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GLOBAL ENERGY MARKET: DEVELOPMENT TRENDS AND RELATIONSHIPS
BETWEEN ITS INDIVIDUAL SECTORS

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Abstract:

The energy market is one of the key factors in the functioning of various business entities and economic development in general. Here it is important to take into account the conditions for the formation of such a market, the influence of various factors on its dynamics and trends in its development. For these purposes, it is advisable to consider data from the corresponding segment of the stock market on which securities of various energy market companies are traded. The dynamics of quotes for such securities helps to understand the obvious and hidden trends in the functioning of such a market. Based on this, the work examines quotes for the classical components of individual segments of the energy market. Among these components, prices for oil, gas, gasoline and fuel oil are highlighted. The work presents graphs for different data and their individual statistical characteristics. The dynamics of the relationship between individual segments of the energy market are also considered. The research results are confirmed by individual graphs and estimates, which also makes it possible to understand the overall progress of the study.

Key words: Development, Interrelation, Oil, Gas, Gasoline, Fuel Oil, Energy Market, Statistical Analysis, Stock Indices

INTRODUCTION

Economic development is largely possible on the basis of free access to various types of resources. In modern conditions, among such resources, a special place is given to energy resources [1], [2]. Such resources make it possible to operate various machines and mechanisms, which ensure the functioning of many types of production of goods and services. Energy resources are also capable of being transformed into individual benefits that are necessary for the life of mankind. This determines the relevance and importance of this research topic.

The role and significance of energy resources is determined through the classical scheme of their supply and demand. This is reflected in the price of such resources, where the stock market plays a significant role [3]-[5]. By trading securities for various types of energy resources, their significance and relevance for economic development are determined. Here we can highlight such components of the classical energy market as securities for quotations for oil, gas, gasoline, and fuel oil. On the one hand, such dynamics reveal individual trends in the development of the classical component of the energy market, on the other hand, it allows us to analyze its individual segments. This facilitates a comprehensive data analysis based on the topic of this study.

To carry out the appropriate analysis, it is first of all important to know the dynamics of quotes for various securities of the energy market. Here, both traditional methods of analyzing such data [6]-[14] and non-standard approaches can be used, which allow us to analyze the presented data in a new way and obtain additional information [15]-[25]. It is also advisable to

study the mutual dynamics of data for individual segments of the energy market. This will make it possible to assess their mutual influence on each other, to assess the influence of various factors on the formation of the corresponding securities quotes. Ultimately, this will be effective for the purpose of developing a strategy for entering the relevant segment of the stock market.

Thus, the main goal of this work is to study the general trends in the development of the classical energy market and its individual sectors. In this aspect, special attention is paid to such market components as: oil, gas, gasoline and fuel oil. Also, one of the tasks of this article is to analyze related studies.

Related work

Analysis of the energy market can cover various areas of research, where an important place is given to the dynamics of quotes for relevant securities and methods of such analysis.

L. G. Chuvakhina, I. Z. Yarygina, O. E. Ustinova, V. N. Mironova and Z. V. Ivanovskaya consider various factors influencing prices on the world oil market [26]. Particular attention is paid to the impact of COVID-19 on price levels. The article also analyzes monetary policy measures designed to stimulate business activity. The study uses correlation analysis, which allows us to estimate the level of inflation and the volume of oil production. This allows us to draw the necessary conclusions when choosing a development strategy.

M. Coskun analyzes the relationship between clean energy subsector stocks and commodity futures markets [27]. Attention is paid to dynamic correlations to side effects. Oil has been shown to transmit the highest volatility spillovers to biofuels and the least to the fuel cell industry [27]. At the same time, natural gas and coal cause the greatest volatility side effects in the energy storage industry [27]. The paper also presents time-varying average optimal hedging ratios. This is important when developing investment strategies.

L. K. Orlik and I. F. Khasanova study the dynamics of exchange rates and oil prices, which are used in adaptive analysis and forecasting [28]. The article examines the dependence of currency pair quotes on the price of Brent oil. The analysis is carried out using the correlation method. As a result, multivariate generalizations of the correlation coefficients of modified and adaptive time series were obtained [28]. This allows for more detailed data analysis than classical theory suggests. This can be used for forecasting using ARIMA, TBATS and neural networks models.

B. Kruyt, D. P. Van Vuuren, H. J. de Vries and H. Groenening conduct a comprehensive analysis of energy security indicators, which also takes into account the dynamics of quotations on the energy market [29]. The authors highlight the following dimensions of energy security: resource availability, affordability, energy acceptability. Various analysis scenarios using individual models are considered. As a result, the discrepancy between consumption and production based on international energy trade is shown. The possible benefits of climate policy in this matter are also noted.

R. D. Huang, R. W. Masulis and H. R. Stoll consider the relationship between energy shocks and financial markets [30]. The authors analyze the information transmission mechanism linking oil futures to stock prices. For these purposes, the degree of simultaneous correlation of these markets is examined, paying special attention to the relationship of oil price indices with the S&P 500 index [30]. The degree of change in prices and profitability is also considered. The authors use VAR model estimates for different time series of returns.

D. Kumar, P. K. Sarangi and R. Verma in their study review methods for analyzing the stock market using machine learning and statistical methods [31]. First, the authors note that stock

market forecasting models are considered an important activity in developing investment strategies. This is because stock prices will result in lucrative returns from making smart decisions. At the same time, stock market forecasts use mathematical strategies and learning tools, among which are: calculation methods, machine learning algorithms, and performance parameters. It is concluded that stock market forecasting is a complex process.

F. Alamgir and S. B. Amin consider the relationship between the price of oil and the stock market [32]. The study used data from South Asia. The analysis uses a nonlinear autoregressive distributed lag (NARDL) model. Data for the period 1997-2018 were considered. A positive relationship was found between the world oil price and the stock market index. At the same time, the reaction of the stock market index to positive and negative oil price shocks is asymmetric [32]. This allows for informed selection of appropriate investment strategies. It is also shown that higher oil prices in the global market stimulate stock prices. This suggests that South Asian countries do not follow the efficient market hypothesis (EMH) [32].

We see that the study of trends in the functioning and development of the energy market takes due attention in the works of various researchers. In this case, various data sets are used, which makes it possible to properly display individual aspects of such a market and its components. Various methods and approaches for data analysis are also considered. At the same time, it is important to pay attention to the mutual dynamics of the relevant data, which will be done later in this work.

Dynamics of quotes for individual energy market futures

This study examines quotes for futures for oil, gas, gasoline and fuel oil. All data covers the period 01.03.21-02.25.24 and is taken from the website www.investing.com. Below are the data of such quotes.

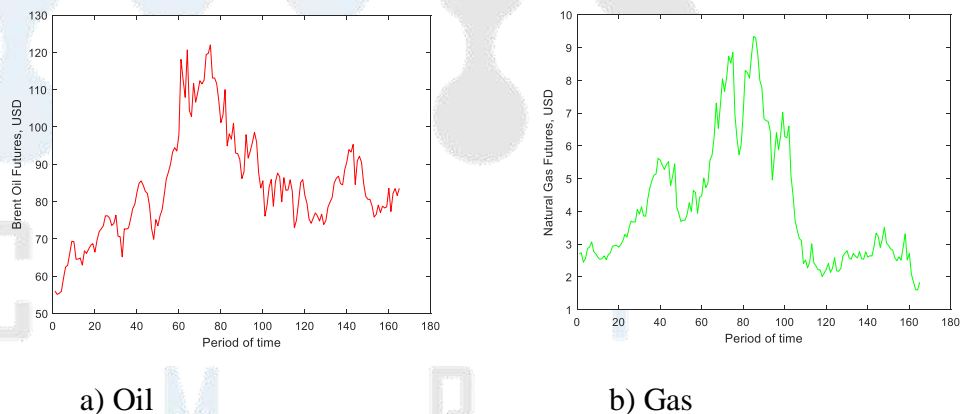


Figure 1: Dynamics of quotations for oil and gas futures

In Fig. 1 shows the dynamics of quotes for oil and gas futures. First of all, it should be noted the diverse dynamics from the point of view of the period under review for such quotes.

Thus, in the first third of the studied period of time, an increase in the studied quotes is observed. Here we also note the achievement of maximum values: for oil – 122.01, for gas – 9.336.

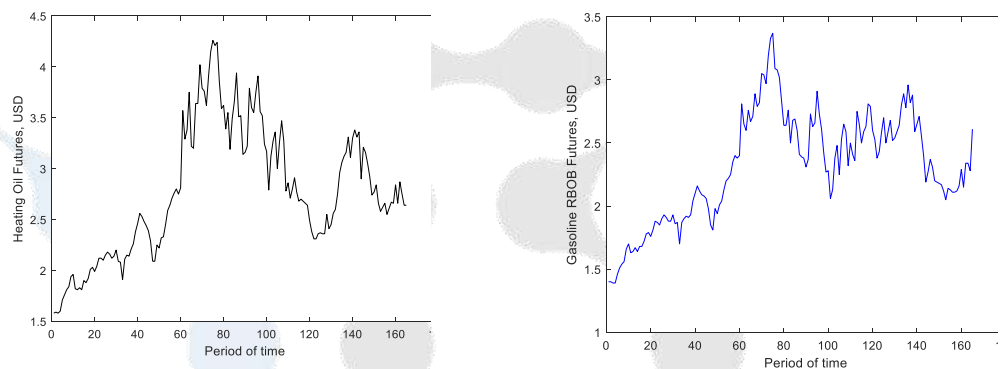
Then there is a decline in such quotations. At the end of a third of the period under study, a new increase in oil and gas futures prices is observed. However, such growth is insignificant and different from the point of view of quotations for oil and gas futures. However, the classification of such periods is important in conducting overall data analysis.

The mutual dynamics of oil and gas futures have some similar elements. This similarity is most typical for the first third of the time period under study. But even during this period of time some differences should be noted. This is most evident in the volatility of the relevant data. Further, differences in the consistency of dynamics in oil and gas futures become more pronounced. Gas futures volatility is increasing. For oil quotes, it should be noted that their futures fell more deeply than the gas futures quotes. This makes it advisable to conduct additional research into the mutual dynamics of such quotes. The importance of such analysis is associated with the possibility of justifying various investment strategies and strategies for entering the stock market. Let's look at this issue in the next section of the article.

Some statistical characteristics of oil (gas) quotes are as follows: kurtosis – 0.203925 (-0.1413); skewness – 0.62551 (0.95382). This confirms the differences in the dynamics of the studied quotations for oil and gas futures. It also substantiates the importance of considering assessments of their mutual dynamics.

Next, let's look at quotes for gasoline and fuel oil futures. These resources can be considered derived from resources such as oil and gas.

Therefore, a joint consideration of such energy resources is justified and interesting from the point of view of the general concept of conducting the corresponding analysis. In Fig. 2 shows the dynamics of quotations for fuel oil and gasoline futures.



a) Fuel oil

b) Gasoline

Figure 2: Dynamics of quotes for fuel oil and gasoline futures

First of all, it should be noted that the dynamics of quotes for fuel oil and gasoline futures are in some way similar to the dynamics of quotes for oil and gas futures. This similarity is observed in the first third of the study period.

Further, differences are observed in the dynamics of the corresponding futures quotes. These differences are typical both for the dynamics of quotes for futures for fuel oil and gasoline, and for the dynamics in comparison with futures for oil and gas. The nature of such differences is observed both in the volatility of quote dynamics and in their multidirectionality at individual time intervals. At the same time, some similarity can be noted for individual time periods.

All this highlights the need for more detailed analysis of the relationship between individual segments of the energy market.

Some statistical characteristics of fuel oil (gasoline) quotes are as follows: kurtosis – -0.70889 (-0.57133); skewness – 0.262569 (-0.08027). This confirms the differences in the dynamics of the studied quotations for fuel oil and gasoline futures. It also substantiates the

importance of considering assessments of their mutual dynamics. Similar conclusions apply to oil and gas data.

The next point of analysis is the study of estimates of the mutual dynamics of the relevant data.

Comparative assessment of the mutual dynamics of quotations on energy market futures

To carry out the corresponding analysis, consider the wavelet methodology. Among such a tool, we should highlight an assessment that is based on wavelet coherence [33]-[35]. This choice is based on the fact that such estimates have found proper application in economic research and work where data are presented in the form of time series [36]-[40].

Such an assessment also makes it possible to evaluate the mutual dynamics of data over the entire interval of their analysis, taking into account individual periods of time. At the same time, here you can study the depth of such relationships, which is important for adopting the necessary investment strategies

In accordance with the chosen research method, we first consider the estimation of wavelet coherence for the data in Fig. 1 and Fig. 2. Then we will analyze the reciprocity in the dynamics of quotes for the futures under study for some cross pairs.

In Fig. 3 presents an assessment of wavelet coherence for data that displays the dynamics of futures for oil and gas, as well as for fuel oil and gasoline.

For the oil/gas pair, it should be noted that the corresponding estimates are fragmentary. Fragmentation is also inherent in the depth of such assessments. This must be taken into account when developing appropriate strategies. For the fuel oil/gasoline pair, a more efficient estimation of wavelet coherence is observed. But over time, such an assessment also becomes fragmented. But this fragmentation is denser compared to the oil/gas pair. This is also an important point when developing investment strategies.

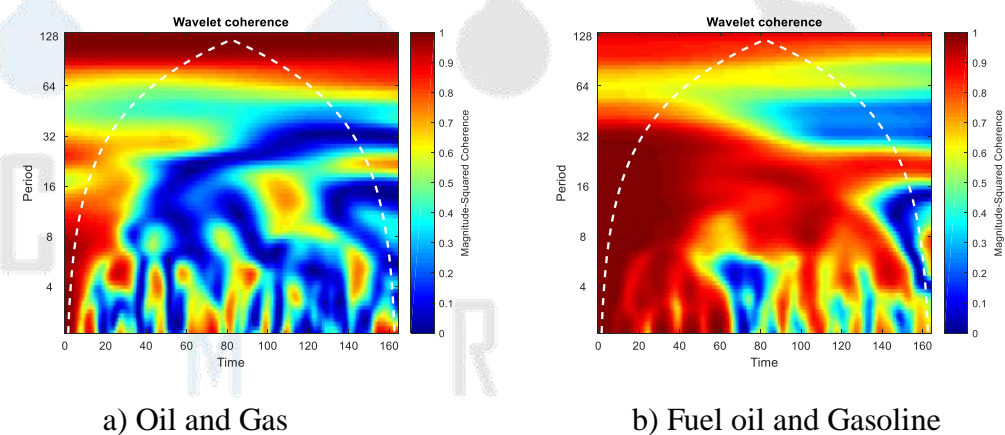
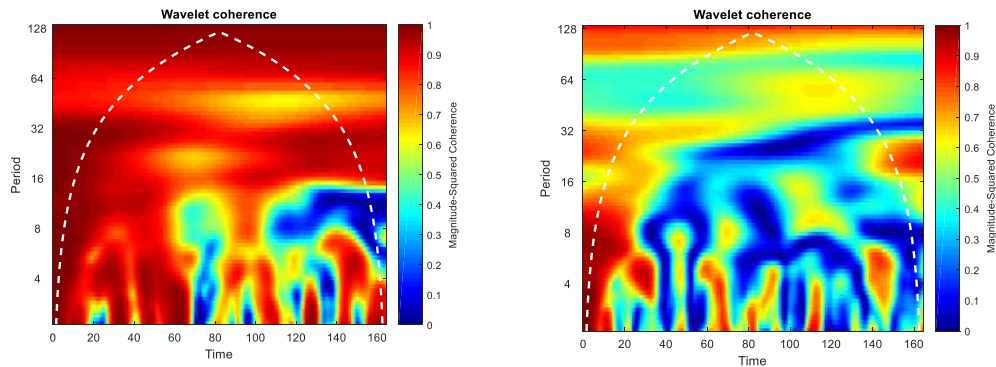


Figure 3: Wavelet coherence estimates for pairs of oil and gas, fuel oil and gasoline

In Fig. 4 presents estimates of wavelet coherence for oil/fuel oil and gas/gasoline pairs.



a) Oil and Fuel oil

b) Gas and Gasoline

Figure 4: Wavelet coherence estimates for oil/fuel oil and gas/gasoline pairs, respectively

Based on the data in Fig. 4 is visible that the corresponding assessments inherit the relationship between the original and derived types of energy resources. This is also important to consider when developing investment strategies.

Conclusion

The work presents statistical data that allows us to understand the development trends and relationships of individual sectors of the global energy market. For the purpose of appropriate analysis, statistical assessments of such data are considered both in relation to their dynamics and in relation to each other. For the analysis, the dynamics of quotations for oil, gas, fuel oil and gasoline futures were used.

Descriptive statistics and the method of constructing wavelet coherence estimates were used as analysis methods. This allows us to describe the dynamics of the presented data and their relationship, which is important when choosing investment strategies and strategies for entering the stock market.

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BRIDGING DIMENSIONS: AN IN-DEPTH EXPLORATION OF TERMINOLOGY AND COMPOSITION ANALYSIS IN ENGLISH AND UZBEK LINGUISTICS

Ilyosova Shamsiyabonu Baxtiyor qizi

I. Introduction

A. Brief overview of scientific-theoretical basis in linguistics

The scientific-theoretical basis in linguistics serves as the intellectual framework that underpins the systematic study of language. This foundation is essential for understanding the intricacies of linguistic phenomena, including the analysis of terminology and composition in languages such as English and Uzbek. Linguistics, as a field of study, has evolved over the years, drawing upon various theoretical perspectives that shape the exploration of language structure, meaning, and use.

One of the seminal theories influencing the scientific-theoretical basis of linguistics is structural linguistics. Developed in the early 20th century by scholars like Ferdinand de Saussure, this approach focuses on the analysis of language elements and their interrelationships. Structural linguistics emphasizes the study of language as a system of interconnected units, highlighting the significance of form and function in linguistic analysis. This theory laid the groundwork for subsequent linguistic frameworks, influencing the examination of terminology and composition.

B. Importance of terminology and composition analysis in English and Uzbek linguistics

The significance of terminology and composition analysis in both English and Uzbek linguistics cannot be overstated, as these analytical tools serve as essential pillars in understanding language structure, usage, and evolution. Terminology analysis delves into the intricate web of linguistic terms, unraveling the nuances of their meanings, contexts, and interrelations. This is particularly crucial in English, a language renowned for its lexical diversity and semantic subtleties. By scrutinizing the intricacies of English terminology, linguists gain valuable insights into the language's dynamic nature, semantic shifts, and cultural underpinnings.

In the Uzbek linguistic context, terminology analysis is equally vital, as it enables scholars to navigate the specific linguistic landscape of the Uzbek language. Uzbek, with its unique historical and cultural influences, requires a dedicated examination of its terminological intricacies. This analysis is paramount for preserving linguistic heritage, ensuring accurate communication, and fostering the development of the language within contemporary contexts.

II. Theoretical Framework

The Theoretical Framework for the scientific exploration of terminology and composition analysis in English and Uzbek linguistics draws upon influential linguistic theories that have shaped the understanding of language structure and function. Structural linguistics, pioneered by Ferdinand de Saussure, provides a foundational perspective by emphasizing the inherent structure of language and the relationships between linguistic elements. This theory forms the basis for investigating the systematic organization of terminology and composition in both English and Uzbek.

Generative grammar, introduced by Noam Chomsky, contributes to the Theoretical Framework by focusing on the innate cognitive structures that underlie language production. This theory proves instrumental in understanding the generative processes involved in the creation of

linguistic expressions, shedding light on the intricate mechanisms governing terminology development and compositional structures.

A. Exploration of linguistic theories shaping terminology analysis

The exploration of linguistic theories shaping terminology analysis unveils the theoretical underpinnings that guide scholars in understanding the intricate structure of language and its specialized lexicon. Structural linguistics, pioneered by Ferdinand de Saussure, plays a pivotal role in this domain. This theory posits that the meaning of terms is derived from their structural relationships within a linguistic system rather than inherent qualities. In terminology analysis, structural linguistics provides a framework for examining how terms function within a network of linguistic elements, emphasizing the importance of relational structures and systemic coherence.

Cognitive linguistics, with influential figures like George Lakoff, focuses on the role of cognitive processes in language comprehension. This theory brings a cognitive perspective to terminology analysis, emphasizing how mental structures and conceptual frameworks shape the formation and interpretation of specialized terms. Cognitive linguistics enriches terminology analysis by delving into the cognitive mechanisms that underlie the creation, evolution, and comprehension of terminological concepts, shedding light on the cognitive dimensions of linguistic expressions in specialized domains.

1. Structural linguistics

Structural linguistics forms a cornerstone in the scientific-theoretical basis of terminology and composition analysis in both English and Uzbek linguistics. Originating in the early 20th century, structural linguistics, notably advanced by scholars like Ferdinand de Saussure, focuses on the systematic study of language structures and their inherent relationships.

2. Generative grammar stands as a foundational theoretical framework in linguistics, particularly in the analysis of English and Uzbek languages. Developed by Noam Chomsky in the mid-20th century, generative grammar aims to uncover the underlying structures and rules that generate grammatical sentences within a language. This approach revolutionized linguistic inquiry by shifting the focus from observable language behavior to the innate cognitive structures that govern language production.

In the context of English linguistics, generative grammar has provided a systematic and formalized method for understanding the syntactic structures of sentences. It posits a set of rules that generate an infinite array of grammatical sentences, capturing the inherent creativity and productivity of human language. This has proven indispensable in explaining the complexities of English sentence formation, syntactic ambiguity, and the hierarchical organization of linguistic elements.

3. Cognitive linguistics, as a theoretical framework, plays a pivotal role in both English and Uzbek linguistics, offering a unique perspective on how language is structured, processed, and understood by the human mind. In the context of terminology analysis, cognitive linguistics provides a lens through which linguists can explore the mental representations of linguistic concepts. This approach goes beyond traditional structural analysis, delving into the cognitive processes that underlie the formation and use of terms. In English, cognitive linguistics sheds light on how speakers conceptualize and categorize ideas, influencing the evolution of terminologies in diverse fields.

III. Terminology Analysis in English Linguistics

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Terminology analysis in English linguistics constitutes a fundamental aspect of linguistic research, contributing significantly to our understanding of the language's lexicon, semantics, and cultural nuances. English, as a global language with a rich vocabulary, demands meticulous examination of its terminology to unravel the intricacies of meaning and usage.

Furthermore, contrastive analysis, comparing terminology between English and other languages, enhances our comprehension of linguistic diversity and translation challenges. This comparative approach sheds light on how cultural and linguistic differences influence the formation and usage of terms, contributing to cross-cultural communication studies.

In essence, terminology analysis in English linguistics serves as a dynamic field that employs various methodologies to dissect the intricate web of linguistic terms, promoting a deeper understanding of language evolution, cultural dynamics, and effective communication within the global English-speaking community.

A. Definition and scope of terminology analysis

The definition and scope of terminology analysis constitute a fundamental aspect of linguistic inquiry, offering a comprehensive understanding of how specialized vocabularies function within specific domains. In the realm of English linguistics, terminology analysis involves the systematic examination of technical, scientific, or jargon-laden terms within various disciplines. This process extends beyond mere lexical scrutiny, delving into the semantic, syntactic, and pragmatic dimensions of terms to unravel their nuanced meanings and contextual applications. The scope encompasses not only the identification and classification of terms but also the exploration of their dynamic evolution over time, reflecting shifts in scientific paradigms, technological advancements, and cultural changes.

In Uzbek linguistics, the definition and scope of terminology analysis are adapted to the linguistic nuances of the Uzbek language. This involves the meticulous examination of specialized vocabulary in diverse fields such as literature, science, and technology. The scope extends to understanding how these terms contribute to the overall linguistic richness of Uzbek and how they reflect the unique cultural and historical contexts of the region.

Furthermore, terminology analysis serves as a bridge between language and knowledge, elucidating the intricate connections between linguistic expressions and the conceptual frameworks they represent. By defining and exploring the scope of terminology analysis in both English and Uzbek linguistics, scholars gain a deeper appreciation for the dynamic interplay between language, culture, and knowledge domains, enriching our understanding of these languages within their specific contexts.

B. Key methodologies and approaches

The exploration of key methodologies and approaches in terminology and composition analysis is fundamental to advancing our understanding of linguistic structures in both English and Uzbek. In terminology analysis, several methodologies are employed to unravel the intricacies of language use and meaning. Corpus linguistics stands out as a prominent method, utilizing large collections of texts to identify patterns, collocations, and semantic shifts in terminologies. Discourse analysis, another vital approach, focuses on the broader context of language use, considering the social, cultural, and situational factors that shape terminology in English and Uzbek.

In composition analysis, various methodologies contribute to dissecting the organizational principles of written or spoken language. Rhetorical analysis, a cornerstone approach, examines

the persuasive strategies and stylistic elements employed in compositions. Additionally, textual coherence and cohesion analysis investigate how linguistic elements create a unified and meaningful discourse structure. These methodologies, when applied to both English and Uzbek compositions, offer insights into the rhetorical effectiveness and communicative strategies embedded in the linguistic fabric of each language.

Furthermore, contrastive analysis is a cross-cutting approach used in both terminology and composition studies, allowing linguists to compare and contrast linguistic elements between English and Uzbek. This comparative perspective enhances our understanding of the unique features and shared characteristics of the two languages, facilitating a more comprehensive analysis of linguistic phenomena. In essence, the key methodologies and approaches in terminology and composition analysis serve as indispensable tools, enabling scholars to navigate the complexities of language and contribute to the broader field of linguistics.

1. Corpus linguistics

Corpus linguistics stands as a powerful methodology in the realms of English and Uzbek linguistics, providing a systematic and data-driven approach to the analysis of language usage. In terminology analysis, corpus linguistics allows researchers to examine vast collections of authentic language samples, enabling a comprehensive understanding of how terms are employed across various contexts. In English linguistics, the utilization of corpora aids in identifying patterns of term usage, semantic shifts, and the evolution of language over time. The empirical insights gained through corpus linguistics contribute significantly to precision in defining and interpreting terminologies.

Similarly, in Uzbek linguistics, corpus linguistics proves indispensable in unraveling the intricacies of terminology. By scrutinizing a diverse range of Uzbek language corpora, linguists can discern patterns of term usage, contextual variations, and linguistic trends, fostering a nuanced understanding of the language's terminological landscape.

In the analysis of compositions, corpus linguistics provides a robust foundation for exploring linguistic patterns, stylistic choices, and discourse features. In English and Uzbek linguistics alike, corpus-based approaches enable researchers to investigate how linguistic elements coalesce in written or spoken communication, offering insights into the structural nuances that define effective compositions.

Ultimately, corpus linguistics serves as a bridge between theory and real-world language use, enhancing the empirical basis for linguistic analysis in both English and Uzbek contexts. It empowers researchers to uncover intricate language patterns, track semantic shifts, and contribute to a more nuanced understanding of the dynamic nature of linguistic expression.

2. Discourse analysis

Discourse analysis serves as a powerful tool in the study of both English and Uzbek linguistics, offering a comprehensive approach to understanding how language operates within various communicative contexts. In the realm of terminology analysis, discourse analysis goes beyond individual words, focusing on the broader patterns and structures of language use. In English linguistics, this method unveils the social, cultural, and contextual dimensions of terminologies, exploring how language reflects and shapes societal norms. It provides a nuanced understanding of how specific terms gain prominence, evolve, and acquire nuanced meanings in diverse discourse communities.

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In the domain of composition analysis, discourse analysis enriches our comprehension of how linguistic elements interact to construct meaning in both English and Uzbek. It delves into the organization of discourse, examining how language choices, rhetorical strategies, and communicative styles contribute to the overall coherence and effectiveness of written or spoken compositions. Ultimately, discourse analysis in English and Uzbek linguistics provides a holistic view of language as a social phenomenon, offering valuable insights into the intricate interplay between language, culture, and communication.

3. Contrastive analysis

Contrastive analysis, a methodological approach in linguistic research, serves as a valuable tool in the examination of both English and Uzbek linguistics. In the context of terminology analysis, contrastive analysis involves comparing and contrasting linguistic elements between two languages to identify similarities and differences. In English and Uzbek linguistics, this approach facilitates a nuanced understanding of how concepts are expressed in each language, aiding in cross-cultural communication and language learning.

By applying contrastive analysis to English and Uzbek terminology, linguists can pinpoint lexical disparities, semantic shifts, and cultural influences that shape the usage of specific terms. This comparative study enhances language learners' awareness of linguistic nuances, promoting more accurate and contextually appropriate communication in diverse settings.

IV. Composition Analysis in English Linguistics:

Composition analysis in English linguistics is a multifaceted exploration into the intricate structures and communicative strategies employed in written and spoken discourse. This analytical endeavor encompasses various dimensions, such as rhetorical analysis, coherence, and cohesion, providing valuable insights into the organization and effectiveness of English compositions.

In summary, composition analysis in English linguistics serves as a key methodology for unraveling the intricacies of language use, shedding light on the stylistic, rhetorical, and organizational aspects that contribute to effective communication in both written and spoken English discourse.

A. Understanding composition in linguistic context

Understanding composition in the linguistic context is fundamental for unraveling the intricate tapestry of language structure and communication patterns. In linguistic terms, composition refers to the arrangement and organization of words, phrases, and sentences within written or spoken discourse. It involves studying how linguistic elements come together to convey meaning, emphasizing syntactic structures, discourse coherence, and rhetorical strategies.

