provide additional benefits to business entities in the sector⁸, and to pay attention to the main factors of the complex socio-economic development of territories.

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COMPREHENSIVE OVERVIEW OF BRONCHIAL ASTHMA: ETIOLOGY, PATHOGENESIS, CLINICAL MANIFESTATIONS, AND TREATMENT STRATEGIES

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Abstract: This article provides a comprehensive overview of bronchial asthma, focusing on its etiology, pathogenesis, clinical manifestations, and treatment strategies. It discusses the role of allergens, central nervous system disorders, and chronic lung diseases in triggering asthma attacks. The article emphasizes the importance of early diagnosis and tailored treatment plans to manage symptoms and prevent exacerbations. Written for healthcare professionals and researchers, this article aims to enhance understanding and improve management of bronchial asthma, ultimately improving patient outcomes and quality of life.

Keywords: bronchial asthma, inflammation, hyperreactivity, allergens, airway obstruction, shortness of breath, Exacerbations, pulmonary function tests, bronchodilators, corticosteroids, allergen avoidance, respiratory gymnastics, quality of life.

Introduction: Bronchial asthma is a chronic disease on the basis of which lies chronic inflammation of the respiratory tract and hyperreactivity, which develops in the bronchi. It is accompanied by bronchial obstruction and various degrees of shortness of breath attacks, depending on the severity of the disease. Bronchial asthma has spread in different countries depending on factors such as climate, vegetation, weather pollution, urbanization rate of the same feed. According to the European Respiratory Society and the Russian pulmonologiary Congress in 2002, more than 150,000 people in the world are currently suffering from bronchial asthma. Severe types of bronchial asthma are increasing. For this reason, cases of dying from bronchial asthma are also increasing. This condition is due to the fact that the diagnosis of bronchial asthma is not made in time.

Etiology: There are many factors that can cause the appearance of bronchial asthma. Many scientists believe that a change in the state of reactivity of the human organism is one of the main causes of this disease. In bronchial asthma, as in all allergic diseases, an increase in the body's state of sensitivity to certain substances called "allergens" (especially when allergens have been acting on the body for a long time) is the cause of the disease. This means that the appearance of certain changes in the body under the influence of allergens sets the stage for the disease. But in some cases, the disease can also begin at once. In this case, the effect of the allergen on the body will not occur and will be passed on. The Allergen, consisting mainly of particles in protein, is completely safe for people with normal body sensitivity, healthy. Allergens can enter the body through breath, digestive tract, skin, and mucous membranes. In addition to bronchial asthma, allergens can also cause diseases such as donkeys, inflammation of the mucous membranes of the eyes (conjunctivitis), inflammation of the mucous membranes of the nasal cavity (rhinitis), rapid-onset tumors (Quincke's tumors), occasional numb headaches (migraines). Allergens can come in extremely different forms. Take, for example, the usual household dust. Its composition depends on the type of equipment in each household, pets, plants grown at home, and finally the insects

(cockroaches, woodworms, spiders, etc. In other words, each household will have its own allergen. Also, in manufacturing enterprises, libraries, the composition of dust is specific and can act as an allergen under certain conditions. Again, dust from cats, dogs, domestic birds, horses and other animals, droppings from poultry skins, wool, feathers can also cause bronchial asthma in young children. For example, it has been found that the digger and hair that fall out of a person's skin have an allergen property. In most houses, wonderful small fish are fed in the aquarium. But it should be remembered that in some cases, fish mints and, in particular, Daphnia, which is fed to fish as feed, processed by talcans, can cause an allergic condition, even bronchial asthma. Chemicals that are increasingly used in our daily routine (detergents, toxic chemicals used against insects, drugs that are sprayed on wet and dry fruits for long storage, etc.) also have allergenic properties. Another type of allergen is the substances contained in food. Products such as eggs, fish, chocolate, honey, strawberries, oranges, nuts can have an allergic effect on some people. When in infancy, some children who are separated from the breast early and fed artificial foods are given the above products, symptoms of an allergic disease can appear that can lead to their body from a rash to an attack of bronchial asthma. Allergens are classified into infectious and non-infectious types. Accordingly, the onset of the disease, its symptoms, development and complications differ from each other. The non-infectious allergic type of bronchial asthma occurs in most children. Older people hardly get sick with this type of disease. Bronchial asthma is more common in people with a cold airway, who often have a tummy tuck.

Pathogenesis: Three phases are differentiated in the pathogenesis of bronchial asthma:

- 1) Immunological phase in which antigens and antibodies interact with each other;
- 2) The pathochemical phase in which biologically active substances (histamine, acetylcholine, serotonin, bradykinin) are formed;
- 3) Pathophysiological phase;

In this, biologically active substances affect the bronchi muscle. The muscles tighten and contract, the small bronchi become narrower, the mucous membrane of the bronchi swells. A Talai sticky mucus comes out and makes it difficult to breathe. In addition to allergens, disorders of the functioning of the central nervous system also play a large role in the development of bronchial asthma. Excessive strain on the nerves, intense excitement, severe fear often cause the seizure of a bronchial asthma attack. While the smell of a single flower causes the disease to snore in this patient, the image of that flower can also cause him to squeeze his breath and choke. Bronchial asthma has been found to be dependent on several chronic lung diseases: bronchitis, stretched pneumonia. Bronchial asthma often leads to an outbreak of chronic bronchitis. Among other factors that affect the course of the disease, a large place is given to disorders of the endocrine system, including the functioning of the adrenal glands.

Pathological anatomy: In this disease, first of all, symptoms of emphysema, blockage of the bronchi from mucous or mucous-purulent clots, expressed bronchospasm are observed. At the same time, symptoms of bronchitis and chronic lung diseases are seen, which are satellite to bronchial asthma. When examined under a microscope, it is observed that the ciliated epithelium decreases and is replaced by goblet cells. There is a decrease in capillary cohesion by a small circulatory circle, extensive anastomosing cohesion, functionally active bridging formation, muscle floor hypertrophy, and infiltration of the thickened inner floor.

Clinic: The main clinical sign of bronchial asthma is a shortness of breath attack. Factors that provoke an outbreak of sensitivity are: the influence of non-infectious allergens, recurrence

of inflammatory diseases, nervous-mental tensions. Bronchial asthma attack occurs in three periods:

The first period is the period of combative symptoms of an attack. Symptoms of an attack are different in different patients, with a cough in the patient a few minutes or hours before the attack, itching of the throat, eyes, skin or ear. Supra, a lot of urination, etc. are observed. If the patient is able to detect the symptoms in a timely manner, he can achieve regression of the attack with the help of drugs.

The second period - expiratory is accompanied by signs of suffocation. During this period, the patient feels a "crunch" in the chest, unable to fully exhale. Exhaling is accompanied by remote whistling wheezes. The patient's face swells, bruises. The chest is emphysematous enlarged, standing in a deep breathing position. The neck vein is swollen. From time to time, a tormented cough is observed. Sputum is dark, sticky, sometimes foamy. When percussive, the sound of a box is heard, while pulmonary auscultation reveals that there is a talay of dry wheezing. The breathing period lasts 3-4 times longer than the breathing period. At the expense of a strong tumor of the lungs, the boundaries of the heart are not determined. The heart tone is sluggish, with a tone II accent in the pulmonary artery. The pulse is accelerated, the completeness is reduced. In long-term shortness of breath attacks, there are signs of heart right ventricular failure-enlarged liver, swelling in the legs. An X-ray examination shows increased airiness of the lungs, low aperture position, and alertness. The ribs settle horizontally, the range expands, the image of the lungs increases on X-ray. In long-term severe shortness of breath attacks, changes in the ECG appear. The electrical axis of the heart is shifted to the right. In the I Standard direction, the S tooth is deep, in the III direction, the R tooth is high. The large axial P is often negative in the standard directions II and III and in the direction V. In the positive, sometimes bi-peaked P tooth, V₂, V₂, an inversion of the ST segment is found in the right thoracic orientations. Giss tutami may have a blockage on his right leg. The severity of the course of bronchial asthma is assessed on the basis of clinical signs of the disease, as well as signs of pulmonary dysfunction detected in the spirometer and picfloumetr.

The third period is the relapse of the attack. During this period, a large amount of phlegm cough appears, which gives the patient relief. In Hoi, which depends on the pathogenesis of the disease, disease regression occurs every xiI. This period is fast without change in other members, sometimes it can be slow by disabling the patient as the opposite. Bronchial asthma can lead to complications with the addition of chronic bronchitis, which in turn causes pulmonary emphysema, chronic respiratory failure, and pulmonary-heart disease.

International consensus according to the course of bronchial asthma (USA, 1995-Y.) in 4 stages based on the classification:

1. Intermittent asthma (I-stage). Short-term relapse (cough attacks, whistling breathing, dyspnoe) does not exceed once a week. Relapse lasts from several hours to several days. A night attack is returned up to 2 times a month. In the period between attacks, there are no symptoms of the disease, the activity of the external breath has not changed, that is, the required indicators of the volume of rapid breathing in the spirometer and the speed of the exhalation peak in the pikiofluometer are more than 80%. During the day, the change limit of this kursatkich is up to 20%.

2. Symptoms of relapse in mild persisting asthma (Stage 2) are one or more times a week, but no more than once a day. The patient's sleep and physical activity are disturbed. Night attacks

increase more than twice a month. This group consists of 80% or more of the necessary indicators of the volume of accelerated breathing and the speed of the exhalation peak in patients, the change limit of indicators will be 20-30%. Symptoms of bronchial asthma are controlled with the intake of permanent broncholytic drugs.

3. In moderate-to-severe persisting asthma (stage 3), the symptoms of everyday illness are long-lasting. Night shortness of breath attacks are observed more than once a week. The patient drinks broncholytic drugs daily. In this group of patients, JNCHH and NCHCHT make up between 60% and 80% of the required indexing, with the daily variation limit of these rates increasing by more than 30%.

4. In severe persisting asthma (stage 4), the patient has long symptoms of the disease, attacks are repeated more often, physical activity is limited, severe shortness of breath attacks are repeated despite taking medications. In this group of patients, JNCHH and NCHCHT are less than 60% of the required indexing in the period up to the reception of the drug, with a daily change limit of this indexing of more than 30%.

Treatment: While the treatment of bronchial asthma is aimed at treating an asthma attack or asthmatic condition on the one hand, on the other hand, the pathogenetic process of the disease is taken into account. When stopping a bronchial asthma attack, simpatomimetics, xanthine compounds, cholinolytic drugs are used. A positive change is observed as sympathomimetics increase the functional activity of b-adrenergic receptors in the bronchial smooth muscle. Sympathomimetics are divided into 4 groups according to what type of adrenergic receptor they affect:

- 1) A-and B-receptor stimulants (adrenaline, ephedrine);
- 2) a-adrenergic receptor stimulants (norepinephrine, rnezaton, sympathol);
- 3) Non-selective J3-stimulants (novodrin, isadrin, astmopent, alupent, etc.);
- 4) Selective 132 stimulant (berotek, salbutamol, terbutalin, phenoterol, formoterol);

The broncholytic effect of ephedrine is slower than that of adrenaline and is relatively long-lasting. It is recommended to administer 0.4 ml of 0.1% II adrenaline solution and 1 ml of 5% II ephedrine solution under the skin at the same time. Ephedrine can be prescribed to drink from 25 mg. Non-selective 13-stimulants are commonly used as pocket thinners or drugs used under the tongue. From selective 132 - stimulants, dosed ingaliers are used: terbutalin (bricanyl), salbutamol (ventolin), berotek, formoterol. Resistance to these drugs is poorly developed. In some cases, when treated with sympathomimetics, patients have a worsening condition, a shortness of breath attack is aggravated, seizures are more recurrent. When treated with sympathomimetics, the obstruction of the bronchi, the exacerbation of cirrhosis indicates that treatment with them should be discontinued. When treated with sympathomimetics, as a result of their negative effects, an increase in blood pressure, hand tremors, dizziness are observed. Cardiac arrhythmias or sudden death may occur in patients with circulatory disorders in large crown vessels of the heart as a result of the toxic effects of sympathomimetics on the myocardium. When returning an asthma attack, 2.4% II is administered 5-10 ml of eufhylline to the vein. This treatment has a hypotensive effect on a small circle of blood circulation, in addition to broncholytic action. In the elimination of tachycardia caused by Eufillin treatment, especially when the disease is accompanied by heart failure, verapamil (isoptin) is given to drink from 80-120 mg. In the return of mild attacks of asthma, eufhylline can be used as a suppository (0.3-0.5 g). Cholinolytics (atropine, platifillin) have a weaker effect on sympathomimetics and eufhylline, but they enhance the effect of

sympathomimetics. Atropine is given subcutaneously (0.5 ml of 0.1% II solution) or in a thinning case (0.1% II solution). Ipratropine bromide (atrovent) from atropine derivatives is prescribed in the Prevention of asthma attacks (from 20-40 mg to 3 times). Sympathomimetics and cholinolithics - berodual, ephatin, troventol-are used in medical practice. In the case of a slight shortness of Breath Attack of bronchial asthma, drugs are given to drink, as a suppository or dosed ingestion. In the treatment of moderate to severe attacks, the drug is injected into the vein, under the skin and between the muscles. In the Prevention of an asthma attack, long-acting (12-18 hours) compounds of theophylline can be used: theopek, theobiolong and others. In the treatment of stage I of asthmatic condition, 200-250 ml of blood is excreted, followed by infusion treatment. In order to combat developing dehydration, 2 I and more liquids (isotonic solution of table salt, 5% II glucose solution, reopoliglyukin) are injected per day. In addition, 10 ml of 0.9% II sodium iodide solution (in the absence of allergies to iodine treatment) is administered to the vein for the purpose of diluting eufillin (2.4% Ii solution 10 ml), Heparin (5000 TB), phlegm. In order to eliminate acidosis in the patient's body, a solution of 200-400 ml of 4% II sodium bicarbonate is dripped into a vein. In an effort to re-establish sensitivity of J3-adrenergic receptors to cypmatomimetics, venase is administered slowly but or drip 30-60 mg prednisolone (250-300 mg metipred or 125-300 mg hydrocortisone) every 3 hours at an indicated dose until the asthma attack stops. When the " silent lung " stage is formed, the dose of prednisolone administered to the vein is increased to 90-120 mg, using previous stage treatment methods, and its administration returns every 1.5-2 hours. If signs of congestion appear within the framework of a small circulation and there is a risk of pulmonary edema, it is necessary to carry out a dehydrating treatment by adding urinary drugs with potassium salts. If the treatment does not work, then in a short time - 2-3 hours the patient is transferred to controlled breathing, aspiration of the bronchi is carried out. Treatment of Stage III of asthmatic condition is carried out in the conditions of the intensive care unit. Treatment carried out in the middle of seizures, measures to prevent seizures depend on the pathogenetic type of bronchial asthma. In patients with atopic bronchial asthma, hygienic measures should be carried out to stop exposure to allergens in the apartment, exclude foods that cause allergies from the composition of food, when there is hypersensitivity to house dust. If there is no possibility to stop the causes of allergies, desensitizing treatment is carried out. Specific desensitization is performed by injecting a specific allergen into an overdose. In infectious-allergic asthma, desensitization can be performed with autovaccine made from patient sputum flora. Antibacterial treatment is carried out only in cases where infectious colds are confirmed. Unreasonable use of antibiotics can aggravate the course of the disease. In order to prevent recurrence of infectious-allergic asthma, it is recommended to use immunostimulants (levamisol, polysaccharides, T-activin, sodium nucleinate). In physical exertion asthma, calcium antagonists are prescribed: corinfar (3 times a day from 0.01 g), isoptin (2 times a day from 120 mg), cenizite (3 times a day from 50 mg), diltiazem. In physical activities, it is recommended to gradually increase physical exertion. In addition to hormones, immunodepressants (azathioprine, 6-mercaptopurine) are also used when the disease is very severe. Extracorporeal blood purification methods (hemisorption, immunosorption, plasmaphoresis) are used. The most used in the treatment of bronchial asthma is hemisorption. In medicine, it is also observed that bronchial asthma can be treated surgically, physiotherapeutic, Without Medication (respiratory Gymnastics, psychotherapy, barocamera).

Conclusion: In conclusion, bronchial asthma is a complex and chronic condition that affects millions of people worldwide. It is characterized by chronic inflammation of the respiratory

tract, bronchial obstruction, and varying degrees of shortness of breath attacks. The prevalence of severe types of bronchial asthma is increasing, leading to a rise in asthma-related deaths. The etiology of bronchial asthma is multifactorial, with allergens playing a significant role in triggering the disease. Allergens can enter the body through various routes, such as inhalation, ingestion, or contact with the skin, leading to allergic reactions that contribute to the development of bronchial asthma. Treatment of bronchial asthma aims to manage acute asthma attacks and prevent future attacks. Bronchial asthma is a complex and challenging disease that requires a comprehensive approach to management. Early diagnosis, proper treatment, and lifestyle modifications can help improve the quality of life for individuals living with bronchial asthma.

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**ANALYSIS OF THE EPIDEMIOLOGICAL FEATURES OF
DIARRHEAL DISEASES IN CHILDREN IN THE SOUTHERN ARAL
REGION**

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Resume

Despite the downward trend, the incidence of diarrheal diseases in the Republic of Uzbekistan remains at high levels, which emphasizes the relevance of this problem for our country. The high incidence of diarrheal diseases among the child population, a severe course, especially in early childhood, which determine the mortality rates for this pathology, determines the study of the prevalence, level, structure of incidence, etiological structure, dynamics of detection of infectious agents.

Keywords: diarrhea, intestinal endoecology, immune status, colienteritis, hygiene.

Introduction. Acute infectious diarrhoeal diseases (AIDD) occupy the second place in the world both in terms of prevalence and mortality. Epidemiological studies show that AIDD are an urgent problem not only for developing countries, but also for economically developed countries. According to some reports, about 76 million cases of acute intestinal infections are registered annually in the United States, 325 thousand people need hospitalization, and 5 thousand people die. Although, according to official statistics, the incidence of IDZ in our region is characterized by significantly lower rates, nevertheless, practice shows that this problem is no less relevant for our country.

In this regard, the purpose of this work was to study the prevalence and structure of diarrheal diseases among the children's population of the Southern Aral Sea region. The study was conducted by retrospective analysis of the medical

histories of 3,463 sick children under 15 years of age hospitalized in the regional infectious diseases hospital and infectious diseases departments of the Khorezm region of the Republic of Uzbekistan.

Comprehensive socio-hygienic research methods were applied and special maps and questionnaires were developed for these purposes, taking into account the conditions of everyday life and regional customs. All the received materials were processed on an IBM personal computer using a special program for biomedical scientific research.

When examining the age structure of the patients, it turned out that newborns with acute diarrheal diseases accounted for only $0.8 \pm 0.1\%$ (29 patients), the incidence rate among children from 3 to 7 years of age was also low at $5.3 \pm 0.3\%$. A high percentage of morbidity was observed in children under 1 year of age – $54.7 \pm 0.84\%$ (1894 children) and from 1 to 3 years of age – $36.0 \pm 0.84\%$ (1246 children). A significant difference in the incidence of children under 3 years of age in comparison with other age groups was confirmed statistically ($P < 0.02$). A slight but significant difference between boys and girls was found during static processing of the material ($57.7 \pm 0.8\%$ vs. $43.2 \pm 0.8\%$ $P < 0.05$).