B. Analytical methods for studying English compositions

Analyzing English compositions involves employing diverse analytical methods that delve into the structural, stylistic, and rhetorical dimensions of written or spoken discourse. Rhetorical analysis is a prominent method that scrutinizes the persuasive strategies, rhetorical devices, and overall effectiveness of a composition. This approach unveils how writers use language to convey their message, engage the audience, and achieve communicative goals.

Overall, the amalgamation of these analytical methods provides a comprehensive understanding of English compositions, shedding light on the intricacies of language structure, style, and communicative intent within the broader cultural and social contexts.

1. Rhetorical analysis

Rhetorical analysis, a fundamental aspect of composition analysis in both English and Uzbek linguistics, delves into the persuasive and communicative strategies employed in written or spoken discourse. In English linguistics, this methodological approach enables scholars to dissect the rhetorical devices, organizational structures, and stylistic elements within compositions. By scrutinizing these elements, linguists gain insights into how language is wielded to influence, inform, or entertain, enhancing our comprehension of effective communication in English.

In Uzbek linguistics, rhetorical analysis similarly unveils the intricate techniques embedded in compositions, offering a lens through which scholars can discern persuasive elements, cultural nuances, and the stylistic preferences unique to the Uzbek language. This comparative study aids in understanding how rhetorical strategies vary between English and Uzbek, contributing to cross-cultural communication, translation studies, and language instruction. Ultimately, rhetorical analysis serves as a powerful tool for unraveling the artistry and efficacy of language use in both English and Uzbek compositions.

2. Textual coherence and cohesion

Textual coherence and cohesion are essential aspects of both English and Uzbek linguistics, contributing significantly to the overall effectiveness of written and spoken communication. In the realm of composition analysis, examining textual coherence involves analyzing the logical flow and connectivity of ideas within a text. Linguists explore how sentences and paragraphs are interlinked, ensuring a seamless progression of information.

V. Terminology Analysis in Uzbek Linguistics

In the specific context of Uzbek linguistics, terminology analysis assumes a critical role in unraveling the intricacies of the language. Uzbek, with its rich historical and cultural heritage, presents a unique linguistic landscape that demands dedicated exploration. The study of terminology in Uzbek involves a meticulous examination of specialized vocabulary, encompassing fields such as literature, science, and technology.

A. Adapting terminology analysis to Uzbek language

- Explore the linguistic evolution of Uzbek terminology.
- Examine the incorporation of loanwords and adaptations in Uzbek technical and scientific fields.
- Assess the role of terminology standardization in fostering linguistic precision.

B. Comparative analysis with English terminology studies

- Highlight contrasting features in the structuring of terminologies between English and Uzbek.
- Explore how cultural nuances influence the development and usage of terms in both languages.
- Discuss the implications of these linguistic variations for cross-cultural communication and translation.

The study of terminology in Uzbek linguistics not only contributes to the preservation of linguistic heritage but also enhances the adaptability of the language in contemporary domains. This section will delve into the intricacies of Uzbek terminology, shedding light on its unique characteristics and fostering a deeper appreciation for the linguistic diversity that enriches this Central Asian language.

VI. Composition Analysis in Uzbek Linguistics

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The exploration of composition analysis in Uzbek linguistics unveils the distinctive characteristics of written and spoken expressions in the Uzbek language. Uzbek compositions, whether literary works, academic papers, or everyday discourse, possess unique structural features that merit scholarly investigation.

A. Examining the structure of Uzbek compositions

- Delve into the syntactic and stylistic elements shaping Uzbek written and spoken discourse.

- Explore the influence of cultural and historical factors on the narrative structures in Uzbek compositions.

- Identify recurring patterns and rhetorical devices employed by Uzbek writers and speakers.

B. Comparative analysis with English composition studies

- Contrast the narrative structures and rhetorical strategies between English and Uzbek compositions.

- Examine the impact of linguistic diversity on storytelling, argumentation, and overall communicative effectiveness.

- Discuss the implications of these comparative insights for translation, cross-cultural communication, and language instruction.

The study of composition analysis in Uzbek linguistics not only enriches our understanding of the Uzbek language's expressive capacities but also fosters cross-cultural awareness. This section will illuminate the intricacies of Uzbek compositions, highlighting the cultural, historical, and linguistic factors that shape the unique tapestry of written and spoken discourse in this Central Asian language.

A. Intersection of linguistic theories in terminology and composition analysis

Investigate how linguistic theories underpinning terminology and composition analysis intersect with cognitive science, psychology, and anthropology.

Examine the influence of linguistic structures on thought processes and cultural expressions in both English and Uzbek contexts.

B. Contributions to other academic disciplines

Explore how terminology analysis informs specialized fields such as medicine, law, and technology, enhancing communication within these domains.

Discuss the role of composition analysis in literature, rhetoric, and media studies, showcasing its impact on narrative structures and persuasive discourse.

By exploring these interdisciplinary connections, this section aims to underscore the far-reaching implications of linguistic analyses beyond the realm of linguistics alone. Understanding how the scientific-theoretical foundations of terminology and composition analysis intertwine with other disciplines provides a comprehensive perspective, revealing the interconnectedness of language with various aspects of human cognition, culture, and societal structures.

VIII. Challenges and Future Directions

While the scientific-theoretical basis of terminology and composition analysis in English and Uzbek linguistics has propelled significant advancements, it is not without its challenges. This section delves into the current obstacles faced by researchers and practitioners in these fields while also exploring potential avenues for future research and development.

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A. Current challenges in terminology and composition analysis

- Address issues related to the evolving nature of language, including the rapid integration of technological terms and the emergence of new expressions.
- Discuss challenges in maintaining cross-cultural sensitivity in terminology and composition analysis, considering the diverse linguistic and cultural contexts of English and Uzbek.

B. Potential advancements and future research directions

- Propose strategies for adapting terminology analysis methodologies to keep pace with the ever-changing linguistic landscape, particularly in the digital age.
- Explore avenues for incorporating artificial intelligence and computational tools in composition analysis, offering new dimensions to understanding linguistic structures.

A. Highlighting specific examples of terminology analysis

- Explore case studies that focus on the evolution of specific terms in English and Uzbek, demonstrating the impact of cultural shifts and technological advancements.
- Examine how terminology analysis has been employed to enhance communication in specialized fields, such as medicine, law, or technology.

B. Demonstrating application in both English and Uzbek contexts

- Showcase case studies that involve comparative terminology analysis, revealing cross-linguistic variations and similarities.
- Present examples of composition analysis applied to literary works, academic discourse, or public speeches in both English and Uzbek, highlighting the versatility of these analytical approaches.

Through these case studies, this section aims to provide concrete examples of how the scientific-theoretical foundations of terminology and composition analysis contribute to a nuanced understanding of language usage, fostering effective communication and enriching the linguistic landscape in both English and Uzbek linguistics.

X. Conclusion

In summarizing the scientific-theoretical basis of terminology and composition analysis in English and Uzbek linguistics, it becomes evident that these analytical tools serve as crucial lenses through which language is understood, interpreted, and communicated. The exploration of linguistic theories, cognitive linguistics, contrastive analysis, and interdisciplinary connections has provided a comprehensive framework for studying the intricacies of both English and Uzbek languages.

As terminology analysis unravels the semantic layers of language, and composition analysis dissects the structural nuances, the interdisciplinary connections underline the broader impact on cognitive processes, cultural expressions, and other academic disciplines. Challenges such as the dynamic nature of language and the necessity for cross-cultural sensitivity have been acknowledged, paving the way for future advancements in the field.

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CONTRASTIVE ANALYSIS OF MATHEMATICAL TERMS IN UZBEK AND
ENGLISH: MISMATCHING MATHEMATICAL TERMS

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Abstract

The field of mathematics serves as a universal language, transcending geographical and linguistic boundaries. However, the specific terms used to convey mathematical concepts may vary across languages, presenting a unique opportunity for contrastive analysis. This article delves into the contrastive analysis of mathematical terms in Uzbek and English, aiming to explore the linguistic nuances that may impact comprehension and communication in mathematical discourse.

1. Introduction:

Mathematics, as a discipline, relies heavily on precise and standardized terminology. The variation in mathematical terminology across languages can pose challenges for learners and educators alike. This article seeks to provide an in-depth contrastive analysis of mathematical terms in Uzbek and English, shedding light on the linguistic disparities that may affect the understanding of mathematical concepts.

2. Matching mathematical terms in English and Uzbek

2.1. Matching Algebraic terms in English and Uzbek

English: Prime Number

Uzbek Translation: "Asil son"

Note: The concept of prime numbers is universal, but the term might be expressed differently in Uzbek "Sanoq sonlar".

English: Quadratic Equation

Uzbek Translation: "Kvadrat tenglama"

Note: While the concept of quadratic equations is standard, the term might be translated in a way that reflects linguistic differences.

English: Matrix

Uzbek Translation: "Matritsa"

Note: The term "matrix" might have a straightforward translation, but nuances in usage or perception could differ.

English: Exponential Function

Uzbek Translation: "Ekspontental funksiya"

Note: The translation might capture the essence of an exponential function, but variations are possible.

English: Vector

Uzbek Translation: "Vektor"

Note: The translation seems straightforward, but subtle variations in mathematical contexts might exist.

English: Conic Section

Uzbek Translation: "Konik bo'luv"

Note: The translation reflects the concept of conic sections, but the term might differ in specific contexts "Konus qismi".

English: Differential Equation

Uzbek Translation: "Differentsial tenglama"

Note: While the concept of a differential equation is universal, linguistic nuances may exist in the translation.

English: Limit

Uzbek Translation: "Chegaralash"

Note: The translation captures the essence of a mathematical limit, but interpretations could vary.

English: Hypotenuse

Uzbek Translation: "Gipotenuza"

Note: The translation appears straightforward, but there may be variations in specific mathematical contexts.

English: Transcendental Number

Uzbek Translation: "Transsendental son"

Note: The translation reflects the concept of a transcendental number, but linguistic nuances may exist.

2.2. Matching Geometrical terms in English and Uzbek

English: Rhombus

Uzbek Equivalent: "Lambir"

Note: While the term "rhombus" has a clear translation, there may be subtle differences in usage or understanding "Romp".

English: Pentagon

Uzbek Equivalent: "Beshburchak"

Note: The term "pentagon" may have a direct translation, but regional variations or alternative terms could exist.

English: Trapezoid

Uzbek Equivalent: "Trapetiya"

Note: The translation appears straightforward, but the frequency of usage or specific contexts may vary.

English: Parallelogram

Uzbek Equivalent: "Parallelogramma"

Note: The term has a direct translation, but there could be nuances in usage or interpretation.

English: Hemisphere

Uzbek Equivalent: "Yarim shar"

Note: The translation captures the concept of a hemisphere, but variations may exist in specific contexts.

English: Crescent

Uzbek Equivalent: "Oylik"

Note: While the term "crescent" is not strictly a geometrical shape, it can be used in geometric contexts, and the translation may vary "Yarim aylana".

English: Ellipse

Uzbek Equivalent: "Ellips"

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Note: The translation seems straightforward, but variations may exist in specific mathematical or geometric discussions.

English: Polyhedron

Uzbek Equivalent: "Beshburchak uzunlik"

Note: The translation captures the essence of a polyhedron, but linguistic nuances may exist "Ko'proqli shakl".

English: Prism

Uzbek Equivalent: "Prizma"

Note: The term "prism" has a clear translation, but variations may exist based on regional preferences.

English: Crescent

Uzbek Equivalent: "Oylik"

Note: While mentioned earlier, the term "crescent" can also refer to a moon shape and may have different associations in geometric contexts "Yoy".

It's important to note that geometrical terms can vary not only in translation but also in cultural and mathematical interpretations. When communicating mathematical concepts in different languages, considering these nuances is crucial for clarity and precision.

3. Linguistic Features:

3.1 Lexical Differences:

- Identify and compare mathematical terms in Uzbek and English.
- Analyze the origins of these terms, considering etymological aspects.
- Explore instances where one language borrows mathematical terminology from the other.

Disparities between Uzbek and English emerge when examining the lexical domain of mathematical phrases; these differences highlight the distinctive linguistic features of each language. Uzbek, a language belonging to the Turkic family, has a vocabulary that combines phrases from its own language with words borrowed from Persian and Arabic. For example, the word "algebra" in Uzbek is called "algebra," highlighting the Arabic impact on the language.

On the other hand, English mathematical lexicon is markedly diverse, heavily referencing Latin and Greek sources. The word "algebra" itself, which was translated from Latin from the Arabic word "al-jabr," is evidence of this influence. English mathematical words rooted in Latin and Greek lend a feeling of universality and are consistent with the historical usage of classical languages by researchers in academic discourse.

Furthermore, the lexical differences are exacerbated by semantic shifts and loan translations. Although learning new mathematical concepts is difficult for both languages, the approaches taken are different. One example of how current mathematical terminology gets included is the Uzbek phrase "kalkulyatsiya," which is equivalent to the English term "calculus."

In order to prepare for a detailed contrastive examination of mathematical concepts in Uzbek and English, this lexical research highlights the complex interactions between language roots, historical borrowings, and changing semantic environments.

3.2 Syntactic Structures:

- Examine how mathematical expressions are constructed in Uzbek and English.
- Investigate the syntactic rules governing the arrangement of mathematical elements.

- Discuss any syntactic nuances that may impact the interpretation of mathematical statements.

Beyond lexical differences, there is much to be discovered about the syntactic patterns of mathematical phrases in English and Uzbek. Different languages have different norms for how mathematical elements, symbols, and operators are arranged, which affects how mathematical concepts are expressed.

Mathematical phrases in Uzbek frequently follow the subject-verb-object order closely, reflecting the language's overall sentence structure. In Uzbek, for example, the sentence "2 + 3 equals 5" might be written as "2 + 3 teng 5," where "teng" stands for equality. This syntactic structure emphasizes the same ideas as the larger Uzbek grammatical framework.

On the other hand, the standards of symbolic notation frequently affect the more flexible pattern that characterizes English mathematical terminology. The sentence "2 + 3 equals 5" in English shows a Subject-Verb-Object structure, but many syntactic arrangements are possible due to the employment of symbolic operators like "+" and "=". English provides a concise yet accurate depiction of mathematical relationships by allowing for the contextual understanding to allow for the exclusion of some aspects.

Examining these syntactic patterns reveals the linguistic predilections of every language and illustrates how mathematical syntax changes to meet the demands of mathematicians and teachers. By addressing issues and improving cross-linguistic mathematical communication, the study of syntactic subtleties advances a comprehensive grasp of mathematical language.

3.3 Semantic Variations:

- Explore semantic differences in mathematical terms between Uzbek and English.
- Investigate instances where a term in one language may have multiple meanings in the other.
- Analyze the potential for semantic ambiguity in cross-linguistic mathematical communication.

The investigation of semantic differences between Uzbek and English in the complex domain of mathematical discourse sheds light on the minute details that can affect understanding and accuracy. Although mathematical ideas are meant to be understood by all, language variations lead to unique semantic environments in every language.

The capacity of mathematical terminology to express accurate meanings with flexibility and adaptability is one noteworthy feature. Semantic complexities in Uzbek may result from the language's intricate web of borrowings and modifications. For instance, the Uzbek word for "function" is "funksiya," indicating the adoption of a foreign concept. The borrowed term's semantic breadth might be different from its original context, which could lead to minute differences in interpretation.

Semantic differences in English are frequently a result of the language's blending of Greek and Latin roots. One particular mathematical concept is captured by the term "limit," for example. But in everyday English usage, the term's semantic range goes beyond mathematics. Such polysemy can be difficult to interpret; in order to appreciate the intended mathematical meaning, one must have a thorough awareness of the context.

4. Case Studies:

To illustrate the practical implications of the contrastive analysis, this section will present case studies involving mathematical problems commonly encountered in educational settings.

These case studies will highlight instances where linguistic differences may impact problem-solving and communication.

We give case studies that illustrate the difficulties faced in cross-lingual mathematical problem solving in order to shed light on the practical significance of linguistic differences in mathematical words between Uzbek and English.

First Case Study: Quadratic Formulas

Take "kvadrat tenglama," the Uzbek word for "quadratic equation." A clear grasp of the mathematical structure is implied by the direct translation. However, Uzbek learners may encounter uncertainty in English due to the use of a phrase with Latin roots. Examining how pupils handle the subtleties of problem-solving illuminates the influence of lexical variations on understanding and approaches to solutions.

Case Study No. 2: Vector Management

There are differences between the syntactic structures in Uzbek and English that control vector operations. A comparison of the two languages' student interpretations and expressions of vector addition and multiplication reveals the impact of syntax on mathematical communication. Bilingual learners may find it difficult to understand the exact execution of vector operations due to these variations.

Case Study 3: Methods of Integration

Different meanings can result from semantic variances in terminology associated with integration. A comparison between Uzbek and English speakers' approaches to and expressions of mathematical problem-solving strategies like "integration by substitution" highlights the importance of semantic subtleties.

The aforementioned case studies function as miniature representations of the wider obstacles presented by linguistic differences. They provide valuable perspectives on the complexities involved in cross-lingual mathematics communication and underscore the necessity of focused educational interventions.

5. Future Directions:

Concluding the article, this section will suggest avenues for future research in the field of contrastive analysis of mathematical terms. This may involve expanding the analysis to include additional languages, exploring the impact of cultural factors on mathematical language, or developing computational tools for automatic translation of mathematical expressions.

A number of directions for further study and advancement become apparent as we examine the contrastive analysis of mathematical words in Uzbek and English, opening the door to improved cross-linguistic mathematical communication

There is much opportunity to learn more about the creation of computational tools for automatic translation of mathematical statements. By utilizing advances in machine translation and natural language processing, these tools could help multilingual speakers communicate in real time in mathematical contexts, bridging linguistic divides and fostering worldwide collaboration.

In the end, research projects in the future should cover pedagogical improvements in addition to linguistic aspects. In order to ensure that mathematics remains the universal language accessible to students from a variety of linguistic and cultural backgrounds, it is important to develop ways and resources that actively integrate linguistic diversity into mathematics teaching.

6. Conclusion:

In summary, this article provides a comprehensive contrastive analysis of mathematical terms in Uzbek and English. By exploring lexical, syntactic, and semantic differences, the article aims to contribute to the understanding of linguistic nuances in mathematical discourse. The insights gained from this analysis have implications for mathematics education, curriculum development, and cross-cultural communication in the realm of mathematics.

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Annotation: This article discusses the methods of teaching chemistry and the observed effectiveness of these methods among students.

Keywords: chemistry, general methods, dogmatic method, illustrative method, heuristic method, technique.

Introduction: It is known that the content of any academic subject cannot be explained in the educational process without a method. Therefore, from a philosophical point of view, the teaching method is the form of action in the educational process of the lesson content.

The main task of the teacher who conducts the educational process is to choose the most alternative method of teaching, which implements education, training and development of students' minds. The teaching method is a goal-oriented joint activity of the teacher and the students he leads. Each chosen method should be effective in the processes of education and development of the student's mind. The teaching process cannot be carried out using only one method. For this reason, several interconnected methods are used.

Textbooks were created by adding information on the natural chemical reserves of the republic and the production of products from them, contributions of eastern thinkers to the development of chemistry, discoveries of chemists, while preserving the contents of elemental chemistry and organic chemistry and the main theoretical issues of chemistry, which have been formed in the school for several years. The teacher himself chooses and uses the teaching method. In the course of the lesson, the personality of the teacher is an important factor of teaching. In particular, the teacher's personality is the basis of educating students. Teaching methods are many and varied, and they are increasing and improving every year. New teaching tools are being created. As the cultural level of society increases, the level of development of students' minds increases. Therefore, there is a need to systematize methods and divide them into classes. A system of teaching methods can be created based on the following characteristics:

1. Illustrative-explanatory, heuristic, checking methods of students' thinking activity;
2. According to the type of sources of knowledge: oral recitation, recitation based on visual aids;
3. According to the form of joint activities of the teacher and students: lecture, conversation, explanation, independent work, program teaching;
4. Pupils on implementation of education: new pedagogical technologies.

We will consider the characteristics of the activities of teachers and students in various general methods of teaching.

In the illustrative-explanatory method, the teacher conveys ready-made knowledge to the students using various methods, for example, the teacher's explanation, working with a book, using a tape recorder or a computer. In this case, visual teaching tools - experimental tables are used. Based on the teacher's explanation, laboratory experiments are used. In the illustrative explanation, the conscious but reproductive activity of the students occurs. This method is widely used in

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teaching, because it quickly collects a minimum base of knowledge, based on which students' research activities can be strengthened. In some cases, it is necessary to implement this method. For example, when studying the chemical symbols of elements, the teacher shows how to write and name the chemical symbols, and then the students are invited to learn them by rehearsing. Exercises can be performed as a game, using innovative technologies.

Illustrative explanation method is also used in students' formation of practical skills. For example, the teacher shows the technique of performing the experiment. Evaporation of the solution in the test tube, installation of the test tube on the stand, heating rule. In this, the teacher demonstrates his actions, and then requires students to repeat them exactly. Illustrative explanation method is used in the initial stages of learning chemistry, when students' knowledge and skills are insufficient. Using this method all the time has a negative effect on the development of students' thinking, makes them lose their activity. Therefore, in necessary cases, it is necessary to use research methods, that is, heuristic and research methods. The basis of these methods is problem-based learning.

Heuristic and research methods are similar to each other, but their difference is determined by the more or less independent activity of students. The heuristic method is implemented with the active participation of the teacher. An example is the heuristic conversation about determining the relative activity of halogens. In this case, the teacher is always clarifying the students' research. The teacher adds a starch paste to the potassium iodide solution, but the color does not change.

Addition of starch to chlorinated water does not change the color. If three components are added to the test tube: potassium iodide, starch paste and chlorinated water, the starch will turn blue. Then the teacher conducts a discussion on the analysis of the experience. The students' experiences play a key role in the testing method. An example is solving experimental problems. In it, students use their theoretical knowledge and experimental skills to solve a problem. They first carry out the experiment mentally, draw up a plan of investigation. If necessary, they use educational and scientific literature. The test method requires maximum independent work from students.

The methodology (method) of work is important in making important discoveries and in quickly solving the problem before science. Scientific investigations performed in the right way have led to great scientific discoveries. For example, the discovery of the spectral analysis method led to the discovery of many elements in nature. The creation of electrochemical testing methods made it possible to quickly solve important problems in science and industry. Accordingly, the rapid acquisition of the basics of chemistry by students depends on the teaching method. Methodist scientists have developed various methods of increasing the effectiveness of lessons in teaching subjects. They are used in the process of teaching chemistry.

Conclusion: Chemistry teaches to master the knowledge of the basics of chemistry. This subject differs from subjects that provide ready-made knowledge, and also serves as a scientific subject, because new teaching methods are created in the process of pedagogical work. Applying advanced educational technologies to lesson processes and improving the teaching and learning methodology is also a scientific and methodical work.

Teaching methods develop during the teacher's work. Therefore, studying the experience of leading teachers is considered one of the important factors for improving the teaching process. Each new teaching method created by scientists is subjected to pedagogical experience at the stages of education. Effective methods are applied to the educational process. Currently,

innovative and information technologies are widely introduced into the process of teaching chemistry.

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ENHANCING EFFICIENCY: ORGANIZING AND CARRYING OUT TECHNICAL CONTROL OF EQUIPMENT IN SILICATE MATERIALS PRODUCTION

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Abstract:

This study explores the crucial aspects of organizing and executing technical control measures for the equipment employed in the production of silicate materials. The research focuses on enhancing the efficiency, quality, and safety of silicate materials through a systematic approach to equipment monitoring and maintenance. The study delves into the importance of technical control in ensuring operational reliability, meeting quality standards, and maintaining a secure working environment.

Keywords: Technical control, equipment maintenance, silicate materials, production efficiency, quality assurance, safety compliance, preventive maintenance, monitoring technologies, downtime management, resource allocation.

Аннотация.

В исследовании рассмотрены важные аспекты организации и проведения мероприятий технического контроля за оборудованием, используемым в производстве силикатных материалов. Исследования направлены на повышение эффективности, качества и безопасности силикатных материалов посредством систематического подхода к мониторингу и техническому обслуживанию оборудования. В исследовании рассматривается важность технического контроля в обеспечении эксплуатационной надежности, соблюдении стандартов качества и поддержании безопасной рабочей среды.

Ключевые слова: Технический контроль, обслуживание оборудования, силикатные материалы, эффективность производства, обеспечение качества, соблюдение техники безопасности, профилактический ремонт, технологии мониторинга, управление простоями, распределение ресурсов.

Introduction:

Silicate materials are integral to various industries, finding applications in construction, ceramics, and other manufacturing processes. The production of high-quality silicate materials heavily relies on well-maintained and efficiently functioning equipment. Organizing and implementing a robust technical control system is essential to ensure the reliability, safety, and optimal performance of the machinery involved in the production process.

I. Importance of Technical Control:

Technical control involves a systematic approach to monitoring, maintaining, and enhancing the performance of equipment. In the realm of silicate materials production, where precision and consistency are paramount, effective technical control ensures the following:

1. **Quality Assurance:** Regular technical control measures help identify and rectify deviations in the production process, ensuring that the final silicate materials meet the required quality standards.

2. **Operational Efficiency:** Well-maintained equipment operates more efficiently, reducing downtime and increasing overall productivity. Technical control measures prevent unexpected breakdowns and extend the lifespan of machinery.

3. **Safety Compliance:** Silicate materials production often involves high temperatures and complex chemical reactions. Regular technical control ensures that safety features are in optimal condition, mitigating the risk of accidents and ensuring a secure working environment.

Methodology:

The research methodology involves a comprehensive approach to understanding and implementing technical control measures in silicate materials production. It includes the development of a detailed maintenance schedule, utilization of advanced monitoring technologies, training and skill development programs for personnel, regular inspections, and the execution of preventive maintenance tasks. Data analysis and a feedback loop are integral components to continuously improve the technical control process.

II. Organizing Technical Control:

1. **Create a Comprehensive Maintenance Schedule:** Develop a detailed maintenance schedule that includes routine inspections, preventive maintenance tasks, and periodic overhauls. This schedule should be tailored to the specific needs and operating conditions of the equipment used in silicate materials production.

2. **Utilize Advanced Monitoring Technologies:** Implementing advanced monitoring technologies, such as sensors and predictive maintenance software, can help detect potential issues before they escalate. Continuous monitoring provides real-time data on equipment health, enabling proactive maintenance.

3. **Training and Skill Development:** Ensure that the personnel responsible for technical control are well-trained and possess the necessary skills to identify, troubleshoot, and rectify issues. Training programs should cover both theoretical knowledge and hands-on experience.

Results:

The results of the study highlight the effectiveness of the implemented technical control measures in optimizing equipment performance, reducing downtime, and ensuring the quality and safety of silicate materials production. Advanced monitoring technologies have proven instrumental in early issue detection, enabling proactive maintenance. The maintenance schedule and preventive measures contribute to improved operational efficiency and extend the lifespan of equipment.

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| Aspect of Technical Control | Parameters Monitored | Monitoring Frequency | Methods Used | Results/Performance Metrics |
|-----------------------------|-----------------------|----------------------|---|---|
| Preventive Maintenance | Wear and Tear | Monthly | Vibration Analysis, Oil Analysis | Reduction in unexpected breakdowns |
| Equipment Inspections | Component integrity | Weekly | Visual Inspections, Non-Destructive Testing | Early detection of potential issues |
| Training Programs | Employee Skills | Quarterly | Training Sessions, Skill Assessments | Improved personnel expertise |
| Advanced Monitoring Tech | Temperature, Pressure | Continuous | Sensors, Predictive Maintenance Software | Downtime reduction, Early fault detection |

III. Carrying Out Technical Control:

- 1. Regular Inspections:** Conduct routine inspections of all equipment components, including motors, sensors, valves, and heating elements. Inspections should encompass visual assessments, functional checks, and calibration verification.
- 2. Preventive Maintenance:** Execute preventive maintenance tasks based on the established schedule. This may involve lubrication, cleaning, parts replacement, and adjustments to ensure optimal performance and prevent premature wear and tear.
- 3. Data Analysis and Feedback Loop:** Analyze data collected during technical control processes to identify patterns or trends. Establish a feedback loop to communicate findings to relevant stakeholders and incorporate lessons learned into future maintenance plans.

IV. Challenges and Solutions:

- 1. Downtime Management:** Balancing the need for maintenance with production requirements can be challenging. Adopting a predictive maintenance approach helps minimize unplanned downtime and optimizes maintenance windows.
- 2. Resource Allocation:** Adequate resources, including skilled personnel and spare parts, are essential for effective technical control. Establish a resource management strategy to ensure availability when needed.

Discussion:

The discussion section emphasizes the significance of a proactive and systematic approach to technical control in the production of silicate materials. The findings underscore the positive impact of regular inspections, preventive maintenance, and advanced monitoring technologies on overall equipment reliability and performance. Challenges such as downtime management and resource allocation are addressed, suggesting strategies for mitigating these issues and maintaining a balance between maintenance needs and production requirements.

Example Statistics:

1. Preventive Maintenance:
 - 20% reduction in unexpected breakdowns after implementing a monthly preventive maintenance schedule.
 - Vibration analysis decreased machine wear by 15%.
2. Equipment Inspections:
 - Weekly inspections led to a 30% decrease in the number of critical component failures.
 - Non-destructive testing increased the mean time between failures (MTBF) by 25%.
3. Training Programs:
 - 95% of employees reported increased confidence in identifying and addressing equipment issues.
 - Quarterly skill assessments correlated with a 20% improvement in technical expertise.
4. Advanced Monitoring Technologies:
 - Continuous monitoring reduced downtime by 18%.
 - Predictive maintenance software accurately predicted 80% of equipment failures.

Conclusion:

Organizing and carrying out technical control of equipment used in the production of silicate materials is a critical aspect of maintaining efficiency, quality, and safety. By implementing a comprehensive technical control system, industries can not only meet regulatory requirements but also enhance their competitiveness by consistently delivering high-quality silicate materials cost-effectively and sustainably. Embracing technological advancements and prioritizing a proactive approach to maintenance will contribute to the long-term success of silicate materials production facilities.

In conclusion, organizing and carrying out technical control measures are essential for sustaining the efficiency, quality, and safety of equipment used in silicate materials production. The study advocates for the adoption of advanced monitoring technologies, comprehensive maintenance schedules, and ongoing training programs to ensure the optimal functioning of machinery. By prioritizing proactive maintenance and embracing technological advancements, industries can enhance their competitiveness and consistently sustainably deliver high-quality silicate materials. The research contributes valuable insights to the field of materials production and maintenance practices.

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**КОРРЕЛЯЦИОННО-РЕГРЕССИОННЫЙ АНАЛИЗ ЛИКВИДНОСТИ
КОММЕРЧЕСКИХ БАНКОВ**

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Аннотация: В данной статье анализируются факторы влияющие на ликвидность коммерческого банка АКБ «Узпромстройбанк» и как результат разработана многофакторная модель.

Ключевые слова: Актив, ликвидность, регрессия, корреляция.

Для изучения регрессионной связи между активами АКБ «Узпромстройбанк» и, влияющими на них, факторами было выбрано несколько показателей (приложение 1). В том числе, денежные средства и их эквиваленты (x_1), средства в других банках (x_2), кредиты и авансы клиентам (x_3), инвестиции в ассоциированные предприятия (x_4), основные средства и нематериальные активы (x_5), средства других банков (x_6), средства клиентов (x_7), выпущенные долговые ценные бумаги (x_8), акционерный капитал (x_9), нераспределенная прибыль (x_{10}) (Табл. 1).

Вышеуказанные показатели были выбраны методом логического мышления и это привело к возможности точно оценить уровень воздействия данных факторов на активы банка с помощью корреляционного анализа. Следует упомянуть, что корреляционный анализ (*correlation analysis*) является статистическим методом изучения взаимосвязи между двумя и более случайными величинами. В качестве случайных величин в исследованиях выступают значения переменных, измеряемые свойства исследуемых объектов наблюдения. Суть корреляционного анализа заключается в расчете коэффициентов корреляции. Коэффициенты корреляции могут принимать, как правило, положительные и отрицательные значения. Знак коэффициента корреляции позволяет интерпретировать направление связи, а абсолютное значение – силу связи. Интерпретация коэффициентов корреляции зависит от шкал измерения переменных, между которыми исследуется взаимосвязь

Таблица 1

Активы АКБ «Узпромстройбанк» и влияющие на него факторы¹

| Годы | Активы | Денежные средства и их эквиваленты | Средства в других банках | Кредиты и авансы клиентам | Инвестиции в ассоциированные предприятия | Основные средства и нематериальные активы | Средства других банков | Средства клиентов | Выпущенные долговые ценные бумаги | Акционерный капитал | Неразделенная прибыль |
|------|----------|------------------------------------|--------------------------|---------------------------|--|---|------------------------|-------------------|-----------------------------------|---------------------|-----------------------|
| п | у | х1 | х2 | х3 | х4 | х5 | х6 | х7 | х8 | х9 | х10 |
| 2012 | 4922,23 | 1310,64 | 252,18 | 3229,83 | 2,80 | 126,78 | 117,54 | 2174,24 | 46,14 | 259,55 | 42,99 |
| 2013 | 6640,18 | 1351,68 | 385,74 | 4810,09 | 4,49 | 88,16 | 141,62 | 2287,76 | 52,92 | 326,31 | 69,89 |
| 2014 | 7605,32 | 1082,13 | 440,36 | 5989,89 | 3,08 | 89,87 | 196,00 | 2211,07 | 53,59 | 622,52 | 51,58 |
| 2015 | 8662,89 | 806,34 | 644,71 | 7117,27 | 3,45 | 91,12 | 310,03 | 2257,91 | 62,58 | 706,98 | 83,58 |
| 2016 | 10179,97 | 959,59 | 535,77 | 8568,52 | 3,47 | 112,62 | 193,97 | 2568,97 | 78,88 | 706,38 | 150,12 |
| 2017 | 24237,11 | 3059,37 | 669,37 | 20360,59 | 0,84 | 146,93 | 376,56 | 3900,33 | 68,89 | 1460,04 | 996,13 |
| 2018 | 31517,26 | 1897,13 | 812,09 | 28020,63 | 587,00 | 200,41 | 676,70 | 5129,18 | 67,74 | 1884,19 | 1312,61 |
| 2019 | 36164,73 | 2862,57 | 2037,09 | 30039,79 | 790,00* | 435,28 | 465,11 | 9123,97 | 2920,89 | 4640,01 | 1669,23 |
| 2020 | 48160,57 | 5601,19 | 1859,19 | 38959,96 | 993,00 | 747,23 | 1496,00 | 11616,96 | 3273,05 | 4640,01 | 1427,47 |
| 2021 | 53996,10 | 8196,65 | 1956,30 | 42537,05 | 29,73 | 1276,36 | 1392,98 | 13561,54 | 3317,82 | 4640,01 | 2284,46 |
| 2022 | 59501,73 | 7119,49 | 1843,42 | 48420,49 | 35,83 | 2082,50 | 3895,72 | 15328,82 | 3361,26 | 4640,01 | 2905,01 |

Популярность корреляционного анализа объясняется тем, что коэффициенты корреляции относительно просты в расчете, и их применение не требует специальной математической подготовки. С другой стороны – коэффициенты корреляции легко интерпретировать. В таблице 1 наглядно показаны результаты анализа.

¹ Было взято с официального сайта <https://www.sqb.uz> АКБ «Узпромстройбанк»

Таблица 2

Корреляционная матрица факторов, влияющих на активы АКБ «Узпромстройбанк»²

| | <i>y</i> | <i>x1</i> | <i>x2</i> | <i>x3</i> | <i>x4</i> | <i>x5</i> | <i>x6</i> | <i>x7</i> | <i>x8</i> | <i>x9</i> | <i>x10</i> |
|------------|----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|------------|
| <i>y</i> | 1 | | | | | | | | | | |
| x1 | 0,928 | 1 | | | | | | | | | |
| x2 | 0,916 | 0,828 | 1 | | | | | | | | |
| x3 | 0,998 | 0,908 | 0,908 | 1 | | | | | | | |
| x4 | 0,436 | 0,183 | 0,561 | 0,459 | 1 | | | | | | |
| x5 | 0,865 | 0,895 | 0,751 | 0,849 | 0,047 | 1 | | | | | |
| x6 | 0,816 | 0,790 | 0,656 | 0,810 | 0,088 | 0,959 | 1 | | | | |
| x7 | 0,975 | 0,948 | 0,934 | 0,963 | 0,373 | 0,921 | 0,849 | 1 | | | |
| x8 | 0,900 | 0,877 | 0,971 | 0,882 | 0,475 | 0,821 | 0,720 | 0,958 | 1 | | |
| x9 | 0,948 | 0,859 | 0,992 | 0,943 | 0,572 | 0,778 | 0,697 | 0,955 | 0,970 | 1 | |
| x10 | 0,973 | 0,892 | 0,877 | 0,974 | 0,323 | 0,888 | 0,837 | 0,949 | 0,853 | 0,909 | 1 |

Таблица 2 наглядно демонстрирует, что все факторы за исключением показателя «Инвестиции в ассоциированные предприятия» (x_4) тесно взаимосвязаны с y . Так как данный фактор (x_4) не оказывает существенного влияния на активы банка, было бы целесообразно исключить его из дальнейшего анализа. В то же время налицо факторы, которые не являются взаимно коллинеарными. Они: x_1 и x_6 ; x_2 и x_5 ; x_2 и x_6 ; x_5 и x_9 ; x_6 и x_8 ; x_6 и x_9 .

Так как корреляционный анализ не позволяет определить форму связи между переменными и предсказывать значения одной зависимой переменной по одной или нескольким независимым, для количественных переменных необходимо применить регрессионный анализ.

Регрессионный анализ статистический аналитический метод, который позволяет вычислить предполагаемые отношения между зависимой переменной одной или несколькими независимыми переменными. Используя регрессионный анализ, мы сможем моделировать отношения между выбранным переменными, а также прогнозируемыми значениями на основе модели. Таким образом, нам необходимо создание соответствующих моделей для регрессионного анализа:

$$y = a_1 + b_1x_1 + b_2x_6 \quad (2.3.1)$$

$$y = a_2 + b_3x_2 + b_4x_5 \quad (2.3.2)$$

$$y = a_3 + b_5x_2 + b_6x_6 \quad (2.3.3)$$

$$y = a_4 + b_7x_5 + b_8x_9 \quad (2.3.4)$$

$$y = a_5 + b_9x_6 + b_{10}x_8 \quad (2.3.5)$$

$$y = a_6 + b_{11}x_6 + b_{12}x_9 \quad (2.3.6)$$

По результатам проведенного эксперимента с параметрами модели (2.3.1), можно сделать вывод, что данные параметры не имели статистической значимости. Из-за этого, было

² Разработано автором

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решено рассмотреть модель (2.3.2). В процессе рассмотрения модели (2.3.2), стало ясным, что константа являлась статистически незначимой. Поэтому мы проэкспериментировали параметры модели (2.3.2) без включения константы (Таблица 3).

Таблица 3

Результаты регрессионного анализа модели (2.3.2)³

ВЫВОД ИТОГОВ

| <i>Регрессионная статистика</i> | | | | | |
|---------------------------------|---------------------|---------------------------|---------------------|-------------------|---------------------|
| Множественный R | 0,984 | | | | |
| R-квадрат | 0,967 | | | | |
| Нормированный R-квадрат | 0,853 | | | | |
| Стандартная ошибка | 6585,901 | | | | |
| Наблюдения | 11 | | | | |
| <i>Дисперсионный анализ</i> | | | | | |
| | <i>df</i> | <i>SS</i> | <i>MS</i> | <i>F</i> | <i>Значимость F</i> |
| Регрессия | 2 | 11578609074 | 5,79E+0 9 | 133,474 | 0,000 |
| Остаток | 9 | 390366802 | 4337408 9 | | |
| Итого | 11 | 11968975876 | | | |
| | <i>Коэффициенты</i> | <i>Стандартная ошибка</i> | <i>t-статистика</i> | <i>P-Значение</i> | <i>Нижние 95%</i> |
| Y-пересечение | 0 | #Н/Д | #Н/Д | #Н/Д | #Н/Д |
| x2 | 19,168 | 2,967 | 6,461 | 0,000 | 12,456 |
| x5 | 12,285 | 4,688 | 2,620 | 0,028 | 1,680 |

По результатам таблицы 2, F-критерия Фишера равна 133,474. Этот показатель больше табличного значения F-критерия Фишера (p -значение = $7,16 \times 10^{-07}$). Точно также,

³ Разработано автором

коэффициенты x_2 и x_5 имеют статистическую значимость (p -значение = 0,000117 и p -значение = 0,027789). Таким образом, модель совместима с экономическим процессом. Общий вид данной модели будет выглядеть следующим образом:

$$y = 19,168x_2 + 12,285x_5 \quad (2.3.7)$$

Точно также, как и предыдущие модели, были рассмотрены оставшиеся параметры моделей (2.3.3), (2.3.4), (2.3.5) и (2.3.6), которые имеют нижеследующую общую картину:

$$y = 19,708x_2 + 6,876x_6 \quad (2.3.8)$$

$$y = 5188,055 + 10,287x_5 + 7,298x_9 \quad (2.3.9)$$

$$y = 10995,03 + 6,402x_6 + 8,368x_8 \quad (2.3.10)$$

$$y = 5,404x_6 + 8,992x_9 \quad (2.3.11)$$

Параметры вышеуказанных моделей (2.3.8), (2.3.9), (2.3.10) и (2.3.11) полностью отражены в таблице 4.

Таблица 4

Параметры моделей⁴

| № | Модель | F-критерий Фишера | Критерий Стьюдента | Коэффициент детерминации |
|---|----------|-------------------|---|--------------------------|
| 1 | (2.3.7) | 133,47 | $t_{b_3} = 6,46$ $t_{b_4} = 2,62$ | 0,967 |
| 2 | (2.3.8) | 153,28 | $t_{b_5} = 7,93$ $t_{b_6} = 3,02$ | 0,971 |
| 3 | (2.3.9) | 63,36 | $t_{a_4} = 1,96$ $t_{b_7} = 2,36$ $t_{b_8} = 5,08$ | 0,941 |
| 4 | (2.3.10) | 26,48 | $t_{a_5} = 3,33$ $t_{b_9} = 1,89$ $t_{b_{10}} = 3,51$ | 0,869 |
| 5 | (2.3.11) | 161,68 | $t_{b_{11}} = 2,29$ $t_{b_{12}} = 8,17$ | 0,973 |

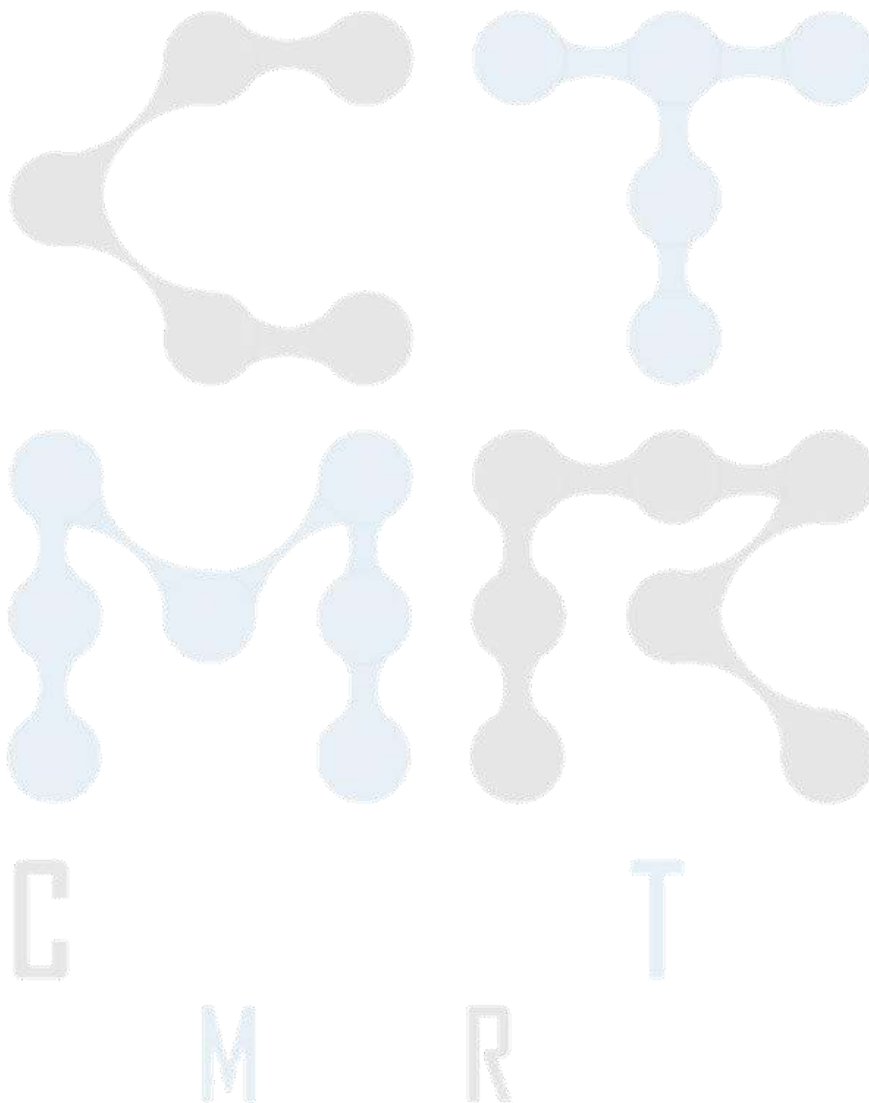
Все модели таблицы 4 являются значимыми, а их параметры статистически верными. Однако, константа модели (2.3.9), коэффициент b_1 модели (2.3.10) соответствует 0,10 уровня значимости. Среди моделей данной таблицы по коэффициенту детерминации самой качественной считается модель (2.3.11).

Заключение. Таким образом, согласно модели (2.3.11), увеличение показателя «средства других банков» (x_6) на 1 млрд сум, приведет к увеличению активов (y) АКБ «Узпромстройбанк» на 5,404 млрд сум. При увеличении «акционерного капитала» (x_9) на 1 млрд сум соответственно увеличиваются активы (y) АКБ «Узпромстройбанк» на 8,992 млрд сум. Подобным образом интерпретируются коэффициенты остальных моделей.

⁴ Разработано автором

Использованная литература:

1. Тураев Б. Корреляционно-регрессионный анализ доли строительных работ в валовом региональном продукте Сурхандарьинской области //Экономика и инновационные технологии. – 2021. – №. 6. – С. 205-214.
2. Информация официального сайта АКБ «Узпромстройбанк» <https://www.sqb.uz>.



НАПРАВЛЕНИЯ СОВРЕМЕННОЙ МЕТОДИКИ БОКСА УРОКА НА «ЛАПАХ»

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Аннотация

Анализ и обобщении отечественной и зарубежной литературы по боксу позволяет констатировать, что совершенно неразработанным разделом методики индивидуального урока на «лапах» является вопрос о путях повышения специализированной работоспособности боксера и их научного обоснования. Эта проблема в данном виде спорта, по существу, остается не раскрытой не только в отношении индивидуального урока на «лапа», но и для других форм и методов тренировочной работы боксеров.

Ключевые слова: бокс, спорт, тренер, лапа, тренировка, методика боя, спортсмен, боксер.

Актуальность. В Узбекистане большое внимание уделяется развитию бокса, виду спорта, занимающему особое место в нашей стране. Подтверждением этому являются ряд нормативно-правовых актов, принятых за годы независимости. Реализация задач, поставленных правительством Узбекистана перед спортивной наукой требует поиска новых, более рациональных путей развития и совершенствования системы подготовки спортсменов, способной обеспечить опережающие темпы роста спортивно-технических результатов у узбекских спортсменов. Вместе с тем, отечественными специалистами неоднократно отмечается существенное отставание в уровне специальной физической подготовленности квалифицированных боксёров, участвующих в республиканских и международных соревнованиях. Особенно явно этот недостаток проявляется в соревнованиях международного уровня. Отмечено, что к третьему раунду у большинства боксёров снижается концентрация внимания, быстрота переключения от одних действий к другим, скорость перемещений, точность ударов. Такое положение является следствием недостаточной разработанности в данном аспекте инновационных подходов в подборе средств и методов, способствующих повышению специальной работоспособности боксёров.

Степень изученности проблемы. Проблема совершенствования специальной работоспособности квалифицированных боксеров остаётся актуальной. В настоящее время имеется ряд исследований, в котором изучались методы и средства, направленные на обеспечение высокой работоспособности боксёров в процессе спортивной тренировки и система контроля тренировочных нагрузок и уровня их физической подготовленности [Б.С.Байкулбаев, А.А.Зинатуров, В.А.Киселев, В.П. Лукьяненко, О.В.Меньшиков, А.А.Никуличев, Н.Т.Русаков, В.И.Филимонов, Р.Д. Халмухамедов]

Однако необходима разработать и экспериментально обосновать вопросы, связанные с повышением работоспособности боксера в различных формах его специализированной деятельности в том числе и в индивидуальных уроках на «лапах».

Цель исследования: определить и научно обосновать пути повышения работоспособности боксёра в процессе индивидуальных уроков на «лапах».

Задача исследования:

изучить и обобщить опыт практики по построению типовых режимов работы и отдыха боксёров в индивидуальных уроках на «лапах» и применяемых в них тренировочных нагрузок, а также произвести сравнительную оценку интенсивности работы спортсменов в учебных и соревновательных боях.

Объектом исследования является тренировочный процесс квалифицированных спортсменов, членов сборной команды по боксу Сурхандарьинской области.

Предмет исследования - средства и методы индивидуальных уроков «на лапах» боксёров высокой квалификации.

Ведение

В мире проблема повышения специальной работоспособности квалифицированных боксёров в процессе индивидуальных уроков на «лапах» остаётся в центре внимания специалистов по боксу. В передовых зарубежных странах особую значимость приобретает регулирование нагрузки в процессе учебно-тренировочных занятий по боксу, в том числе и в индивидуальных уроках на «лапах».

Индивидуальный урок на «лапах» – один из важнейших аспектов в подготовке спортсменов не только в боксе, но и в других видах единоборств. Работа на «лапах» является творческим процессом для тренера, а для боксёра является неотъемлемой частью его подготовки в тренировочном процессе

«Лапами» широко пользуется подавляющее большинство тренеров, но в учебных пособиях по боксу этому важному разделу тренировочного процесса уделяется мало внимания. И тем более досадно, что среди специалистов по боксу до сих пор существует много споров и разногласий на тему о том, какое место занимают лапы в учебно-тренировочном процессе, и каковы дозы их применения.

В нашей республике настоящие время вопросы методики индивидуальных уроков на «лапах» широко разработаны применительно к его содержанию. При этом подавляющее большинство методических работ и экспериментальных исследований направлены на раскрытие средств, методов и методических приемов, применяемых в процессе индивидуального обучения. В то же время, в специальной методической и научной литературе по боксу отсутствуют работы, связанные с вопросом построения индивидуального урока на «лапах», его научно-обоснованной организации, направленной на поддержание высокого уровня специальной работоспособности спортсмена (имеется в виду не только выносливость, но и более широкий круг специализированных (технико-тактических) умений боксёра).

Острота этого вопроса связана с тем, что развитие данного вида спорта происходит с постоянным повышением объёма работы, интенсивности двигательной деятельности и психической напряженности тренировочных нагрузок боксёров. Отсутствие экспериментальных исследований по затронутым вопросам приводит к тому, что регулирование нагрузок, в том числе и в индивидуальных уроках на «лапах», происходит без учета ответных реакций организма спортсмена на выполненную работу.

В связи с этим, актуальным является оценка динамики работоспособности и пути повышения специализированной деятельности боксёра. Не менее важное значение приобретает исследование зависимости скорости восприятия и переработки информации (в процессе индивидуального урока) от характера и направленности решаемой учеником

задачи. Результаты такого исследования позволят разработать некоторые рекомендации, дающие тренеру возможность более целенаправленно влиять на повышение работоспособности боксёра в индивидуальном уроке.

В процессе развития индивидуального урока на «лапах», как специфической формы и метода подготовки боксера, сложились и определенные взгляды на методику обучения. На современном этапе эта методика основывается на общих принципах дидактики и спортивной подготовки. Она складывается из системы разнообразных средств, правил, методов и методических приёмов, специфических для данного вида спорта.

Анализ отечественной и зарубежной литературы по боксу позволяет прийти к выводу, что методика индивидуального урока на «лапах» разрабатывалась в нескольких основных направлениях. Прежде чем приступить к краткому разбору этих направлений следует оговориться, что такое разделение условно, т.к. все они тесно взаимосвязаны и представляют единую систему обучения и воспитания боксера в процессе подготовки.

Первое направление связано с разбором преимущественно теоретических положений. К ним относятся: виды индивидуальных уроков на «лапах», их структура и организация, взаимосвязь индивидуального урока с другими формами тренировочной работы и другие вопросы. Эти разработки в учебно-методической литературе представлены в кратком изложении и, в основном, в теоретических разделах общей.

Многие из этих авторов заостряют внимание и на большое воспитывающее воздействие индивидуальных уроков на «лапах» на занимающихся. Так, А. Н. Абдиев указывал, что обстановка индивидуального урока способствует постоянному и широкому влиянию тренера и ученика, как в вопросах общей и специальной эрудиции, так и в формировании в нем правильного отношения к спортивной деятельности.

Второе направление в развитии методики индивидуального урока на «лапах» связано с раскрытием учебного материала индивидуального, т.е. с изложением тех средств специализированной подготовки боксера, которые применяются для решения технико-тактических и других задач, поставленных в уроке. Эта методика описывается в литературе в виде схематического изложения упражнений. В них указывается последовательно следующие друг за другом действия тренера и ученика при исполнении последним отдельных боевых приёмов, их связей и сочетаний. Такая форма изложения методики индивидуального урока на «лапах» является наиболее распространенной.

Несмотря на почти одинаковую форму изложения упражнений, содержания действий тренера и ученика соответственно изменялось в связи с различными задачами, стоящими перед боксом того или иного периода.

Ряд авторов применяли несколько иную форму изложения содержания средств индивидуального урока на «лапах». Они вместо схематичного описания (действия тренера – действия ученика) пользовались текстовым изложением. Такая форма раскрытия боевых действий в уроке является наиболее доступной и легче воспринимается читателями.

Третье направление – разработка методических приемов индивидуального обучения и их систематизация получило свое развитие после выхода узбекских боксеров на большую международную арену, когда индивидуальный урок на «лапах» занял доминирующее положение в общей системе подготовки боксеров. Данное направление в методике было развито специалистами Узбекского государственного университета физической культуры и спорта и А.Н.Абдиевым, Ф.К.Турдиевым. В перечисленных работах систематизировались

основные методические приемы индивидуального обучения по боксу для преимущественно технического и тактического совершенствования занимающихся. Интерес в этом плане представляет работа Ф.К.Турдиева. Автор удачно раскрыл методические приемы индивидуального урока на «лапах» в типовых примерах обучения и тренировки отдельным боевым действиям бокса.

Четвертое направление в разработке методики индивидуального урока на «лапах» связано с умением тренера имитировать движения лапой. В практике бокса это индивидуальное мастерство тренера принято называть тренерской техникой. Таким образом, проведение индивидуального урока на «лапах» требует от тренера, помимо общих теоретических знаний, еще и специализированных практических умений и навыков. Ряд специалистов в области бокса передают большое значение тренерской технике в процессе проведения индивидуального урока на «лапах».

В настоящее время в теории и методике спорта все большее значение приобретают исследования, направленные на решение важных вопросов, связанных с контролем и оценкой уровня специальной работоспособности спортсменов. Важность этой проблемы тем более очевидна, что в свете современных теорий, связанных с идеей адаптации организма человека к специфическим двигательным действиям, требуется разработка новых методик, позволяющих получить объективную информацию о процессах, происходящих в организме спортсмена.

Значительный вклад в расширение познаний об адаптации в условиях соревновательной деятельности внесен отечественными и зарубежными учеными, которые рассматривают спорт как уникальную сферу деятельности человека, в которой различные функциональные системы организма работают в режиме предельно возможных реакций.

Сложности контроля и оценки уровня специальной работоспособности в боксе связаны с его специфичностью. Эта специфичность состоит в том, что бокс - вид спорта, в котором действия спортсменов регламентируются следующими обстоятельствами:

1. Наличием в практике боксерского поединка угрозы нокаутирующего удара, который является одним из основных факторов, определяющих конечный результат боя.

2. Условиями, при которых под влиянием факторов внешнего и внутреннего воздействия, отличающихся от естественных (сгонка веса, сопротивление после пропущенного сильного удара в голову или туловище, психологическое давление со стороны противников, реакция болельщиков, регламент боя и многое другое), физическая деятельность может протекать в неадаптированном состоянии.

3. Боксер практически постоянно действует в условиях крайне малого, жесткого лимита времени, и, как правило, одно действие не приводит к окончательному снятию конфликтной ситуации, а только меняет ее и вызывает новую.

4. Организм боксера попадает в сложный, многообразный поток взаимоотношений между специфическими (присущими данному виду спорта) и неспецифическими (повседневными, привычными) факторами воздействия, в которых для достижения максимального спортивного результата должны преобладать, доминировать первые.

5. Победы в поединках равных по силам соперников, как и поражения, часто сопровождаются физической и психической усталостью, серьезными травмами, которые оказывают отрицательное воздействие на последующее выступление в турнире.

В этих условиях победу в турнире одерживает тот спортсмен, который имеет лучшие показатели фенотипической адаптации. При этом особое, главенствующее значение имеет адаптация механизмов энергообеспечения интенсивной мышечной работы, которые позволяют повысить эффективность боевых действий.

В специальной научно-методической литературе имеется целый ряд работ, направленных на оптимизацию подготовки боксеров за счет правильного планирования учебно-тренировочного процесса. В этих работах критериями для планирования учебно-тренировочного процесса являются в основном объем и интенсивность применяемых упражнений. Предпринимались попытки учета тренировочных нагрузок боксеров с помощью специальной шкалы тренировочных нагрузок, которая позволяет оценивать интенсивность тренировочного дня и микроцикла в баллах. Однако до настоящего времени в практике бокса отсутствовали педагогические методики, позволяющие получать объективную экспресс-информацию об уровне специальной работоспособности спортсменов в различных формах его специализированной деятельности в том числе и в индивидуальных уроках на «лапах».

Заключение.

Особую актуальность за последние годы приобрел этот вопрос в современном спорте в связи с исключительно высокими требованиями, предъявляемыми к организму спортсмена. Все это повышает необходимость в проведении специальных исследований, направленных на изучение специализированных нагрузок и путей по созданию более эффективной организации двигательных режимов спортсменов, обеспечивающих высокий уровень их специализированной работоспособности.