Early studies have shown that in the ecologically disadvantaged region of the Southern Aral Sea region, the immune system and intestinal endoecology undergo particularly pronounced changes, and these changes are more significant in children aged 1 to 3 years. Apparently, there are violations in the immune status and the development of diarrheal diseases in them.

When analyzing the etiology of acute intestinal diseases, it was found that a very high proportion belongs to bacteriologically unencrypted infections -1280 children ($37.0\% \pm 0.8\%$). The dominant role was played by such nosological units as enterocolitis and salmonellosis caused by enteropathogenic variants of E. Coli – $28.5\% \pm 0.7\%$ and salmonella – $15.0\% \pm 0.6\%$. Dysentery accounted for $9.2\% \pm 0.4\%$ of cases, in $8.7 \pm 0.3\%$, diarrheal diseases were caused by opportunistic bacteria, among which proteus Staphylococcus aureus prevailed ($3.3 \pm 0.3\%$ and $5.4 \pm 0.3\%$,

respectively).

Further, this material was analyzed depending on the age of the children. As it turned out, the most common diagnosis of colienteritis was made in children under 1 year old – 498 children ($50.6 \pm 1.5\%$) and children from 1 to 3 years old – 426 children ($43.2 \pm 1.5\%$). In newborns, this indicator is significantly lower ($0.5 \pm 0.2\%$). The proportion of dysentery was highest in children with acute diarrheal diseases in urban and rural children, the following showed: Children living in rural areas have significantly more acute diarrheal diseases associated with salmonella and E. Coli (respectively $16.1 \pm 1.2\%$ - 142 children and $29.8 \pm 1.5\%$ - 262 children) – $P < 0.05$. Nevertheless, diarrheal diseases of unknown etiology were more common – $34.4 \pm 1.6\%$ - 302 children. In our opinion, the higher incidence of salmonellosis and colienteritis in children is explained by a lower sanitary culture and a lower level of socio-economic conditions in rural areas.

When analyzing the ways of admission to the hospital of patients with acute diarrheal diseases, it was found that the proportion of patients admitted to the hospital "on their own" (1212 children - $35 \pm 0.8\%$) is slightly less than 143 children admitted through the service – $41.3 \pm 0.8\%$. Naturally, the admission of a patient "on its own" has a negative impact on the timely diagnosis, selection of treatment and prevention tactics.

It was revealed that among the patients admitted to the hospital on their own, the etiology of the disease was not established bacteriologically with diarrhea in $34.2 \pm 1.3\%$, colienteritis was diagnosed in $32.4 \pm 1.3\%$, salmonellosis in $14.0 \pm 0.9\%$. The number of patients admitted to the hospital in the direction of the polyclinic is $17.2 \pm 0.6\%$, and $6.5 \pm 0.4\%$ of patients were conducted from other departments and various hospitals. Further, the medical history of 3,493 children was analyzed taking into account the outcomes of their hospital treatment. As these data showed, the vast majority of children were discharged with full recovery (1733 children – $50.0 \pm 0.8\%$), 1095 children were discharged with improvement – $31.6 \pm 0.7\%$, 104 children died ($3.1 \pm 0.2\%$).

It is noteworthy that a fairly high percentage of cases of unauthorized departure of patients from the clinic (292 children – $8.4 \pm 0.4\%$). The reason for the unauthorized departure from the hospital was the following: the presence of another infant in the family and the mother's inability to stay in the hospital; low sanitary culture of parents who do not want to be treated in the hospital; dissatisfaction with the internal regulations of the infectious diseases hospital and others.

If we consider these data depending on the diagnosis, the following conclusions can be drawn: in colienteritis, diarrheal diseases caused by conditionally pathogenic bacteria and diarrhea of unknown etiology, complete recovery of patients was observed in $46.0 - 56.5\%$ of cases. In contrast, children with salmonellosis and dysentery were discharged with complete recovery in 52.2 ± 2.2 and $40.1 \pm 2.7\%$, compared with the above diseases, no significant difference was found ($P > 0.05$). In this category of patients, the percentage of cases of transfer to other departments or to other medical institutions was relatively high – 13.5 ± 1.5 and $16.9 \pm 2.0\%$. Of particular interest was the analysis of deaths, which was observed in patients with dysentery in $3.8 \pm 1.8\%$ of cases, among children with other diseases, this indicator ranged significantly from 3.8% to 12.5% . But the majority of the deceased children were sick with colienteritis and diarrheal diseases of unknown etiology – $38.6 \pm 4.7\%$ and $37.5 \pm 4.7\%$. Among the deceased, there were 61 boys ($58.7 \pm 4.8\%$) and 43 girls ($41.3 \pm 4.8\%$) patients.

Conclusions.

The analysis shows that diarrheal diseases are more common in children under 1 year old and from 1 to 3 years old. The prevalence among rural and urban children is in the ratio of 1:2.9, but in the etiology of diseases, especially among rural children, there is a high proportion of colienteritis.

Admission of patients to the hospital "on their own" aggravates the establishment of a clinical diagnosis, the selection of treatment tactics and preventive measures. Discharge of children with full recovery was found more often with diagnoses of salmonellosis, diarrheal diseases caused by conditionally

pathogenic flora and with undetected etiology, while with salmonellosis and dysentery, children were more often transferred to other departments or medical institutions.

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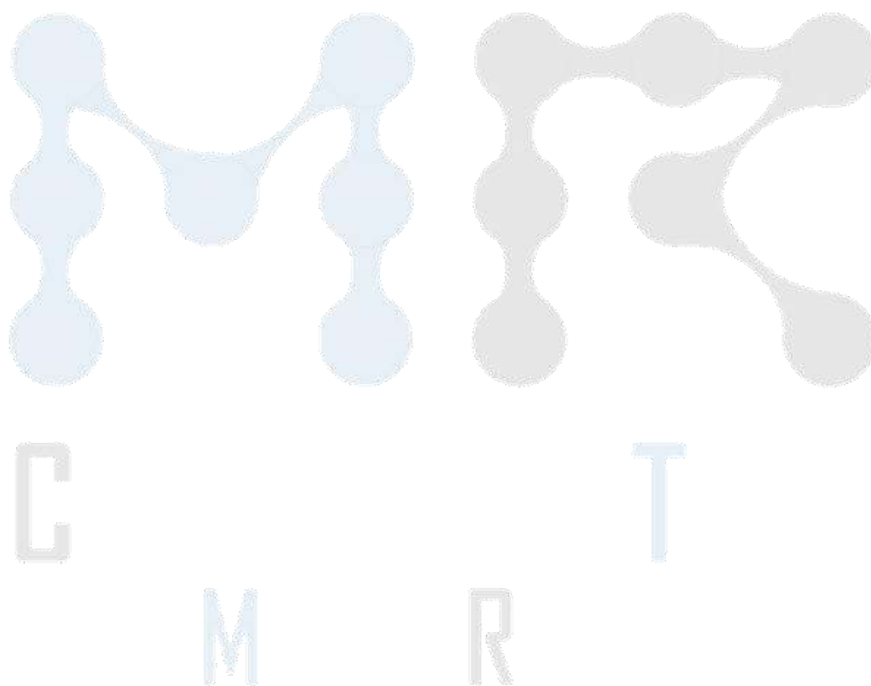
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THE ROLE OF THE FAIRY TALES IN THE EDUCATION OF STUDENTS IN
READING LESSONS

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Abstract. this article deals with the use of fairy tales in teaching primary schoolchildren in reading lesson. In addition, it provides phases, steps for analyzing context, and characteristics of fairy tale composition as well as guidelines for utilizing fairy tales in teaching process.

Keywords: folk tales, phases, steps, elements, wonderful world, plot milestones, laws.

The approach offers a broad framework for interacting with fairy tales based on which intragenre varieties they belong to. Nevertheless, it ignores the qualitative diversity of the fairy-tale genre and the ideal number of skills that younger students should acquire from reading various kinds of fairy tales. But a teacher's ability to select instructional strategies that fit this kind of fairy story, comprehend the significance of fairy tales more fully, and help students develop the critical thinking abilities required for fairy tale analysis is all made possible by their understanding of literary foundations.

The ability to work with standards, diversity it to elicit the appropriate emotional response in kids, and help them understand that no two fairy tales are the same and that each one is unique in its own unique manner are all made possible by skills.

Younger kids may comprehend the basic idea of any fairy tale if their teachers, when directing their reading of the stories, regularly create the essential abilities and depend on the literary peculiarities of the stories, which are vital for the literary growth of the students.

Folk tales are distinctive in their own right, and fairy tales maintain their national identity. When working with a fairy tale - whether it is read aloud by adults, read by children, or retold in a variety of ways and translated into another language - it is important to identify its characteristics, discuss its meaning with the kids, and make extensive use of the fairy tale to help kids learn about aesthetics and appreciate art.

The oral (spoken) painting approach will assist the kids in identifying a distinguishing detail and understanding the primary idea [1].

Children usually enjoy expressive reading and role-playing, which helps them absorb the spoken language, repetitions, and unique rhythmic elements of fairy tales.

When reciting fairy tales, intonation is crucial. A mispronounced sentence "destroys the illusion of a fairy-tale world". The fairy tale loses its particular shades of meaning, its temperament, and its intrigue and color. It also becomes lifeless and boring.

The work in this area is divided into many phases:

- a significant interpretation of the fairy tale; the key characters in the narrative are identified, their character qualities are defined, and their assessment attributes are compiled;
- classifying the characters based on their traits and the part they play in the fairy tale; constructing a verbal picture of each character while considering the purpose and substance of images (details, such as landscape drawings, portrait details, the objective world, etc.);

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- making meaningful connections between pictures in a fairy tale's storyline; generalizing the chosen material about the major characters and gathering all of their traits;
- using an image system's characteristics to define a fairy tale's details.

When dealing with an image system, it's important to educate kids how to analyze each image's fantastic purpose and discern each one's place in the storyline of a fairy tale. All of these characters are encountered by a younger student in a fairy tale, thus it is important to be aware of their traits.

In order to decipher the significance of the miracles performed by these characters and the role that good or evil plays in them, it is imperative that children be taught to identify, name, and imagine magical creatures and objects found in the text. These elements together form the foundation of the wonderful world of a fairy tale.

There are many steps involved in the plot analysis process:

Character actions that are typical of many fairy tales are defined as individual functions. The so-called "plot milestones", or plot elements - the beginning, the development of the action, the turning point, the climax, and the denouement - are highlighted. The main motivations of the plot are clarified, and cause-and-effect relationships between them are discovered. Each plot element is correlated with the characters, their actions, and their deeds [2].

Characteristics of fairy tale composition.

Its compositional elements - such as the proximity of the fairy-story action, the threefold repeats, the traditional fairy-tale starts and endings, etc. - are crucial in differentiating a fairy tale from one of another genre. As a result, you should consider the structure of fairy tales when studying them.

In this sense, the following primary domains of child work may be identified:

- to instill in kids the notion that conventional beginnings and endings are essential components of the creative creation of fairy tales, marked by conventionality and information overload; to instill in kids the ability to distinguish between a fairy tale's "beginning" and "ending", which are the happy endings for the good characters;
- to develop children's comprehension of a distinctive technique used in the creation of fairy tales, such as triple repetitions; to instruct them in identifying repetitions within a story and analyzing their significance to the story's plot and hero imagery;
- to help kids understand the conventionality of fairy-tale space and time; to help them recognize a fairy tale's spatial and temporal framework; and to help them identify the characteristics of fairy-tale space and time in relation to how the story's action unfolds.

Children must understand how fairy stories begin and finish, how they repeat from one to the next, and how they vary and are diverse all at once.

The fairy tale's formulaic wording.

Working on a fairy tale's language is just as important as studying its plot, images, or composition because it helps reveal the story's content, provide the most comprehensive understanding of fairy-tale images, understand the precision, brightness, and expressiveness of folk speech, foster children's speech development, expand their vocabulary, and expose them to artistic creativity. It is important to note that this work should naturally flow into all kinds of classes rather than being a stand-alone component.

Several areas of study on the components of the linguistic design of the fairy tale may be separated based on this stance and the details of the story's visual means: analysis of the fairy tale's

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language in relation to characterization elements; work on space-time formulas (whether they are long or short; a year has passed, another); work on the specifics of the fairy tale's framing formulas (beginnings, sayings, endings), reflecting the features of its plot and compositional construction; analysis of linguistic means of image in preparation for retelling and expressive reading of a fairy tale [3].

Guidelines for utilizing fairy tales in work.

Understanding the roles that each character plays in the plot's development and being aware of the cause-and-effect linkages that the story takes.

Generally speaking: What's taking place? Why is this taking place? Who desired for this to occur? How come he would do that?

The goal is to demonstrate how, although appearing undetectable at first look, one occurrence flows naturally into another. It's critical to comprehend the setting, the look patterns, and the functions of each fairy tale figure.

The quality of multiplicity.

- realizing that the same circumstance or incident can have several interpretations.

The goal is to depict the same amazing scenario from many angles. While it is true in one sense, it is not in another.

➤ relationship to reality.
➤ the knowledge that every amazing circumstance presents us with a lesson to learn in life.

The aim is to meticulously and methodically work through scenarios from fairy tales, considering how we will apply the lesson in real life and in which circumstances.

The framework for thinking about fairy tales and discussing them.

- ❖ the fairy tale's cast of heroes.
- ❖ attitude toward both yourself and the environment around you.

It's critical to comprehend the hero's overall perspective: with regard to the world and other heroes, does he create or destroy?

What happiness, pain, or epiphany do others derive from the hero's actions? Which circumstances does he create, and which does he destroy? What is the distribution of these tendencies in an individual's real life? What role do these patterns have in each of our individual lives?

Developing a flexible response to constructive and harmful tendencies in the discourse is crucial. The way the underlying inclination manifests itself in a given scenario in life is greatly dependent upon actualized emotions.

Understanding the type of emotional response a hero experiences in a given circumstance and the reasons behind it is crucial.

What emotions does this story about fairies arouse? Which episodes made you happy? To what extent are they depressed? What circumstances made you fearful? Which circumstances irritated you? Why is the hero acting in this manner?

By analyzing a fairy tale through the lens of the emotions it arouses, we may concentrate on the origins of our own emotions.

Fairy tale symbols and images.

Understanding the societal norms, values, and behavioral patterns that each fairy tale hero embodies is crucial.

Alpomish: who is he? Boybo 'ri: who is he? Qorajon: Who Is It?

When addressing the question "What is this image?" you can refer to image dictionaries in addition to using your own logic.

a) forms of art incorporating the fairy tale's content.

A fairy tale can take on a wide variety of styles of work. Additionally, with the assistance of a teacher, we will highlight a few semantic accents that appear noteworthy and might have a positive impact on a child's personality development. They can be realized in the course of a fairy tale discussion, as chores given to children after their familiarity with a fairy tale, or as questions posed to them. These kinds of tasks make youngsters pay attention to parts of a fairy tale that they might otherwise overlook, such as the dialogue and brief incidents [4].

A literary folk story or folk tale has its own unique "fairy-tale world". It is extensive, significant, and well-crafted. "Volume" refers to the quantity of signals and components, while "form" refers to both complex and simple compositions that are narrative, lyrical, dramatic, and have a connection or not to folklore.

The notion of "content" encompasses the following elements: the plot's theme; the details of fiction; character characterisation; and the aspects of this world's living environment and time.

These indicators are significant from the perspective of creative elements as well as from a psychological and educational one. They contribute to a deeper understanding of the "fairy-tale world" and its description.

The "wonderful world" is a meaningful, practically infinite universe made possible by the magnificent principle of material organization.

After reading a fairy tale that takes place in a "wonderful world", you can plan an autonomous investigation for the kids, guided by an instructor.

Students should generalize and develop deeper practical notions about fairy tales as a genre and the "wonderful world" via reading and research; in other words, they should establish the necessary number of abilities, such as:

1. The capacity to recognize the precise beginning of a fairy tale - that is, the beginning and the happy ending for good characters;
2. The ability to pinpoint an amazing location and moment of action;
3. The capacity to identify a turning point in the action when working with text, which enables the tracking of character changes;
4. The capacity to provide a basic evaluation of the characters' behavior;
5. The capacity to locate and identify magical objects and creatures, ascertain their location and role in the plot's development, and the function of good or evil in relation to the characters [5].

In order to develop these abilities, children should read fairy tales set in a "wonderful world" in a way that puts them in a state of search from the start to the finish, reading the stories in paragraphs and helping them to understand the fantastic action and the character actions in accordance with "plot milestones".

Aim for the kids' primary perception while presenting a fairy tale; if you can pique their curiosity, they will listen intently and with great enthusiasm.

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The instructor has a big influence on how students perceive things. There are times when altering speech tone, facial expressions, and pausing are required.

Once the kids are familiar with the fairy tales, assign them to sketch a particularly memorable scene to determine what captured their interest.

Considering the details of the “wonderful world” aids the teacher in developing the required abilities to impact the child's moral and emotional development.

We want to focus especially on the following five laws:

1. Bringing natural objects and phenomena to life;
2. Humanizing objects, phenomena, and representation in realistic or fantastical images;
3. Combining various commonplace phenomena, objects, and beings to create extraordinary images that are the outcome of imagination as a means of expressing ideas and dreams;
4. Magnificent changes and conversions;
5. Exaggeration.

These rules allow all phenomena of the objectively real world and all imaginary things to function as actual active forces inside the action of the fairy tale, particularly in its emotional domain. Because of this, a fairy tale is a rich source of material for a child's imaginative growth and development, as well as essential to the reader's ability to fully comprehend the works.

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**PATHOGENETIC PRINCIPLES OF ACUTE INFECTIOUS
INTESTINAL INFECTIONS AND FEATURES OF CLINICAL COURSE
AMONG CHILDREN OF DIFFERENT AGES**

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Abstract. This article presents the pathogenetic aspects of the diarrhea syndrome that occurs in acute intestinal infections and the characteristics of the clinical course in children of different ages.

Key words: acute intestinal infections, salmonellosis, dysentery, children, pathogenesis, clinic.

Relevance of the problem. 90-95% of the diseases associated with diarrhea syndrome correspond to acute intestinal infections and acute intestinal diseases. As a result of increasing temperature during summer time in the territory of our republic, favorable conditions are created for the survival and reproduction of pathogens that cause acute intestinal infections. During this period, there is an increase in the variety of various food items like fruits and vegetables, unfortunately it sometimes becomes the main reasons for the spread of these pathogens.

Absorption of water in the intestines is related to the absorption of electrolytes. It is carried out with the help of villi epithelium, that is, enterocytes and colonocytes. In the small intestine, water and electrolytes are transported passively, and in the large intestine, they are absorbed by the active sodium pump, against the chemical concentration balance. Glucose and amino acids enhance the absorption of water and electrolytes. The amount of water absorbed in the large intestine is 5 liters per day. If more water enters the large intestine, it causes diarrhea. The clinical course of diarrhea indicates a violation of the absorption of water and electrolytes in the intestines. There are 4 types of diarrheas, which are based on different mechanisms of pathogenicity. Diarrhea of one or another type is characteristic of every intestinal disease.