Несмотря на это, что в учебно-методической литературе имеется лишь отдельные, очень кратко изложенные высказывания авторов по этой проблеме.

Таким образом, многие авторы придавали большое значение регулированию нагрузки в процессе учебно-тренировочных занятий по боксу, в том числе в индивидуальных уроках на «лапах». Но несмотря на важность этой проблемы, она в специальной литературе по данному виду спорта освещена очень мало и требует специальных экспериментальных исследований ввиду множества неясных, спорных и нерешенных вопросов.

Тренеров, в частности, интересуют вопросы о возможно допустимых (предельных) и оптимальных нагрузках, о методах их чередования с интервалами отдыха. Им важно знать, сколько времени боксер может безошибочно выполнять боевые действия в индивидуальном уроке на «лапах», при каких условиях начинают проявляться признаки утомления и каковы их причины. Особо важное значение при этом приобретает умение тренера правильно распределить и дозировать тренировочную нагрузку на протяжении всего урока. Рационально построенный режим работы и отдыха позволит ученику успешно осваивать намеченный в уроке учебный материал, будет способствовать сохранению его работоспособности на высоком функциональном уровне в течении.

В результате выше сказанного можно сделать вывод, что методика индивидуального урока на «лапах» разрабатывалась специалистами бокса в следующих направлениях: в плане разбора важнейших теоретических положений; изложения учебного материала для действий ученика и тренера; систематизации методических приёмов и разработки тренерской техники. Данный анализ позволяет учесть и нерешенные проблемы

методики индивидуального урока на «лапах, обосновать постановку вопроса и задачи исследования.

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НЕПРОИЗВОДНЫЕ ПРЕДЛОГИ И СПОСОБЫ ИХ ПЕРЕДАЧИ НА
КАРАКАЛПАКСКИЙ ЯЗЫК

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Аннотация. В статье рассматриваются особенности функционирования предлогов, систематизация смысловых отношений выражаемых предлогами, способы передачи русского предлога на каракалпакский язык, что способствует дальнейшему углублению знаний о грамматическом строе русского языка и его динамике.

Ключевые слова: предлоги, аффиксы, послелогии, служебные слова, эквиваленты, падежи, система грамматических отношений.

Abstract. The article examines the peculiarities of the functioning of prepositions, the systematization of semantic relations expressed by prepositions, methods of transmitting a Russian preposition into the Karakalpak language, which contributes to the further deepening of knowledge about the grammatical structure of the Russian language and its dynamics.

Key words: prepositions, affixes, postpositions, function words, equivalents, cases, system of grammatical relations.

Annotatsiya. Maqolada predloglarning ishlash xususiyatlari, predloglar bilan ifodalangan semantik munosabatlarni tizimlashtirish, rus tilidagi predlogni qoraqalpoq tiliga o'tkazish usullari ko'rib chiqiladi, bu rus tilining grammatik tuzilishi va uning dinamikasi haqidagi bilimlarni yanada chuqurlashtirishga yordam beradi.

Kalit so'zlar: predloglar, affikslar, ergash gaplar, vazifali so'zlar, tengdoshlar, kelishiklar, grammatik munosabatlar tizimi.

Исследования в области сопоставления языков являются очень важными, так как помогают глубже проникнуть в суть грамматических явлений изучаемого языка, систематизировать знания грамматики сопоставляемых языков и преодолеть все сложности со стороны изучаемого языка.

Классификации предлогов разных языков не сводятся одна к другой, в силу того, что значения предлогов разных языков совпадают лишь частично. Это приводит к искажениям и ошибкам в речи.

Предлог – служебная часть речи, выражающая синтаксическую зависимость имен существительных, местоимений, числительных от других слов в словосочетаниях и предложениях. Предлоги, как и все служебные слова, не могут употребляться самостоятельно, они всегда относятся к какому-нибудь существительному (или слову, употребляемому в функции существительного). Вследствие своей синтаксической несамостоятельности предлоги никогда не выступают в качестве членов предложения. Они обслуживают управление как вид подчинительной связи, будучи связаны с управляющим компонентом словосочетания.

Служебные части речи, по А.А.Шахматову, – средство для обнаружения наших представлений в других словах. В соответствии с этим он дает следующее определение предлога:

«Предлог означает ту служебную часть речи, которая включает в себе слова, способствующие в сочетании с косвенными падежами более точному и подробному определению отношений, выражаемых этими падежами» [15, 273].

Академик В.В.Виноградов в вопросе классификации частей речи следует А.А.Потебне и Д.И.Овсяннико-Куликовскому. Частями речи он признает только полнозначные слова, «слова-названия», противопоставляя им «частицы речи», «связочные слова», которые делятся, в свою очередь, на три категории: 1) частицы, 2) предлоги и 3) союзы.

Предлоги, таким образом, В.В.Виноградов относит к категории частиц речи, не имеющих самостоятельного значения. Далее он отмечает, что собственное значение предлога проявляется лишь в связи с падежной формой названия лица или предмета, и их можно рассматривать как «агглютинативные префиксы косвенного объекта», которые, однако, еще «не вполне утратили лексическую отдельность и еще не стали простыми падежными префиксами, совсем лишенными способности непосредственно выражать обстоятельственные отношения» [4, 677].

Первообразные предлоги объединяются в небольшую группу простейших слов, не связанных живыми словообразовательными отношениями с какими-либо знаменательными словами. Почти все такие предлоги многозначны. Многие из них способны соединяться более чем с одной падежной формой имени.

Первообразные предлоги большей частью односложны [2, 307]. К первообразным предлогам относятся: *без (безо), в (во), для, до, за, из (изо), из-за, из-под, к (ко), между (меж), над (надо), о – об (обо), от (ото), по, под (подо), пред (предо) – перед (передо), при, про, ради, с (со), сквозь, у, через (чрез)*. Их можно распределить на;

а) Предлоги, употребляющиеся с одним падежом:

С родительным: *без (безо), для, до, из (изо), из-за, из-под, от (ото), ради, у.*

С дательным: *к (ко).*

С винительным: *про, сквозь, через (чрез).*

С творительным: *над (надо), пред (предо) – перед (передо).*

С предложным: *при.*

б) Предлоги, употребляющиеся с двумя падежами:

С винительным и предложным: *в (во), о – об (обо).*

С родительным и творительным: *между (меж).*

в) Предлоги, употребляющиеся с тремя падежами: с винительным, дательным и предложным: *по*. С родительным, винительным и творительным: *с (со)*.

Предлоги представляют одну из особенностей русского языка. В каракалпакском языке предлогов нет. Функции и значения русских предлогов передаются в каракалпакском языке различными средствами: падежными аффиксами, служебными именами, послелогоми, аффиксами словообразования.

Предлог *без* употребляется с родительным падежом. Рассмотрим его эквиваленты в каракалпакском языке по функциям.

При обозначении отсутствия предмета, явления:

...коса без черенка (М.Горький) – Сапсыз шалгы. В этой функции основным эквивалентом предлога *без* является аффикс именного отрицания *-сыз* (-сиз). Кроме того, предлог *без* может передаваться также аффиксом глагольного отрицания *ма* (ме, ба, бе, па, пе) в причастных и деепричастных оборотах:

...без боли в ногах... (Л.Н.Толстой) – аяқлары ауырмай.

...без лишних слов сказал... (Пушкин) – артықша сөз айтпай деди...

Такие же соответствия мы находим и в других функциях предлога *без*, а именно:

При словах, обозначающих лицо, группу людей, в отсутствии которых что-нибудь происходит:

Без тебя мне тошно свет. (Тургенев) – Сенсиз маган дүнья жағымсыз.

... не могла обойтись без него (Тургенев) – Олсыз тура алмайтуғын еди.

Возможны описательные выражения:

Он без памяти любит вас и вашу Верочку. (Чехов) – Ол сизди хәм сизин Верочкаңызды ес-түссиз жақсы көреді.

При обозначении отсутствия действия, состояния признака при совершении чего-нибудь:

уж и без того мне было не по себе (Тургенев) – мен онсыз да өзимди қолайсыз сезип тур едим.

День проходит благополучно, без приключений (Чехов) – Күн жақсы өтип атыр, ұақыяларсыз.

При обозначении отсутствия основания, причины, цели при совершении действия:

Читал, читал, а всё без толку (Пушкин) – Оқыды, оқыды, бірақ бәри натийжесиз.

Русскому сочетанию «не без» соответствуют в каракалпакском языке творительно-соединительный падеж и сочетание слов с аффиксом именного отрицания *сыз* (сиз) с частицей *емес*:

...не без греха (Пушкин) – гүнасыз емес.

Основными эквивалентами предлога *без* в каракалпакском языке являются аффикс именного отрицания *-сыз* (-сиз) и отрицательные формы причастных и деепричастных оборотов. Русскому предлогу *без* в каракалпакском языке могут соответствовать также: послелог *кем*, при исчислении и измерении; Русскому сочетанию *не без* в каракалпакском языке соответствуют творительно-соединительный падеж, а также сочетание слов с аффиксом именного отрицания *сыз* (сиз) и частицы *емес* (*не*): не без приятности – жағымсыз емес.

Предлог *в* употребляется с винительным и предложным падежами.

При указании действия внутрь чего-нибудь употребляются дательного-направительный, винительный падежи, послелог *қарай* и служебное имя *ишине*:

...увёл в гостиную и запер за собой дверь (Пушкин) – қонақ ханасына қарай алып кетти хәм арқасынан қапыны жауды.

...влезая в телегу (Чехов) – арбаның ишине минип атырып.

При обозначении явлений, предметом, являющихся областью, внутрь которой направлено действие, - дательного-направительный падеж:

Прежде чем ехать в армию (Л.Н.Толстой) – Армияға кетпестен алдын.

...она тотчас ушла к себе в комнату (Тургенев) – ол сол ұақытта-ақ ханасына кетти.

При обозначении места, куда направляется лицо, предмет, - *дательно-направительный падеж*:

В котором часу он уехал в город? (Тургенев) – Ол саат нешеде қалаға кетти?

При обозначении какого-нибудь рода деятельности, в которую кто-нибудь вступает, вовлекается, - *дательно-направительный падеж*:

...ежели вы твёрдо решили вступить в наше братство (Л.Н.Толстой) – егер бизлердің туғысқанлығымызға кириўге қарар қылған болсаңыз...

...и уносила к себе в комнату (Чехов) – хәм ханасына алып кететугын еди.

При обозначении лица, предмета, на которое направлено действие, - *дательно-направительный и исходный падежи*:

...она слушала и смотрела ему в лицо (Чехов) – ол тыңлап хәм оның бетине қарап тур еди.

...все влюблены в природу (Тургенев) – хәмме тәбиятқа ашық.

Нагнулась и поцеловала её в лоб (Тургенев) – Ийилди хәм оны маңлайынан сүйди.

При обозначении вступления в какую-нибудь профессию, должность, положение (с винительным падежом множественного числа) – *дательно-направительный падеж*:

...он был произведён в ротмистры (Л.Н.Толстой) – ол ротмистрликке өткерилип еди.

При указании на семейное с кем-нибудь – *дательно-направительный падеж*, аффикс принадлежности *ы (и)* и описательные выражения:

Весь в дедушку. (Чехов) – Атасына тартқан.

При определении времени, срока, момента, длительности совершения чего-нибудь – *дательно-направительный, местный падежи*, служебное имя *ишинде* и аффикс *ы (и)*:

В тот же день Базаров познакомился с Фенечкой... (Тургенев) – Сол күннің ишинде-ақ Базаров Фенечка менен танысты.

В ту ночь мне стало понятно... (Чехов) – сол түнде мен түсіндим.

При передаче на каракалпакский язык предлога *в* с винительным падежом самым распространенным является *дательно-направительный падеж*, В каракалпакском языке предлог *в* могут соответствовать следующие способы выражения: послелог *қарай*, служебное имя *ишинде* – в предыдущей функции (*в три года – үш жыл ишинде*), аффикс принадлежности *ы (и)* – в предыдущей функции (*в воскресенье – екшемби күни*), послелог *ушын* – при указании на назначение предмета, цели действия (*в пользу – пайдасы ушын*), словообразовательный аффикс *лық (лик)* – при определении размера, цены чего-нибудь (*в триста рублей – үш жүз сомлық*).

Основным эквивалентом предлога *в* с предложным падежом в каракалпакском языке является *местный падеж*, Имеются и другие соответствия; служебное имя *ишинде* – при указании нахождения лица, предмета внутри чего-нибудь (*в мешке – қаптын ишинде*), при обозначении времени (*в мае – май ишинде*). Аффикс *лы (ли)* – при указании на то, из какого количества частей состоит какое-нибудь целое (*комедия в пяти действиях – бес пердели комедия*).

Предлог *для* употребляется с родительным падежом.

При обозначении цели действия употребляется *дательно-направительный падеж* и послелог *ушын*:

...пользуется свободой **для** достижения своих целей... (Толстой) – өз нийетине ерисиү **ушын** еркинлигинен пайдаланады.

При словах, обозначающих лицо, предмет, в пользу которых во вред которым совершается действие, – послелог **ушын**:

*И всё это для него имело трогательное значение (Толстой) – хам булардың бәри ол **ушын** кеўилшеңлик мәнисин билдиретугын еди.*

При словах, обозначающих лицо, предмет, по отношению к которым имеет силу какое-нибудь качество, состояние, – **дательно-направительный падеж** и послелог **ушын**:

*Любовь для него, как веселье, легка (Лермонтов) – Мухаббат ол **ушын** кеўил хошлықтай жеңил.*

При словах, обозначающих лицо, предмет, для которых называются те или иные предметы и действия, – послелог **ушын**:

*И только для тебя в душе моей суровой И нежность и любовь я свято берегу. (Тургенев) – Тек сен **ушын** суўық қалбимде жағымлылық хам мухаббатты асырайман.*

При словах, обозначающих предмет, лицо, для которых совершается данное действие, явление, – послелог **ушын**:

*Для людей я много хорошего сделала... (Чехов) – Адамлар **ушын** мен көп жақсылық иследим.*

При обозначении отсутствия назначения действия – **дательно-направительный падеж** и послелог **ушын**:

*...умер, не понимая, для чего он жил... (Толстой) – не **ушын** жасағанын түсинбей өлди.*

Основным эквивалентом предлога **для** является послелог **ушын** употребляющийся для передачи всех функций предлога **для**.

Предлог **до** употребляется с родительным падежом.

При указании предела движения, распространения действия в пространстве – и послелог **дейин** (шекем):

*До дома ещё было верст восемь (Тургенев) – Үйине **дейин** еле сегиз шақырымдай бар еди.*

«Дошло до меня дело» - подумал князь Андрей (Толстой) – «Ис маған жетип келди» - деп ойлады князь Андрей.

При указании предела движения, распространения действия во времени – послелог **дейин** (шекем) и аффикс уподобления **ша** (ше):

*До сих пор я всё ещё не терял надежды сыскать дорогу... (Тургенев) – Усы күнге **дейин** мен жолды табыу үмитин жоғалтпадым.*

...до захождения солнца (Тургенев) – күн батқанша.

При обозначении предела, как результата или цели действия – аффикс **ша** (ше) в сочетании с причастной формой:

Буду насмерть биться, до последних сил (Лермонтов) – өлгенше урысаман, қолымнан келгенше.

При обозначении степени действия, последствия, результата действия – послелог **дейин** (шекем), аффикс сравнения **дай** (дей, тай, тей) усилительные частицы **аса**, **күтә**, **жүдә** (очень, слишком):

Эта соната давно уже опротивела мне до крайности (Толстой) – Бул соната көп ұақыттан бери маған күтә жағымсыз болып қалды.

...они нравятся романтическим провинциалкам до безумия (Лермонтов) – олар романтик аўыл қызларына есин жоғалтыўға дейин жағады.

...он скучен до обморока (Тургенев) – ол қулап қалатындай зеригерли.

При указании предела числа, количества действия или приблизительного количества – послелог *дейин* (шекем):

...а у французов до 15 тысяч человек. (Толстой) – французларда болса 15 мың адамға шекем.

Основным эквивалентом предлога *до* является предлог *дейин* (шекем), который употребляется при указании предела движения в пространстве, во времени; предела числа, количества действия или приблизительного количества; при указании совершенного действия до известной эпохи, события; при словах, служащих дополнением некоторых глаголов (*покраснел до ушей – қулағына дейин қызарды*).

Другие соответствия предлога *до*:

Дательно-направительный падеж – при указании на предел движения, распространения действия в пространстве *долетели до Москвы. – Москваға дейин жеттик*.
Аффикс *дай* (*дей, тай, тей*) – при обозначении степени действия, последствия, результата действия (*до безумия – еси кеткендей*); при указании предела числа, количества действия (*до 30 тысяч – 30 мыңдай*).

Аффикс *ша* (*ше*), в сочетании с причастной формой глагола – при указании предела движения, распространения действия во времени (*до вечера – күн батқанша*); при указании предела, как результата или цели действия (*до последних сил – шамасы келгенше*).

Предлог *из* употребляется с родительным падежом.

...вывести русскую армию из этого положения (Толстой) – рус армиясын усы жағдайдан шығарыў.

При словах, обозначающих предмет, место, изнутри которых исходит действие, откуда берется что-нибудь, – *исходный падеж*:

...как мы из дому-то вышли (Тургенев) – қалай үйден шықтық.

...вышла из своей комнаты (Тургенев) – ханасынан шықты.

При словах, обозначающих место, источник, откуда что-нибудь берется, исходит, узнается, употребляется послелог *қараганда*:

Он был родом из серб, как видно из его имени (Лермонтов) – оның атына қараганда, ол серблардан еди.

При словах, группу людей, откуда выделяется часть, – местный и исходный падежи, родительный падеж со словом *бир* в косвенных падежах:

...но потом один из них оглянулся (Толстой) – бирақ кейин олардың бири қайрылып қарады.

...говорит голос из толпы (Чехов) – топардан даўыс айтады.

...и это спасло хоть некоторых из нас! (Тургенев) – хәм бул бизлерден бир нешемизди аман сақлап қалды.

При словах, обозначающих состав, материал, который употреблен на изготовление чего-нибудь, происхождение вещи, – *исходный падеж*:

На нём был халат из персидской материи (Гончаров) – оның үстінде парсы тауарынан тигилген халат бар еді.

Предлог *из* в подавляющем большинстве случаев передается на каракалпакский язык исходным падежом, за исключением функции обозначения, группы среды, которую *кто- (что-)* *нибудь* превосходит своими качествами, когда употребляется усилительная частица *ең (самый, самая, самое, самые)* в сочетании с прилагательными и причастиями, иногда со словом *бир* в косвенных падежах (*один из крупнейших центров – ең үлкен орайлардың бири*).

Другие эквиваленты предлога *из*:

Винительный падеж – при обозначении предмета, лица, подвергающегося воздействию (*сделали бы из меня страстного мечтателя – меннен қумарлы бир қыялышыл адамды жасайтуғын еді*); при обозначении предметов, понятий, при помощи которых, посредством которых что-нибудь делается (*если я выстрелю из пистолета – егер мен пистолетимнен атсам*).

Родительный падеж – при обозначении какой-нибудь группы, откуда выделяется часть, употребляется часто со словом *бир* в косвенных падежах (*в одном из флигелей – флигеллердің бирінде*).

Местный падеж – при обозначении социальной среды, местности, откуда кто-нибудь происходит (*родом из Тулы – Тулада туұылған*); при обозначении какого-нибудь целого, группы, откуда выделяется часть (*в один из тихих летних вечеров – жаздың бир тыныш кешінде*).

Служебное имя *ишинен* – при обозначении социальной среды, категории, откуда кто-нибудь происходит (*он происходит из интеллигентов – ол интеллигентлердің ишинен шыққан*).

Послелог *арасына* – при обозначении непрерывности, однообразия, постоянства чего-нибудь (*из крепости в крепость – крепость пенен крепость арасына*).

Послелог *қараганда* – при обозначении места, источника, откуда что-нибудь берется, исходит, узнается (*видно было из его имени – оның атына қараганда*).

Предлог *о* употребляется с винительным и предложным падежами – *дательно-направительный и винительный падежи*:

Я споткнулся о камень! (Есенин) – тасқа сүрнигіп кеттім.

...опершись руками о решётку, сидела молодая женщина. (Гончаров) – қоллары менен панжереге сүйеніп, жас ҳаял отырып еді.

...и те разбивались о скалы (Тургенев) – ҳәм олар тауларға урылып, бөлиніп кететугын еді.

...ударился о стекло и упал на подоконник (Толстой) – айнаға урылды ҳәм айнаның алдына түсті.

При обозначении места, лица, около которых находится *кто-, (что-)* *нибудь*, – словесные обороты: *...стояли вдоль набережной бок о бок корабли из всех стран света (Толстой) – жаға бойлап дүньяның барлық елинен келген кемелер қатарласып тур еді.*

При обозначении предмета данной речи или мысли могут употребляться послелоги *туұралы* и *жөнінде* (или *жайында*):

...а теперь вся Россия знает об этом! (Чехов) – ал енди бул туұралы пүткіл Россия биледи!

Я попросил бы Александра Давидыча и вообще моих друзей поменьше обо мне заботиться (Чехов) – Мен Александр Давидычтан ҳам улыўма досларымнан мениң замымды жемеўин сорар едим.

... ей и в голову не приходит беспокоиться о них (о детях) (Тургенев) – олар туўралы ойлаў оның басына да келмейди.

Предлогу *о* с винительным падежом в каракалпакском языке соответствуют следующие эквиваленты:

Дательно-направительный падеж – при обозначении лица, предмета, на которые направлено действие другого предмета *навзничь грянулся об землю – жерге шалқасынан гүрс етип қулады.*

Винительный падеж – при обозначении лица, предмета, на которые направлено действие другого предмета – *мен өкшем менен босағаны тебиндим.*

Словесные обороты – при обозначении места, лица, около которого находится кто-, (что-) *нибудь* (при соответствии предлогу около, рядом в данной функции *(рука об руку – қол усласып).*

Предлогу *о* с предложным падежом во всех его функциях соответствует преимущественно послелог *туўралы* (или *жәнинде, жайында*). Кроме того, предлогу *о* с предложным падежом могут соответствовать:

Винительный падеж – при обозначении предмета, лица, на которых сосредоточены какие-нибудь чувства (*вспомни обо мне – мени есиңе ал*).

Дательно-направительный падеж – в предыдущей функции (*не жалел о поездке – барғаныма өкинғеним жоқ*).

Аффиксы *лы (ли, ды, ди, ты, ти)* – при указании на то, из какого количества частей членов состоит предмет (*конь о четырех ногах – төрт аяқлы ат*).

Предлог *от* употребляется с родительным падежом.

При обозначении источника, из которого *что-нибудь* получается, берется, узнается, – *исходный падеж* и словесные обороты:

В деревне я от двух отправлявшихся на работу мужиков узнал всё, что мог только узнать от них. (Тургенев) – Аўылда мен жумысқа кетип баратырған еки кисиден, олардан билип алыўым мүмкин болған барлық затты билип алдым.

Я получил письмо от брата. – Мен әжағамнан хат алдым.

От нас отправятся только пять человек – бизлерден тек бес адам барады.

Ленивый от природы (Гончаров) – Тәбияттан ериншек.

При обозначении причины действия, состояния, явления, – *исходный, дательно-направительный падежи* и *деепричастные обороты*:

Мать бросилась к дочери и плакала от радости (Толстой) – Анасы қызы тәрепке жуўырды ҳам қуўанышынан жылады.

Красный от стыда, ...стоял он перед начальством (Чехов) – уяттан қызарып ол басқарманын алдында тур еди.

Ключ от конторки «хранится у стационарного жандарма» (Чехов) – Контордың гилти станция жандармында сақланады.

Основным эквивалентом русского предлога *от* в каракалпакском языке является *исходный падеж*, который употребляется почти во всех функциях. Далее, предлогу *от* в каракалпакском языке также соответствуют:

Местный падеж – при обозначении источника какого-нибудь качества, свойства, имеющихся у кого-(чего-) *нибудь* (от природы – *табияттан*).

*Творительно-соединительный падеж*с послелогоми *менен пенен* – от всей души – *бар ықласы менен*.

Винительный падеж – при обозначении предмета, явления, от которого, против которого что-нибудь предпринимается, противопоставляется для избежания *кого-чего*, для защиты от *кого-чего* (*лечится от ревматизма – ревматизмнен емленип атыр*).

Дательно-соединительный падеж – при обозначении основания, причины действия, состояния, явления (*в восхищении от успеха своей выдумки – өз ойының ойлағандай шыққанына қатты қуянышлы еди*).

Служебные имена *қасынан* и *жанынан* – не отходя от старика – *ғаррының қасынан кетпей*.

Послелог *сайын* – *час от часу – саат сайын*.

Послелог *бери* – *в первый раз от роду – туұылғанынан бери биринши рет*.

Предлог *перед* (*пред*) употребляется с творительным падежом.

При обозначении времени, явления, события, раньше которого что-нибудь совершается, имеется – послелог *бурын, дейин, (шейин), местный падеж, служебные имена алдында, алдынан* и разнозначащие выражения:

-Что сказать Ольге? - спросил Штольц Обломова перед отъездом. (Гончаров) – Ольгага не дейин? – деп сорады Обломовтан Штольц кетиуи алдынан (можно: *кетпесинен бурын*).

...перед ужином князь Андрей опять танцевал с Наташей (Толстой) – кешки ауқаттан бурын князь Андрей және Наташа менен ойнады.

При обозначении лица, предмета, с которым *кто-(что-)* *нибудь* сравнивается – послелог *қарағанда, служебное имя алдында*:

Но вечность – ничто перед ним! (Лермонтов) – Бирақ маңғилик оның алдында ҳеш нәрсе емес.

При обозначении лица, предмета, для которых что-нибудь делается – служебное имя *алдында: Там в облаках перед народом, Через леса, через моря Колдун несёт богатыря (Пушкин) – Тоғайларды, дәрьяларды асып, халықтың алдында сыйқырғер бахадырды алып киятыр*.

Выполнять долг перед народом. – Халықтың алдындағы ұазыйпасын орынлау.

Предлогу *перед* (*пред*) в каракалпакском языке соответствует преимущественно, служебное имя *алдында*; может употребляться и *алдынан* – при обозначении времени, явления, события, раньше которых что-нибудь совершается (*перед разлукой – айырылықтың алдынан*); а также *алдына* – при обозначении лица, предмета, перед которыми в присутствии которых, по отношению к которым что-нибудь совершается, находится (*держа зеркало перед собой – айнаны алдына услап*).

Другие эквиваленты предлога *перед* (*пред*): послелог *бурын, дейин (шекем, уақтында), қарағанда* – при обозначении лица, предмета с которым *кто-нибудь, что-нибудь* сравнивается (*ты перед ним ребенок – сен оған қарағанда баласан*).

Таким образом, многочисленные предлоги русского языка, пополнение которых наблюдается и по сей день, выражают сложную систему грамматических отношений, которые освещены А.А.Шахматовым и В.В.Виноградовым.

В структурно-семантическом плане наблюдается процесс пополнения предлогов, которые выражают сложную систему грамматических отношений.

В современном русском языке преобладают функционирование непроеизводных предлогов

Предлоги, как и другие служебные (неполнозначные) слова, обладают вполне определенным, хотя и своеобразным, лексическим значением. Придерживаясь этой гипотезы, мы получили достаточные основания для того, чтобы применить к предложной системе русского языка принципы систематизации, описанные в рамках теории семантического поля.

Именно рассмотрение такой части речи как предлог в рамках теории поля дает возможность в полной мере систематизировать и исследовать подобные единицы. При традиционном рассмотрении предлогов, которое представлено в большинстве существующих в русской лингвистике исследований в области служебных слов, учитывается наличие, в основном, только тех единиц, которые активно реализуют свою предложную функцию и однозначно могут быть отнесены к числу предлогов. Другая же подгруппа указанных выше единиц постоянно остается вне научного исследования. Семантическое поле предоставляет возможность изменить эту ситуацию следующим образом.

Предлоги представляют одну из особенностей русского языка. В каракалпакском языке предлогов нет. Функции и значения русских предлогов передаются в каракалпакском языке различными средствами: падежными аффиксами, служебными именами, послелогоми, аффиксами словообразования.

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**STATISTICAL ANALYSIS OF ROAD TRANSPORT INCIDENTS
OCCURRING ON ROADS ACROSS THE COUNTRIES OF THE WORLD**

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Annotation. Road safety is one of the urgent problems of today, due to the increasing number of vehicles and the increasing number of traffic accidents and their resulting deaths. approach is necessary. The article provides information on the activities carried out by the United Nations organization to reduce the consequences of road traffic accidents, as well as a statistical analysis and ranking of road traffic accidents in the countries of the world.

Keywords: traffic accident, road transport, road safety, pedestrians, driver-training system, driving a vehicle, level of motorization, accidents.

Introduction

It is known that road transport is an important component of modern infrastructure, and its sustainable development is important for the rapid growth and integration of the country's economy, and for improving the well-being of the population. At the same time, the constant growth of the number of motor vehicles worldwide leads to an increase in problems related to ensuring the safety of road users.

According to the World Health Organization, 1.35 million people die in road traffic accidents every year. This means an average of 3700 people per day, and 24 people per second. It is the 8th leading cause of death among the world's population of all ages and is the leading cause of death for people aged 5 to 29 years. Also, from 20 million to 50 million people get various injuries as a result of traffic accidents [1].

More than 50% of those killed in traffic accidents are pedestrians, cyclists and motorcyclists. In low- and middle-income countries, the mortality rate for this group of people is up to 70%.

The World Health Organization holds Global Road Safety Week every year. As noted at this year's meeting, which began on May 15, 2023, Africa has a high rate of road traffic deaths. A third of such cases on the African continent end in tragedy.

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According to this organization, in 2023, the leaders in terms of the number of deaths per 100,000 people as a result of traffic accidents are Liberia (35.90), the Democratic Republic of Congo (33, 70) and the Central African Republic (33.60) [2].

The main reasons for such high rates, according to experts, are the insufficient financing of the relevant infrastructures in these countries, the lack of necessary and demanding roads for the ever-increasing number of vehicles, timely and it is explained by the lack of quality medical care, as well as the low level of legal literacy of the population.

Also, Hong Kong (1.30), Micronesia (1.90), Norway (2.0), Switzerland (2, 20) and reported in Sweden (2.20) [2] (Table 1).

Table 1

In 2023, the number of deaths caused by road traffic accidents in the countries of the world*

| S.N. | Countries | Number of deaths (per 100,000 people) |
|------|----------------------------------|--|
| 1. | Liberia | 35.90 |
| 2. | Democratic Republic of the Congo | 33.70 |
| 3. | Central African Republic | 33.60 |
| 4. | Tanzania | 32.90 |
| 5. | Thailand | 32.70 |
| 6. | Rwanda | 32.10 |
| 7. | Mozambique | 31.60 |
| 8. | Togo | 31.10 |
| 9. | Malawi | 31 |
| 10. | Burkina Faso | 30 |
| . | | |
| 43. | Kazakhstan | 24.20 |
| . | | |
| 55. | Kyrgyzstan | 22 |
| . | | |

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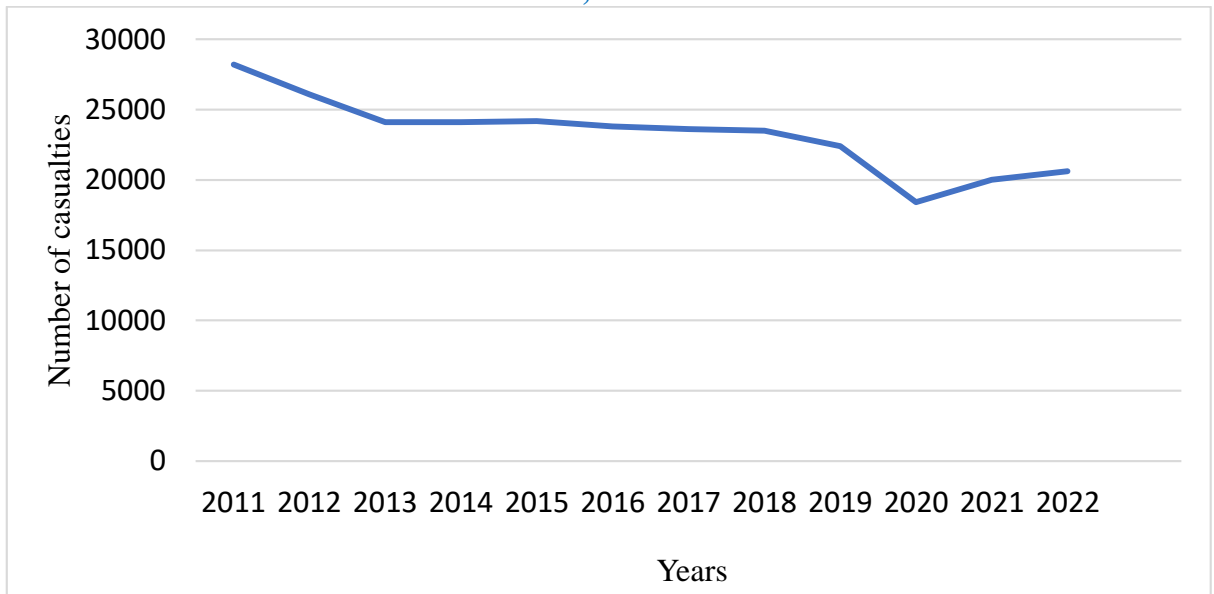
| | | |
|------|--------------|-------|
| 69. | Tajikistan | 18.80 |
| . | | |
| 79. | Turkmenistan | 17.40 |
| . | | |
| 100. | Ukraine | 13.70 |
| . | | |
| 114. | Russia | 11.60 |
| 115. | Uzbekistan | 11.50 |
| . | | |
| 174. | Sweden | 2.20 |
| 175. | Switzerland | 2.20 |
| 176. | Norway | 2.0 |
| 177. | Micronesia | 1.90 |
| 178. | Hong Kong | 1.30 |

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According to the World Health Organization, it is not enough to make drivers responsible for reducing road deaths to zero. In this process, it is important for pedestrians to know and follow traffic rules, as well as for vehicles to be equipped with safety systems and roads to be designed safely.

The acceleration of the processes of urbanization and globalization of the economy, the increase in the number of megacities leads to the development of population mobility and logistics processes. Solving these problems is provided by the increase in the population's need for cars and the increase in the number of commercial transport fleets, which, in turn, leads to an increase in the number of traffic accidents, the severity of their consequences, in general it leads to a decrease in the safety of the transport system.

The UN General Assembly aims to reduce the number of deaths and injuries in road traffic accidents by 50% by 2030. Experts believe that this can be achieved by switching to roads and road networks aimed at human safety.

Improving road safety around the world is a priority, and it is solved not only at the level of general strategies, but also in operational management tools. A systematic approach is needed to reduce traffic accidents and the level of injuries caused by them, as well as to increase the stability of the entire transport system. For these purposes, various methods and models are used, involving technical and intellectual resources, in order to improve the quality of transport system management [11].

In order to create an effective traffic management system on roads, it is necessary to have a tool that allows you to identify the most important factors using modern data, analyze various scenarios of the development of events, make timely corrective decisions, and then evaluate their effectiveness.

A management strategy based on a systematic approach is effective in terms of ensuring road safety, because due to the combination of technical and

organizational measures, it allows to predict and prevent many accidents, as well as to reduce the severity of their consequences [12].

Identifying and analyzing the factors that significantly affect the probability and severity of the consequences of traffic accidents, as well as influencing them by determining the general forms and causes of accidents, predicting the probability of their occurrence and possible consequences assessment and thereby significantly increase the level of traffic safety.

Discussion of results

When analyzing traffic accidents, a number of road and infrastructure features should be taken into account. Because these features are literally one of the factors that cause accidents.

According to the National Highway Traffic Safety Administration (NHTSA) of the US Department of Transportation, the same type of traffic accidents that occur on the basis of the same algorithm and appear to be repeated in different places, i.e. There is a collection of 1-traffic accident scenarios. Analyzing these identified fatal scenarios can help reduce road deaths. European and American institutes use the system of assessing the level of accidents in the analysis of traffic accidents. They do not always blame the drivers, but try to assess the road conditions in such a way that they are interested in what made the drivers to break the rules.

If a five-lane highway narrows to two on a short section of the road and there are exits from local roads nearby, these sections are potentially dangerous and cause accidents. From the point of view of traffic rules, it is not important which driver is to blame for traffic accidents, but the danger lies in the road configuration itself. Rebuilding and equipping the problem area is the best way to prevent accidents than fines. Another important factor affecting road safety is the mentality of drivers. The existing stereotypes of behavior on the road turn into the same type of accident patterns that affect the level of traffic accidents under certain conditions. Bold driving of the vehicle and roughness on the roads have a negative effect on the traffic situation, especially in winter, sudden maneuvers often lead to loss of control of the vehicle.

The experts of "Za rulem" magazine analyzed the conditions of Russia and identified three types of dangerous traffic accidents that lead to the death of drivers and injuries to passengers. According to their data, about 95% of those killed in traffic accidents in Moscow were victims of three main scenarios of the development of traffic accidents. These include head-on collisions, pedestrian collisions, and head-on collisions (including collisions with improperly parked vehicles). Almost 92% of civilian injuries are caused by this type of incidents. Despite the variety of causes of traffic accidents, other types of traffic accidents account for only 5% of the total death rate [13].

The statistical analysis of traffic accidents on the roads shows that 90-93 percent of traffic accidents are caused by the human factor and the characteristics of his behavior [14]. Therefore, the most urgent and effective solution to the prevention

of traffic accidents should be focused on the human factor. The most important of these is the process of high-quality training of drivers.

Car control requires the driver to make the right decisions in a rapidly changing environment. With a constant lack of time, the driver cannot analyze in detail all possible courses of action and evaluate their consequences, as well as consult with someone about the correctness of the chosen decision.

Therefore, the improvement of the driver training system, that is, the training methods and methods, will significantly contribute to the increase of road safety.

The process of training drivers is carried out by forming a set of knowledge, skills, habits and qualities that reliably guarantee practical driving of a vehicle.

We may be particularly interested in some issues of the driver training system in countries with a high level of car ownership. For example, the requirements for teachers are among them. In Belgium, Denmark, Italy, the Netherlands, Norway, France, Germany and Switzerland, persons who have not undergone special training but hold a driving license for the vehicle category they are teaching can give driving lessons. . In the UK, driving instructors must have a special certificate, and in Austria and Switzerland, a higher technical education, a bachelor's degree from a higher vocational school or equivalent education [15].

Conclusion

One of the features of driver training in Germany is that driver candidates are required to drive at night and on expressways (Autobahn). In addition, they will acquire the necessary practical skills by driving a car in places where traffic accidents are the most frequent. Candidates are allowed to use a temporary license valid for a period of two years to confirm the acquired skills of safe driving without serious violations of traffic rules.

In foreign countries such as Australia, Canada, USA, New Zealand and UK, it is done through an efficient tiered system of issuing driver's licenses to the candidates in order to increase the reliability of the drivers. That is, at the end of such a step-by-step training system for drivers, depending on the qualifications of the candidates, initial, limited and fully valid driver's licenses are issued. It is noted that such driver training technologies used abroad have reduced the number of accidents by 30-35 percent.

By studying and analyzing the best practices of the developed world, i.e., foreign countries with a high degree of automobileization, on learning and mastering traffic rules during the training of vehicle drivers. It is possible to prevent the growth of traffic accidents.

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Introduction:

In the rapidly evolving landscape of education, the integration of innovative technologies has become a cornerstone for effective teaching and learning. One field that stands to benefit significantly from this technological revolution is chemical technology. The incorporation of cutting-edge technologies not only enhances the learning experience for students but also prepares them for the challenges and opportunities in the ever-changing chemical industry.

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In the realm of higher education, the incorporation of innovative technologies has become instrumental in shaping effective and dynamic learning environments. In particular, the field of chemical technology stands to gain significantly from the integration of cutting-edge technologies, fostering a more engaging and comprehensive educational experience for students. This paper delves into the methods employed to introduce innovative technologies into teaching chemical technology, presents the results observed from their implementation, and engages in a discussion on the implications for future pedagogical practices in this evolving field.

Methods:

The methods employed in introducing innovative technologies into teaching chemical technology were carefully designed to ensure a seamless integration that enhances the learning experience. Virtual laboratories were developed, offering a digital platform for students to engage in hands-on experiments in a safe and accessible manner. Augmented Reality (AR) and Virtual Reality (VR) technologies were integrated into the curriculum, providing immersive experiences for exploring molecular structures, chemical reactions, and industrial processes. Interactive multimedia content, such as animated videos and gamified learning modules, were created to supplement traditional textbooks and cater to diverse learning styles. Additionally, the incorporation of big data analytics and machine learning tools facilitated a data-driven approach to understanding chemical processes.

Results:

The implementation of innovative technologies yielded promising results in enhancing the educational landscape for students in chemical technology. Virtual laboratories not only improved safety by minimizing exposure to hazardous substances but also allowed for repeated experimentation, deepening students' understanding of chemical processes. Augmented and virtual reality experiences provided an immersive learning environment, fostering collaboration and offering unparalleled insights into complex chemical concepts. Interactive multimedia content was successful in engaging students, simplifying abstract concepts, and providing personalized learning experiences. The integration of big data analytics and machine learning equipped students with valuable skills for data-driven decision-making, mirroring the demands of the modern chemical industry.

| Technology | Application | Benefits |
|------------------------|-----------------------------------|--|
| Virtual Laboratories | Hands-on experiments | Enhanced safety, repeated experimentation, broader accessibility |
| AR and VR | Molecular visualization | Immersive experiences, collaborative learning, real-world insights |
| Interactive Multimedia | Animated videos, gamified modules | Engaging diverse learning styles, personalized learning |
| Big Data Analytics | Data-driven decision-making | Skill development, industry relevance, process optimization |

1. Virtual Laboratories:

Traditional laboratories have long been the backbone of chemical technology education, offering students hands-on experience with experiments. However, constraints such as limited resources, safety concerns, and time constraints can hinder the effectiveness of physical labs. Virtual laboratories, powered by simulation technologies, provide a viable solution.

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These digital platforms allow students to conduct experiments in a virtual environment, manipulating variables and observing reactions. Not only does this enhance safety by minimizing exposure to hazardous substances, but it also facilitates repeated experiments for a deeper understanding of chemical processes. Virtual laboratories break down geographical barriers, enabling students to access high-quality experiments regardless of their location.

2. Augmented Reality (AR) and Virtual Reality (VR):

AR and VR technologies have the potential to revolutionize the way chemical technology concepts are taught. Through augmented and virtual experiences, students can explore molecular structures, chemical reactions, and industrial processes in an immersive and interactive manner. Imagine donning VR goggles to step inside a chemical plant or using AR to visualize the three-dimensional structure of a molecule – these technologies provide unparalleled insights into complex concepts.

AR and VR also foster collaboration among students, allowing them to work together in virtual spaces and tackle challenges collectively. This collaborative learning approach mirrors real-world scenarios, where interdisciplinary teamwork is crucial in the chemical industry.

3. Interactive Multimedia Content:

Traditional textbooks are being complemented, if not replaced, by interactive multimedia content. Animated videos, interactive simulations, and gamified learning modules engage students and cater to diverse learning styles. Chemical technology concepts that may seem abstract or complex can be simplified and visualized through multimedia content, making the learning process more accessible and enjoyable.

Educational apps and online platforms offer personalized learning experiences, allowing students to progress at their own pace and revisit challenging topics. These resources also provide instant feedback, enabling students to identify and address misconceptions promptly.

4. Big Data Analytics and Machine Learning:

In the era of Industry 4.0, the chemical industry is increasingly relying on big data analytics and machine learning for process optimization, predictive maintenance, and quality control. Integrating these technologies into chemical technology education equips students with skills relevant to the modern workforce.

By analyzing large datasets and using machine learning algorithms, students can gain insights into chemical processes, identify patterns, and make data-driven decisions. This prepares them for a future where data literacy is a valuable asset in the chemical industry's quest for efficiency and sustainability.

Discussion:

The results indicate that the incorporation of innovative technologies has the potential to revolutionize teaching practices in chemical technology. Virtual laboratories, AR, VR, interactive multimedia content, and data analytics not only address traditional constraints in education but also prepare students for the challenges and advancements in the chemical industry. The immersive and interactive nature of these technologies fosters a deeper understanding of complex concepts, encourages collaboration, and aligns education with the evolving landscape of the chemical technology field. As educators continue to embrace these innovative tools, it is essential to explore ways to optimize their integration, address potential challenges, and stay attuned to emerging technologies for continuous improvement.

Conclusion:

The adoption of innovative technologies in teaching chemical technology heralds a new era of education that is dynamic, engaging, and closely aligned with the demands of the industry. Virtual laboratories, augmented and virtual reality, interactive multimedia content, and data analytics provide students with a multifaceted and immersive learning experience, preparing them for the challenges and opportunities that lie ahead in the rapidly evolving field of chemical

technology. As educators embrace these technological advancements, they pave the way for a more inclusive, accessible, and future-ready chemical technology education.

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THE IMPORTANCE OF EDUCATING YOUTH IN THE SPIRIT OF NATIONAL VALUES

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Abstract. This article provides information about folkloric works in primary classes and ways and methods of educating them in the spirit of national values through folklore works.

Keywords. Folklore , elementary class in the textbook tools , national ability , education , methods .

The educational process requires every teacher and pedagogue to have great intelligence, patience, fortitude, high love for students and their profession. The teacher must always be in search, gain knowledge and experience, deeply understand students, notice their inner world, control their growth and development levels and help with words, work or practical action when necessary. The ability to receive are factors that ensure the success of the education and upbringing process.

A teacher's personality is a stable system of socially significant qualities characterizing him as a person. A teacher's dedication to his profession and understanding of its social importance, influence on children and sympathy with them is a set of qualities that, when combined with the teacher's work and communication, integrity of the teacher's work is achieved.

In order to carry out such responsible tasks, the employees of the preschool educational institution are responsible for implementing the historical experience of the Uzbek people regarding education.

Therefore, we should approach the spiritual and material heritage of our ancestors from the point of view of inheritance and educate the young generation right from preschool educational institutions.

Because of our people to his creed according to " Human power is in education ". In this respect compared to Medium Asia peoples , including Uzbek People have their rich historical , spiritual and cultural history inheritance , thousand years during content found education actions , traditions , morals rules to the treasury has That 's it of the people great thinkers perfect a person especially his morality about to the world famous great thinkers perfect a person especially his morality about to the world famous has been a masterpiece works writing left until school education from institutions our grandfathers left great from inheritance use , education methods use them children to his mind absorb important important has Such Yusuf Khos from inheritance Hajib's " Kutadgu". Bilik ", Kaikovus's " Kabusnoma ", Ahmad Yugnaki's "Bahoritsion ", A. Navoi's " Mahbub - ul-Qulub ", Devani's " Ethics " Jalali ", Husayn Preacher " Futuvvatnoma " of Koshifi Like "Sultani ". unique , rare from his works use We believe that it is permissible .

Our grandfathers the child each bilaterally wake up to develop big attention they looked That is why in our republic healthy generation bring up in order to raise a child state policy level raise and to him patriotic , loving , humanitarian by doing

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to educate before school at the age of , start and him non-stop continue carry on school , family , neighborhood public organizations from attention aside not stay is emphasized . So until school education in institutions children from their earliest years grandfathers to his heritage relied on without each bilaterally development main We consider it one of the tasks .

Ethical education content : whole polite person to form directed .

Ethical brought up in person stable spiritual motives formed will be Ethical concepts different young in groups formation level is different . Children is mastering moral feelings , experiences spiritual faith of formation important from the conditions is one It is a moral feeling of a person to society , to people , to himself relatively emotional attitude means These people between treatment in the process to the body will come and develops . Feelings moral knowledge and beliefs with closely connected goes Ethical emotion them bring up separately separate the rest society not this understanding person needs his knowledge and experiences his intuition based on to the body will come and develops . The identity of the child in education pedagogical effect to show method , styles different ways work exit is necessary pedagogues moral feelings to educate big attention in aging their in his opinion , good feelings root since childhood Beginning need

People , kindness , cooperation union benevolence , in work in worries around the world beauty about care to do excitement in the process to the body will come . Ethical habits moral Beliefs are feelings with one in line behavior internal regulators to the system enters

Get started class " Reading book in textbooks proverb dry alone without being quoted , maybe to him suitable narrative and fairy tales is given

For example, 4 th grade " Read winter " To Chakimchi " in the book reward " story let's take A student this the work full by reading from the exit after bite bad vice that it is people between break it , in the story to the governor unfaithfulness what he did and the end in consequence punishment received ie the gallows that he was hanged knows This is the story through student " Vadaga Loyalty is a brave man work " , Chakimchi egg pochog is his place tandiz - hearth " , like proverbs the meaning easily understand they get

Salt This is also the case in the story " Haqi " (4th grade) . The story read after division , sakvol and assignments with is processed . In question 3 it is like this it is said : " Salt. " fertility about how proverbs you know " Salt for a day tired instead hello forty days Give " , " Salt eat to the saltiness do not spit " and others

3rd grade " Winter in his book Farhad Musajonov's story " Goodness " . given The boy is him reading , " Goodness on the ground won't stay " , " Good intention is half state " , " From the good there is a garden - from the bad there is a stain " , " For

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the good if you approach , you will be enough good , bad if you approach you stay shame ", " Good the dish earth , bad head ",

" Good it sucks bad turns off ", " Good honorable , bad good ", " Good grudge impossible , bad grudge You can tell by the eyes of a bad boy from the word ", " Good If so, it's bad if trouble ", " Good with if you walk safe it 's bad with if you walk bad you will be ".

" Goodness do it to the river horse fish knows , fish if he doesn't know Halik knows ." (Halik is God from the names one) as proverbs they get to know each other and the meaning understand they are enough . Proverbs people is wisdom . In it of people his life ok follow , experience collected said wise words own expression found Compact most of the time poetic way expression done of proverbs the theme is colorful . It cannot be denied ripe level from advice consists of will be For example:

Garden el - fat el

Knowledge in power - power in knowledge

Written literature its manifestations are also different comments sure and compact expressing as proverbs sermano proverbs Primary 2nd grade students in education " Navoiy wisdom they learn For example :

" From the world carefree pass if you say , science craft learned ", " Patience know a lot depends the work opens , at work in love a lot "

Proverbs and wise words second , third , fourth class " Reading topics in the book concluding , his spiritual content student in his memory long keeper genre as given From him except 3rd graders , " People oral creativity in the column given friendship , harmony , science about people proverbs they learn People proverbs and wise words memorize students thinking grows his speech enriches his life denial reached can't be marriage experiences to master help will give .

In textbooks fast to say and great for riddles attention given These are also popular creativity genres being , students mind sharp to do , to burro his tongue intended . Quick in saying something one sound repeat , reader fast to say talk by heart in it known one the sound right pronunciation reach to the skill achieves

Children's game " Svetafor ". playing the body they rest their sorrows spirits is triggered , the game condition as follows: Readers sitting in places of the teacher to his words attention with ear they put " red when it is called "lamp " . to the rule according to right sitting down get , " yellow when it is called "lamp " . slap playing, green and in " light " . legs is moved .

Students not to be distracted to the error road not to put they strive From this then , cluster method with new topic statement will be done

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**CHILDREN'S LITERATURE (FALKIOR) HIS STUDENTS WITH
THE HELP OF HIS WORKS EDUCATION IN THE SPIRIT OF
NATIONAL VALUES**

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Annotation . This article provides information about folkloric works in primary classes and methods of educating them in the spirit of national values through folklore works.

Keywords. Falklore , elementary class in the textbook tools , national ability , education , methods .

Until now, literary education has been studied as part of the mother tongue teaching methodology. As the methodology of teaching literature in secondary general education has its own status as an independent science, it is an attempt to scientifically and methodologically justify the fact that Methodist scholars should consider the methodology of literary education in primary education as an independent science of methodology. are doing

It is known that in the 2nd half of the 20th century, the idea of studying the artistic work as a work of art with an aesthetic approach to the work of art was put forward in the methodology of the primary school, while psychological research is a different approach to introducing the world of literature to the potential ability of young students. demands.

As each subject has its own learning object and subject, nowadays the idea that the method of reading in primary classes should work as a method of literary education is being promoted. In fact, as a preparatory subject for the systematic course of literature teaching, the methodology of reading defines its goals and tasks based on examples of children's literature. Based on this, it is appropriate to define the learning object of primary school reading classes as the process of students' acquisition of literary education.

The term "literary education" includes three interrelated processes: 1) personal education in the process of contact with literary and artistic works; 2) teaching, i.e. teaching children's literature as one of the school subjects; 3) formation of personal development.

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Aesthetic education of a person in connection with reading works of art, i.e. imparting knowledge, educating and forming beliefs; that is, it is necessary to study examples of children's literature as works of art, like subjects taught at school.

A 1st grade student cannot set such goals (goal: to become spiritually mature, to fill cultural gaps, to master the art of speech. The teacher sets these goals What are you reading? Think about why we are reading this work? Have you mastered this work well with our current method of reading and analysis?

Later, during the lessons, the student learns what he needs to know to become a reader, that a good book creates different experiences (concern, anxiety) in the reader, encourages him to think, and allows him to choose his own position.

In teaching the current literary education, the school encourages the growing young generation to master the culture that was created hundreds of years ago during the history of mankind and has been filled until now. At the same time, schoolchildren

preparing the child for real life, conscious respectively occupation to choose reach demand is putting Of this for of students opportunities and main activities account in case of teaching each one stage school literary education support goals set get it is necessary

That's it we emphasize should be literary education stages present education stages right doesn't come Primary education students of schools around people with cultured treatment to do to teach

Primary the reading lessons of the classes have a special place in the educational system according to their essence, goals and tasks. Because the foundations of literacy and moral-educational education are based on it. Therefore, the education of other subjects cannot be imagined without the education of reading.

For this purpose, the "Reading Book" textbooks include various topics such as mother nature, the world around us, the history and current image of our country, the lives of adults and children, hard work, independence and national-spiritual values, friendship between nations and peace. artistic, moral-educational, scientific-popular works intended to provide comprehensive understanding of

Specific topics included in the "Reading Book" textbooks of the primary class are determined by the fact that they introduce students to the magical world of fiction, and focus on the correct formation of their worldviews based on the ideology of national independence. Accordingly, the leading feature of reading classes is focused on educating students in the spirit of high moral values on the basis of national ideology, while ensuring students' literacy.

The subject range of the works studied in the reading classes of primary grades is quite wide, and they are within general topics such as mother nature, seasons,

folklore, love of work, main holiday dates, national independence and spirituality. combined.

Topics of socio-historical content give a certain idea about the past of our country, the life of our people, heroic struggle, works done by great figures, historical dates. Among them are texts about Beruni, Amir Temur, Alisher Navoi, Babur and other ancestors. These kinds of works not only introduce the students to our past, but also help them to deeply understand their filial duty and responsibility towards the Motherland. This is how the feeling of love for the Motherland is formed in them. In the process of getting acquainted with the works that tell about the past of our country and analyzing them, the students will have the opportunity to compare the past with the present day, they will have a brief understanding of the development of the society.

It is well known to all of us that the priceless cultural masterpieces created by mankind are first of all embodied in **the folklore art** of any nation . The art of Bakhchik, which expresses the national identity of different peoples, their language and way of life, traditions and customs, is valuable for all of us as an integral part of universal culture. [1]

Folklore (English . folk - people , lore - knowledge , wisdom) - people creativity expressive the term English in 1846 archaeologist W. J. Thoms take entered " Folklore " in 1880-1990 . the term is many used in countries , including Russia started in Uzbekistan originally , " oral literature " , " mouth literature " terms used . " Folklore " . term from the mid -30s used started In 1939, Hodi Zarif's " Uzbek folklore " chrestomaty publication after , this the term Uzbek in folklore studies strong place received (cf People creativity , folklore). [2]

Primary class students for education and education in the process first of all there is mother to the motherland has been love - love wake up bite it is necessary for people oral creativity , national our values in itself collected traditions our achievements big place holds " The story Gorogli sultan " , " With Yusuf Ahmad » like that ethnographic and people oral creativity not showing which works young generation spiritual-educational , moral doctrine in giving should be results shows .

Primary in classes oral creativity folk folklore and ethno-cultural education common structural part as small age school in their students national the self awareness , positive national tradition the system of the person spiritual-ethical , social , general cultural and intellectual development for wide to opportunities have That 's it education quality in consideration received without , of our Republic small school students ethno-cultural folklore in the spirit bring up duties , national which improves our values principles work exit necessity born. Ethnic and folklore of doctrine start the content class interdisciplinary integration and of sciences

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innovation ideological applications based on done increase to the goal suitable Class team with didactic games based on done increase and new ideological efficiency level practical and theoretical knowledge present reach of children to his mind effect to transfer big impulse will be Primary class students basically game through faster to science interest in consideration will receive if we this folklore game practical such as fields separate stands of our country start drinking of classes study to the process ethno-cultural the component current reach according to first of all some problems eliminate reach this health increases .

these problems ;

Primary class in their students to his age special in case personal spiritual and moral development again improvement ;

Small school to the students special respectively ethno-cultural education manual programs formation measures ;

Basis as young students for game shape changed without i.e small groups too to groups being connect different filchlor names with evaluation .