Secretory diarrhea. In this type of diarrhea there is an increased secretion of sodium and water in the intestinal cavity. For example, diarrhea in cholera. Exotoxin enters enterocytes through the receptor zone and activates adenylate cyclase, which increases the synthesis of cyclic 3-5- adenosine monophosphate (tsAMF). This, in turn, increases the secretion of electrolytes and water by enterocytes in a constant ratio (5 g of sodium chloride, 4 g of sodium bicarbonate

and 1 g of potassium chloride in 1 liter of excretion. The main place is occupied by prostaglandins that stimulate the synthesis of tsAMF. Also, secretory diarrhea occurs again in salmonellosis, terminal ileitis, post cholecystectomy syndrome. Secretory diarrhea occurs under the influence of highly active peptides, serotonin, calcitonin, secretin, free and chain fatty acids. Character of feces: watery, sometimes green.

Hyperosmolar diarrhea. Diarrhea of this type occurs in malabsorption syndrome, disaccharide deficiency and by taking saline laxatives. The osmotic pressure in the fecal mass is higher than of osmotic pressure in the blood plasma. Unwanted wastes are abundant in it with liquid and undigested nutrients.

Hyper and hypokinetic diarrhea. It causes a transient disturbance of the mass in the intestines. This type of diarrhea is a result of decreased or increased intestinal motor function. Neurosis is observed on taking laxatives and antacids. The osmotic pressure in the waste mass corresponds to the osmotic pressure in the blood plasma. In this type of diarrhea, the stool is liquid, porridge-like, and its quantity is small.

Hyper exudative diarrhea. The cause of this type of diarrhea is the release of blood, mucus, plasma protein into the intestinal cavity. This type of diarrhea occurs in intestinal inflammatory diseases (salmonellosis, dysentery), nonspecific ulcerative colitis, Crohn's disease, intestinal tuberculosis, lymphoma, carcinoma and intestinal ischemic diseases. In this case, the osmotic pressure of the waste mass is higher than the osmotic pressure of the blood plasma. The waste is liquid, a mixture of deposits and pus.

It is known that the pathogenesis of infectious acute intestinal infections is a complex and still unsolved. It is related to a number of factors, the interaction of which determines one or another level of expression of the infectious process. These factors are implemented by the characteristic of the pathogen (pathogenicity of pathogens and their toxins for the macro-organism and foreign antigen), and on the other hand, through the protective factors of the macro-organism. According to most researchers, the following mechanisms are distinguished in the pathogenesis of infectious UTIs: increased intestinal secretion, inhibition of active transport of ions from the intestine, impaired permeability of the intestinal wall, and impaired intestinal motility. enterotoxigenic and entero-invasive types are distinguished. In the initial mechanism, bacteria do not digest enterocytes, in this case, strong enterotoxins are the cause of the disease, which disrupt the transport of ions and water through the membrane of intestinal epithelial cells by activating adenylate cyclase. Invasive microorganisms also affect the absorption of electrolytes and water from the small intestine, so this mechanism of diarrhea does not result in

fluid loss in the feces, but most invasive bacteria are capable of synthesizing enterotoxins. Therefore, in such cases, the mechanism of diarrhea has a mixed character.

In salmonellosis, the causative agent enters the lymph and blood through the lymphoid ring of the larynx, and then spreads throughout the internal organs. A small amount of Salmonella can also enter the lungs via aspiration and blood, where it remains inside the cytoplasm of alveolar macrophages for a certain period of time. Their main mass enters the intestines and immediately enters the tissues of the 12-finger and small intestines, as well as the blood and lymph vessels of these organs. Most of the salmonella left in the intestinal cavity either die or excreted with feces. In the generalization of the process, the accumulation and multiplication of the pathogen occurs in the intestine, mesenteric nodes, spleen and liver. This process is significantly facilitated by the ability of microbes to parasitize in the cytoplasm of macrophages.

It has been proved that the basis of the pathogenesis of dysentery is the parasitism of its causative agents in the epithelium of the mucous membrane of the large intestine. Some enteric pathogens, such as Escherichia, can interact with the human body in the same way as Salmonella and Shigella. The important toxic effects of bacterial lipopolysaccharides include their entry into leukocytes, resulting in their degranulation. Epidemic processes and clinical course of intestinal infections have changed in recent years, and as a result, their diagnosis has become more difficult. For example, salmonellosis, dysentery, typhoid-paratyphoid diseases, and many other intestinal infections are now characterized by a rather mild course, a decrease in the number of severe forms and the degree of intoxication, and a significant reduction in relapses and lethal cases.

The course of dysentery in newborns and children in the first weeks of life is of particular concern because they are very sensitive to this disease due to the reactive properties of the organism. Dysentery at this age often begins slowly: children become lethargic, do not latch on to the breast and suck less. Firstly, the character of stool changes, then after 2-3 days defecation accelerates up to 8-10 times a day with the increase of mucous, bluish-colored mixture, sometimes with the appearance of blood streaks. The child is especially restless during feeding. There is redness around the anus and buttocks, the anus becomes loose. A subfebrile condition is noted in some children. In some rare cases, dysentery in babies begins very acutely: from the first day of the disease, the stool is usually subfebrile, rarely develops with an acceleration of 10-25 times against the background of a high temperature of up to 39.0. At first, stools are mixed with mucus, bluish color, later with pus and streaks of blood. Deep redness around the

anus and buttocks, causing rectal prolapse in some children. Feces may normalize within 10-15 days. Despite the severity of the disease, most children's weight not only decreases but can also increase. Sometimes, dysentery in babies can occur in a subclinical form .

Toxicosis begins gradually like primary dysenteric intoxication in older children, and is accompanied by symptoms of dehydration. It seems that the absence of toxic forms of dysentery in infants should be explained by this, and the severity of the disease is related to the destruction of the metabolism. The development of intestinal toxicosis is also explained by the anatomic and physiological characteristics of young children . Along with symptoms of toxicosis and exsiccosis, colitic syndrome is also expressed, but not as the same extent as in older children, which is probably due to the lack of formation of the autonomic nervous system. Feces are usually scanty and their character is maintained, mixed with mucus and sometimes with streaks of blood. The number of stools reaches 8-15 times. Tenesmus equivalents in the form of flushing of the face, relaxation or opening of the anus are observed during agitation, crying, defecation .

Propensity for protracted course, general and secondary, frequent complications due to infection, higher percentage of lethality, as well as the occurrence of secondary toxicosis are characteristic feature of dysentery in early childhood .

Secondary toxicoses can be observed in any form of dysentery. Various factors are of infectious and non-infectious nature depends on the allergic background of the body and the history of significant disruption of metabolism could be the reasons of secondary toxicoses. Secondary toxicoses, which usually appear in the 2-4th week after the onset of the disease, significantly worsens the child's condition and can lead to a fatal outcome. Often they are acute, sometimes develop slowly against the background of a satisfactory condition during the recovery period after dysentery. In the acute development of secondary toxicosis, repeated vomiting occurs, the child refuses to eat and drink and the stool often becomes liquid, abundant and scattered. Exsiccosis increases rapidly, weight decreases drastically and the baby can go into serious condition. The edges of the face become sharper, the skin becomes gray and dry, the mucous membranes dry up, the subcutaneous fat layer swells, and the limbs become cold. Cardiovascular activity decreases (tachycardia, marked hypotension, muffled heart sounds), unconsciousness, convulsions may occur . The severity of the disease depends not only on the age of the child, but also on the nature of feeding, premorbid background, the presence of concomitant diseases and the type of the pathogen. Climatic-geographical conditions, lifestyle of a person, nature of eating,

availability of vitamins in food and other factors contribute to dysentery. In areas with hot, dry summers, dysentery is more pronounced and more severe .

The course of dysentery also depends on the type of causative agent, for example, the disease caused by *Sh. dysenteriae* is characterized by a severe course with expressed hemocolith syndrome, 10 - 50% mortality during epidemics. When it provokes *Sh. sonnei* has a rapid onset, similar to food intoxication, and then is short-term and mild, rarely turning into a chronic form .

Salmonellosis disease in children is clinically manifested with complete polymorphism. It depends on intoxication and series of pathological processes that occur in various organs and systems. A single serotype of *Salmonella* can cause symptoms ranging from mild to severe form. Undoubtedly, the clinical manifestation and intensity of the symptoms of the disease depend on the interaction between the infectious microbe and the child's body, that is, the amount of the microbe, the route and landscape of the infection, the biological characteristics of the pathogen, the child's premorbid condition, the child's immune strength, age, and diet.

Gastrointestinal manifestations of salmonellosis are more common among children: according to some researchers, this clinical manifestation can occur in 43-93 % cases. This type of disease begins with acute dysfunction of the gastrointestinal tract, to which cases of general intoxication of the body are added. At the beginning of the disease these signs and symptoms can be acknowledged: Swelling of Patient's face, rise in temperature, headache, paleness, stomach aches, nausea and vomiting. In the special form of gastritis, the stool of the patient is normal, the temperature rises, the head hurts, the body relaxes, and the body tingles. Intestinal manifestations of salmonellosis are common among diseases such as gastroenteritis and enteritis. In this type of disease, at the same time as vomiting or a few hours after vomiting, the abdomen swells and is accompanied with occasional diffuse pain. When palpating the abdomen, 83% of patients have pain in the stomach area, around the navel, and in the iliac region, sometimes along the colon. At the same time, the patient has frequent bowel movements, and stools are large, frothy liquid, slimy mixture. It is noted that vomiting starts before diarrhea in 60% of patients. It is recognized that 19.2% of patients vomited once, 30% 2-3 times, and 50% many times.

In the case of gastroenteritis, enteritis, stool is watery, bluish, without pathological impurities, and has an odor when onset is acute. Frequency of defecation reaches 5 to 20 times a day. Sometimes the feces are liquid and resemble the color of mud. In very severe types of the disease, stools resemble "boiled rice" due to persistent diarrhea. There are also clinical variants (colitis,

enterocolitis, gastroenterocolitis) that occur when the large intestine is damaged. 40% of one-year-old children have signs of hemocolitis. The dyspeptic variant of the disease was observed in children under one year old and often suffering from concomitant diseases: in such patients, the temperature rises up to 39.0 degrees, vomiting, belching, flatulence, 5-7 stools per day is normal but contains more amount of liquid consisting of undigested nutrients and mucus.

In the gastrointestinal form of salmonellosis, the intestinal symptoms of the disease last from several days to 2-3 weeks, and in children under the age of one year, they can last up to a month or even more. In the mild form of the disease, short-term dyspeptic disorders are observed, there are almost no signs of general intoxication, and in the severe form death can occur. The temperature curve has an irregular wavy character, sometimes rising and sometimes falling, corresponding to the subfebrile period.

It should be noted that symptoms of intoxication are one of the characteristic features of salmonella disease. In this case, the color of the patient becomes pale, the liver becomes enlarged and skin may turn yellow due to the development of toxic hepatitis. The spleen is enlarged and kidneys can also be affected.

The typhoid variant of salmonellosis is less frequent (up to 5.0-20%) than the gastrointestinal variant in children, and is often severe and moderately severe. In this condition, general intoxication plays an important role that ensures a clearer manifestation of the disease. The disease often begins slowly, its symptoms increase over 2-4 days. The temperature rises significantly and intoxication increases. The child becomes apathetic, has a headache, sleep is disturbed, there is a loss of appetite and child does not feel energetic.

The septic variant of the disease occurs mainly in infants, more often in new and premature babies and in children with a premorbid background. Usually, the disease is severe and leaves serious complications, often leading to the death of the child.

coli infection in children is clinically severe with symptoms of gastrointestinal tract dysfunction and general intoxication. Toxic syndrome is characterized by a long, severe course and in some cases death can occur. Coli infection in newborns is mainly characterized by a mild course, but there may also be severe forms with a toxic-septic component and lethal consequences, depending on the premorbid background and the type of the pathogen.

In children of the first six months of life, especially with an unfavorable premorbid background and early artificial feeding, the course of the disease is characterized by toxicosis and exicosis syndrome, rapid weight loss, severe vomiting, pale-yellow watery stools, flatulence, and sometimes intestinal paresis.

Disease pneumonia , urinary tract complications such as infections, toxic myocarditis. Despite intensive treatment, the percentage of lethal consequences is high.

Conclusion As it is known from the above, significant progress has been made in the interpretation of the pathogenesis of acute intestinal infections, but this problem requires further study. Also, the clinical course of acute intestinal infections is manifested differently in different age groups, in addition, the course of the disease acquires its own characteristics under the influence of various external and internal factors, it is necessary to thoroughly study these diseases in our region and draw logical conclusions, which in turn, plays an important role in the development of methods of treatment and prevention of diarrheal diseases.

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VOLUME-4, ISSUE-2

FORMATION OF SPEAKING CULTURE IN MORAL AND AESTHETIC EDUCATION OF AUDIENCES

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Abstract: The purpose of the article is to study the importance of developing the culture of public speaking in the moral and aesthetic education of students, and to propose mechanisms for improving the quality of public speaking education in schools. The article analyzes the current state of speech education in schools, identifies problems that prevent the development of speech culture, suggests strategies for improving the formation of speech culture in schools. In addition, the article highlights the importance of the formation of public speaking culture in the moral and aesthetic education of students. The authors note that the ability to speak effectively is an important skill for personal, academic, and professional success, and that developing this skill can increase students' self-confidence, creativity, critical thinking, and social skills.

Keywords: Oratory skills, oratory culture, moral education, aesthetic education, student development, self-confidence, creativity, critical thinking, social skills, curriculum integration, teacher training, qualification development, extracurricular activities, competitions, digital technologies, educational programs, educational policy, research.

TINGLOVCHILARGA AXLOQIY VA ESTETIK TARBIYA BERISHDA NOTIQLIK MADANIYATINI SHAKLLANTIRISH

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Annotatsiya: Maqolaning maqsadi o'quvchilarni axloqiy-estetik tarbiyalashda notiqlik madaniyatini rivojlantirishning ahamiyatini o'rganish, maktablarda notiqlik ta'limi sifatini oshirish mexanizmlarini taklif qilishdan iborat. Maqolada maktablarda notiqlik ta'limining bugungi ahvoli tahlil qilinadi, notiqlik madaniyatini rivojlantirishga to'sqinlik qilayotgan muammolar aniqlanadi, maktablarda notiqlik madaniyatini shakllantirishni takomillashtirish bo'yicha strategiyalar taklif etiladi. Qolaversa, maqolada notiqlik madaniyatini shakllantirishning o'quvchilarni axloqiy-estetik tarbiyalashdagi ahamiyati yoritilgan. Mualliflarning ta'kidlashicha, samarali gapirish qobiliyati shaxsiy, akademik va kasbiy muvaffaqiyat uchun muhim mahoratdir va bu ko'nikmani rivojlantirish o'quvchilarning o'ziga ishonchi, ijodkorligi, tanqidiy fikrlash va ijtimoiy ko'nikmalarini oshirishi mumkin.

Kalit so'zlar: Notiqlik mahorati, notiqlik madaniyati, axloqiy tarbiya, estetik tarbiya, o'quvchilarni rivojlantirish, o'ziga ishonch, ijodkorlik, tanqidiy fikrlash, ijtimoiy ko'nikma, o'quv dasturlari integratsiyasi, o'qituvchilar malakasini oshirish, malaka oshirish, sinfdan tashqari ishlar, tanlovlar, raqamli texnologiyalar, ta'lim dasturlari, ta'lim siyosati, tadqiqot.

Kirish: Notiqlik san`ati qadim zamonlardan beri insoniy muloqotning asosiy elementi bo`lib kelgan. Siyosiy ma`ruzalardan tortib biznes taqdimotlarigacha, ma`ruzalardan tortib ma`ruzalarga qadar notiqlik mahorati jamoatchilik fikrini shakllantirish, o`zgarishlarni ruhlantirish va bilimlarni yetkazishda hal qiluvchi rol o`ynadi. Biroq, o`zining muhimligiga qaramay, zamonaviy ta`lim tizimlarida notiqlik ta`limi ko`pincha e`tibordan chetda yoki kam baholanadi.

Biroq so`nggi yillarda notiqlik mahoratining tinglovchilarning o`quv va shaxsiy hayotini rivojlantirishdagi ahamiyati tobora ortib bormoqda. Olim va pedagoglar notiqlik ta`limining o`quvchilarning o`ziga ishonchi, ijodkorligi, tanqidiy fikrlashi va ijtimoiy ko`nikmalarini oshirishdagi afzalliklarini alohida ta`kidladilar. Ularning ta`kidlashicha, samarali gapirish qobiliyati nafaqat hayotiy akademik mahorat, balki shaxsiy va professional muvaffaqiyatning asosiy omili hamdir.

Maktablarda notiqlik ta`limining bugungi holatini tahlil qiladi va notiqlik madaniyatini rivojlantirishga to`squinlik qilayotgan muammolarni aniqlaydi. Bu muammolar qatoriga o`quv dasturida notiqlik mahoratiga e`tibor berilmagani, o`qituvchilarning yetarli darajada tayyorlanmaganligi, tinglovchilarning notiqlik mahoratini amalda qo`llash va amaliyotda qo`llash imkoniyatlarining cheklanganligi kiradi. Ushbu muammolarni hal qilish uchun muallif maktablarda notiqlik madaniyatini shakllantirishni takomillashtirishning bir qancha mexanizmlarini taklif qilmoqdalar. Bu mexanizmlar notiqlik mahoratini o`quv dasturiga integratsiyalash, o`qituvchilar malakasini oshirish va malaka oshirish imkoniyatlarini ta`minlash, o`quvchilarning notiqlik mahoratini darsdan tashqari mashg`ulotlar va tanlovlar orqali amaliyotda qo`llash va qo`llash imkoniyatlarini yaratish hamda o`quvchilarning notiqlik mahoratini oshirish uchun raqamli texnologiyalardan foydalanishni targ`ib qilishni o`z ichiga oladi.

Notiqlik ta`limiga bo`lgan ehtiyoj, ayniqsa, axloqiy-estetik tarbiya sharoitida o`quvchilarning qadriyatlarini, dunyoqarashi, estetik tuyg`ularini rivojlantirishga qaratilgan. Axloqiy-estetik tarbiya o`quvchilarning axloqiy tuyg`usini, axloqiy ongini va estetik sezgirligini tarbiyalashga, ularda go`zallik, uyg`unlik va mukammallikni qadrlashni tarbiyalashga qaratilgan. Notiqlik mahorati bu borada muhim ahamiyatga ega, chunki ular o`quvchilarga o`z g`oyalari, his-tuyg`ulari va qadriyatlarini samarali va ishonarli ifoda etish, boshqalar bilan mazmunli suhbatlarda qatnashish imkonini beradi.

Biroq, notiqlik ta`limining axloqiy va estetik tarbiyadagi mumkin bo`lgan afzalliklariga qaramay, uning rivojlanishiga to`squinlik qilayotgan bir qancha muammolar mavjud. Asosiy muammolardan biri o`quv dasturida notiqlik mahoratiga e`tibor berilmaganligidir. Ko`pgina ta`lim tizimlarida notiqlik ta`limiga yetarlicha e`tibor berilmayapti, o`quvchilarning nutqiy ko`nikmalarini rivojlantirish uchun yetarlicha imkoniyatlar yaratilmagan. Bu haqiqiy dunyoda talab qilinadigan ko`nikmalar va maktablarda olingan ko`nikmalar o`rtasidagi tafovutga olib keladi.