Primary class students of course get excited to be this lesson in the process theoretical from knowledge use level reduced without basically practical i.e textbook for special equipment using lesson to give this lesson quality designation with one road his the effect increases . Lesson time children the eye with according to take , take through being able to feel the shape this student in memory sealing and new thoughts and ideas to injury reason will be Textbook tools electronicization and demonstrative weapons with enrichment in momentum developed going present contemporary technology century our youth worthy place occupation , foreign education from the standards not staying software practical the results Create and efficiency to increase service does

Folklore and cultural content modern initial of classes study to the process access the following tasks solution to do expected :

- students own mother of culture come output , people traditions with to introduce

- folklore-cultural reality , own of the people to himself characteristic , national features and family traditions about to practice directed knowledge with enrichment ;

- humane , thoughtful , free the person , own of the people cultural from the inheritance skillful keeper and the user formation ;

- different folklore to groups , their marriage style , work , traditions relatively positive emotional relationship formation ;

- a lot nationality in society international communication to harmonize help giving relationships ;
- a lot cultured in space sorry breadth to the rules , healthy marriage style national to their traditions compliance to do skills formation ;
- **Education** is broad in the sense that or this of adjectives or social of groups goals according to of people new to his descendants first generations socio - historical experience transmission tool with of society development provider task [3]

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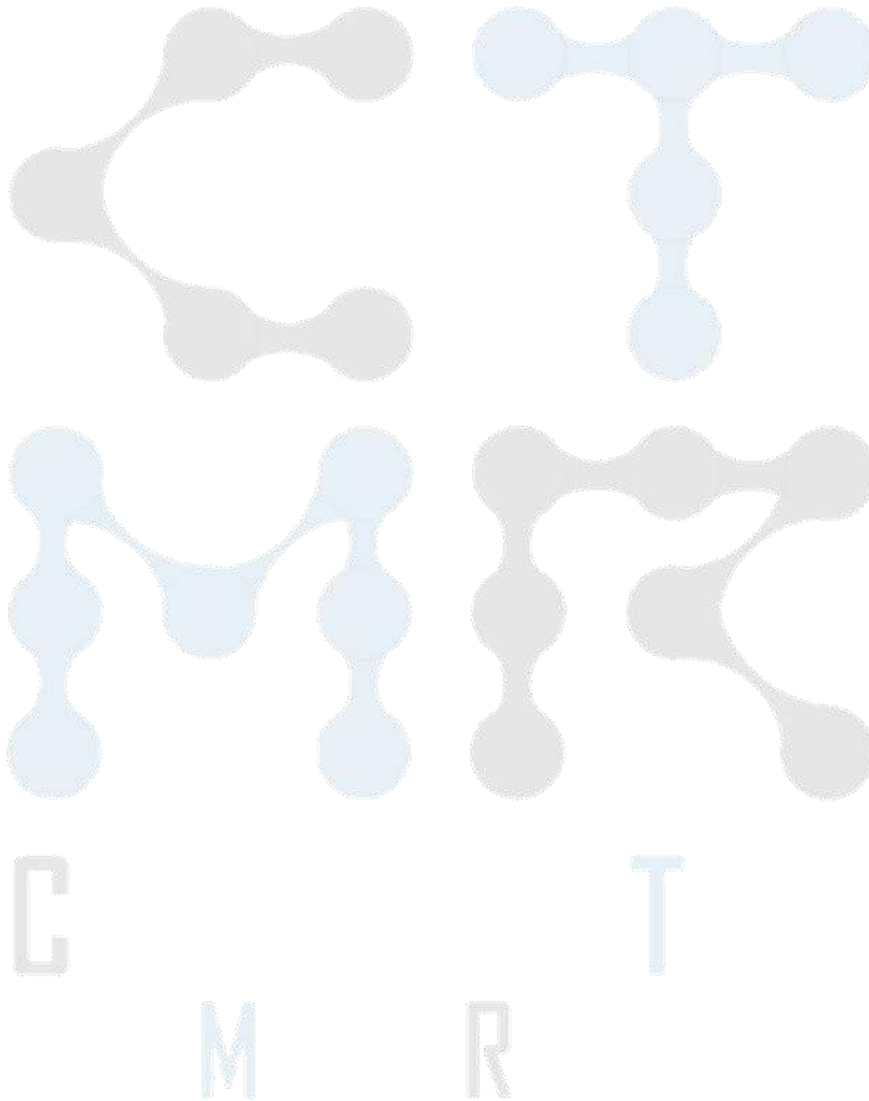
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USE OF INNOVATIVE TECHNOLOGIES IN THE EDUCATIONAL PROCESS

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Abstract. This article analyzes opinions about the use of innovative technologies in the educational process based on primary sources. This article can be used by researchers

Keywords. Innovation, technology, modern education and training, schools, teachers, educational institutions.

Today, it is important to carry out the activities of every sector and system based on innovative ideas and technologies. In this regard, before entering the topic, we found it necessary to dwell a little on the meaning of the word "innovation". The concept of innovation (Latin novus new) began to be used in research and scientific work in the 19th century. First, it represented the introduction of individual elements from one field to another. By learning the laws of introducing technical innovations, companies have mastered "innovation policy" as a whole system for profit. This activity has general features, rules, and a mechanism for updating the voluntary part of society's life. Innovative technologies are innovations and changes in the activities of teachers and students in the pedagogical process, and require the use of interactive methods in its implementation. Interactive methods are based on the activity of each student participating in the educational process, free and independent thinking. [1.25] When using these methods, learning becomes an interesting activity for the student. When interactive methods are used, students acquire the skills and abilities to work independently with the help and cooperation of teachers. Pupils acquire new knowledge on the basis of scientific research, research, experimental tests. The principle of gaining knowledge through science is followed. Participants of the educational process work in small groups. Assignments are not given to individual students, but to all members of a small group. The main form of organizing the teaching process is the lesson. [2.9] Currently, various non-traditional forms of teaching are being introduced. Such lessons serve to develop the student's creative abilities, strengthen his intellectual potential, expand his scientific worldview, and develop the skills and abilities to quickly and fully accept every new thing. The use of innovative technologies in the course of the lesson arouses interest in scientific research in students, develops creativity and creativity. As a result, acquired knowledge, skills and abilities are applied in practical activities, the quality

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of learning increases. For this, the teacher should be skilled and properly plan the lesson according to the content of the topics, and make all the students work actively and consciously during the training. [5.25] Pedagogical innovation is innovation in pedagogical practice, changes in the content and technology of teaching and education, aimed at increasing their efficiency. Innovation is understood as the result of innovation, and the innovation process is considered as the development of three main stages: creation of an idea (in a certain case, scientific research), the development of ideas in practical aspects and the implementation of innovations. [3.30] Optimality, as a measure of the effectiveness of pedagogical innovation, requires the effort of teachers and students to achieve a guaranteed result. Different teachers and students have different levels of effectiveness in their personal pedagogical and educational activities. In addition, the effectiveness of specific, correct pedagogical (for example, methodological) innovations will be much lower if they are not supported in the socio-pedagogical plan. Thus, the creation of a socio-pedagogical context that supports private innovations and socio-pedagogical innovations can significantly enhance the development of the regional education system as a whole. In addition to the above, it is easy to see structures such as innovation creation and innovation (absorption) in any innovation process; a complex innovation process that underlies the development of the entire school, consisting of interrelated micro-innovation processes. An important pedagogical condition for the formation of creativity in teachers is to direct it to independent learning and creative thinking. In addition, it is necessary to pay special attention to creative environment, specific moral and spiritual condition, organizational, methodical and psychological measures among teachers. they achieve. This is why it determines the level of optimality of pedagogical innovations. [1.9] Effectiveness as the most important sign of innovative methods is manifested only when positive achievements are achieved in the teacher's activity. The technological, observability, and recording of results in measurements is demonstrated by evaluating new methods and methods of teaching. The important aspect of this measure is manifested in the unity of the formation of a person, his perceptions and concepts. In this regard, the innovative process can be considered as the process of bringing the scientific idea to the stage of practical use and making changes in the related social and pedagogical environment. The activity that ensures the transformation of ideas into innovation and forms the management system of this process is an innovative activity. There is another distinctive feature of the innovation process development stages. The creative application of pedagogical innovations in pedagogical experience is manifested at the initial stage of the work of individual teachers. [3,21] It is important to inculcate the content of pedagogical innovations

and the methods of its application into the experience of future teachers . In order to bring pedagogical innovations into the life of the educational institution on a large scale , it is necessary to create an environment of innovation, to form a certain moral and psychological state, to use organizational, methodical, and psychological measures. For this purpose, it is necessary to develop the creative functions of future listeners, consistently arm them with pedagogical innovations, and teach them to analyze and apply innovative methods . [7.15] In the science of pedagogy, issues of innovation in the educational system are constantly being studied by specialists . However, socio-pedagogical innovations as a factor in the development of the regional education system, on the one hand, due to the relatively recent emergence of the rapidly developing social pedagogy as a field of science and practical activity , on the other hand, the relative social tendency of education decentralization and regionalization related to novelty.

Lessons organized on the basis of pedagogical technologies should meet the needs of the student according to organizational methods and delivery methods. Because such lessons are closer to the child's psyche . Achieving the goal is motivation based on the stimulation of students ' interest, desire and desire to learn learning materials, and this is the internal rapprochement of the teacher and students. [2.110]

Innovative technologies in education allow to regulate learning and direct it in the right direction . People have always been afraid of the unknown, and they have reacted negatively to any changes. Stereotypes that exist in the public mind , affect the usual way of life, lead to painful events, and prevent the renewal of all types of education. The reason why people do not want to accept innovations in modern education is because they block the vital needs for comfort, security and self-affirmation. Innovative behavior does not mean adaptation , it implies the formation of one's own personality, self-development. The teacher should understand that innovative education is a way of educating a well-rounded person. "Ready-made templates" are not suitable for him, it is important to constantly improve his intellectual level. A teacher freed from " complexes" and psychological barriers is ready to be a full participant in innovative changes. One of the tasks of the modern school is to reveal the possibilities of all participants of the pedagogical process , to provide them with opportunities to show their creative abilities. Solving these problems is not possible without implementing the variability of educational processes, in connection with which there are various innovative types and types of educational institutions that require deep scientific and practical understanding. News or innovations what kind of professional human activity is characteristic and therefore naturally becomes an object of study, analysis and implementation.

Innovations do not appear by themselves, they are the scientific research of individual teachers and whole teams, advanced pedagogy is the result of experience.

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**РОЛЬ ЭКСТРАКТА КАЛИФОРНИЙСКОГО КРАСНОГО
ДОЖДЕВОГО ЧЕРВЯ ДЛЯ ПРЕДОТВРАЩЕНИЯ
ИММУНОДЕФИЦИТА**

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Введение. Иммунная система человека распознает различные патогены, от вирусов до паразитических червей, а также раковые клетки и реагирует на них иммунологически. У большинства биологических видов иммунная система состоит из двух основных подгрупп. Врожденная иммунная система обеспечивает защиту за счет заранее сформированных иммунных ответов на различные состояния и воздействия. Адаптивная иммунная система реагирует индивидуально на каждый последующий стимул, легко распознавая молекулы, с которыми она сталкивалась ранее. Обе системы используют молекулы и клетки для выполнения своих функций.

Цель исследования. Целью настоящего исследования являлось изучение иммунодефицита у молодых и пожилых людей и особенности механизм реагирования на патогенные микроорганизмы.

Материалы и методы исследования. Материалом для исследования являлось сыворотка полученных из калифорнийских червей. Наша экспериментальная площадка находится в районе "Чеп" и "Гулистан" Алтынсайского района, и одновременно с выращиванием богатого питательными веществами биогумуса Калифорнийского красного дождевого червя, извлекают, фиксируют, затем фильтруют и помещают в сушильный шкаф. После высыхания в духовке в течение 48 часов красный червь протирают специальным инструментом и доводят до мучного состояния. Из этого образца берут 12 мг и помещают в колбу, необходимые реагенты добавляются и помещаются в термостат. В термостате к стерилизованному гельминтная жидкость добавляется кровяная жидкость, полученная из гельминта и центрифугируется.

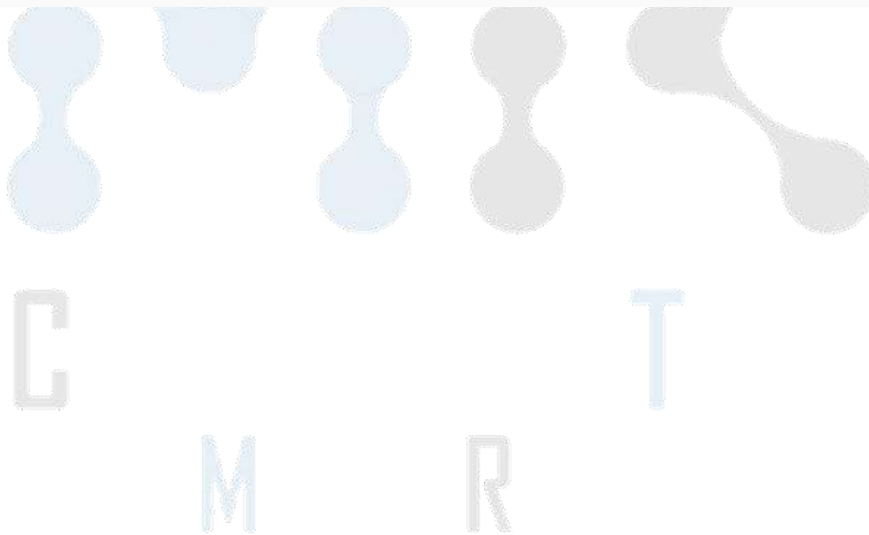
Сыворотка, взятая из этого образца, подвергается иммунологическому исследованию и изучается степень воздействия на иммунную систему человека. Основой этого эксперимента было то, что сыворотка в профилактике 11 различных заболеваний готова, и наблюдаем воздействие на развитии патологии. Сыворотка "нурзам" является самым мощным средством в профилактике вирусных заболеваний гепатита А и В.

Крем мазь "АЗАМЗАР" из образца Калифорнийского красного червя была приготовлена лабораторным путем и применяется для профилактики кожных заболеваний, таких как лейшманиоз, витилиго, псориаз,

аллергическая сыпь. Гематологические показатели оказались на 15% выше статистических. Оказалось, что в организме человека регулярно повышается образование эритроцитов.

Результаты исследования. Опыт показал, что с помощью дождевых червей необходимо преобразовывать органику в биогумус, который быстро усваивается растениями с коротким сроком хранения. Биогумусы содержат специфические питательные вещества, которые уникальны в своем составе. Предположим, что на животноводческой ферме содержится 500 голов крупного рогатого скота, а исходящий от нее мусор может изменить 200 акров земли. При таком количестве органического биогумуса, затрачиваемого на производство, можно освоить 1000 гектаров. 2 года назад в махалле “Тулистан” Алтынсайского района “Чеп” были проведены опытно-экспериментальные работы по выращиванию Калифорнийского красного дождевого червя и получению из него биогумуса, из образцов были разработаны лекарства от болезней человека.

Выводы. Сыворотка полученных из Калифорнийского красного червя полезна при кожных заболеваниях (лейшманиоза) при преодолении вирусов. Поэтому исследование роль сыворотка полученных из Калифорнийского червя в Сурхандарьинской области республики Узбекистан продолжается.



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LINGUISTIC UNITS REPRESENTING THE CATEGORY OF STATE IN ENGLISH LANGUAGE

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ABSTRACT

This article analyzes units representing the category of state in English and their expression in sentence structure. Also at the syntactic level, using comparatively typologically precise linguistic methods, the category of stativeness and devices with stative units were studied.

Key words: stative units, stative category, linguistic method, syntactic analysis.

Introduction

The category of stativeness, which is considered one of the important problems in contemporary linguistics, especially in the unrelated English and Uzbek languages, is used in the grammar of both languages. In English grammar, the state category is a category that indicates the state of the person or object at a certain time, mental or physical mood, standing in a certain place or directed to a certain goal. In English, the status category reflects the state of the subject and object that it expresses, with a broad meaning. The English linguist B.I. Ilish gave the following description of the categories that can be used instead of the words representing the status category in English: "Words expressing the status category, when they enter the adverbial category, do not only express their meaning, but become the complement of the sentence and expand its meaning" [3,31].

Literature analysis

In world linguistics, the status category is a constant focus of attention of scientists. Linguists who do studies to learn this category by the help of the materials in English, Uzbek and Russian, such as L.V. Shcherba, V.V. Vinogradov, B.I. Ilish, B.S. Haimovich, B.I. Rogovskaya, O.E. Filimonova, Andrew Koontz, N. Sweet, A.A. Abduazizov, U.U. studies are noteworthy.

We can observe that there are different approaches to the study of the stative category. In particular, the fact that it is related to an independent word group among some linguists has caused various discussions. The English linguist B.I. Ilish says that in most cases the words denoting stativeness depend on the verb [5;31], while B.S. Haimovich and B.I. Rogovskaya have mentioned that they complement "adlinks"- adverbs [4 ; 200]. V.V. Vinogradov stated that he believes that the category of stativeness complements the quality and can be used in its place.

Research methodology

In English, the words representing the status category can be used independently in a sentence according to the meaning and content structure, but are not considered an independent word group. When expressing the internal structure of the sentence or when analyzing the sentence paradigmatically or syntagmatically, it mainly expresses the subject or the object state. In the sentence, the state can represent the mental state of the person (ashamed, aware); physical condition of the person (astir, afoot); mental state of the object (afire, ablaze, aglow); can represent the object's spatial position (askew, awry, aslant).

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For example: ... *Aliberty, feeling responsible for the cook's departure, and being afraid he would be punished.*

Or we can see that it can be replaced by another word group by using case words without the a-prefix, but even then it is not an independent word group.

For example: *I was laid low by flu, just before my exams. (in a poor or depressed state).*

His face wore a threatening though somewhat satisfied expression, while he pointed his long finger at the girl.

At the same time, we can find that the status category is similar in meaning to the adjective or in some situations it can be a substitute for the adjective. Here, as Professor O'.U.Usmanov pointed out, adjectives express a characteristic, words denoting the status category denote a state, secondly, adjectives have degree categories, but words denoting a state do not have such a category, and thirdly, this word We should not forget the words that emphasize that the functions of z groups in the sentence are not the same.

For example: *eager curiosity-curiosity agog- I was very unpopular because of my curiosity about other people's affairs.*

There is a feature of adjectives that adjectives and adjectives can independently express the thought that they want to express, without paying attention to the analogy of the case category:

- **mental state - happy, joyful;**
- **physical condition of a person -refreshed, healthy;**
- **expresses the state of action of the object or subject, i.e. - busy, functioning, active, employed**

Another aspect of the status category that is different from the adjective and not an independent word group is that we can prove it by contrasting the natural manifestations of similar adjectives with their substitutes. We know that "statives" cannot be used instead of adjectives. Because there are no degree categories in it. The problem of the status category is that the words representing it have the characteristics of being expressed in different categories. They can appear as a predicate expressing a verb in a sentence, but cannot be a full adjective. In particular, when complete adjectives indicate a state by approaching the possessor, the degree is evaluated based on the basis. Words that evaluate the level cannot be used in the function of syntax indicating the status. It can be seen that the words denoting the status category according to their syntactic structure do not express the degree of quantity, but they are capable of expressing general qualities when compared analytically.

For example: *Of us all, Jack was the one most aware of the delicate situation in which we found ourselves.*

I saw that the adjusting lever stood far more askew than was allowed by the directions.

If we study the case from the semantic and structural point of view, it was seen that it can take the place of a noun, verb, adjective, and adverb as a substitute for a word in terms of formation. In English, depending on the usage of the case category, it can come together with other word groups in the sentence or come in their place in a free state and give the meaning of the state. In

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main sense, the situation itself enters the category of adverb and expresses the situation more in itself, while other categories can freely express it according to the action and request. In English, the category of state is formed by adding a verb, a noun, a pronoun, and an adjective. In the theoretical and practical grammar of the English language, there are views that The category of state (The statives) is divided into a separate group of words. But it was mentioned above that accepting it as a separate set of words is one of the issues that requires debate among linguists. The changes of state in English are expressed in Uzbek in the same way. We cannot define the category of stativeness as an independent or separate word group within both languages. At the morphological level of both languages, when the case category is given as a participle in the sentence structure of the lexical units, in English it is understood through the personal form of the linking verb to be and the verbs denoting the case.

For example: *It was the crying from down below that woke me up that hot night(P.B).*

It was the crying...--- It felt cryness --- It is in the state of cry

In English, case is expressed not only in its singular form, but some linguists L.V. Shcherba and V.V. Vinogradov regard it as an independent set of words, in which they can acquire a special meaning by expressing a substantial predicative adjective. . The fact that it comes in the form of a predicative, that is, a participle (verb) is the reason why it is included in the verb group and cannot be a separate group in many cases. In English, the situation is formed only based on experiences and physical and mental conditions of a person. When analyzing the sentences with syntactic units representing the situation into components and syntaxes, they can act as nuclear or secondary clauses in the sentence structure.

For example: *He is trouble.*

I want you to be trouble.

We cannot create a situation without linking these sentences to a verb or an adjective. The verb interprets the actions of a person not only through his inner world. There are verbs that come without the prefix a-, and they also express stativeness in the sentence in the case of relative movement of the action in one rhythm. Among these sentences, we can consider stative verbs, which are one of the main objects of the science of aspectology, as units representing stative syntax in grammar. Although units such as "love", "hate", "agree", "hear", "satisfy", "recognise", "understand" are not called stative words, they are understood as a group of verbs and are used in a sentence as verbs.

For example: *It was the crying from down below that woke me up that hot night.*

We interpret the expression of the case category by the elements of the verb group according to the tense aspect in the case where the verbs are used alone. Verbs have different tenses, so if a verb is used in the simple tense, it may not indicate the exact situation.

For example: *to sleep*
to cry

These verbs may not indicate a state without the suffix +ing, which is the present continuous verb suffix. Because it only expresses an action and does not express a state. We use the continuous form of the verb to express the situation.

For example: *No, not talking-quarreling.*

It was crying.....

This idea is expressed in O.E. We can see that Filimonova emphasized it in her auto-abstract entitled "Stative Syntax in the Structure of English Sentences". After all, we can find the state only in the continuous form of the verb.

For example: *He was adrift on the shoreless tides of delirium, speaking very quickly.*

He was mad going up every Sunday.

Cordelia was perfectly at ease, rejoicing in the food.

She was still sleeping. – She was still in a state of sleeping.

I was adrift in a strange sea. – I was drifting in a strange sea.

We use a number of linguistic methods in order to reveal the aspects of the stative category that are abstract to us. The great linguist Ferdinand de Saussure divides the language system into expressive and being expressed, and Wilhelm von Humboldt calls it “nomema” and “semema”. Through them, the function and place of stative units in the sentence is determined based on the component analysis of the sentences.

Analysis by components (AC) means the analysis of the mutual syntactic relations of the syntactic units involved in the sentence device using junctional models and their differential - syntactic links on the basis of component models. Each stative unit covers the "scope of meaning" of a group of units expressing stativeness. The meaning of each word in this series corresponds to the meaning of the other verb. They have a semantic commonality, but at the same time they differ from each other. On this basis, the meaning of each word can be divided into components (pieces) by contrasting and comparing them. Determining these differential meaning features is the main goal of component analysis.

The reason for analyzing the elements representing stativeness based on the methods of component analysis is to reveal the function and place of the words in the sentence, for what purpose they are being used at the moment. Words are interpreted in a sentence based on their semantic relations with other words. In the book "Language Construction: Analysis Methods and Methodology" by Professor T.A. Bushuy and Sh.S. Safarov, "The interpretation of meanings in this way makes it possible to divide different words into certain lexical-semantic groups based on the commonality of their semantic signs." Another important aspect of the analysis of the words denoting the situation based on the component method is to determine that the elements that make up it do not belong to only one group. The problem of an independent word group in it, as well as words denoting status, is that they belong to two groups at the same time. On the basis of component analysis, we can clarify the discussions of scientists on this issue and many unsolved issues.

Conclusion

There are morphological, syntactic, lexical and phonological approaches to the study of stative category in world linguistics. In our article, devices with stative units of the stative category were studied at the syntactic level using comparative-typologically accurate linguistic methods (transformational and syntax analysis, distributive analysis method). This linguistic method is a new approach to the analysis of stative units in both languages. In particular, determining the external and internal devices of stative unit sentences, that is, the syntactic connections of the syntactic units in the sentence, determining their differential - syntactic signs and semantic field, and their comparative analysis is one of the unique new approaches of modern syntactic typology.

The stative category has been recognized as a category in English and Uzbek languages, and having studied its aspects applied by foreign and Uzbek linguists, we have witnessed the achievement of several innovations in the analysis of stative syntactic units based on the comparative-typological linguistic methods that we approach. We have analyzed the fact that the category of stative in English is not considered a separate set of words in both languages, putting stative units into transformations, dividing them into statistical distributions and syntaxes. Through this, a number of questions that arose in both languages were answered. If we study the state from the point of view of semantics and structure, it was seen that it can take the place of a noun, verb, adjective, and adverb as a substitute for a word in terms of formation. In particular, the category of state is not used as an independent separate category in Uzbek grammar. When analyzing stative unitary sentences into components, it is desirable to determine the syntactic place of stative elements in the sentence, to determine the syntactic relations that connect them with other components, and to justify their differential syntactic features and their morphological features using the transformation method.

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**PROSPECTS FOR THE DEVELOPMENT OF E-COMMERCE IN THE
DIGITAL ECONOMY**

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Abstract: This article discusses the prospects for the development of e-commerce in the digital economy. There are opinions about the methods of developing e-commerce, as well as about the relationship and competition of countries in e-commerce. In addition, information is provided on the role and importance of e-commerce in our country, as well as on the stages of development.

Keywords: Digital economy, e-commerce, online auction, electronic document, electronic message, market, product.

Introduction: E-commerce is the organization of trade transactions via the Internet. An example of e-commerce is eBay, the world's largest online auction and store. In Uzbekistan, an example is the e-commerce site Vibo Marketplace.

Basic principles of e-commerce:

freedom to carry out business activities in the field of e-commerce;

- Voluntary conclusion of contracts in the field of e-commerce;
- equality of conditions for participation in e-commerce;
- protection of the rights and legitimate interests of e-commerce entities;
- ensuring an appropriate level of quality of goods (works, services);
- openness and transparency of processes in e-commerce;
- ensuring information security in e-commerce.

An agreement in electronic commerce cannot be invalidated solely on the grounds that it was concluded using information systems.

An e-commerce participant has the following rights:

- placement of an offer (proposal) on information resources operating for e-commerce purposes;
- sale or receipt of goods (works, services) by concluding contracts in electronic commerce;
- transfer of electronic documents and electronic messages to information intermediaries for storage.

Literary analysis and methodology. The term “electronic commerce” appeared almost immediately after the advent of the computer in the 1950s and 1960s. One of the first applications was the exchange of information between different services for ordering transport tickets and preparing flights. In 1961, Leonard Kleinrock of the Massachusetts Institute of Technology developed the theory of packet switching for data transmission.

Foreign economic activity of almost all countries of the world has managed to go beyond traditional trade relations. Due to the development of e-commerce and the emergence of online trading platforms, the need for personal meetings is no longer necessary. To buy any product, even an ordinary consumer can purchase goods and services remotely, without leaving home. This means that you can not only shop in your city or country, but also order and deliver goods from other countries.

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The use of e-commerce and marketplaces can reduce transaction costs and serve as a sales channel connecting suppliers and buyers around the world. The importance of e-commerce for business today cannot be overestimated: it improves companies' understanding of consumer needs and provides products and services to the global market. Currently, about 12% of global trade in consumer goods is carried out through international e-commerce, and this figure is constantly growing. As the European Commission noted in its study, online platforms play a leading role in creating the “digital value” that will drive future economic growth in the EU and around the world.

International e-commerce statistics:

- ❖ There are more than 26 million e-commerce sites in the world and their number is increasing every day;
- ❖ There are over 9.5 million e-commerce sites in the US alone, and the number is growing every day.
- ❖ In 2021, e-commerce retail sales worldwide will be approximately US\$4.9 trillion.
- ❖ Mobile e-commerce sales will reach \$3.56 trillion in 2021, up 15.2 percent from last year.
- ❖ There were 2.14 billion digital shoppers in 2021. This is 27.6% of the planet's 7.74 billion population.

The 10 largest e-commerce markets in the world by the end of 2021:

- China: \$2.779 billion.
- USA: \$843 billion.
- UK: \$169 billion.
- Japan: \$144 billion.
- South Korea: \$121 billion.
- Germany: \$102 billion.
- France: \$80 billion.
- India: \$68 billion.
- Canada: \$44 billion.
- Spain: \$37 billion

The average conversion rate for e-commerce businesses was 1.53%. 69.57% of carts on trading platforms are abandoned.

Results

Analysis of the state of e-commerce in Uzbekistan

A recently published analytical report by the US Department of Commerce's Department of International Trade on e-commerce in the Republic of Uzbekistan noted the following:

An international statistics database provided the following data on e-commerce in Uzbekistan: In 2020, the country's e-commerce segment generated \$481.3 million in revenue and accounted for 68% of the country's total digital revenue. The remaining 32% is made up of digital media, e-services and e-travel. Digital spending in Uzbekistan accounted for 1.2% of per capita consumer spending in 2020, compared with an average of 3.1% in Asia. E-commerce revenue is expected to grow at 6.3% per year by 2025. People shopped online primarily for fashion (32%)

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and electronics (31%), followed by food and personal care (14%), toys, hobbies and household items (11.5%), furniture and appliances (11%).

The e-commerce industry in Uzbekistan is at an early stage of development. As of January 2022, the country of 35.5 million people had 27.2 million internet users, with 25.3 million mobile internet users and 3.2 million fixed broadband internet users. The capacity of international data transmission channels was 1800 Gbit/s and by the end of 2022 it is expected to increase to 3200 Gbit/s. The country is investing in telecommunications infrastructure, but according to Speedtest.net, an international internet speed index, it ranks 138th for mobile internet with download speeds of 13.78 Mbps and upload speeds of 6.83 Mbps and ranks only 118th place in the country. It was ranked 86th out of 174 countries for fixed broadband with download speeds of 40.16 Mbps and upload speeds of 37.92 Mbps. In order to develop e-commerce, the government introduced a tax rate of only 2% on online income, while for traditional businesses it was set at 4%. The legislation of Uzbekistan allows the online sale of medicines and medical equipment, as well as the use of electronic receipts and invoices as legal proof of payment for goods and services. In 2019, the Central Bank of Uzbekistan signed a memorandum of understanding with Visa to develop infrastructure for digital payments, and many banks have provided payment software and services to e-commerce websites to facilitate online payment processing. In order to increase the number of IT specialists in the field of e-commerce, an e-commerce department was opened in 2018 at the Tashkent University of Information Technologies named after Muhammad al-Khorezmi.

Conclusion

To assess the possibilities for the development of e-commerce, not only an Internet connection and the technical equipment of organizations with modern computers, but also the availability of a website and email address are of great importance. An organization's personal website significantly expands the possibilities for interaction between participants in electronic economic relations. Once all the information about the organization is placed in it, you can accept quick orders.

According to the analysis, now the majority of online purchases in our country are made in local stores. The main country for online shoppers in the Republic of Uzbekistan is the People's Republic of China. Thus, the indicators of attracting people and organizations to the e-commerce environment, entering foreign markets and working with foreign partners are still insufficient.

However, increasing the share of information and communication technologies and income from e-commerce in the gross domestic product (GDP) of our country is one of the pressing issues of our time. It's good that the number of online stores is increasing and customers are adapting to this. But a more comprehensive study of the system from a comparative point of view is required. In this way, a number of proposals will be revealed.

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Abstract: The article discusses the development history, current status and prospects of forensic psychological expertise. Information was also provided about the procedure for conducting a forensic psychological examination and its role in various legal processes. There is also a lot of information about the views and opinions of different people on this issue.

Key words: court, psychology, expertise, trial, investigation, person, attitude, will, emotion, disorder, stress, affect, psychic explosion, legal norm, lawyer, investigator

ФОРМЫ И ПРЕДМЕТ СУДЕБНО-ПСИХОЛОГИЧЕСКОЙ ЭКСПЕРТИЗЫ

Аннотация: В статье рассматривается история развития, современное состояние и перспективы судебно-психологической экспертизы. Также была предоставлена информация о порядке проведения судебно-психологической экспертизы и ее роли в различных юридических процессах. Также имеется много информации о взглядах и мнениях разных людей по этому вопросу.

Ключевые слова: суд, психология, экспертиза, суд, следствие, человек, отношение, воля, эмоция, расстройство, стресс, аффект, психический взрыв, правовая норма, адвокат, следователь

It is known that the system of any judicial examination is determined by the system of science, which is its basis, as well as the tasks to be solved in the procedural activity of law enforcement agencies. According to VV Romanov , "the method of forensic psychological examination is the characteristics, circumstances, psychological processes of healthy people participating in criminal and civil cases, the characteristics of their psychological activity, temporary changes of consciousness under the influence of various facts (not suffering from disease), their It is important to determine the objective truth of the evaluation. Therefore, various manifestations of the environment by the participants of the examination system are individual-specific aspects of the psychological reflection, which are important for the correct resolution of criminal and civil cases.

The concepts of general object and general method of forensic psychology are generally homogeneous compared to similar concepts in general psychology. Despite this, in the literature on psychology, a unified opinion about their interpretation has not yet been developed. In such a situation, human psychology (or psychological activity) is considered as a means of psychological research. This agreement is also characteristic of fundamental psychology.

In practical psychology, the general object of psychological research is given a different definition: either human psychology in general, or as psychological activity, in general and unified form. When it comes to the general meaning of psychological exercise, under it are understood individual psychological characteristics, states and processes.

In psychology, "they distinguish different levels of studying a person: in the system of social relations; analysis of personality structure; separate systems of various psychological processes, states, properties. In this study, the formation mechanisms and functions of will,

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emotions, logic of thinking, memory, perception, perception are investigated. In particular, the second and third steps correspond to the psychological research of the exerrt."

Thus, the psychological standard of the individual method of forensic psychological examination is formed by clarifying the general method of psychological research in accordance with the specific task of the examination. However, it is necessary to take into account this legal norm of forensic psychology. What is its content and essence? Any psychological research can not provide proof-of-concept materials, but only in its process there is a research that has identified such important cases. The court determines the legal significance of cases, first of all, based on the existence of an objective connection between the means of proof and the facts. It can be said that forensic-psychological expertise as a legal norm of the formation of a personal system, norms of substantive law are manifested. They contain psychological elements in one form or another, and this is precisely why their legal significance is recognized. It becomes necessary to identify such elements, to correctly describe the controversial legal relationship that caused the court to consider the case during the preliminary judicial investigation.

As noted by MV Kostitsky, psychological expertise is closely related to general psychology and its practical areas, they form the basis of a unique "useful resource" for the development of psychological expertise. In turn, as a specific form of psychological practice, it contributes to the enrichment and improvement of the development of psychological expertise, its "fundamental sciences".

At the same time, the form of psychological expertise can be determined by the needs of practice, but the practical application of psychological knowledge can be a sufficient impetus for the development of the corresponding field of psychological knowledge.

Therefore, the psychology of labor serves as the theoretical base of the psychological labor exerthesis. The research method of labor psychology is the psychological laws of the formation of specific forms of labor activity and the attitude of a person to work, labor activity in production conditions and the conditions of re-training of human labor force.

The method of labor psychological examination is a person's psychological manifestations in the field of labor activity, his ability to a certain form of work, various forms of communication of mistakes and deviations made in the work process.

The method of psychological examination is not to determine the authenticity of the testimony, which is within the authority of the investigator and the court, but to determine the ability to re-imagine and remember information about the facts, which is part of the evidence method, due to the individual characteristics of the psychological processes of the person under investigation.

This description of the method of forensic psychological examination is to a certain extent correct, but it is too narrow, since it covers only the specific purpose of forensic psychological research - the adequate reception and recall by the witness of information relevant to the case. and to determine the ability and characteristics of telling.

As a rule, the tasks of the forensic psychological examination are determined by the competent authorities in each specific situation (investigation and court) and are only broad.

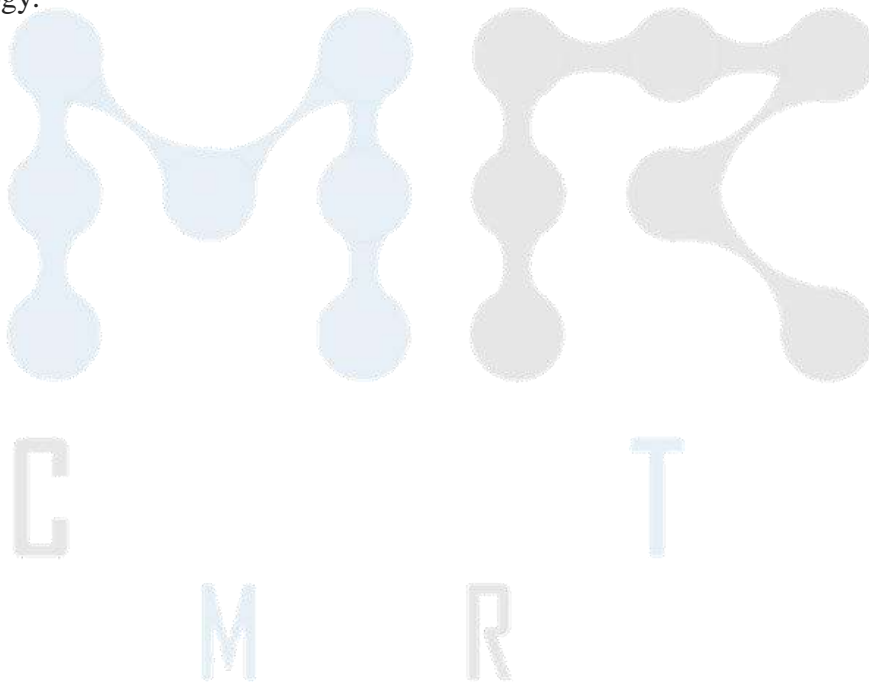
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DEVELOPMENT OF STUDENTS' LINGUISTIC COMPETENCIES IN
"MOTHER LANGUAGE AND READING LITERACY" LESSONS OF THE 3rd GRADE

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FORMATION OF STUDENTS' LINGUISTIC COMPETENCES IN THE 3ND
GRADE "MOTHER LANGUAGE AND READING LITERACY" CLASSES

Abstract: In this article, students of the 3rd^{grade} in the lessons of "Mother language and reading literacy" correctly pronounce speech sounds, describe different events in their speech, move syllables, head playing of letters, asking questions and similar grammatical concepts from practice. Studies as theoretical knowledge, as well as comments on the formation of speech competencies.

Key words: National curriculum, listening comprehension, linguistic competence, playing

Uzbekistan Republic President of Uzbekistan new development during education and fields of science development measures on " (PF - No. 6108 06.11.2020.) as scheduled , by March 1 , 2021 until qualified pedagogue , scientific staff , psychologist and foreign experts (this including Finland qualified involve specialists). did without National study program work will be released . In this process support general education institutions is determined and 2021-2022 - academic in the year education in the process this program experiment as current will be done .

This is it program now current done , his from the previous ones different aspects the following :

1. The former study programs content is 90% theory consists of being teaching methodology to memorize directed . new National study program content is 50% theory , 50% practice consists of will be and of the student independent activities to support is directed .
2. Study in programs evaluation while only remembering the rest knowledge size determined . new program based on in students formed skills is evaluated .
3. Sciences the number and study downloads optimized for readers interest according to sciences choose reading enable giver variant study programs based on to life and professional to the activity preparation opportunity is created .
4. National study program based on sciences linear in order not spiral way is taught . That is topics repeated not each other logically continue bringer and simply complex towards directed way is entered .

To the reader the language teaching through that's it language according to possessed speech of activity main four type : **speech listening understand , speak , read and to write** deeds according to each one in class requirement to be done qualification and skills the norm development , in this reading and work in the process , family and public in places surface coming different speech situations independent respectively thought exchange get and thought be able to tell , heard the material perception also in writing sources reading through information get , to events own attitude notice in the style of to communicate access qualification take over to go dynamics mean is caught . " Mother language " not only lexicon and grammar standards teacher , perhaps student speech in the activity optional subject , sciences in the section texts listening understand , right reading , orthoepic and orthographic standards apply potential development

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service who does is a science . The student's logical , critical , creative thinking for mother language in their classes by reading to understand separately attention is directed . Mother language thorough mastered student another sciences satisfactory absorbs .

Primary education system improving students independent the thinker person as vital to processes prepared to go issue own the future and society development for who can feel responsible perfect generation adult deliver purpose in itself expression is enough This point of view meaning , today in the day education in the content importance more and more increased the growing concept of " competence " . in particular to stop permissible Because next in years language to education communicative approach , integrar approach , competence approach such as new approaches app is being done .

Competence is either this field according to is knowledge . Competence (lat. " compete " - I am achieving , I am worthy , I am worthy) - in science occupied theoretical knowledge , practical skill and qualifications diary in life face coming practical and theoretical issues in solving using , in practice apply is to get [3].

Competence of the concept education to the content app to be done at the core teaching to the system relatively new approach , education system development issue lies , of course . Current time on demand monad way now to the students only scientific and theoretical knowledge to give with satisfied without staying , maybe of children worldview expand them independent able to observe , possessed knowledge diary conscious of life respectively app do it will receive person as formation " competence " and " competence " concepts each one of the lesson main purpose to the content to absorb accent be given started

Competence is expected to the result take coming activity is a sign . It is knowledge product is an expert by him in practice apply get is the ability . of competence from knowledge difference that is , the task practical without performing standing up , him cannot be determined or evaluated . Qualification of competence important criterion it is different in cases , that's it row problematic the same in situations how many there is apply as a result manifestation will be [5].

Modern approaches teaching in the process pedagogical and information technologies mutually integration through in students support and to science about private competencies to form mean holds It is known that the students formable competencies two type separated : support and to science about competencies . Some in sources while The following 3 types of competencies are classified:

1. core competencies;
2. general (subject) competencies;
3. private competencies.

Competencies that prepare the ground for the general development of a student's personality *are basic competencies* , competencies that are formed only through the subject of study. *private competencies* is called

Students speech competencies formed the following criteria through manifestation will be :

- teacher speech , video and audio texts (multimedia applications) and assignments listening understand takes
- pictures based on and by reading broadcasted text on the surface to the conversation enter takes , speech in the process mastered new the words oral in speech apply takes

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- exercise in the text the words adding read takes , to the tone of speech compliance did without smooth and expressive read takes , letters compound participation reached the words read takes

- in the word how many sound if so , that's it joint to be , one vowel sound joint harvest to do , i.e. o- na , u- ka , a- ka such as to the joint be takes , letters compounds participation reached the words to the joint be takes

- x and h sound the words right write takes

- one topic within to questions answer write takes

- torch , approval , education , courage , bow such as catch up certain the words to the joint being write takes

- vocabulary , explanatory , hearing , by heart written , pictorial dictation write takes and the sentences pictures in order copy it takes

To competence never when straight away diagnosis to put and evaluation possible not but each always his efficiency point of view in terms of indirectly understanding can Modern in education to competence based on approach - taken knowledge apply ability attention focus is a method .

CONCLUSION

Development of the country of young people in the future how person being maturity to find organic depends . Our children the future foundation to be initial education system more reform to do while this about priority from tasks one is considered As you know , general medium education schools undertake education process through in students support competencies , including communicative , information with work get , person as himself development , social active civil , general , mathematical literacy , science and technique news informed to be and use competencies formation task loaded . This process done in raising first of all teacher his own take over standing position level professional to competence have to be it is necessary Only then is he a pedagogue the process successful can organize . Already him professional knowledge , honesty , truthfulness , inquisitiveness , tireless prolific work , creativity and creativity such as qualities raises . Like this qualities through pedagogue high spiritual , deep to the idea have mature individuals maturity find no doubt .

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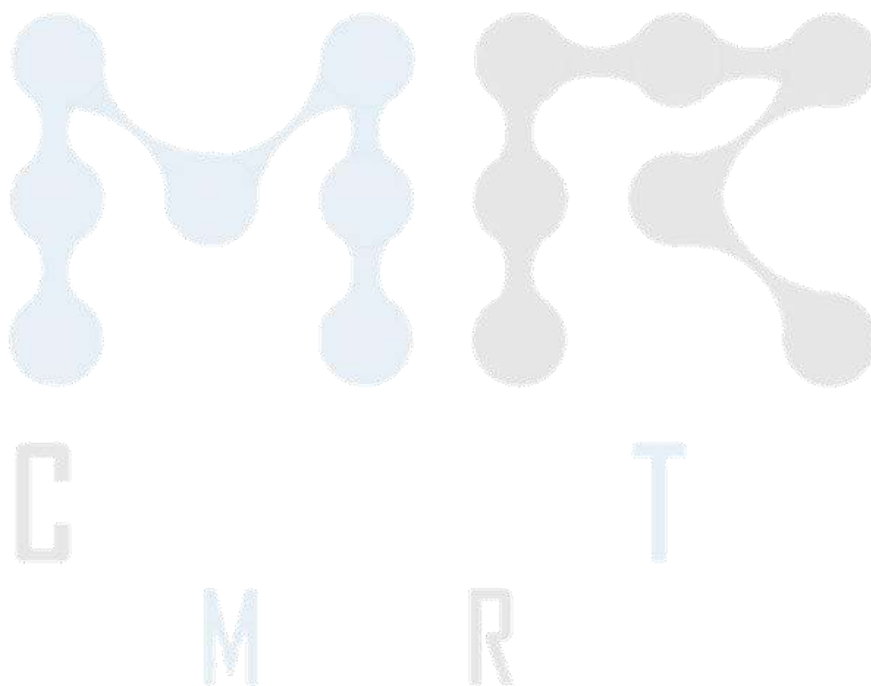
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**HEAD OF CHILDREN'S INSTITUTION IN ORGANIZING THE WORK OF FORMING
MATHEMATICAL IMAGINATIONS AND BIG TEACHER'S PLACE. EDUCATORS
KNOWLEDGE DEGREE AND FORMS OF DEVELOPMENT OF SKILLS**

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Abstract : This article discusses the role of the director of the children's institution and the senior educator in organizing the work of forming mathematical ideas, ways to improve the level of knowledge and skills of educators, as well as summarizing work experience and spreading it among pedagogues in kindergarten.

Key words : educator , work organize to do , children , mudira , big educator , skill , work experiences generalization .

Educator in person to positivity rely on to him to be placed high demand with together done to be increased in collectives good traditions , high responsibility spirit , friendly mutually help , creative initiative lives Such in the circumstances work now starting educator pedagogues to the collective fast and ease with absorbed goes

To the profession about adjectives many p in terms of of the educator to himself characteristic , character and temperament features depends will be Pedagogy to the activity known hereditary inclinations was talented only one person really and factor educator to be possible said thoughts there is .

Before school education in institutions Methodical the work forms

Methodical to work leadership duties done increase personnel with collective and individual work forms through done is increased . Collective the work to the shape pedagogical meetings enters Before school children in institutions pedagogical soviet about To the statute basically the following issues see exit can : « Children Kindergarten education — upbringing program » of execution about educators reports , experience exchange , thematic check of the results The price is advanced pedagogical the experience and in science new achievements in practice use and others Pedagogical of councils sure topic before school education institutions status and yearly in the plan in the eye caught to tasks depends without as follows themes to bring can

1. Mathematics in training of children thinking activities activation the work experience with sharing
2. Elementary mathematician imaginations in formation the game methods and interesting from exercises use the work experience with sharing
3. Children by to be mastered mathematician individual characteristics of knowledge .
4. Mathematics in training individual approach to children .

Mathematician concepts development level different in humans naturally will be His formation constant exercise to do Demand does These are exercises family before school from education starts . In the family parents if so , before school in education of course educator-pedagogue will be That's why for each one pedagogue to the child mathematician imaginations shaping pedagogy theory and of teaching modern pedagogical technologies (interactive methods, individual approach , independent to engage in to teach and etc.) and national independence ideas with armed to be need Theoretical in terms of full based on modern pedagogical technologies and modern information technologies today's in the day education to the process apply the most current to the matter became

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Methodical literature (special published in magazines articles , for example , before school education about study manuals , games and etc.) ;

Team and alone in order the work take go , advanced experience and of scientists thoughts Current in the day in children mathematician concepts formation problem scientific based on Methodical to the system have Theirs main elements purpose , content , methods , work tashil reach form and methods each other with organic depends . They are between main the goal the imagination to form is directed

Mathematician concepts form - human creative of activity whole purposeful done to be increased pedagogical is a process . His the goal is children only mathematics from knowing not but them to life preparation , their own in life places to find to receive help from giving consists of

In children mathematician concepts development of science main issues of the following consists of : In children mathematician concepts development level point of view in terms of second small , medium , large and to school preparation groups for conditions the plan justification ;

Mathematician concepts development school mathematics to learn preparation planning ; mathematician of concepts development ways and conditions work output ;

It's own in turn the world deep to know , to think development new methods learning such as tasks perform through will be solved . In children mathematician concepts of formation theoretical aspects psychological , pedagogical and other fundamental sciences based on will be created : Demonstration programmed documents (in children mathematician concepts formation according to instructions and etc.) ;

In children mathematician concepts development provider Methodical instructions to give G. Nedenko own in their work mathematician of abilities two level separate shows :

“ Normal medium ability ” (this ability initial school course appropriation for the ground was) and " from the middle high has been ability " , i.e mathematician knowledge easily in possession of issues mind the solution in finding manifestation to be is an ability .

Conclusion : This is the concept subjects and events some one environment symptoms according to differentiate or generalization is the result . For example , number, amount , section , correct line and or something . And the sign subject or of events to each other similarity , equality or differentiation denotative is a property . Subjects when you say objects mean is caught . Usually , objects known important and important didn't happen to properties have Important property only that's it to the object belongs to and this uncharacteristic object there is be can't get to properties it is said . of the object to existence effect who does not properties important didn't happen properties is counted . Object what means to know for his properties there is if so , then this object about concept there is is called Concept named as well as content and to volume have will be of the object all important properties together of understanding content tashil is enough One different important to properties have has been objects collection concept size tashil is enough So , the concept volume one concept with to be named possible has been objects there is also a collection . Mathematician concepts own in turn humanity collected big the experience generalization as a

result surface will come and material of the world the essence reflection but of real objects many properties the eye closed in case them idealization as a result harvest will be Mathematician concepts formation before school age the children mathematics to teach preparation of the school necessary from subjects one recognized as In children mathematician concepts formation theory and the main issue of the methodology in children mathematician concepts of formation didactic the basics work from exit consists of

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PRESCHOOL EDUCATIONAL ORGANIZATIONS AND THEIR ORGANIZATION

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Annotation : Preschool education organizations are in the article types and the process of their organization, the professional and personal competencies of the leader in this process are highlighted.

Key words : non-state, competence, knowledge, skills, competence, development, communication, education, training, inclusive education.

DOSHKOLNYE OBRAZOVATELNYE ORGANIZATION I IX ORGANIZATION

Annotation: V state opisany vidy doshkolnyx obrazovatelnyx organizatsiy i process ix organizatsii, a takje professionalnye i lichnostnye kompetentsii rukovatelya v etom protesse.

Key words: negosudarstvennoe, kompetentnost, znaniya, umeniya, kompetentnost, razvitie, obshchenie, obrazovanie, vospitanie, inklyuzivnoe obrazovanie.

PRESCHOOL EDUCATIONAL ORGANIZATIONS AND THEIR ORGANIZATION

Abstract: The article describes the types of preschool educational organizations and the process of their organization, as well as the professional and personal competencies of the leader in this process.

Key words: non-state, competence, knowledge, skills, competence, development, communication, education, upbringing, inclusive education.

Today, development strategies are being defined in our developing country. Therefore, the development strategy of New Uzbekistan for 2022-2026 ensures the prosperity and continuous progress of our country. Education is the main driving factor of development. In this regard, President Shavkat Mirziyoyev said, "No matter what field we choose, we cannot achieve any changes or a prosperous life without educating modern mature personnel." The words that prepare such personnel, a healthy gene pool of the nation, first of all, start from the pre-school education system, are a clear proof of our above-mentioned opinion. The effectiveness of the preschool education system in our country depends on the properly organized educational process. In order to further develop the preschool education system, many preschool education organizations are being established in our country. In turn, preschool education organizations are divided into 2 types according to the form of organization.

1) State pre-school educational organizations . Organizations of this type are organized in the following ways based on their goals and tasks.

- general preschool education organization;
- multidisciplinary specialized pre-school education organization;
- preschool education organization with inclusive groups;
- joint preschool educational organization.

Implementation of the state educational program of preschool education and upbringing is ensured in the general development groups of the preschool education organization of general type.

The implementation of the state educational program of preschool education and upbringing for children with physical or mental disabilities in the multidisciplinary specialized preschool education organization is ensured.

In a pre-school education organization with inclusive groups, equal opportunities for education and upbringing are ensured by integrating children into a healthy environment, taking into account their special educational needs and individual capabilities.

The state regulation of preschool education and upbringing aimed at organizing the education and upbringing of children with physical or mental disabilities and children without developmental disabilities in a single organization in separate groups, as well as in inclusive groups, in a joint preschool education organization. This program will be implemented.

The state preschool education organization is established as a legal entity and performs its activities on the basis of the charter.

2). Non-state pre-school education organizations.

Non-state pre-school education organizations are established as legal entities and carry out their activities on the basis of a charter and a license in the field of pre-school education and upbringing. These organizations are divided into two groups.

- MTT in public private partnership (family MTT)

A maximum of 50 children of preschool age are allowed to receive education and upbringing in family non-governmental preschool educational organizations. Organization of such organizations is carried out in cooperation between a legal entity and the state.

- Non-governmental preschool education organization.

A non-governmental preschool education organization is established by the founder in the form of a legal entity and performs its activities on the basis of a charter and a license in the field of preschool education and upbringing.

Leading methodical work in a preschool educational organization is part of the job qualification of a methodologist. In this process, the methodist gives instructions to all pedagogical staff on the use of various methods and tools in order to increase the effectiveness of education. He finds a way. He takes the initiative to hold a pedagogical council with the director of the Methodist preschool education organization. The Pedagogical Council raises the most urgent topics in the organization of preschool education, makes suggestions on eliminating deficiencies in the educational process, increasing the level of professional knowledge of educators. The Pedagogical Council also offers to popularize Methodist best practices and provides necessary guidelines for educators to popularize their work. It also includes issues related to the education and upbringing of the children on the agenda.

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" Growing children's speech in the process of introducing them to the environment and nature "

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Abstract: Enriching the child's speech through familiarization with the environment in the organization of the process of speech development in a preschool educational organization

Key words: Proverb, proverb, fairy tale, epic, observation, communicative orientation, social situation, emotional experiences, fun games , diction, speech, empathy, dialogue

the preschool educational institution is to form the correct oral speech of children as a result of acquiring the artistic language of their people. This general task consists of the following special tasks: education of sound culture of speech, enrichment, strengthening and activation of vocabulary, improvement of grammatical correctness of speech, formation of oral (dialogic) speech, development of fluent speech, education of interest in artistic words , preparation for teaching literacy. It is necessary to implement the development of children's speech on the basis of an appropriate program. In this program, the range of knowledge about the environment and the size of the vocabulary, speech skills and skills that should be formed in children at each age stage are determined, and it aims to educate certain qualities of the person (approachability, politeness, modesty). should be kept. The speech development program is based on scientific principles, and it is aimed at the comprehensive development of the child's personality with all its content. The speech development program is implemented in the forms of the child's activities such as study, play, work and household activities. In the context of public education, education is the leading means of forming a child's speech. Teaching the mother tongue is the process of developing the child's cognitive abilities in a planned, purposeful manner, acquiring the most basic knowledge of the world around them and mastering the appropriate vocabulary, and forming speech skills and abilities. The main form of education for preschool children is training. For didactic purposes, the following types of training can be distinguished: - training to introduce new material; - trainings related to strengthening knowledge, skills and abilities; - exercises related to generalization and systematization of knowledge; - final exercises or assessment (control) exercises. It is recommended to conduct exercises for the development of children's speech from 1 to 3 years old in the form of didactic games, fun games, and stage performances. They should be not only entertaining, but also educational. The development of children's speech between 3 and 5 years old should have an emotional tone. It is necessary to use exhibitionism, game methods and didactic games. Speech development activities for children aged 5 to 7 years have a specific task - that is, it aims to prepare children for schooling. During the training, the pedagogue should develop the ability to carry out educational activities in addition to speech tasks (being attentive, listening to the pedagogue's task, understanding it and carrying it out clearly, being able to think in front of a group of children, responding to a peer's response it also performs the function of being able to give a simple assessment , etc. Positive results can be achieved if the best qualities acquired by the child in the preschool educational institution are continued in the family environment, and the best qualities acquired in the family are applied in the preschool educational institution. Educators should not only see the positive results of their experience in family education, but also support it

and, based on this, parents should focus on the tasks that have not yet been solved in child education. The head is the person responsible for planning, organizing and leading the above work. An annual plan for work with parents is drawn up. This plan will be discussed in the pedagogical council. The plan specifies general and group meetings, open days for parents, talks and consultations, organizing exhibitions and concerts in parenting organizations, as well as the times of these events and the persons responsible for them. . The topics and content of the work with parents are reflected in the educator-methodist's plan and the educator's calendar plan. A lot of work on working with parents is carried out by the educator - pedagogue, because he knows more than anyone about the changes taking place in the upbringing of children and is closely familiar with the life of children. He advises parents on what to pay more attention to in the education of children, such as preparation for school education, health care, proper organization of food and daily routine, etc. 2. Contents of the preschool educational institution's work in cooperation with parents. The headmaster, team of pedagogues and parents should actively participate in cooperation between educational institutions and schools. Only then can the expected results in child education be achieved. The following special forms of work are used in working with parents: interviews, consultations, visiting families, inviting some parents to the preschool, using special memorabilia and portable folders. The purpose of visiting the child's home is to learn about the family conditions, the child's behavioral interests in the family, to get to know the parents and family members, as well as to introduce the parents to the effective methods of child education, and to study and publicize the positive experience of the family in child education. The educator should go to the child's house not as an inspector, but as a friend, a helper in such a complex task as raising a child, and should treat family members with kindness and courtesy. Before every visit to each family, the educator should set a clear goal for himself, decide in advance what topic he will talk about. Questions to parents should be carefully thought out. The interview should be structured in such a way that the tutor and parents understand each other well, and there should be reliable communication between them. Before visiting the family, the educator should have certain ideas about this family (the character of the parents, family relations, the level of the child's development). In order to gain the respect and trust of the parents, the educator first learns the opinions and opinions of the parents about the positive qualities of the child and how to organize the life of the child at home, what can be read and told to him, the child's schedule, makes recommendations on the content and methods of educational work, such as involving him in family work, raising him in the spirit of respect for adults. Of course, the educator's work with the family takes into account the child's age, capabilities, and unique characteristics. The purpose and content of the visit to the family should be reflected in the educator's plan and report, as well as in his diary. The educator must visit each child's family at least twice a year. . The content of the work carried out with parents is varied, and it is necessary to discuss some issues together. For example:

- the role of the family in raising children, the role of parents, laws on preparing children for school;
- on the annual work plan of pre-school education institutions;
- issues about the work of the parents' community are among them. Forms of work such as groups of parents and general meetings, consultations, conferences, parents' evenings for discussing this issue as a team are included in the forms of team work. Parents meeting. Parents of all groups of children, parents of parallel groups and parents of children of the same group can be invited to the meeting of parents. At the general meeting, parents will be introduced to the tasks of comprehensive development and upbringing of children of preschool age, plans for this year, activities of the parents' committee,

best practices in family education. At the meeting, the headmaster or a Methodist educator will give a speech, parents will speak, and children will speak. These allow to identify achievements and shortcomings in educational work, strengthen family and public relations, increase the responsibility of parents for their child's education, and arouse interest in preschool educational institutions. At the meeting of parents in the group, the issues that are relevant for parents of children of this age are discussed. For example, if the topic of the general meeting is "The role of the family in providing moral education to children", then this topic will be complicated in the meeting held in the middle group, and the topics will be "Joint work of educational institutions and the family in raising diligence in children", "Education of respect for adults in children" and etc. can be. A lecture prepared for parents can be combined with children's work, a film on a related topic, and viewing slides. When using examples of children's life and activities, there should be more positive materials, while talking about negative facts, caution and decency should not be deviated from, and the names of those criticized should not be shown. After the meeting, critical comments can be delivered to parents through a private conversation, specific recommendations can be offered to eliminate mistakes and shortcomings in child education. At the end of the year gathering, parents are told about the educational work done during the year and the plans for the next year. At this meeting, active parents will also report, and a new active staff will be elected. Organization of parents' corner and exhibition. Parents' Corner is organized in order to introduce news and pedagogical issues related to parenting. They include books, articles, pictures, my child's work, types of baby food, my child's home and family agenda, reminders for parents, and announcements. The corner is changed from time to time depending on the educational task. Exhibitions organized for the promotion of pedagogical knowledge are often organized before parent conferences, meetings, and consultations. It contains laws and decisions on public education, diagrams showing the growth of the network of preschool educational institutions and the number of students in them, education and upbringing processes conducted with children, images depicting children's lives, a book and toys, my child's work takes place. Parents' corner is a demonstration method of work with the family, special attention should be paid to its tasteful decoration. In addition, parenting films are shown, which often lead to discussions that interest parents.