Yana bir qiyinchilik - notiqlik ta`limi bo`yicha o`qituvchilar tayyorgarligi va malakasini oshirish etarli darajada emas. Ko`pgina o`qituvchilarda notiqlikni samarali o`rgatish uchun zarur ko`nikma va bilimlar yetishmaydi, ularni qo`llab-quvvatlash uchun o`quv dasturlari va resurslar yetishmaydi. Bu esa notiqlik ta`limiga ko`pincha e`tibordan chetda qoladigan yoki yuzaki va samarasiz tarzda yetkaziladigan holatga olib keladi.

Qolaversa, tinglovchilarning notiqlik ko`nikmalarini real sharoitlarda mashq qilishlari va qo`llashlari uchun imkoniyatlar cheklangan. Demak, o`quvchilarda o`z bilim va ko`nikmalarini amaliy vaziyatlarda qo`llash imkoniyati yetarli emas, bu esa ularda notiqlik nutqida ishonch, malaka va ijodkorlikni rivojlantirish imkoniyatlarini cheklaydi.

Bu vazifalarni hal etishda o'quvchilarga axloqiy-estetik tarbiya berishda notiqlik madaniyatini shakllantirish mexanizmlarini takomillashtirish zarur. Bunda notiqlik mahoratini o'quv dasturiga kiritish, o'qituvchilar malakasini oshirish va malaka oshirish imkoniyatlarini yaratish, o'quvchilarning notiqlik mahoratini darsdan tashqari mashg'ulotlar va tanlovlar orqali amaliyotda qo'llash va qo'llash imkoniyatlarini yaratish hamda o'quvchilarning notiqlik mahoratini oshirish uchun raqamli texnologiyalardan foydalanishni targ'ib qilish kiradi.

Biz tinglovchilarga axloqiy-estetik tarbiya berishda notiqlik madaniyatini shakllantirish mexanizmlarini takomillashtirish orqali biz ta'lim sifatini oshirishimiz va o'quvchilarda zamonaviy dunyoda muvaffaqiyatga erishish uchun zarur bo'lgan quyidagi ko'nikma va qadriyatlarni shakllantirishga yordam berishimiz mumkin:

1. Notiqlik tarbiyasining axloqiy-estetik tarbiyadagi afzalliklari

Notiqlik ta'limi o'quvchilarga o'z g'oyalari, his-tuyg'ulari va qadriyatlarini samarali va ishonchli tarzda ifoda etish imkonini berish orqali axloqiy va estetik tarbiyada muhim rol o'ynashi mumkin. To'g'ri so'zlash qobiliyati o'ziga ishonch, ijodkorlik, tanqidiy fikrlash, ijtimoiy ko'nikmalarni rivojlantirishning asosiy omili bo'lib, bularning barchasi axloqiy va estetik tarbiyaning muhim tarkibiy qismidir.

Notiqlik ta'limi o'quvchilarga omma oldida nutq so'zlash, o'z fikr va mulohazalarini bildirish imkoniyatini yaratib, o'zlariga ishonchni rivojlantirishga yordam beradi. Tinglovchilar ishonchli va ishonarli gapirishni o'rgansa, ular o'ziga ishonch va qat'iyatli bo'lib qoladilar, bu ularga shaxsiy va professional hayotlarida yordam berishi mumkin.

Notiqlik ta'limi o'quvchilarni tanqidiy fikrlashga va o'z fikrlarini innovatsion va xayoliy usullarda ifodalashga undash orqali ham ijodkorlikni rivojlantirishi mumkin. Ta'sirchan nutqlar va taqdimotlar yaratishni o'rganish orqali tinglovchilar o'zlarining ijodiy qobiliyatlarini rivojlantirishlari va muammolarni hal qilish va qaror qabul qilishda ko'proq mahoratga ega bo'lishlari mumkin.

Bundan tashqari, notiqlik ta'limi o'quvchilarni dalillarni tahlil qilish va baholash, noto'g'ri va noto'g'ri fikrlarni aniqlash, o'z fikrlarini aniq va mantiqiy ifodalashga o'rgatish orqali tanqidiy fikrlash qobiliyatini oshirishi mumkin. Notiqlik ta'limi orqali tinglovchilar o'zlarining fikrlash va tahliliy qobiliyatlarini rivojlantirishlari mumkin, bu ularga akademik va professional sharoitlarda yordam berishi mumkin.

Bundan tashqari, notiqlik ta'limi samarali muloqot va shaxslararo munosabatlarni rivojlantirish orqali ijtimoiy ko'nikmalarni rivojlantirishi mumkin. Faol tinglashni, to'g'ri javob berishni va hurmat bilan munosabatda bo'lishni o'rganish orqali tinglovchilar ish joyida va shaxsiy munosabatlarda muvaffaqiyatga erishish uchun zarur bo'lgan kuchli ijtimoiy ko'nikmalarni rivojlantirishlari mumkin.

2. Notiqlik madaniyatini rivojlantirish oldida turgan muammolar

Axloqiy va estetik tarbiyada notiqlik ta'limining mumkin bo'lgan afzalliklariga qaramasdan, maktablarda uning rivojlanishiga to'sqinlik qilayotgan bir qancha muammolar mavjud. Asosiy muammolardan biri o'quv dasturida notiqlik mahoratiga e'tibor berilmaganligidir. Ko'pgina ta'lim tizimlarida notiqlik ta'limiga yetarlicha e'tibor berilmagan, o'quvchilarning nutqiy malakalarini rivojlantirish uchun yetarlicha imkoniyatlar yaratilmagan. Bu haqiqiy dunyoda talab qilinadigan ko'nikmalar va maktablarda olingan ko'nikmalar o'rtasidagi tafovutga olib keladi.

Yana bir qiyinchilik - notiqlik ta'limi bo'yicha o'qituvchilar tayyorgarligi va malakasini oshirish yetarli darajada emas. Ko'pgina o'qituvchilarda notiqlikni samarali o'rgatish uchun zarur ko'nikma va bilimlar yetishmaydi, ularni qo'llab-quvvatlash uchun o'quv dasturlari va resurslar

yetishmaydi. Bu esa notiqlik ta'limiga ko'pincha e'tibordan chetda qoladigan yoki yuzaki va samarasiz tarzda yetkaziladigan holatga olib keladi.

3. Maktablarda notiqlik ta'limini takomillashtirish mexanizmlari

Bu vazifalarni hal etishda o'quvchilarga axloqiy-estetik tarbiya berishda notiqlik madaniyatini shakllantirish mexanizmlarini takomillashtirish zarur. Bunda notiqlik mahoratini o'quv dasturiga kiritish, o'qituvchilar malakasini oshirish va malaka oshirish imkoniyatlarini yaratish, o'quvchilarning notiqlik mahoratini darsdan tashqari mashg'ulotlar va tanlovlar orqali amaliyotda qo'llash va qo'llash imkoniyatlarini yaratish hamda o'quvchilarning notiqlik mahoratini oshirish uchun raqamli texnologiyalardan foydalanishni targ'ib qilish kiradi.

Xulosa

Xulosa qilib aytganda, maqolada o'quvchilarga axloqiy-estetik tarbiya berishda notiqlik tarbiyasining ahamiyati ko'rsatilgan. Tadqiqotlar tahlili va natijalari shuni ko'rsatadiki, notiqlik madaniyatini shakllantirish mexanizmlarini takomillashtirish o'quvchilarning shaxsiy va akademik rivojlanishiga, jumladan, muloqot qobiliyatlari, yetakchilik qobiliyatlari, tanqidiy fikrlash qobiliyatlari, o'z-o'ziga ishonchi, o'ziga bo'lgan ishonchi, o'z-o'ziga bo'lgan ishonchi, o'quvchilarning o'zini o'zi boshqarish qobiliyatini rivojlantirishga sezilarli ijobiy ta'sir ko'rsatishi mumkin. va motivatsiya.

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Annotatsiya: XVI-XIX asrlar atrofini qamrab olgan yangi O'zbek davlatlarining tashkil topish jarayonida vujudga kelgan Qo'qon xonligi ilm-fan va madaniy hayotning yuksak rivojlanganligi bilan birga, she'riyat va san'at taraqqiyotidan ham ortda qolmagan. Qo'qon xonligi adabiy muhiti haqida gapirganda Umarxon va Nodirabegimlarni alohida aytib o'tishimiz lozim. Chunki ularning ijodi va ijod ahliga yaratib bergan qulayligi faqat Qo'qon xonligi adabiyotiga emas, balki O'zbek adabiyoti rivoj topmog'iga ham dahldordir. Ushbu maqolada Umarxon va Nodirabegimlarning ijod yo'li bilan birga mumtoz adabiyotning ulkan taraqqiyoti manbalar asosida keng yoritiladi.

Kalit so'zlar: Umarxon, Nodira, Qo'qon, Muhabbatnoma, Oltin beshik.

Аннотация: Коканское ханство, возникшее в период образования новых узбекских государств, охватывающее XVI-XIX вв., наряду с высоким развитием науки и культурной жизни, не отставало в развитии поэзии и искусства. Говоря о литературной атмосфере Коканского ханства, отдельно следует упомянуть Умар-хана и Надирабегима. Потому что их творчество и комфорт, который они создавали для творческих людей, способствовали не только развитию литературы Коканского ханства, но и развитию узбекской литературы. В данной статье на основе источников будет широко освещено великое развитие классической литературы, а также творческий путь Умархана и Надирабегима.

Ключевые слова: Умар Хан, Надира, Кокан, Муhabbatnoma, Золотая Колыбель.

Abstract: Kokan Khanate, which emerged during the formation of new Uzbek states covering the 16th-19th centuries, along with the high development of science and cultural life, did not lag behind the development of poetry and art. When talking about the literary atmosphere of the Kokan Khanate, we should mention Umar Khan and Nadirabegim separately. Because their creativity and the comfort they created for the people of creativity not only contributed to the literature of the Kokhan Khanate, but also to the development of Uzbek literature. In this article, the great development of classical literature along with the creative path of Umar Khan and Nadirabegim will be widely covered based on the sources.

Keywords: Umar Khan, Nadira, Ko'kan, Muhabbatnoma, Golden Cradle.

Bizga ma'lumki Qo'qon xonligi madaniy hayotida adabiyotning o'rni o'zgacha bo'lgan. Shu boisdan ham adabiyot taraqqiyotiga ta'sir ko'rsatgan Qo'qon adabiy muhitining shakllanishi Qo'qonda madaniyat taraqqiyotini belgilovchi muhim mezon bo'lgan. XIX asrdan boshlab Qo'qon madaniy hayoti yangi bosqichda rivojlana boshladi. Shaharlar va qishloqlarda ilm dargohlari qurilishi avj oldi. XIX asr boshlarida Qo'qon xonligida 120 ta maktab, 40 ta madrasa va masjid, Marg'ilonda 10 ta masjid va madrasa, 80 ta maktab, Toshkentda 20 ta madrasa, 300 yaqin masjid faoliyat ko'rsatgan. Toshkentdagi masjidlarning 266 tasi shaharda joylashgan, qolgan esa shahardan tashqarida joylashgan. Bu raqamlar shundan dalolat beradiki, Qo'qon

madaniy hayoti o'z davri uchun yuqori darajada bo'lgan. Qo'qon adabiy muhitini yuksaltirishda Umarxon (1787, 1810-1822), Nodirabegim (1792-1842), Gulxaniy (1770-XX asr 20 yillari), Jahon Otin (1780-1841), Boborahim Mahrab (1640-1711) ka'bi insonlar alohida ajralib turadi. Qo'qon adabiyotini yuksaltirishda bu insonlar o'z davrining tolibi ilmlari bo'lgan¹.

Umarxon (to'liq ismi Amirsayyid Muhammad Umarxon) davrida adabiyot har qachongidan ko'p taraqqiy etgan. Bu fikrni Umarxon davri uchun quyidagi so'zlardan bilish mumkin. Miyon Buzrukning 1930 yilda Toshkentda chop etilgan "O'zbek adabiyoti tarixiga umumiy qarash" kitobida bu davr Qo'qon adabiy muhitini "Oltin beshik davri adabiyoti" deb ataydi. Bu ta'rifning ikki xil ma'nosi bor. Birinchisi, Qo'qon tarixchilari tomonidan to'qilgan "Oltin beshik" va Bobur haqidagi afsona bilan bog'lab Temuriylar bilan birlashtirish. Ikkinchi ma'nosi esa adabiy muhitda yaratilgan juda qulay ijodiy sharoit va jarayonlar ham ikkinchi ma'noda nazarda tutib o'tilgan.

Umarxon o'z davrining ma'rifatli hukmdorlaridan bo'lib ilm-fan rivojiga ham alohida e'tibor bergan. Bu davrda Tarixnavislik, tazkiranavislik, she'riyat, nasr, matbaa ishlari, adabiy hamkorlikning noyob mahsullari vujudga kelgan. Fazliy Namangoniyning "Majmuai shoiron" tazkisasi aynan Umarxon buyurug'iorqali dunyoga kelgan adabiyot durdonasidir. Umarxon tashabbusi bilan dunyoga kelgan Fazliy tazkisasi tazkiranavislikda yangi yo'nalishni shakllantirdi. Kiyinchalik bu an'ana boshqa adabiy muhitlarda ham davom ettirilgan. Umarxon she'riy misralarida ko'p ma'lumotlar uchraydi, elchilik aloqalarida ham adabiyotdan ko'p foydalangan. Xususan Umarxon o'zining nasl-nasabi haqida devoni debochasida, "Vujudim gulbuni Temir Ko'ragon gulistoni shajarasini samarasidir. ... Xilqatim niholikim, Bobur Sulton chamanining navbodasidir" deb o'zining kelib chiqishini Temirzodalarga bog'laydi. Umarxon 1820 yili Usmonli Turk sultoni Mahmud II ga maktub yozib, elchi yuborganda ularga qo'shib Lutfiy, Navoiy va Amiriyning she'rlari jamlangan "Muhabbatnoma" nomli she'riy devon bo'lganligi ham qayd etiladi.

Atoqli adabiyotshunos Abdurauf Fitrat "XVI asrdan so'ngra o'zbek adabiyotig'a umumiy bir qarash" nomli maqolasida Farg'ona adabiyotiga ham e'tibor qaratadi. Fitratning diqqatini tortgan barcha ijobiy va yaxshi jihatlarning, hamda sanab o'tilgan adiblar ijodi ravnaqining homiysi va rahnamosi etib Amir Umarxondir deb aytib o'tadi².

Umarxon davrida nafaqat adabiyot, balki boshqa sohalar uchun ham rivojlanish davri bo'lgan. Bunga misol tariqasida Xudoyorxon avlodlari tarixi kitobidagi ushbu fikrlar yaqqol namunadir. "Umarxon ibni Norbo'taxon saltanati davrida yuz bergan voqealar bayonidakim, u nur sochib adl oftobi bilan mamlakat tunini shariat chirog'i bilan yoritib, bid'at zulmatining zulmini yo'q qilgan va fitnasoz daxr va shu'badaboz osmon farg'ona mulki sultonlari boshiga turli qiliq ko'rsatayotgan kunlarda paydo bo'ldi"³. Sagdullaev va Mavlonovning "O'zbekistonda davlat boshqaruvi tarixi" nomli kitobida ham Umarxon haqida qisqacha ma'lumotlar berib o'tiladi. Unga ko'ra Umarxon Qo'qonda katta qurilish ishlarini olib borganligi va din peshvolariga rahnamolik qilganligi uchun musulmonlar amiri unvonini oladi. Bu haqda boshqa adabiyotlarda ham ancha keng ma'lumotlar uchraydi. Uning davrida Qo'qon adabiy muhiti ham ancha yuksalgan. Umarxonning o'zi ham adabiyot bilan shug'ullanib "Amiriy" taxallusi bilan ijod qilganligi barchaga ma'lum⁴.

Umarxon davrida davlat hududi ancha kengayadi. Umarxon 1818-yili Qo'qonda katta jome masjidni qurishni boshlab yuborganligi munosabati bilan "Amir ul-muslimin" unvonini oladi. Shu

tariqa Umarxon dunyoviy hokimyat bilan birga, diniy va madaniy hayotda ham yetakchilikni qo'lg'a kiritadi⁵.

Amiriyning ijodiga kelsak, uning she'rlari ma'lum qismi "Majmuat ush-shuaro" tazkirasida to'plangan. Umarxonning she'rlari 1882 yili Istanbulda, 1905 yil Toshkentda bosma nashrlari yuzaga kelgan. Umarxon she'rlaridan namunalar 1945 yilda "O'zbek adabiyoti tarixi xrestomatiyasi"da, 1959 yili tuzulgan "O'zbek adabiyoti" majmuasida nashr qilingan va keltirilgan edi. 1972 yili Toshkentda chop qilingan "Devon"dan 216 ta g'azal, 6 ta mustaqil muxammas, 3 ta musaddas, 6 ta tuyuq, Navoiy, Lutfiy, Jomiy, Fuzuliy, Mirzo Bedil va Zaliliy, Kamol, Nobiy g'azallariga bog'langan tazmin muxammaslar joy olgan. Odatga ko'ra g'azal Amiriy she'riyatining eng yetakchi janridir. Amiriy shu janrda ishq ahlining amiri sifatida ko'zga tashlanadi. Shu janr orqali insonga xos his-tuyg'ular, boshidan o'tuvchi kechinmalar, orzulari va umidlari tarannum etadi. Demak muhabbat-shoir g'azallarining yetakchi mavzuidir. Amiriyning o'zbek va fors tillaridagi g'azallari musiqiyligi, fikriy-falsafiy teranligi, badiiy jihatdan go'zalligi bilan alohida ajralib turadi. Ayniqsa "Qoshingg'a teguzmag'il qalamni", "Junun daryosi tug'yon aylamakni mandin o'rgandi", "Lab uyur takallumg'a, zulfni parishon qil", "Dedi, Yusuf ko'rub yorimni, jononing'a sallamno", "Xusnung kamola etti, ey mahliqo, muborak", "Surma tortib qilma jodu ko'zni, ey dilbar, qaro", "Jahon jano jamolingga tasadduq" ka'bi g'azallari o'zbek adabiyotining durdonasidir⁶.

Nodira. Mohlaroyim (1792-1842)-o'zbek shoirasi, marifatparvari hamda Qo'qon xoni Umarxonning umr yo'ldoshi bo'lgan. Mohlaroyim Nodira, Komila, Maknuna taxalluslari ostida O'n ming misraga yaqin ijodiy meros bizlarga qadar yetib kelgan. Uning asarlarida muhabbat, sadoqat, vafo, dard sistamlar aks ettiriladi⁷.

Nodira she'riyatida lirika alohida ajralib turadi. Nodira mumtoz poeziyaning hamma janrlarida qalam tebratgan. O'zbekcha va tojikcha g'azallari 5, 7, 9, 13 va ba'zan 18 baytli hajm va aruzning turli vaznlarida yaratilgan. Lekin Nodira g'azallarining asosiy qismi 7-9 baytlidir. Nodira ijodi davomida Navoiy, Fuzuliy, Bedil g'azallariga muxammaslar bog'laydi. Uning asarlarida talmex, majoz, tashbex, istiora, tazod, tashxis, intoq ka'bi badiiy vositalar zo'r mahorat ila qo'llanilgan⁸.

Bizga ma'lumki so'z san'atkorlari bino qilgan asarlari miqdori devon tartib etishda yetib borgan bo'lsada, she'r yozish mahoratlari malakalari takomilga yetgan, badiiy uslublari sayqal topgan davrlardagina devon yaratishga jur'at etgan. Mana shunday yetuk shoirlarni "sohibi devon" iborasi bilan ardoqlashgan. Nodira Zullisonayn shoira bo'lib o'z she'rlarini ikki tilda bitgan va ikki madaniyatni o'zlashtirgan ma'rifatparvar bo'lgan. Nodira ham sohibi devon shoira edi. Nodiraning she'riy merosi, bir qancha devonlarning qo'lyozmalari orqali bizning davrimizga yeib kelgan. 1960 yilga qadar "dol" harfigacha bo'lgan 109 g'azalni o'z ichiga olgan faqat bitta notugal devoni ma'lum bo'lgan. Uning debochasida Nodira Komila taxallusi bilan ham asarlar yozgani ma'lum. 1962 yil Namanganda Nodiraning yangi devoni topildi. Ushbu devonda 180 ta asar kiritilgan. Sharqshunoslik institutida 333 ta g'azaldan iborat Maknuna taxallusi bilan yozilgan devoni ham bor⁹.

Xulosa qilib aytadigan bo'lsak, Umarxon va Nodirabegimlar davrida Qo'qon adabiy muhiti yuksak muvaffaqiyatli rivojlanganligi e'tiborga va e'tirofga loyiq. Agarda Qo'qonlik shoirlar hayotiga nazar tashlasak, ularning hayot yo'li va mashhur asarlarining aksariyati Umarxon hukmronligi yillariga yaqin bir davrlarda yaratilgan. Bu hol ham ijod ahliga yaratib berilgan qulayliklarning mahsulidir. Bu yerda yashagan adabiyotchi shoirlarning ko'pi Zullisonayn ya'ni

ikki tilda she'r bituvchi shoirlardir. Ular tomonidan yaratilgan noyob devonlar ko'p tilli bo'lib qolmasdan mano va mazmuni juda nafis, diniy va dunyoviy so'zlar bilan sug'orilgan, ishq va sevgi, sadoqat va matonat, yurtga muhabbat hislari bilan bitilgan. Nima bo'lgan taqdirda ham Qo'qonlik adabiyot namoyondalari tomonidan yaratilgan asarlar nafaqat O'zbek-Tojik va Turkiy-Forsiy dunyosining, balki jahon adabiyoti va ijodining ajralmas qismi hamdir.

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Annotation: This article is devoted to give information about Feeding breeding young cattle, particularly in the context of beef or dairy production which is crucial for their growth, health, and future productivity.

Keywords: protein, feeding management, colostrum feeding, digestible, cell, grains.

It is fact that young cattle, especially those bred for future reproduction, have specific nutritional needs to support growth, skeletal development, and reproductive health. These requirements vary depending on the breed, age, weight, and intended purpose (beef or dairy). Furthermore, A balanced diet is essential, typically consisting of roughage (fiber), concentrates (grains), protein, vitamins, and minerals. The specific ratio and composition of these components may vary based on factors such as age, gender, breed, and health status. The importance of breastfeeding. Colostrum is that dark, creamy and yellow; is a colored secretory substance, When the cows give birth, they are separated from the herd. According to foreign experts, the cows are pregnant, The secretion that came out in my first milk is called colostrum.

In the initial diet, grains are usually ground. It is formed from a mixture of crushed powder. Giving a great amount of crushing is not recommended. The initial ration the quality of taste is increased by adding 5% molasses.

The amount of protein in the diet as the calves grow decrease and the amount of cell (fiber with neutral detergent) can increase. For calves aged 3 to 6 months it is not recommended to give low-quality hay and silage. Early aged calf, and low-quality hay and silage for carcasses when given, It is known that ration concentrate and mineral nutrients enriched The content of hay and silage is lacking digestible proteins are prepared as concentrates. Typically, calves are fed concentrates that have 16% crude protein can be used in the diet. Furthermore, Good-quality forage and roughage form the foundation of the diet for young cattle. This can include pasture grass, hay, silage, or other fibrous materials. Forage provides essential fiber for rumen development and promotes proper digestion.

Not only, feeding with hay, silage is taken into account, but also it is better to concentrate feeds such as grains (corn, barley, oats), soybean meal, and commercial feed mixes are often added to provide energy, protein, and other essential nutrients. These concentrates help support growth and meet the increased energy demands of young, growing cattle.

Biologically, protein is critical for muscle development, immune function, and overall growth. Young cattle may require higher levels of protein compared to mature animals. Protein sources include legumes (such as alfalfa), soybean meal, cottonseed meal, and various commercial protein supplements. In addition to protein, young cattle require adequate amounts of minerals (such as calcium, phosphorus, magnesium, and potassium) and vitamins (like vitamin A, D, and E) for bone development, metabolic processes, and overall health. Mineral supplements are often provided through mineral blocks, mineral mixes, or added to feed. Access to clean, fresh water is

essential for young cattle. Water intake affects digestion, nutrient absorption, and overall health. Ensure that water sources are readily available and regularly monitored.

Feeding management practices should consider the specific needs of breeding young cattle. This includes providing a consistent feeding schedule, monitoring feed intake, and adjusting diet formulations as needed based on growth rates and body condition scores.

As for regular health monitoring, including deworming, vaccination, and disease prevention measures, is crucial for young cattle. Consult with a veterinarian to develop a comprehensive health program tailored to the specific needs of breeding young cattle. It is suggested that regularly monitor the growth and development of young cattle to ensure they are meeting growth targets and reproductive milestones. Adjust feeding programs as necessary to support optimal growth and prepare young cattle for breeding and reproduction.

Overall, providing a well-balanced diet, appropriate feeding management, and proper health care are essential for the successful development and future productivity of breeding young cattle in both beef and dairy operations. Consulting with nutritionists, veterinarians, and experienced cattle producers can help develop effective feeding programs tailored to specific herd requirements and production goals. Feeding breeding young cattle involves careful consideration of their nutritional needs, including the amount and duration of milk feeding. There are some following instructions for feeding breeding young cattle, focusing on milk feeding:

- Immediately after birth, newborn calves should receive colostrum, the first milk produced by the cow. Colostrum is rich in antibodies and essential nutrients vital for the calf's immune system and overall health. Ideally, calves should consume colostrum within the first few hours of life, as their ability to absorb antibodies declines rapidly after birth.

- After the initial colostrum feeding, calves transition to a diet of milk or milk replacer. The transition period typically lasts several weeks, during which calves gradually adjust to consuming milk or milk replacer as their primary source of nutrition.

- The quantity of milk or milk replacer provided to breeding young cattle depends on factors such as age, weight, breed, and growth rate. As a general guideline, calves may consume 10-12% of their body weight in milk per day. For example, a calf weighing 100 pounds might be fed 10-12 pounds of milk daily.

- Frequency of Feeding: During the early stages of life, breeding young cattle require frequent feedings to support growth and development. Calves are typically fed milk or milk replacer two to three times per day, with feedings spaced evenly throughout the day to ensure consistent nutrient intake.

- Duration of Milk Feeding: The duration of milk feeding varies depending on management practices, growth objectives, and production systems. In some operations, calves may be weaned from milk as early as 6-8 weeks of age, while in others, milk feeding may continue for 8-12 weeks or longer.

- Weaning Process: The weaning process involves gradually transitioning breeding young cattle from a milk-based diet to solid feed. This gradual transition allows calves to adapt to consuming forage, concentrates, and other solid feeds while gradually reducing their reliance on milk or milk replacer.

In addition to milk or milk replacer, breeding young cattle should have access to clean, fresh water at all times to support hydration and overall health. By following these instructions for feeding breeding young cattle, producers can help ensure that calves receive the nutrition they

need for healthy growth, development, and eventual reproductive success. Regular monitoring, attention to detail, and adherence to best practices contribute to the overall well-being and productivity of breeding young cattle in beef and dairy operations.

If milk feeding is not an option for young cattle, there are alternative feeding options to ensure they receive adequate nutrition for healthy growth and development. These alternatives include:

If access to cow's milk is limited or unavailable, milk replacers specifically formulated for young calves can serve as an effective substitute. Milk replacers typically contain a balance of proteins, fats, carbohydrates, vitamins, and minerals designed to mimic the composition of cow's milk. Calf starter feeds are specially formulated to provide balanced nutrition for young calves transitioning from milk to solid feed. These feeds typically contain grains, protein sources, vitamins, and minerals essential for growth and development. Calf starter feeds should be introduced gradually and made available to calves alongside water.

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Аннотация.

В данном тезисе рассмотрено актуальной на сегодняшний день тема – понятия стресса и психологические защитные механизмы. Для помощи людям в состоянии беспокойства, страха, тревоги. Именно такую помощь может обеспечить психологическая защита как особая форма копинг-поведения. Автор уделяет внимание таким вопросам, как: структура психологической защиты, ее основные механизмы и функции, взаимосвязь психологической защиты и личности, формирования психологической защиты, роль и место психологической защиты в профессиональной деятельности.

Ключевые слова:

Стресс, защита психологическая, защитные механизмы, стрессоры, осознаваемые стереотипы, архетипические защиты, бессознательные защиты

Понятие стресса как напряжения организма было введено Г. Селье. С помощью общей реакции организм пытается приспособиться к изменившимся внешним или внутренним условиям. Стрессовая реакция протекает в несколько стадий и может закончиться как полной адаптацией, так и болезнью, и даже гибелью.

Стрессовую реакцию вызывают разнообразные факторы внешней и внутренней среды, и все органы и системы организма принимают участие в преодолении стресса. Стресс сопровождается выраженным психическим напряжением, поэтому человек сознательно, с помощью копинг- механизмов, или бессознательно, с помощью психологических защитных реакций, пытается справиться со стрессогенной ситуацией. Знание копинг- стратегий позволяет человеку относительно безболезненно преодолевать напряженные ситуации. Если человек будет пытаться вести себя как обычно в стрессовой ситуации, неотреагирует социально приемлемыми способами на негативные эмоции в связи со стрессом, то могут развиваться психосоматические реакции и психосоматические заболевания («психе» – душа, «сома» – тело), психические проблемы проявят себя в телесных нарушениях и заболеваниях.

В этой статье рассмотрим преодоление стресса за счёт психологической защиты.

Психологическая защита это - искажение реальности или сохранение своего «Я»?

Это система механизмов, которые защищают нас от отрицательных переживаний, душевной боли, тревожности и многих других негативных факторов, угрожающих целостности личности. Если бы не психологические защиты, мы постоянно находились бы в сильном стрессе, плакали или кричали бы по любому поводу, кидались бы на окружающих, совершали бы импульсивные поступки и т.д. – словом, видели бы жизнь в черном цвете.

Впервые психологические защиты начал изучать австрийский психолог, психиатр и основоположник психоанализа З. Фрейд. Работу системы защит он трактовал как способ разрешения противостояния между бессознательными влечениями и социальными нормами (требованиями, запретами и т.д.).

Существуют три линии психологических защит:

- осознаваемые стереотипы (помогают нам существовать в социуме);
- архетипические защиты (защищают общество, группу, коллектив через личность);
- бессознательные защиты (оберегают нашу психику от износа).

Осознаваемые стереотипы

Эти стереотипы формируются в нашем сознании с раннего детства, когда мы усваиваем социальные нормы и правила. Поначалу это нормы своей семьи: мыть руки перед едой; есть с помощью ложки или вилки, а не руками; рисовать в альбоме, а не на холодильник. Спустя какое-то время ребенок изучает нормы и других сообществ: как вести себя в детском саду, в школе, на улице, в гостях и т.д. Все это позволяет нам избегать остракизма, и в результате общество, в котором мы существуем, принимает нас.

Архетипические защиты

Это ряд поведенческих моделей, которые помогают преодолевать трудности и не растеряться в экстремальных ситуациях, возникающих в жизни группы, общины, коллег, друзей, близких людей и т.д. Считается, что эти защиты формировались тысячелетиями, а поскольку человек так и остался элементом общины, защиты продолжают функционировать.

Подсознательные модели поведения вы можете наблюдать и у себя. Например, ваш друг поссорился со своими родителями, и вы автоматически начинаете помогать ему – выслушивать, утешать, давать советы. Многие готовы пойти на самопожертвование ради благополучия другого. А все дело в подсознании, которое диктует нам программу защиты малого или большого социума.

Бессознательные защиты

Каждый слышит то, что хочет услышать.

Суть бессознательной защиты в том, что наша психика без искажения воспринимает только ту информацию, которая не может ее травмировать. Если какие-то факт, событие, действия или слова человека угрожают нашему душевному спокойствию, вызывают тревогу или напряжение, сразу же включается бессознательная защита. В результате мы вообще не воспринимаем входящую информацию или воспринимаем ее в искаженном виде. Например, некоторые мамы защищают своих детей: «Он не хулиган, просто у него трудное детство». Или близкие правонарушителя: «Он не преступник, просто он темпераментный». Так работает механизм отрицания: «Вы все меня не понимаете». В результате человек искусственно восстанавливает свое душевное равновесие, защищается от страхов, снижает внутреннее напряжение. К сожалению, эта уловка сознания помогает лишь на время. Алкоголик так и остается алкоголиком, а преступник преступником. Через какое-то время душевное равновесие нуждается в восстановлении.

Польза и вред бессознательных защит

Польза.

- помогают сохранить целостность личности и уберечь ее от распада, особенно при противоречивости желаний. Известно, что в человеке существует множество разных

«Я» (одно «Я» хочет одного, другое – другого, третье – третьего). Психологические защиты нужны, чтобы собрать все эти «Я» воедино и позволить им «договориться»;

- помогают сопротивляться болезням, верить в свои силы, успокаивают, что все будет хорошо, все восстановится;
- предотвращают дезорганизацию психической деятельности и поведения. Например, в момент внезапного стресса неверие во все происходящее спасает сознание от разрушения;
- оберегают от отрицательных качеств, которыми человек не обладает, но ошибочно признает за собой. Например, человеку кажется, что он излишне требователен к другим, хотя в реальности таковым не является. С целью защиты он может начать убеждать себя, что излишне требовательные люди более успешны в бизнесе, обладают отличной проницательностью и требовательны к себе. Таким образом, защиты спасают человека от мифических недостатков и снижают самообвинение;
- восстанавливают самоуважение, помогают принять болезненную ситуацию без снижения самооценки: «Ну и пусть. Я все равно лучше них», «Эти люди меня недостойны» и т.д.;
- помогают сохранить социальное одобрение. Например, человек сделал что-то не так и, зная об этом, оборачивает ситуацию: «Виноват не я, а другие люди/судьба/обстоятельства», «Не я такой – жизнь такая»;
- сохраняют отношения между людьми. Например, работнику не нравится, что его коллега все время сплетничает и пытается втянуть его в разговор. Он предпочитает не доводить ситуацию до конфликта и вместо того, чтобы высказать все, притворяется необщительным.

Вред защиты для психики и организма.

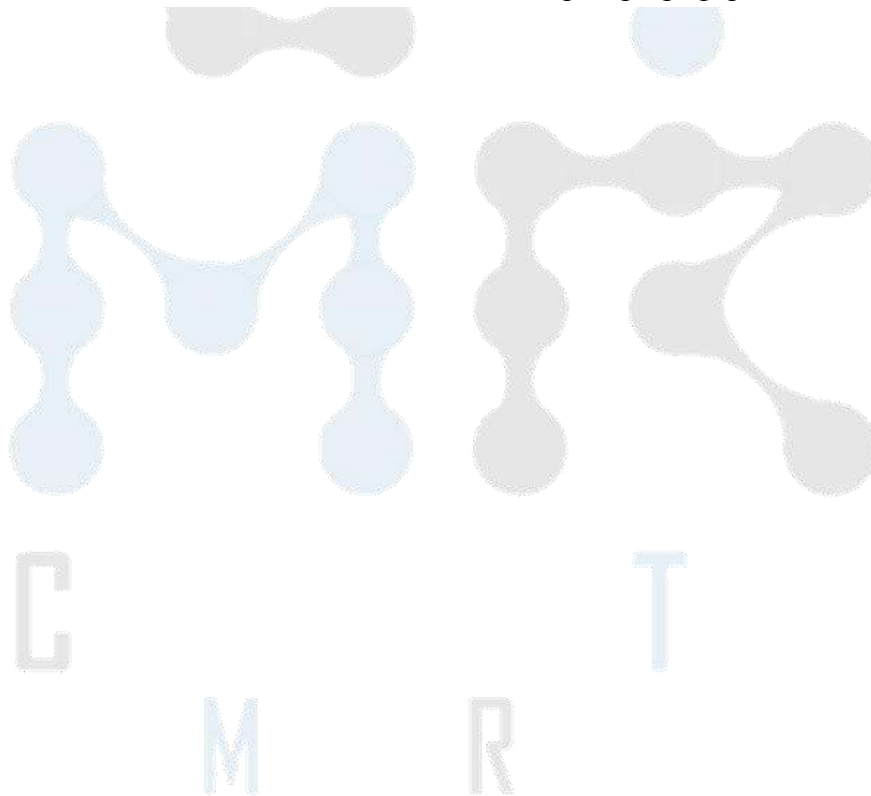
- не меняют порядок вещей, а лишь на некоторое время избавляют от тревоги и неудобств;
- искажают реальность, не дают нормально ее оценить. Особенно это встречается в оценке любимых людей. Например, говорят, что «любовь слепа». Если любимый человек вдруг совершает ужасный поступок, мы отказываемся в это верить, виним себя, что сразу не поняли, что он за человек, или бросаемся защищать провинившегося;
- вытесняют из сознания факты, события. Это временно успокаивает, но страх остается загнанным внутрь подсознания и оттуда воздействует на человека в течение длительного времени;
- путают человека. Например, вместо того, чтобы признаться себе в неприязненном отношении к своему ребенку, разобраться в причинах этой проблемы и отработать ее, родитель прикрывается гиперопекой, навязчивостью по отношению к своему ребенку, чем еще больше усложняет отношения.

«Если ничего из этого не помогает, а эмоции берут верх, стоит заручиться поддержкой специалиста. Психолог сможет установить причины такой реакции, а также поможет подобрать варианты как справиться с возникающими нервными срывами.

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ASCETICISM AND MYSTICISM IN ISLAM

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Abstract: The article discusses the philosophy of the mystical-ascetic current of Islam, Sufi poetry about love and wine, their music and dances - as well as criticism of Sufism.

Keywords: Koran, sufism, mystic, dervishism, submission, poetry, love lyrics.

Sufism is a mystical-ascetic trend in Islam that arose around the 8th century AD.e., shortly after the emergence of Islam itself. It is generally believed that asceticism and mysticism involve an escape from the world. However, this is not quite true. Indeed, some ascetics flee from the world: they go to the mountains, to the shores of the sea, to caves, forests, and there they practice their relationship with God. However, many mystics still prefer to remain in the world in order to correct it. Most Sufis just stay in the world to transform it, to make it more comfortable for human life and habitable for people with spiritual needs. In this respect, asceticism and mysticism in Islam have many features in common with the mystical-ascetic movements in Christianity, Daoism, Buddhism, and Hinduism. In Islam, mystics and ascetics who withdraw from the world or seek to improve it are called "friends of God" - *avliya* in Arabic. They achieve a high degree of spiritual perfection and the highest degree of knowledge about God and the world. It is not surprising that they themselves become the object of a cult. Ordinary mortals, who do not have the opportunity to communicate with God directly, turn to them in the hope that the "friends of God" will put in a word for them before God. They believe that people who have achieved spiritual and moral perfection are more likely to be heard than mere mortals, who are more sinful and unable to maintain moral and ethical standards. Most Sufis, unlike Christian monks, started families because it was difficult for them to go against the prophet's instructions that all men should find a spouse and live a normal life. Emphasizing at the same time that the wife and children should not distract the Sufi from the most important thing - serving God Sufism is partly a passive protest against the reconciliation of society. After the Arab conquests led to the emergence of a huge Arab-Muslim empire that stretched from China to North Africa, people settled down, became less pious, for trade and their occupations they began to forget about God. And so ascetics and mystics came into the world in order to remind Muslims of what is most important in a person's life: this is service to God and submission to His will. In Arabic, "submission to the will of God" is Islam. That is the name of the religion itself.

Since the "friends of God" very often lived among their followers, they became, as it were, the conductors of the aspirations and hopes of the masses in relation to the ruling circles, to the powerful of this world. Sufis, who possessed spiritual authority, very often turned to the rulers, took on the duty of persuaders,

and acted as defenders from harassment by the military administration of the provinces of the Muslim caliphate. Thus, they gained even more confidence from

the masses. Criticism of society and power is an integral part of the ascetic-mystical movement in Islam.

Sufis are characterized by overcoming egoistic impulses, which usually enslave a person, make him a slave of passions and aspirations. That is, they give preference in real life to other people and consider themselves the most unworthy

representatives of the human race. But, of course, those who dealt with the "friends

of God", on the contrary, considered them to be the outstanding representatives of divine power and spirituality in this world. That is why the Sufis, who left the world and considered the world unworthy of attention, arose large circles of followers, which gradually expanded, and eventually turned into real brotherhoods

- they are called tarikats. Tarikat is an organization of like-minded people, which is built, in principle, according to the same scheme as the communities of monks in Christianity. They also lived in special monasteries, observed strict discipline, which consisted in the performance of religious rites, in constant prayer, and the desire to help their neighbors. And gradually the Sufis turned into a very important political and social force in society. In part, you can think of it as a social security service. In those areas where the state was unable to help the local population, he had no resources or desire, the Sufis acted as a protection for the most oppressed, poor elements of society. This, of course, helped to increase their reputation in the eyes of followers. Very often, entire villages, villages became followers of a sheikh.

Sheikh is an "elder" in Arabic, he is similar to the Russian Orthodox elder. The sheikh built his spiritual lineage through the righteous caliphs (successors of the prophet at the head of the state) to the prophet himself, who, in turn, built it to the archangel Gabriel, who told him the Koran, and God himself was the final link in the chain. This chain was called silsilya. Every Sufi had such a genealogy and was very proud of it. A Sufi novice, or murid, had to undergo an initiation ceremony, accept the conditions of his sheikh and do his will. Fulfill vows, perform certain ritual actions under the guidance of the sheikh, tell him about your thoughts, your aspirations and your dreams. Gradually, in the eyes of the followers of Sufism, the followers of the "friends of God", an understanding arose that Sufis are capable of performing miracles. Early Sufi literature is replete with tales of miracles of healing, crossing great distances in the blink of an eye, walking on water, being able to feed a huge crowd with a small amount of bread - I believe that the listeners have already learned the miracles that they know from the history of Christianity.

Sufis also had the ability to work miracles. In any case, their miracles are described in great detail in a special genre of Muslim literature called keramat, that

is, literally "miracles." Now we need to talk about the practice that the Sufis performed within the walls of their cloisters. What were they doing there? They kept repeating the name of God. This practice is called dhikr, which in Arabic means "remembrance of the name of God", that is, Allah. However, in the Islamic tradition, Allah has many epithets praising all his aspects and abilities. For example, he is the All-Just, Eternally Alive, Always Helping, Forgiving, and so on. By repeating the name of God, the Sufis, as it were, instilled God into their hearts. This kind of practice has a parallel in Orthodox Christianity - it is called "name worship" and was practiced by Russian monks who lived on the Greek Mount Athos. This practice also somewhat resembles the practice of the Jesus Prayer and Hesychasm - the constant creation of prayer. Dhikr is a very important part of the Sufi ritual. Without it, there is no Sufism as such - although, according to critics of Sufism, the prophet did not set a precedent for performing dhikr, therefore, this is an innovation and even heresy. Sufi remembrances of God were very often accompanied by dances and music, which also provoked criticism from Muslim authorities who believed that music was incompatible with ritual actions in Islam. Nevertheless, the Sufis just became famous for their bright, memorable zeal, in which dances were used. Everyone knows about the so-called whirling dervishes - this is the Mevlevi order, which arose and spread throughout the

territory of Anatolia (modern Turkey) and which received great publicity and coverage in the West thanks to its colorful dances. The use of music, praises to the prophet during the rites also attracted the attention of many researchers and just the public - travelers in the Middle East. In general, the dervishes themselves, due to their exotic appearance and behavior, aroused the interest of the administrators of the colonial Western powers who worked with Muslim societies. Their way of life was seen as contrary to Islam. Therefore, the idea arose that dervishism is not Islam, but is a manifestation of some heretical currents within Islam. This idea was then picked up by the opponents of Sufism, who accuse the Sufis of using musical instruments and dances, believing that this is incompatible with the principles of Islam - as they understand it. Approximately in the X-XI centuries, the codification of Sufi knowledge takes place. It is very curious that such an almost elusive, subtle experience, like the Sufi, required the creation of numerous books. The Sufis have always said that it is impossible to put into words what they feel when they meet God or when He is present in their hearts. Nevertheless, despite their claims of inability to express this feeling, they wrote a huge amount of works, which are the object of study of a special branch of Islamic studies - Sufi studies.

What was said in this literature? First of all, about the biographies of the early ascetics and mystics of Islam. At the same time, both the prophet himself and his

closest associates were portrayed as an ascetic and mystic. It was believed that Sufism appeared almost simultaneously with the prophecy of Muhammad, which

began in 610 and ended with his death in 632. Indeed, the prophet led a very ascetic lifestyle: facts are mentioned that he washed his own shirt, patched it up and was very unpretentious in food. The Sufis have constantly pointed to these facts. They said, "We're just following in the footsteps of the prophet." These followers left a legacy of spirituality and moral and ethical principles, which were set forth in the biographical codes of Sufism. Sufi biographies portray them as ideal Muslims. They adhere to the orthodox creed, perform all the rituals and add their own - night vigils, vows of silence, and so on. Again, in this respect there are many parallels with Christian monasticism - in the Middle East, in Egypt, in Syria and in Iraq. Now let's talk about the content of Sufi literature. What else did she describe? In addition to the exploits and sayings of the early Sufis, she described their behavior - how they behaved in various situations. The texts allow you to recreate the life of the first Muslim ascetic and mystical communities: how the Sufis treated their leader, the sheikh, how they treated each other. Gradually, these relationships were recorded in special literature, which described the so-called adab - the rules of good behavior towards each other, towards the leader of the community, as well as towards the laity - that is, towards Muslims who were not part of the Sufi community. Life inside and outside the abodes was seen by the Sufis as a kind of path to God. Usually the path to God begins with repentance: a person repents of the sins of his ordinary, worldly life. He realizes that he is destined not for earthly life, but for the future life, and his moral, ethical and mental reorientation to the values of the future life and the values of the upper world takes place. This is followed by several stages of the path, which are described in detail in Sufi textbooks. What "parking" can be called on this path? Apart from repentance, this is godliness. The attitude towards food played a very important role. The food had to be only halal, that is, permitted in terms of Muslim law. But the Sufis went further: for example, they could not take food from the rulers. It was believed that the rulers oppress ordinary Muslims,

THE MULTIDISCIPLINARY JOURNAL OF SCIENCE AND TECHNOLOGY**VOLUME-4, ISSUE-2**

and therefore the money earned in this way is not correct and legal for the Sufis. Very often, the Sufis practiced long fasts and retreat from the world into a forty-day solitude, which was accompanied by dhikr, the repetition of the name of God, as well as the repetition of a series of prayers or prayer forms inherent in one or another Sufi brotherhood. In each brotherhood, the Sufi prayers were different: they are a feature that distinguishes one brotherhood from another. In addition to the Sufi concept of the path to God and the explanation of how to achieve the goal, the Sufis also talked about various mystical states. What is a mystical state? It is something that comes upon you unexpectedly. If you are able to conquer the "station" of the Sufi path (with your own labors, with your own actions), then God

sends down a special state on you, and this state can have both a negative and a positive connotation. For example, at one point you feel a very intense, almost crushing fear of divine power. And suddenly this same state is replaced by a state of hope - when you realize that you may achieve salvation in a future life. And it is possible that you are the chosen one of God. Thus, the Sufis were between two poles: the fear of God, on the one hand, and the hope of salvation and being chosen in the eyes of God, on the other. Such a relationship with God inevitably turned into love and passion. God was seen as a beloved (very often the term is used in the feminine gender) and as a sublimation of carnal, earthly love. This kind of relationship was well translated into the language of poetry. Poetry became a favorite genre of the Sufis, in which they described the relationship between the divine beloved, that is, God, and His lover, the Sufi. Sufi poetry is filled with images associated with love, with erotica. Because, as I said, God was seen as a beloved, who is not always benevolent towards her adorer. She can test him (that is, God can test a Sufi), offering him all kinds of temptations and distractions from the object of his desires, passions - that is, from God. Therefore, Sufi works can very often be read on two levels: simply as erotic poetry, love lyrics, or as a story about love between God and man. Another image of Sufi poetry, which appears first in Arabic, then appears in Persian, in Turkish, then in other languages of Islam, is the image of wine. Why wine? Is wine forbidden in Islam? However, the Sufis likened their love and intoxication with intimacy with their beloved (that is, with God) to intoxication with simple wine. That is, this is divine wine, just like this divine love. Another source of inspiration, besides the love of God, was the Koran for the Sufis. The Quran for all Muslims is a direct way to communicate with God, it is the literal word of God. Not changed by the prophet. The prophet gave it as he received it from God. Therefore, it was believed that through the Koran, passing it through his heart, a person can achieve intimacy or even unity with God. But the commentary and understanding of the Koran by the Sufis is very different from the commentary that we find in other areas of Islam - in Sunnism, in Shiism. Sunni scholars have emphasized the grammatical aspects of the Koranic revelation: they were interested in rare and strange words in the Koran, the images of the prophets from the Old and New Testaments and how they are reshaped in the Koranic revelation; they were interested in the historical circumstances in which the prophet received certain passages from the Koranic text. The prophet usually received such revelations in response to certain situations. Sufis were interested in something completely different. They were interested in the allegorical meaning of the Koran. The meaning behind everyday Arabic phrases. They were looking for what they called batyn - a hidden, inner understanding. When they interpreted the Koran, they always thought about its universal meaning and the allegories that are present in the Koran. Take, for example, the Hajj. For an ordinary Muslim, this means traveling to the Arabian Peninsula and

entering the boundaries of the sanctuary, which is called the Meccan sanctuary, circumambulating the house of God - the Kaaba, and so on. For a Sufi, this is an allegory for the search for God in one's heart. God lives in the believer's heart, and a person must make the rounds of the house of God in his heart. Without leaving your home. Without enduring the difficulties of the journey to Arabia. He can even build a small replica of the Kaaba in his backyard and walk around it. When the Sufis did this, they were condemned for undermining the foundations of Islam. What is the reason why Sufism continues to be a very important part of the life of Muslims and, as we have seen, also non-Muslims who are interested in spirituality? I think that the mystery of Sufism's permanence and vitality lies in the fact that it is an unusually rich cultural, intellectual, spiritual tradition. This tradition was expressed in architectural monuments: these are the tombs of saints, these are special Sufi institutions, similar to monasteries, which are called zawiyas, or khanaks; they are Sufi institutions, brotherhoods. And also - the creative beginning of Sufism. This is poetry, music. Often the remembrance of God was accompanied by musical instruments, and music played a large role in Sufism. That is why it is premature to talk about the death of Sufism and even about its decline. Its flexibility, ability to adapt to different conditions, ability to use new technologies to spread its teachings, ideals and ideas allow us to say that Sufism will continue to flourish in different forms and in different forms in the coming, at least, decades - and maybe even more.

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ЦИФРОВАЯ ТРАНСФОРМАЦИЯ ОРГАНИЗАЦИИ С ИСПОЛЬЗОВАНИЕМ
ТЕХНОЛОГИЙ STEM В СИСТЕМЕ ГОСУДАРСТВЕННОГО ОБРАЗОВАНИЯ

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Annotatsiya: Ushbu maqolada xalq ta'limi tizimini boshqarishning samarali mexanizmlarini joriy etish o'sib kelayotgan yosh avlodni ma'naviy-axloqiy va intellectual rivojlantirishni sifat jihatidan yangi bosqichga ko'tarishda foydalaniladigan STEM yondashuvi asosida mashg'ulotlarni tashkil etishning raqamli transformatsiyasi yoritib berilgan.

Аннотация: В данной статье освещается цифровая трансформация организации обучения на основе STEM-подхода, при которой внедрение эффективных механизмов управления системой государственного образования выводит духовно-нравственное и интеллектуальное развитие подрастающего поколения на качественно новый уровень.

Annotasion: This article highlights the digital transformation of the organization of education based on the STEM approach, in which the introduction of effective management mechanisms of the public education system brings the spiritual, moral and intellectual development of the younger generation to a qualitatively new level.

Внедрение эффективных механизмов управления системой народного образования содействием технологиям в выводе духовно-нравственного и интеллектуального развития подрастающего поколения на качественно новый уровень приобретает огромное значение. В целях создания всех условий для приобретения знаний нашими молодыми людьми, президентом был разработан ряд указов и постановлений, касающихся сферы образования.

Указ от 29 апреля 2019 года № ПФ-5712 "об утверждении Концепции развития системы народного образования Республики Узбекистан до 2030 года", указ от 5 октября 2020 года Об утверждении стратегии "цифровой Узбекистан-2030" и указ от 12 августа 2020 года № ПФ- Постановление № 4805"о мерах по повышению качества непрерывного образования и эффективности науки в области химии и биологии" и др. перевод образовательного процесса на инновационный образовательный процесс заключается в освоении основ STEAM педагогики с учетом потребности в современных кадрах, формировании у педагогов новых профессиональных компетенций, необходимой базы знаний взято за задание. В этом направлении в образовательном процессе создаются "президентские школы", школы Аль-Хорезми, школы Ибн Сины и другие специализированные школы, в которых проводятся занятия на основе подхода Stem. Поддержка современных образовательных технологий, основанных на принципе обучения и жизни в отличие от традиционного процесса обучения, для повышения интереса учащихся к науке, способствует повышению качественной эффективности обучения, достижению эффективных результатов.

Образовательные технологии STEAM ставят перед общеобразовательными школами такие задачи, как переход урока от классно - урочной системы к проектной деятельности,

перенос фундаментальных знаний на функциональные, интеграция дисциплин через процесс их активного применения на практике, поиск новых путей решения проблем на стыке, ориентация на открытие, если это необходимо.

STEAM-технология, связывающая образование с реальной жизнью. STEAM: Science означает естественные науки, Technology - технологии, Engineering - инженерия, Art - искусство, Mathematics – математика.

Когда в процессе обучения на основе образовательной технологии STEAM более полно реализуется принцип соотнесения обучения с жизнью, у учащихся пробуждается интерес к химии, повышается эффективность обучения, они могут в полной мере осознавать химические явления, происходящие в течение их жизни. Самостоятельно ищет и может высказать свое мнение о происходящих процессах. Организация условий проведения опытов, их практическое выполнение, Обсуждение и под наблюдением педагога может самостоятельно проводить целенаправленные опыты.

Технология STEM - подхода основана на методе проектирования, в основе которого лежат познавательные и художественные поиски. Такой образовательный подход напрямую связывает развитие подопечного и обучаемого с внешним миром. Паровой подход позволяет систематически исследовать мир, логически наблюдать происходящие вокруг процессы, постигать взаимосвязь в них, открывать для себя что-то новое, необычное и интересное. В настоящее время это материально-техническая база во всех общеобразовательных школах при организации обучения на основе STEM-подхода, т. е. не хватает технических средств. Таким образом, мы сможем решить эту проблему, проводя обучение с использованием цифровых технологий.

Итак, рассмотрим программы-симуляторы виртуальной лаборатории. PhET предоставляет вам удобную среду для выполнения и проведения всех симуляций в графической интерактивной форме. Это <https://phet.colorado.edu/uz/simulations/filter?type=html> установив приложение, вы сможете проводить ряд научных экспериментов в различных областях науки без подключения к интернету. Темы, предлагаемые в программе: арифметика, математика, электроника, кинематика, квантовая физика, биология. Это приложение-мечта любителей физики, химии и науки в целом.

Превратите свой компьютер в химическую лабораторию с помощью модели Chem-lab. Вы сможете экспериментировать, как в реальной лаборатории. С помощью этого приложения мы можем безопасно выполнять различные виртуальные лабораторные работы, а также выполнять различные химические лабораторные работы. Модель Chem-lab-это удобная программа для студентов-химиков, которым необходимо провести эксперимент, но которые не могут попасть в лабораторию . Это позволит вам создать виртуальную лабораторию на вашем компьютере, а также исключит реальную опасность при проведении нового эксперимента.

Эта программа представляет собой полноценную виртуальную лабораторию с интуитивно понятным интерфейсом, который включает в себя большой набор различных устройств и настроек, позволяющих работать с ней как можно ближе к реальной химической лаборатории. Для экспериментов можно выбрать самые разные модели:

- Гравиметрический анализ хлоридов
- определение удельной теплоемкости

- Кинетика окислительно-восстановительных реакций
- сжатие газов
- Фракционная кристаллизация
- Вся лаборатория
- кислотно-основное титрование.

Благодаря этим функциям, а также множеству настроек и модификаций, которые вы можете использовать, Model chemlab становится одним из самых интересных приложений, которые это делают, и, безусловно, понравятся студентам.

3D Angles - это приложение, которое помогает изучать молекулярные структуры. Вы можете скачать 3D Angular бесплатно, и вы можете просматривать молекулы в 3D. Если вы не можете понять молекулярные структуры, 3D angulars - это приложение, которое поможет вам их изучить. Это приложение покажет Вам большое количество молекул, атомов и связей и задаст вам вопросы о них.

3D углы позволяют легко просматривать большое количество трехмерных моделей конструкций с их звеньями и элементами, из которых они состоят. Таким образом, он способен отображать все, от молекул воды (H_2O) до сложных молекул, о которых вы только можете подумать.

После того, как они отображаются, 3D-углы (также называемые 3D-измеренными углами) спрашивают пользователя о том, что он видит, на основе различных областей, таких как угол связи, гибридизация или координационное число.

Сразу после заполнения блока вопросов учащемуся показывается количество правильных ответов и время, затраченное на ответ, так как это имеет большое значение для ответа сразу или в течение нескольких минут.

Это исследование развивает творческие способности, критическое мышление и навыки решения проблем, а также навыки инноваций. Поощрялись проблемы разработки проекта на основе заданий, поставленных на уроках, и связывания его с основными принципами STEAM. Развиваются способности учащихся к творческому и критическому мышлению. Как только учащиеся поймут поставленную задачу, они должны найти и решить проблемы. Они пытаются получить и найти ссылки из различных источников, включая интернет и книги. При таком образовательном подходе мы получаем возможность развивать у учащихся эстетическую культуру и мировоззрение. Среди них мы создадим прочную основу для будущей профессиональной деятельности студентов, основанной на подходе STEM, в результате компьютерной грамотности учащихся, получения студентами точной информации и результатов по естественным наукам посредством работы в программах виртуальных лабораторий.

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КЛАССИФИКАЦИЯ ИНТЕГРАЛАХ МНОГООБРАЗИЙ ОБОБЩЁННО –
ОДНОРОДНОЙ N-МЕРЕНОЙ СИСТЕМЫ

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Аннотация

В работе рассматривается n - мерной дифференциальной системы

$$\frac{dx}{dt} = X(x), \quad X(x) = (X_1(x), \dots, X_n(x)), \quad x = (x_1, \dots, x_n), \quad (1)$$

где $X(x)$ – обобщенно – однородные функции класса C^k ($1 \leq k \leq \infty$) степени $\sigma + m_i$ имеющие в начало $O(0, \dots, 0)$ изолированный нуль, изучаются некоторые классы интегральных многообразий, получены условия для наличия обобщенного узла и обобщенного седла.

Ключевая слова

Изолированный нуль, интегральных многообразий, гомеоморфной, инвариантный множество, порождённой примыкающих, трансверсально, гладкий конус, характеристические показатели, характеристические число, периодическая траектория, обобщенный узел, обобщенной седло.

Геометрические свойства траектории однородных дифференциальных систем были предметом исследования в работе [1] аналогичные вопросы предполагается рассмотренные в теории обобщенно – однородных дифференциальных систем.

$$\frac{dx}{dt} = X(x), \quad X(x) = (X_1(x), \dots, X_n(x)), \quad x = (x_1(x), \dots, x_n(x)), \quad (1)$$

Где $X(x)$ – обобщенно – однородные функции класса C^k ($1 \leq k \leq \infty$) степени $\sigma + m_i$, имеющие в начале $O(0, \dots, 0)$ изолированный нуль.

В этой заметки изложены результаты изучения некоторых классов интегральных многообразий, показаны условия для наличия обобщенного узла и обобщенного седла. В основу классификации интегральных многообразий положена структура ω и α –предельных множеств $(n - 1)$ –мерной системы, сопоставляемой с изучаемой системой (1). Сущность метода состоит в следующем траектории изучаемой системы (1) проектируются на B^{n-1} гомеоморфной сферы S^{n-1} и рассматриваются траекторий на $(n - 1)$ –мерной поверхности. Каждом траектория поверхности B^{n-1} соответствуют интегральное многообразии с границей в точки O и проходящее через точки траектории $\gamma \subset B^{n-1}$.

Дано классификация интегральных многообразий обобщенно – однородной системы (1) в предположении, что вспомогательная система на поверхность B^{n-1} грубая.

После преобразования

$$X = AU, \quad u = (u_1, u_2, \dots, u_n)^T$$

где $A = \begin{pmatrix} r^{-m_1} & \dots & 0 \\ \vdots & \dots & \vdots \\ 0 & \dots & r^{-m_n} \end{pmatrix}$,

$$r^{-2\Pi_1^n m_k} = x_1^{2\Pi_2^n m_k} + \dots + x_j^{2\Pi_{k=1}^n m_k} + \dots + x_n^{2\Pi_1^{n-1} m_k},$$

$$u_1^{2\Pi_1^n m_k} + \dots + u_j^{2\Pi_{k=1, k \neq j}^n m_k} + \dots + u_n^{2\Pi_1^{n-1} m_k} \quad (2)$$

При $x(t) \rightarrow 0$ переменный вектор $u(t)$ опишет на поверхности B^{n-1} некоторую кривую.

Для определения $\tau(u)$ и $u(t)$ имеем следующую систему;

$$\left. \begin{aligned} \text{а)} \quad \frac{du_j}{dr} &= X_j(u) - m_j u_j R(u) = U(u) \\ \text{б)} \quad \frac{dr}{d\tau} &= -rR(u) \end{aligned} \right\} \quad (2)$$

$$R(u) = \frac{1}{m_1} u_1^{2\Pi_2^n m_k - 1} X_1(u) + \dots + \frac{1}{m_n} u_n^{2\Pi_1^{n-1} m_k - 1} X_n(u), dt = r^\sigma dr, \sigma > 0$$

Во всякой области пространства R^n траектории системы (1) и (3) соответствуют как точечное множества: при различных параметрах на них при этом направлении по τ совпадает с направлением t . Систему (3) будем рассматривать и для случая $r = 0$.

Рассматриваемое поле $X(x)$ является разрывным на B^{n-1} может стать инвариантным множеством, то есть аналитическое продолженная поля $X(x)$

на B^{n-1} возможно. Формулы (2) и (3) определяют гомеоморфное соответствие между $R^n; \{X\}$ - пространством и точками (r, u) полупространство $r > 0$ с выключенным началом, топологически переходящие траектории системы (1) в траектории системы (3). Отметим, что траектории системы (3) определенные для всех значений τ , совпадают с траекториями системы (1).

Решение системы (3а) отвечающие начальным данным при $\tau = \tau_0$, запишем в виде $u = u(\tau, u^0)$. Тогда решение уравнения (3б)

соответствующее решению $u = u(\tau, u^0)$ и начальному данному $r = r_0 > 0$ при $\tau = \tau_0$ определяется с помощью формулы.

$$r(\tau) = r_0 \exp \left[- \int_{\tau_0}^{\tau} R[u(s, u^0)] ds \right], \quad (4)$$

где τ_0, r_0, u^0 - произвольные постоянны.

Решение системы (3) соответствующее начальным данным

$$u = u^0, r = r_0, > 0 \text{ запишем в виде } u = u(\tau, u^0), r = r(\tau, u^0, r_0) \quad (5)$$

Система (3а) не зависит от r ; $r = 0$ является решением уравнений (3б). Следовательно $r = 0$ является интегральным многообразием системы (3).

В дальнейшем обозначим через γ и w траектории соответственно систем (3а) и (1) особые точки и периодические траектории через g^i и θ^j , а w и α – предельные множества траекторий через Ω_γ и A_γ .

Конус $G(\gamma)$, образованный лучами, проходящими через точки траектории $u_i = u_i(\tau, u^0)$ системы (3а) в точку $0 \in R^n$, является интегральным многообразием системы (1).

Интегральное многообразия порождаемы траекториями системы (3а) являются непересекающимися гладкими конусами, на которых будем изучать траектории систему (1).

Предложим, что $(n - 1)$ – мерная система (3а) грубая в смысле Морса – Смела и имеет конечное число периодических решений.

Определение. Система (3а) назовём грубой в смысле Морса – Смела, если $\forall \varepsilon > 0$, $\exists \delta > 0$, что $\forall \varphi(u)$ непрерывных вместе со своими частными производными и удовлетворяющих условиям

$$|\varphi(u)| < \sigma, \left| \frac{\partial \varphi_i}{\partial u_i} \right| < \sigma, \sum_1^n u_i \varphi(u) = 0$$

\exists топологическое преобразование $\Phi = \Phi(M)$ поверхности B^{n-1} на себя, обладающее свойствами:

- 1) расстояние точки $M \in B^{n-1}$ и $\Phi(M) \in B^{n-1}$, $\rho(M, \Phi(M)) < \varepsilon$
- 2) преобразует траектории системы (3а) в траекториям

$$\frac{du}{d\tau} = U(u) + \varphi(u)$$

Грубая система имеет (3а): а) имеет конечное число особых точек g^i , причём все они простые, то есть матрицы Якоби вектор – функция $U(u)$ для этих точек имеют собственные числа с ненулевыми действительными частями; б) имеет только простые периодические решения, то есть все $(n - 1)$ характеристические показатели $\lambda_1, \dots, \lambda_{n-1}$ для этих решений отлично от нуля $\lambda_i \neq 0$, ($i = \overline{1, n - 1}$) при $\lambda_n = 0$; в) предельные точки всех траекторий лежит либо в особых точках, либо на периодических траекториях: г) не имеет траекторий для которых ω и α – предельными множествами служит одна и та же периодическая траектория; д) всякие точки $u \in B^{n-1}$, отличающиеся от особой точки g^i , не лежащей на периодической траектории, являются блуждающими, то есть существует окрестности окрестность $V(u)$ точки “ u ” и положительное число T такое, что

$$V(u) \cap f[V(u), t] = \emptyset \text{ при } t \geq T.$$

е) многообразия 0^+ и 0^- - кривых, примыкающих к особой точки седланого типа могут пересекаться только трансверсально.

Определение. 1. Изолированную особую точку O системы (1) назовем положительным (отрицательным) обобщаемым узлом если все проходящие через нее траектории являются 0^+ (0^-) кривыми [2].

Определение. 2. Особую точку O системы (1) назовём обобщаемым седлом, если к ней примыкают по крайней мере одна 0^+ и одна 0^- кривая [2].

Пусть $(n - 2)$ мерное семейство 0^- -кривых L примыкает к особой точке g^2 при $\tau \rightarrow +\infty$ и к особой точке g^1 при $\tau \rightarrow -\infty$. Конус $G(L)$ будет $(n - 1)$ – мерным. Рассмотрим поведение траектории системы (1) на конусах $G(L)$, по направлению $G(g)$ имеет.

$$\lim_{\tau \rightarrow -\infty} W = g\tau_0^m \exp[-R(g) \lim_{\tau \rightarrow -\infty} (\tau - \tau_0)], m \leq \min m_i \quad (6).$$

Так как $\gamma \rightarrow g$, на L^- при $\tau \rightarrow -\infty$, где $g \in L^-$.

Отсюда при $R(g) > 0$, $\lim_{\tau \rightarrow -\infty} W = \infty$ а при $R(g) < 0$, $\lim_{\tau \rightarrow -\infty} W = 0$. Возможны две случая: 1) если $R(g) > 0$ по при $\tau \rightarrow +\infty$ все траектории W на конусе $G(L)$ будут 0^+ – кривыми.

2) если $R(g) < 0$, то все траектории W на конусе $G(L)$ при $\tau \rightarrow +\infty$ уходят бесконечность.

Сепаратриса для периодический траектории $(n - 2)$ - мерная траектории L - является еспаратрисой для периодической траектории θ тогда $\gamma \rightarrow \theta CB^{n-1}$, где $\gamma, \theta \in L$. Для траектории W системы (1) на конусе $G(L)$ по направлению $G(\theta)$ имеем.

$$\lim_{\tau=(s+T) \rightarrow \infty} W = \theta(\tau)r_0 \exp[-\nabla(\theta)]T, \quad (7)$$

$$\nabla(\tau) = \int_0^T R(\theta)ds,$$

где T – период траектории θ . Отсюда при $\nabla(\theta) < 0$ будем иметь $\lim_{\tau \rightarrow -\infty} W = 0$, а при $\nabla(\theta) > 0$, $\lim_{\tau \rightarrow -\infty} W = \infty$ и на конусе $G(L)$ возможны два случая.

1) Если $\nabla(\theta) < 0$ то при $\tau \rightarrow -\infty, W \rightarrow 0$. Все траектории W на конусе $G(L)$ будет 0^+ – кривыми.

2) Если $\nabla(\theta) > 0$ то при $\tau \rightarrow -\infty, W \rightarrow -\infty$. Все траектории W на конусе $G(L)$ при $\tau \rightarrow -\infty$. У ходят в бесконечность.

Определение 3. Т- пародическое решение $\theta = \theta(\tau)$ системы (3а) казовом отрицательным (положительным) если $\nabla(\theta) > 0$ ($\nabla(\theta) < 0$).

Определение 4. Число $R(g^i)$ и $\nabla(\theta^i)$ назовём характеристическими числами изолированных особых точек g^i периодических траекторий θ^j системы (3а).

Пусть все характеристические числа $R(g^i)$ и $\nabla(\theta^i)$ особых точек и периодических траекторий (3а) отлично от нуля. Тогда можно сформулировать следующие теоремы.

Теорема 1. Для того, чтобы изолированная особые точка $x = 0$ системы (1) была обобщённым узлом, необходимо и достаточно, чтобы все все характеристические числа $R(g^i)$ и периодические траектории $\nabla(\theta^i)$ имели один и тог же знак.

Теорема 2. Для того, чтобы изолированная особые точка $x = 0$ системы (1) была обобщённым узлом, необходимо и достаточно, чтобы среди характеристические число $R(g^i)$ и периодические траектории $\nabla(\theta^j)$ имелась хотя бы одна пара противоположных знаков.

Теорема 3. Пусть система (3а) грубая в смысле Морса – Смела и имеет конечное число изолированных особых точек g^j и периодических

траекторий θ^j . Тогда для того, чтобы нулевое решение $x = 0$ системы (1) была асимптотически устойчивым в смысле Ляпунова, необходимо и

достаточно, чтобы все характеристические число особых точек g^i и периодически х траекторий θ^j была положительными.

Следствие. Если среди и чисел $R(g^i)$ и $\nabla(\theta^i)$ имеется хотя бы одна пара противоположных знаков, то нулевое решение $x = 0$ системы (1) неустойчиво.

В заключение отметем, что при $n = 3$ некоторые вопросы исследования системы (1) изучены в работая периодические траектории в работе случай [3] $\nabla(\theta^i)$.

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**ИЗУЧЕНИЕ ВЛИЯНИЯ РАЗЛИЧНЫХ ФАКТОРОВ НА СКОРОСТЬ
МОДИФИКАЦИИ ПОЛИСИЛИКАТНОЙ КИСЛОТЫ МОНОЭТАНОЛАМИНОМ**

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Входить. Поликремниевая кислота – наиболее распространенное неорганическое полимерное вещество. Такие минералы, как кремнезем и алюмосиликаты, в основном основаны на полисиликатах. Процессы модификации различных полимеров золь-гель методом широко изучены [1]. Введение функциональных групп путем модификации различных силикатов органическими аминами увеличивает возможность их использования в различных областях. Для активации сополимеров стирола и этилена был изучен процесс модификации малеиновым ангидридом, а затем этаноламином [2]. Кроме того, для повышения термостабильности использована модификация 2-амино-2-метил-1-пропанола глицерином [3].

Хорошо видны специфические свойства соединений, полученных золь-гель методом. Это позволяет синтезировать селективные специальные катализаторы, особенно для каталитических процессов [4]. Для повышения эффективности металлических катализаторов используют также метод введения ионов металлов в модифицированные функциональные группы на поверхности полимеров [5]. Поликонденсацией силанольных групп и специальных пористых соединений можно получить использование различных спиртов при сушке при сверхкритическом давлении в золь-гель-процессе [6].

Получены золь-гель-методом из малеинового ангидрида с триметоксисиланом сополимеры стирола и метакрилата, в которых в качестве поверхностного вещества используется коллоидный оксид кремния [7]. Представлен метод модификации поверхности силикагеля путем проведения полимеризации силанов в среде органических растворителей с участием наночастиц силикагеля [8].

Поверхность силикатов также можно модифицировать путем прививки алкильных цепей. При этом также используют поликонденсацию силанольных групп [9].

Поверхность силикатов также можно модифицировать путем напыления кремнийсодержащих соединений. Этот метод эффективен для более крупных тел, таких как строительный бетон [10].

Для сорбции углекислого газа можно использовать силикагели, модифицированные органическими аминами. При этом уровень сорбции позволяет извлекать углекислый газ из метана [11]. Также из этаноламиновой модификации композита гексацианоферрат калия-никель/кремний для разделения активных изотопов ядерных отходов были получены селективные ионообменные сорбенты, устойчивые к высоким температурам [12].

Экспериментальная часть. Экстракция поликремниевой кислоты.

Поликремниевую кислоту получали обработкой раствора ортосиликата натрия (жидкое стекло) 1М раствором соляной кислоты. Образовавшийся белый осадок отфильтровывали и оставшуюся соль промывали водой. Сушили при комнатной температуре. Его измельчали и термически обрабатывали при 200°C до тех пор, пока его масса не изменилась.

Модификация моноэтаноламином. Брали 10 г полученной поликремниевой кислоты и обрабатывали при 60°C в течение 5 часов при перемешивании с 30 г свежеекстрагированного моноэтаноламина в этаноле. Полученный продукт фильтровали для отделения твердого остатка. Его сушили при 80°C в течение одного часа. Этот продукт имеет класс SIL-5-60.

Определение оптимальных условий. Модификацию поликремниевой кислоты моноэтаноламином проводили при разных температурах и разном времени реакции для определения оптимальных условий процесса. Продукты реакции были помечены цифрами после слова SIL, обозначающими время в часах, и последней цифрой, обозначающей температуру. Во всех реакциях оно основывалось на увеличении массы конечного продукта по сравнению с исходной массой.

Определение влияния тетраэтоксисилана на время реакции и температуру. Все реакции повторяли с добавлением 1% тетраэтоксисилана от общей массы. Полученные образцы были отмечены как ИЛ.

Результаты и анализ. ИК-спектральный анализ. Для определения структуры полученных продуктов был получен ИК-спектр. ИК-спектр был получен на приборе ИР-100 в диапазоне частот $400\text{--}4000\text{ см}^{-1}$ (рис. 1).

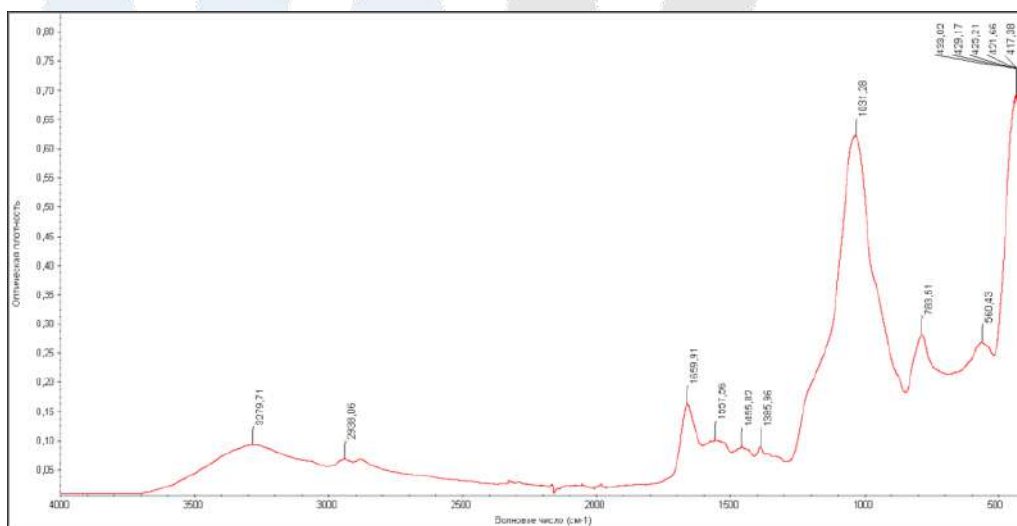
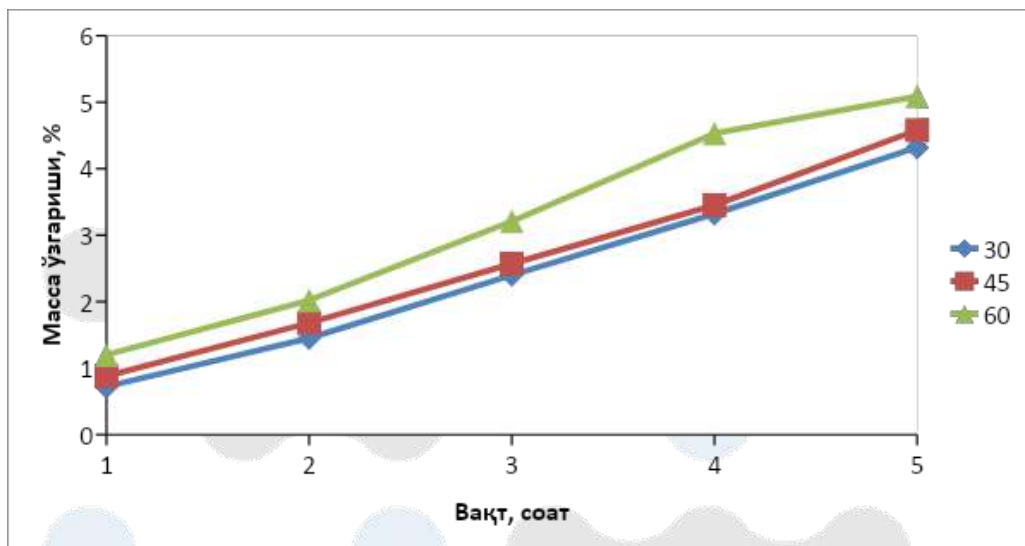


Рисунок 1. ИК-спектр модификации поликремниевой кислоты моноэтаноламином

показал широкие частоты колебаний гидроксильных групп в области 3279 см^{-1} . Это указывает на то, что гидроксильные группы модифицированы не полностью. Наблюдение валентных колебаний атомов водорода в метиленовых группах в районе 2938 см^{-1} указывает на наличие объединенной органической части. В районе 1031 см^{-1} наблюдаются интенсивные колебания связей Si-O-C. Деформационные колебания аминогруппы присутствуют на частоте 1659 см^{-1} , а

валентные колебания связей N=O и NO, образующихся в результате частичного окисления аминогруппы, проявляются на частотах 1385, 1455, 1557 см^{-1} .

Оценка влияния температуры на скорость реакции. Повышение температуры увеличивает скорость реакции. При этом в результате более быстрого испарения этилового спирта, являющегося растворителем, концентрация моноэтаноламина в смеси увеличивается. Это приводит к увеличению скорости реакции.



Фигура 2. Зависимость выхода реакции от времени и температуры.

Как видно из рисунка 2, повышение температуры реакционной среды существенно не увеличивает выход реакции. Однако следует учитывать, что не все части поликремниевой кислоты реагируют. По результатам элементного анализа и ИК-спектроскопии модификация моноэтаноламином происходит только за счет силанольных групп. Эти группы присутствуют только в поверхностных частях поликремниевой кислоты с сетчатой полимерной структурой.

Влияние воздействия тетраэтоксилана на скорость реакции. Добавление тетраэтоксилана значительно увеличивает скорость реакции (рис. 3).

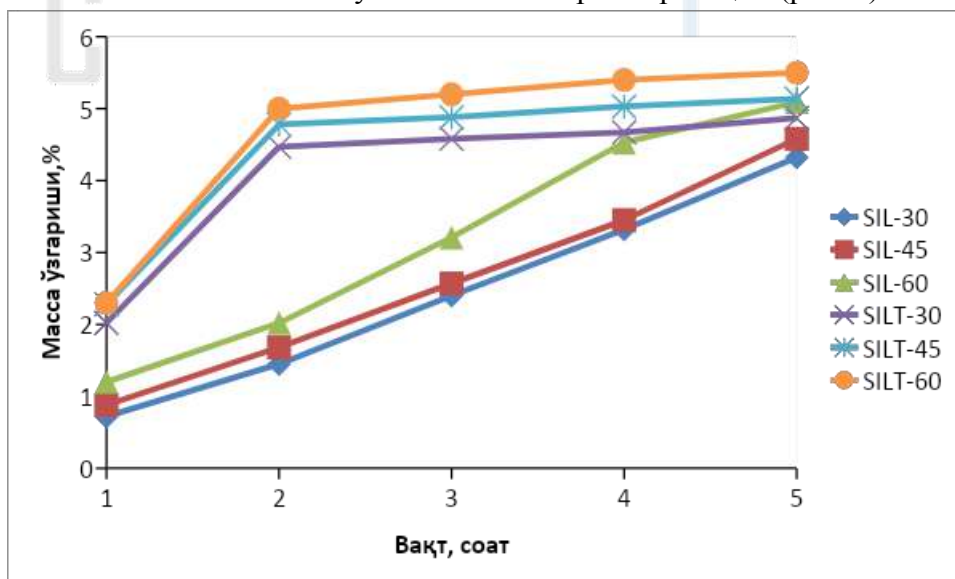


Рисунок 3. Изменение скорости реакции в присутствии тетраэтоксисилана

При модификации поликремниевой кислоты этерифицируются только поверхностные силанольные группы. А тетраэтоксисилан может образовывать четыре силанольные группы. В результате процесс ускоряется. Но благодаря высокой стабильности тетраэтоксисилановых кремний-кислородных связей кремниевая кислота быстро покрывает поверхность частиц и также происходят процессы их соединения. Однако увеличение количества свободных силанольных групп на поверхности частиц приводит к увеличению степени этерификации. Однако прямое присоединение тетраэтоксисилана к молекулам моноэтаноламина встречается редко. Таким образом, время реакции уменьшается, но степень модификации существенно не увеличивается.

Выводы. Реакция поликремниевой кислоты с моноэтаноламином происходит за счет поликонденсации силанольных и гидроксильных групп. Изучена зависимость скорости реакции от температуры и добавления тетраэтоксисилана. Показано, что оптимальное время модификации составляет 5 часов при 60°C без тетраэтоксисилана и 2 часа при 60°C с тетраэтоксисиланом.

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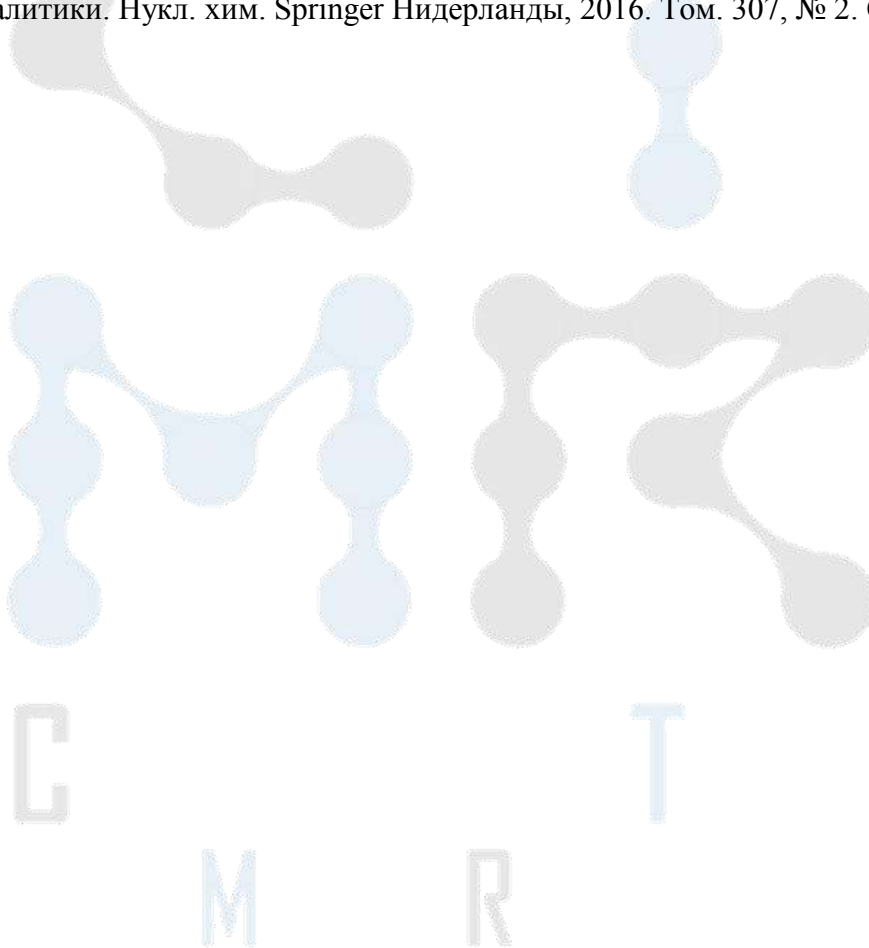
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**THEORETICAL PRINCIPLES OF AESTHETIC EDUCATION OF 5-7 CLASS
STUDENTS ON THE BASIS OF KARAKALPOK ETHNO-CULTURE**

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Abstract. This article analyzes the rich cultural heritage, traditions and rituals of the Karakalpak people. How Karakalpak ethnoculture can be used in the education of schoolchildren, especially children in grades 5-7, is highlighted. The importance of crafts such as Karakalpak applied art, carpet making and carpentry was emphasized.

Key words: Karakalpak ethnoculture, school education, aesthetic education, practical art.

INTRODUCTION

The rich cultural heritage of the Karakalpak people has not lost its value even today. It is especially important to use this heritage in raising children. In this article, the main aspects of Karakalpak ethnoculture, including rituals, customs, examples of practical art, etc., are analyzed on the example of 5-7 classes.

METHODS AND LITERATURE ANALYSIS

The theoretical analysis method was used in this study. In particular, through the study and systematization of scientific literature, Karakalpak ethnoculture, its components, as well as its possibilities in educating schoolchildren were analyzed.

The scientific works of Uzbek scientists such as A. Kochkarov, S. Rahimov, B. Toychiev [1,2,3] were used in the research. Also, monographs and articles devoted to the study of Karakalpak ethnoculture were the object of analysis.

This topic is covered by working with national literature, mainly using theoretical analysis methods. It is also desirable to conduct practical research in the future.

RESULTS AND ANALYSIS

During the research, the following main results were achieved:

- Ceremonies, customs, examples of practical art occupy an important place in the rich cultural heritage of the Karakalpak people [4].
- Ceremonies such as Navruz and wedding show the connection between the Karakalpaks' lifestyle and nature.
- Karakalpak practical art, including carpet making, carpentry, and pottery, is an important resource for the aesthetic education of children [5].
- Using Karakalpak ethnoculture, children in grades 5-7 can be educated in the spirit of patriotism and respect for national values.

The results of the conducted research showed the possibilities of wide use of Karakalpak ethnoculture in school education. It is necessary to carry out practical research in the future.

The lifestyle of the Karakalpaks was associated with nomadic herding [6]. Therefore, the main elements of their culture, lifestyle and outlook were formed depending on natural phenomena. For example, natural phenomena, such as the change of seasons, the movement of the sun, were important for the Karakalpaks.

Navroz is one of the most important rituals and traditions of the Karakalpaks [7]. It is called the spring equinox and is celebrated as the awakening of nature, the beginning of the year. Nowruz is a symbol of the beginning of the new year for Karakalpaks.

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Another important ceremony of the Karakalpaks is the wedding ceremony. Wedding is extremely important for family and society [8]. During the wedding, various folk songs are sung, national dances are performed. Through such ceremonies, children learn the values, customs and traditions of their people.

Karakalpak applied art also has its own characteristics. Crafts such as carpet making, carpentry, and pottery are especially popular. Carpets are characterized by a variety of patterns and colors. In grades 5-7, if children are taught these craft samples and the processes of their creation, their taste and worldview will be enriched.

DISCUSSION

In this article, customs and rituals, examples of practical art in Karakalpak ethnoculture were analyzed. Their importance in educating schoolchildren, especially 5-7 grades, was explained.

Using the rich cultural heritage of the Karakalpaks, it was possible to educate children in the national spirit and to form patriotic feelings in them. For this, it is necessary to apply these heritage elements to the teaching process.

On the basis of Karakalpak ethnoculture, there are wide possibilities of aesthetic education of schoolchildren. In this regard, it is important to conduct practical research and develop lesson models.

There are great opportunities in education of schoolchildren, especially children of grades 5-7, using Karakalpak ethnoculture appropriately. They deeply assimilate the unique heritage of their people, are loyal to their country, and grow up to be people who are loyal to the Motherland.

CONCLUSION

To sum up, the rich cultural heritage of the Karakalpak people is an important resource for educating schoolchildren, including grades 5-7. It is possible to raise children in the national spirit and develop patriotic feelings by using these heritage elements appropriately. At the same time, their aesthetic taste also grows. In the future, based on practical research, it is appropriate to develop recommendations on the effective use of Karakalpak ethnoculture in school education.

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Annotation: Today, distance learning has entered the educational system as a convenient and unique type of education. Distance education is a form of obtaining information in which, in addition to full-time and part-time education, traditional and innovative methods, tools and forms of education based on computer and telecommunication technologies are widely used. In the distance education tool, a controlled educational process focused on one goal is organized using special opportunities, telephone, electronic communication and other educational tools based on an individual schedule in a place convenient for the student. This article focuses on the specific features and advantages of distance education.

Keywords: distance learning, tools, e-mail address, learning process, knowledge, freedom, efficiency, audio-video, animation, graphics.

Introduction: It aims to change educational standards in modern education, which is developing at a fast pace today, to raise the quality of education, and to increase the efficiency of educational processes. This requires the higher education institution to make strong efforts to adapt to rapidly changing conditions and to meet new requirements for the educational process. The future of higher education, the training of a modern type of specialist, implies increasing the activity and responsibility of both teachers and students. Alternatively, some established models and concepts of pragmatic meaning lose their value. At this point, most universities should take on the task of reinventing and creating sustainable models that can engage students in a specific educational process that opens up new opportunities for them with increasing innovative efforts.

Revolutionary changes in information technologies naturally increase the importance of teachers' active use of multimedia tools in the process of forming a new educational environment, which is the basis for improving the quality of modern education. With the help of interactive technologies, students will have the opportunity not only to learn the material of lectures and seminars at a high level through visual perception, but also to work with a large amount of information and develop information culture. At this point, it is worth noting that the majority of professors and teachers of higher education institutions use technical tools and innovative computer technologies in their pedagogical activities in the process of organizing lectures and seminar courses. Teachers who do not use technical tools and innovative computer technologies almost do not exist in the education system today. After all, modern information technologies have now become a tool used by all representatives of the educational sector to organize teaching processes meaningfully.

Studying the opinions of students and teachers about the impact of innovative computer teaching technologies on the process of assimilation of lecture and seminar material will serve to create good news for the use of information technologies in the classroom. Almost one in two teachers and students believe that the use of computer technologies significantly facilitates the understanding and mastering of the material. At the same time, more than half of teachers and students believe that the use of innovations and innovative technologies partially facilitates the educational process. Multimedia presentation systems are the most common technical tools used

by most teachers, who are active participants in today's fast-paced modern educational environment. If a questionnaire or a similar practical process is conducted among professors and teachers on this very issue, without a doubt, it is clear that many of them emphasize that they often use multimedia in the organization of lectures and seminar courses.

It should be said that innovative teaching methods (mainly presentations with explanatory materials) are often active in the organization of lesson processes by lecturers. About half of the professors use this type of presentation, and among the associate professors - the absolute majority.

While the teacher in charge of the lesson processes organizes a lesson based on innovative pedagogical technologies, efficient use of various technical means - computer, projector, electronic whiteboard, etc., and the application of interactive methods in more lesson processes also serve for the effectiveness of the educational process. If a teacher of any category who knows how to use innovative pedagogical technologies and interactive methods in education has a large number of practices in their use, it is possible to observe an increase in the content of the lessons. In addition, each teacher can introduce innovations in education individually. Studying and summarizing theoretical and practical information about the content and topics of the science for which he is responsible, the advanced achievements and innovations of science created in this field, teaching being able to use them appropriately in their processes, creating new methods in education and organizing lesson processes on the basis of these will also serve to enrich the content of the lesson.

Great attention is paid to the development of distance education in our country. Many people think that distance education is just a new form of correspondence education as we know it. To a certain extent, this is true: in reality, a person can study without leaving his home. But there is one condition: for this, you must have a modern computer with standard software. The essence of this program is that distance education and modern techniques and technology are inseparable from each other. Today, a student can study almost all Western university programs without leaving his country. Education is becoming universal and universally used ahead of the processes of political and economic unification. Distance education differs from traditional forms of education by the following characteristics:

- **Adaptability.** The ability to work out when you want, where you want, and at your own pace. There is no limit to the time allocated to mastering science.
- **Modularity.** Formation of study plans that meet individual or group needs from independent subject courses-modules.
- **Parallelism.** Education in parallel with professional activity or studies at other educational institutions.
- **Social equality.** Equality of access to education, regardless of where the student lives, health status, and financial means.

The quality of distance education as a full-time form of education does not depend on the involvement of outstanding teaching staff and the use of the best teaching-methodical works and subject control tests in the educational process. They include a set of all pedagogical acts in the relationship between the teacher and students. Distance learning uses innovative, computer-based, telecommunications-based, and the latest advances in educational technology along with traditional teaching tools.

Most of the educational scientific materials form a virtual-informational, educational environment due to the remoteness of the audience. Electronic publications intended for the

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educational process, having all the features of paper publications, have several aspects and advantages. In particular, it is a computer memory or disk compact storage, hypertext capabilities, the ability to increase, the ability to quickly make changes and additions, the convenience of sending information by e-mail, an automated learning system, which includes didactic, methodological and informational materials and software for the study program. In addition, it allows them to be used comprehensively in independent learning and control. Distance learning method has the following advantages:

a) creative environment of teaching. Based on many existing methods, the teacher gives knowledge, and the student only reads the given material. On the basis of the proposed distance education, the students themselves search for the necessary information from the information bank on the basis of computers, and of course share their experiences with others on the basis of electronic networks. This ensures that students communicate well with others and encourages such work-based learning.

b) the possibility of independent education. Education based on the distance method includes the stages of primary, secondary, university, correspondence - evening and advanced training. Inspectors of varying levels of preparation can work around their own timetables and interact with students at their own level.

c) major changes in the workplace. The type of education based on the distance method creates comfortable conditions for millions of people, especially for those who receive education without being separated from production. Teaching based on this method plays a very big role in the training of personnel, that is, it is possible to get knowledge at the place of work without geographical and financial difficulties.

d) a new and effective means of teaching and learning. Statistics show that distance education is as effective as study without separation from production.

In addition, distance education goes beyond the limits set by the university. The advantage of the students or students who are studying on such a basis is that they are provided with the best, quality materials and teachers. It is determined based on the performance of mastering tasks and tests. The faster the trainees and students master the given task, the faster they will complete the course and study and receive a certificate. If he cannot master the program, he will be given the opportunity to work independently and continue his studies. Distance learning also has organizational economic advantages. Auditoriums and dormitories are not necessary for distance learning.

Conclusion: It can be said as a conclusion to the opinions expressed at the top that the main goal of using innovative pedagogical technologies in educational processes is to achieve the commonality of teacher and student, to further strengthen the interest of students in science, to change their attitude to education, to form the ability of students to apply the learned and accumulated knowledge in social conditions in appropriate situations, to combine information and communication technologies and didactic materials with any subject of science. It should be emphasized that innovative pedagogical technologies are important in the educational process in training modern specialists who will be in demand in the labor market in the future. If innovative technologies are considered as a driving force of educational development, the use of innovative pedagogical technologies in education will undoubtedly serve only for the benefit. The future of every society, the level of development of the educational system, which is considered an integral

part and a vital necessity, is determined not only by the development, but also by the introduction of innovative pedagogical technologies in educational processes.

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