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Psychological aspects of emotional stress in adaptation to educational activities

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Abstract:

This article is about the psychological characteristics of emotional stress in students' adaptation to educational activities the word goes. Also, information is provided about the emotional-emotional state of the students in the first stage and the technical methods used in them and their solutions.

Key words: student psychology, emotional stress, personality, family environment, authoritarian, actual, distress, psychological approach, behavior, correction.

Liberalization, spiritual renewal of society is provided, first of all, by instilling spiritual and moral traditions, humanitarian and democratic values into the minds of the young generation. Free in all respects, he has a high sense of responsibility and duty, recognizes his rights, relies on his own strength and capabilities, and has an independent attitude to the events happening around him.

It is important to create and implement a set of additional measures to bring up citizens who are approachable, who at the same time see their personal interests in harmony with the interests of the country and the people.

is one of the tasks.

A modern person lives in a state of intense stress without his will, and nervous tension accumulates regularly. Some people get out of this situation easily by shouting at the people around them. There are people who, with the strength of their upbringing and culture, absorb everything and thereby harm their health. From a medical point of view, it is possible and necessary to raise a quarrel in such situations, but from the point of view of ethics, it is the opposite.

It follows that a person should make the right decision depending on the situation.

Suppressing emotions is usually the cause of various diseases. Anger, jealousy injures the digestive organs, and grief causes diabetes. If a person lives in constant fear of something, his thyroid function will fail. Nervous tension, negative emotions can lead to hypertension, heart failure and heart attack. Especially in the period of adolescence, the student's desire to define his spiritual world, personal qualities, intellectual potential, abilities, and opportunities increases. It is important to help them understand their feelings, inner experiences, and overcome the difficulties that arise in the right way.

When psychological stress is manifested in changes in various functional systems of the body, its intensity or strength can lead to mood disorders, stomach ulcers or heart attacks. Manifestation of emotional stress can be classified in different ways. However, for psychology, it is appropriate to classify them as follows:

Behavioral reactions.

Reactions in mental activity.

Reactions in the emotional sphere.

Changes in physiological processes.

A similar classification was originally made by D. Nutt in order to study the state of anxiety and worry that can cause emotional tension or stress. D. Nutt distinguished the following four components that create a state of anxiety:

mood (or excitement);
cognitive sphere (unpleasant memories, preconceived ideas, wrong predictions);
physiological signs (tachycardia - acceleration of the pulse, acceleration of sweating,
movement disorders);
behavioral disorders.

Yu.V. Shcherbatikh expresses the behavioral manifestations of stress or emotional tension through the following table:

Psychomotor changes are manifested in excessive tension of muscles, especially facial and neck muscles, hand tremors, breathing rhythm disturbances, voice tremors, reduced speed of sensorimotor reactions, speech disorders, etc. In the experiments conducted by Yu.V. Shcherbatikh, stress and other emotional strains also affect a person's writing. For example, under the influence of a bad mood, the distance between the letters widens, and the width of the letters increases. In a good mood, a person's handwriting is written in small letters, beautifully.

Violation of the daily routine is seen in the reduction of sleep, shifting of working hours to the night period, abandonment of useful habits, inability to find suitable ways to relieve emotional stress.

Changes in professional activity are observed in the large number of errors in the performance of routine actions at the workplace, chronic lack of time, decrease in work efficiency, violation of coordination of movement, loss of accuracy.

Disturbances specific to tasks specific to social roles are manifested in the form of lack of time for relationships with relatives and friends, increased conflicts, decreased sensitivity during communication, and signs of behavior contrary to social rules. Also, a person who is in emotional stress for a long time becomes indifferent to social norms and standards. He may not even care about his appearance. Cutting off relationships with others during times of deep emotional stress leaves the main problem unresolved, creates feelings of guilt and helplessness. According to adolescents, emotional stress inherent in educational activities is associated with a decrease in work ability and an increase in fatigue. The negative effects of emotional stress are also manifested in sleep disturbances, unnecessary haste, and lack of time.

The degree of decrease in work ability and sleep disturbance depends on the influence of many objective and subjective factors.

Some authors do not distinguish between the concepts of "emotional stress" and "emotional strain". Both cases are characterized by changes in facial expressions, defects in the performance of movements, and disturbances in the pronunciation of speech. The analysis of situations presented by these authors shows that it is not about long-term stresses of a classical nature, but about short-term emotional stress. They give the following classification of behavioral reactions that are manifested during emotional stress, which is also part of stress:

impulsive form - excessive excitability, decreased braking activity, error and hasty action;
inhibitory form - increased protective braking due to a decrease in the reserve of the nervous system;
generalizing form - unexpected actions.

During times of stress, usually all areas of intellectual activity - even memory and attention - can change.

Taking into account the above, to protect students and young people from various psychological stresses, to achieve the goal of training competent and competitive personnel

capable of meeting world standards in all respects by providing psychological services in the educational process. allows.

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Basic concepts of the growth of motor development in gymnastics.

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Annotation: Modern gymnastics extremely colorful. Great gymnastics from coordination complex, biological a lot power demanding system technical, physical, functional of athletes and psychological preparation level very high requirements puts Today's of the day high value gymnasts strength, strength, agility, flexibility and maximum durability like physical of adjectives incomparable step come out they are very busy, work ability developed to be a must Gymnastics multi-sport in types exercises perform on the way main objective obstacle gymnast body weight of boys and girls is considered One him from the place to another shift for strength to spend and certain powered mechanic the work needs to be done. In gymnastics of muscles absolute power not but relative power pointers they are important gymnast body per 1 kg of weight is determined. Exercises of complexity regularly grow up going because of modern sports gymnastics his own complicated coordination status did not lose without more and more more obvious expressed power services have being is going

Keyword: Motor development, Periods of motor development, Motor characteristics, General strength, Specific strength

Motor development

The development of the child's body is a complex continuous process with morphological, functional and biochemical changes, which has a clear sequence and cycle in different stages. In addition, the development of the child's body continues in stages; moreover, each subsequent age stage occurs during the final formation of the previous one. A child's development consists of two components: mental and physical development, which are closely related to each other; a delay in one of them can lead to a delay in the other. Plasticity is characteristic of the child's organism, thanks to which it acquires the ability to change under the influence of any conditions (external or internal) and to absorb the accumulated experience. Due to this unique feature, mental or physical functions can be compensated or restored when they are absent or underdeveloped

Emphasizing that it is time to acquire, balance and reduce motor skills of the body; In the same process, he explained the importance of growth, maturity, readiness and learning. Physical development of a person begins before birth and continues to grow in the subsequent period. Motor development occurs after physical development occurs. Previously formed as a reflex

Some of the movements continue throughout life as reflexes, while some become motor skills over time with proper use of the organs. At the core of motor development as an academic discipline is content related to views and principles related to growth, development, and motor movement.

At the end of general motor development, a person's progress in movement skills is determined. Parameters such as strength, speed, coordination, balance and agility can be improved with training programs designed to improve motor skills. Currently, the development of motor skills is given great importance and time. Although the development of movement skills depends entirely on the opportunity, motivation and training provided to the individual, it is fully accepted

that these skills do not develop by themselves.

Periods of motor development

Gallahue thought of "motor development" as a stage that begins in the womb and continues into later life, creating a four-stage model. Each period consists of different stages.

Periods of development

- Period of reflexive actions (0-1 years)
- The period of primitive movements (1-2 years old)
- Period of basic movements (2-7 years)
- Period of sports-related activities (7 years and older)

Period of reflexive actions (0-1 years)

Reflex actions occur during this period. It is observed in all fetuses and babies. Thanks to reflexes, the baby collects all the information about the environment and recognizes its body. Primitive reflexes that occur during reflexive movements (sucking, searching, grasping, plantar flexion, Babinski, etc.) provide more nutritional and protective functions, while reflexive movements associated with posture (stepping, crawling, pulling, parachute, support, etc.) is like a voluntary behavior and helps the body to stand upright.

The period of primitive movements (1-2 years old)

With the development of the central nervous system, control is primarily provided by the head and trunk, and secondly by the arms and legs. Primitive movements, known as the first step of voluntary movements, are observed at the age of 0-2 years. A child's ability to stand, crawl, and sit on its own shows the importance of maturity in its development. In addition to bone, muscle and nervous system development in the first two years of life, a child's movements result from the exercise opportunities that parents provide for their babies. Although primitive movements parallel maturation, they follow a predictable sequence in their emergence. Under normal conditions, this sequence does not change, but the appearance and speed of these movements may differ in each child. Genetic and environmental influences form the basis of these changes.

Period of basic movements (2-7 years)

This is a period of increased motor development that occurs during early childhood. Here the child reveals the ability to move his body; By using body parts and the coordination between them, they acquire different and complex skills. During the period of basic movements, the child develops the parameters of balance, locomotor and manipulative movements and learns to perform movements first one by one, and then simultaneously. The period of basic movements creates not only the basic characteristics of the movements, but also their individual styles and characteristics. Movement models are examined one by one and combinations of these movements are revealed and movements such as running, catching, throwing, kicking, jumping and rolling are combined. Movements form the basis of many sports networks. For example; Throwing something forward is a basic movement in sports like volleyball or tennis. The development of skills paves the way for sports activities.

Period of sports-related activities (7 years and older)

This stage is a continuation of the period of main actions. Actions in this part are goal-oriented. The skills acquired during the main activities can be combined with the rules and become joint activities. Explain with an example; Jumping and jumping skills learned during basic movements can be translated into a structured jump rope game that requires cooperation in this section.

The characteristics of the movement period associated with sports are;

- A high rate of growth is observed in achievement until adolescence.
- In order for the level of motor development to be perfect, it is important that basic movement skills are at their maximum.
- When starting to engage in sports activities aimed at ensuring the child's development, it is necessary to review the period of basic movements and work on mature movement skills.
- In order to acquire sports skills in the body, it is necessary to pay attention to the period of basic movements. During this time, skills should be consciously taught to the child.
- Coaches should prepare training programs based on the ability and development of athletes.
- Competitions can be organized for the motivation needed for athletes to master these skills very well and perform them perfectly.

Competitions are of great importance in the life of athletes. Success in competitions depends on experience.

Effects of gymnastics on motor characteristics

Nowadays, when technology is a complete part of life, children's mobility is limited to computer games, TV and phones.

Children's desire to be in constant motion, which is necessary for their physical, mental and emotional development, is consciously or unconsciously inhibited.

Children who play sports regularly develop personally and physically. Gymnastics plays an important role in the physical and motor development of children.

Regular participation in physical activity, gymnastics or training benefits body mass (body weight, fat-to-muscle ratio), bone mineralization and density, muscle development and strength, and cardiorespiratory system development. If gymnastics is done systematically, the body will remain physically healthy. This fitness improves endurance, muscle strength, flexibility, body composition and cardiovascular system. movements such as falling. equipment. All movements that make up gymnastics contribute to the child's cardio-respiratory system, muscle strength and endurance.

Various bridging exercises using different parts of the body, jumping exercises and stretching exercises to cool down the body at the end of the training will help improve the flexibility of the body.

In addition, regular participation in programmed training or physical activity ensures that athletes become healthy individuals. Being healthy is important in child development. This can be achieved almost with gymnastic exercises. As a result of research; The need for physical activity is understood and it has been shown that people who exercise in a programmed way have fewer health problems in later life.

Motor characteristics

Motor characteristics are strength, endurance, speed, flexibility and dexterity. The key to success in all sports is the specifics of the equipment required for the sport being used. Motor characteristics vary depending on the body's mobility and efficiency level. It is not acquired, it is innate and developed. The development of these characteristics occurs after a regular training program. It is determined by tests and strength checks that determine the level of development. The development of basic motor skills in all areas of sports is parallel to the training program that

we implement.

Strength- This is the ability to withstand resistance. It occurs as a result of the interaction of internal and external forces. Muscles, the strength of muscles and the contraction of these muscles create internal force, while the force between the surfaces of gravity and friction caused by the interaction of external factors creates external force. However, with a conscious reduction. nervous system, strength reaches the highest level that the athlete can achieve and exceeds his capabilities. It is expressed as weight lifting.

Strength in sports

General strength: This refers to the strength that considers the muscles as a whole and includes many muscles and muscle groups without specifying a specific branch. It includes training programs for developing the strength of all muscle groups of individuals who are new to the sport. If general strength, which is a prerequisite for specific strength, is not sufficiently developed to allow a person to perform effectively, it will adversely affect the athlete's development and performance.

Specific strength: This refers to the strength required by a particular sport and the sport. This ensures the development of strength for movements related to the main characteristics of the performed sport, not all muscle groups of the body. Training programs that include special strength begin with studies leading to the professionalization of sports and athletes at the end of the preparatory period.

During the last hundred years, sports gymnastics has achieved great success. If we compare the exercises performed by the champions of the first and last Olympic Games, the conclusion can be summed up in two words: miraculous progress! This development accelerated especially after the introduction of parolon mats, pits and simulators, as well as new methods, tools and technologies of teaching and training. In a relatively short historical period, the level of complexity of exercises, the quality of their performance, and training loads have increased on an amazing scale. Gymnastics technique has changed radically. In modern sports, a large number of colorful movements, which are different in terms of their structure, provided by different movements and different modes of activity, have been created. The same at the time of sports gymnastics The main criteria are sports as formed from the time starting from tradition the beam took This is the exercise their complexity composition and perform quality In gymnastics all in times gymnast what are doing and this how doing it evaluation object it happened. Sports gymnastics opponents with tool to the relationship did not enter without relatively unchanging in the circumstances executable coordination according to complex action and kin e matic of activities system stabilized sports to the group enters Other sports with in comparison , in gymnastics manager from actions consists of , n e gaki , many gymnastics in exercises competition to the rules according to hand and the legs right need to catch However this relatively simple manager x arakats space and in time mutually very sure coordinated to be , quite to himself situations own on time execution it is necessary Often this very complex , goals change quickly standing , time tight was in the circumstances done is increased . Same things perform space-time point of view in terms of and strength spending in terms of strictly measured actions using provided , others done increase for maximum strength impulse development is required , third character power requirements reasonable level to harmonize invitation is enough , the fourth for extraordinary agility , for while high level balance feeling necessary Of these bar a lot cases one exercise in itself embodied will be.

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Principles and models of physical education.

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Annatsiya: Jismoniy tarbiya nazariyasi va amaliyoti umumiy printsiplari va jismoniy tarbiya nazariyasi usuliyatining printsiplari deb ataladigan printsiplarga tayanadi: Bo'lardan tashqari, jismoniy tarbiyaning ayrim ko'rinishlari va xususiyatlarini ifodalovchi (masalan, sport, trenirovkasi, kosmonavtlar, o't o'chiruvchilar trenirovkasi va hokazo) printsiplari ham mavjud.

Annotation: The general principles of the theory and practice of physical education and the principles of the methodology of the theory of physical education are based on the principles of: etc.) principles are also available.

Аннотация: Общие принципы теории и практики физического воспитания и принципы методологии теории физического воспитания основаны на принципах: и т. д.) принципы также имеются.

Kalit so'z: sport, trenirovkasi, kosmonavtlar, o't o'chiruvchilar trenirovkasi, printsiplari, sog'lomlashtirish

Key word: sport, training, training of astronauts, firefighters, principles, health

Ключевые слова: спорт, подготовка, подготовка космонавтов, пожарных, принципы, здоровье.

The theory and practice of physical education are inextricably linked and form a single system of principles. First of all, let's get acquainted with the general principles of the theory of physical education.

- They are: a) connection of physical training with work and military practice;
b) comprehensive development of a person;
c) is grouped as the principle of orientation of physical education to health.

Theoretical principles in the process of physical education, on the one hand, serve as regulations, and on the other hand, in the process of physical education, they put the teacher in a theoretically and methodologically certain framework (mould), direction. In the pedagogical process and practical activity, the principle can become important in the form of obligation and law.

In some cases: we consider the principle as a part of certain knowledge in physical education, or as a guide (instructor) for activity, or as a general basis for performing various specific tasks.

General principles of the theory of physical education

The theory and practice of physical education is based on the so-called principles of the theory and method of physical education:) principles are also available. They are inextricably linked and form a single system of principles. First of all, let's get acquainted with the general principles of the theory of physical education. They are: a) connection of physical training with labor and military practice; b) comprehensive development of a person; c) is grouped as the principle of orientation of physical education to health.

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theoretically and methodologically certain framework (mould), direction. In the pedagogical process and practical activity, the principle can become important in the form of obligation and law.

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The principle of directing physical education to health

The principle that physical education is aimed at improving health implies the responsibility of the participants to respond to their health when they are engaged in physical exercises. Organizers of physical culture, trainers are not only responsible for the health of the participants before the state and the people, but also for its strengthening and improvement.

It gives a positive effect only if physical exercises are done under the supervision of a doctor and a teacher. Improper use can have a negative effect on the health of the practitioner. Therefore, taking into account biological characteristics - age, sex, health, systematic supervision by a doctor and a teacher is a leading factor in the educational process.

In practice, working without a plan has very negative consequences. A minor mistake of the pedagogue in choosing the chosen methods, the standard of exercises, the intensity of execution, the total amount of training can be very expensive for the student.

It is possible to encounter such situations that a temporary increase in sports results, an increase in physical fitness indicators, can lead to temporary pathological changes in the body that are not noticeable to the athlete. The bad consequences that arise have a negative impact on the reputation of physical culture and sports.

For this reason, the main attention should be focused on their analysis, not limited to the recognition of evidence of medical supervision.

Unsystematic control inevitably leads to negative consequences.

The principle of connecting physical education with health requires daily regular communication between the doctor, pedagogue and practitioner.

The principles of physical education are interconnected. Only then will they remain relevant.

The connection of physical education with work and military practice is its leading principle. This principle represents the main law of physical education in our country, its importance for the creative work of members of our society

Methods of organizing students' activities in the physical education class

By management of students' activities, we understand the methodology of organizing physical exercises according to the teacher's plan during training.

In the process of education, physical education teachers organize the activities of students in physical education lessons individually (frontally), continuously, by dividing them into groups, individually and by walking around.

1. The frontal method of organizing the student's activities is to separate all the students in the group

it is understood that he completes the exercise together with the teacher to solve the same task. The advantage of this methodology is that all students are equally involved in performing the exercise and they are occupied individually, high density is achieved in the lesson (session), and the speed, intensity and norm of loading are the same for everyone.

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This methodology is mainly used in the preparatory and final parts of the lesson, in mastering and improving new material, and in training with younger students. 2. The method of continuous organization of the student's activity. It manifests itself in the way of full performance of movement activity without explaining the order of performing the exercise, adapting the methodical instructions to the rhythm of the movement, without stopping the group to correct mistakes, in order to achieve high intensity. The advantage of this methodology is to achieve the same loading norm, volume, and intensity for all students in the group (regardless of their physical fitness). This creates an opportunity to assess the general physical fitness of the students of the class and group, especially to compare and compare the level of exercise opportunities of the students themselves compared to their peers. It is mainly used in the preparatory and final parts of the lesson, and in the main part of the lesson, where the mastering of new material begins.

3. The content of the method of dividing the study group (class) into groups, taking into account the physical development, physical fitness, the variety of tasks set in the lesson, and the necessary equipment for solving them, divides a large group of students into small, is to divide into small groups. This methodology is mainly used in the main part of the lesson.

The method of organizing the student's activities and dividing them into groups creates an opportunity to take into account their physical development and physical fitness during the educational process. This, in turn, makes the teaching process more effective, takes physical capabilities into account, and saves time spent on the educational process. This methodology places the responsibility of the teacher on the preparation of a group activist who is prepared in advance, knows the techniques of the subject, and is able to perform the task of leading a group. 4. The method of individual organization of student activity is mainly used in the repetition lessons of the subjects of the academic year, academic term, sections of the State Standard program. Individual organization of students' activities requires students to acquire theoretical and practical knowledge in a technical manner, to ensure the safety of themselves and their teammates, to be able to show the exercise and, most importantly, to be mastered, introduced, strengthened and the training material being improved must be a familiar material for the students with pre-taught exercise techniques. In addition, in some classes, students are assigned tasks from topics or exercises that they have not mastered during the academic year. It is recommended to use this method mainly in classes conducted with students of secondary and senior school age. 5. Organization of the student's activity through the method of performing exercises in a circle, mainly with students of upper classes, after learning the planned educational material, moving from one exercise to another, the teacher's command (signal) , after performing the exercise without a signal, it is organized in the way of switching to another device in order to change places. The effectiveness of this method is that it saves time, all students are busy, they develop the need for independent work and instructor skills. There are four variations of this technique called "Krestring".

Independent work of students can be seen as a separate form of organizing classes, and as a method of organizing student activities to solve set tasks. The main and specific goal of teaching independent work is to train students to be independent in training.

The first signs of the student's ability to work independently in his work are manifested by working without outside help or with an insignificant level of help.

The level of the student's independence depends on his age-specific understanding and the content of the educational material.

Physical technical and tactical training of the athlete

Sports training has two directions; including general and special physical training (MJT) process unites In the process of general physical training (UJT), on the basis of the general development of organs, systems and functions, it creates and expands the existing conditions for sports specialization, as well as enriches the relationships of its various movements, skills and abilities. Special training ensures the development of qualities and abilities specific to a specific sport, as well as equips it with technical and tactical knowledge and skills.

Neither general training nor special training can be removed from the training process or replaced by one. Because there is an interdependence between general and special preparation. It is impossible to draw a border between them. Based on this, some experts suggest not to separate these aspects of sports training. In our opinion, general and special training differ somewhat with their specific functions, tools, methods, and training processes. Specific physical training is an important factor in sports specialization, and general physical training It is a factor that indirectly affects the process of specialization through various connections between one or another aspect of the athlete's development.

The general training of the athlete should also reflect the characteristics of his specialty. Because positive and negative effects occur during individual physical exercises, limiting the general preparation to be the same in different sports.

As we have seen, general training is different in different sports, but it cannot be confused with special training.

General and special training is a continuous process that is always carried out for many years in sports training: a number of authors try to convince that as the athlete's skill increases, the number of general physical training sessions and the time allocated to them should be reduced.

The size of the UJT should be reduced not at the expense of reducing the time allocated to it, but at the expense of more work on special physical training. As for the interaction of UJT and MJT in the training series, it is expressed as follows: in the I stage of the training period, especially in the foundation mesocycle, UJT dominates, then it gradually decreases, in the II stage of preparation and during the competition, MJT increases, during this period, UJT is active takes a central place in the form of recreation.

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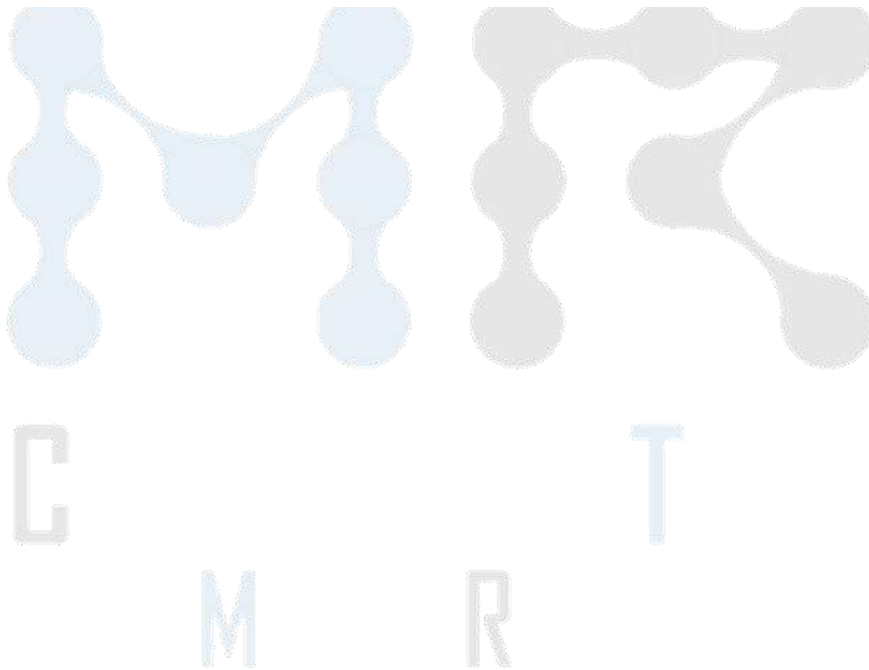
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РАЗВИТИЕ СОЗНАНИЯ И ОБУЧЕНИЕ СТУДЕНТОВ ПОНЯТИЯМ
БЕССОЗНАТЕЛЬНОГО

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Аннотация: Широко исследуя концепцию раннего сознания в психологии, эта концепция расширяет сферу творческого мышления между знаниями, приобретением навыков и интерпретацией концепции сознания в спорных беседах среди студентов.

Ключевые слова: Сознание, бессознательное, психика, материя, мозг, явление, личность, материализм.

Сознание – высшая форма психической деятельности. Это всего лишь человеческий феномен. Вопрос о сознании, его сущности — одна из древнейших проблем. Сначала сознание пытались объяснить в рамках религиозно-мифологических воззрений. Религиозное объяснение сознания основано на интерпретации его как божественного явления, чуда, сотворенного Богом. Во многих религиях человеческое сознание описывается как проявление великого божественного разума. Хотя корни таких взглядов очень древние, они до сих пор имеют немало сторонников. Тот, кто признает, что вселенная и человек сотворены, считает, что Сознание также является силой творения.

2-е направление в объяснении природы сознания состоит в том, чтобы понять сознание как отражение материального мира в мозгу человека, интерпретировать его в связи с деятельностью человеческого организма. При этом в рамках таких подходов, получивших название материалистического направления, появились случаи искажения сущности Сознания. Согласно течению, известному как вульгарный материализм, мозг производит Сознание точно так же, как печень производит желчь. Такой подход приводит к выводу, что Сознание – не идеальное, а материальное явление. Хотя Сознание даже можно увидеть, его нельзя увидеть или постичь. По сути, история Сознания связана с историей человека. Поскольку человек является одновременно биологическим и социальным существом, то Сознание является продуктом как биологического, так и социального развития. Сознание человека составляют мысли и чувства, ощущения, представления, воля и взгляды. Самосознание, память, воля, речь — основные аспекты Сознания.

Современная наука признает, что Сознание является результатом длительной эволюции материи. Материя, природа существовала всегда, а человек — продукт сравнительно недавнего развития материального мира. Для развития материи и появления человека, способного мыслить, потребовалось несколько миллионов лет. Сознание — продукт естественного развития, свойство материи, не всей материи, а высокоорганизованной материи, то есть человеческого мозга. Но для Сознания одного существования мозга недостаточно. Сознание тесно связано с природной и социальной средой, окружающей человека, и может действовать под влиянием этой среды.

В наше время созданы электронные машины, которые также выполняют сложные творческие процессы, но они не могут заменить Сознание, потому что Сознание – очень сложная объективная сущность.

И состояния, которые происходят без участия сознания. Бессознательное состояние часто проявляется в движениях тела, памяти, воображении. Оно возникает при ответных

воздействиях, вызванных реальными, но неощутимыми раздражителями, при действиях, изначально сознательных и ставших автоматическими в результате повторения, и в других ситуациях. Например, человек возвращается домой погруженный в свои мысли, и в любом случае приходит, не сбиваясь с пути. Если он почувствует опасность, он предпримет защитное действие еще до того, как поймет причину и природу этой опасности. В психике больного возникают такие патологические явления, как бред, галлюцинации, сон, во время гипноза, лунатизм и бессонница. психическая деятельность, происходящая во время 3. Фрейд интерпретирует Бессознательное чисто иррационально. По его мнению, существует непримиримое противостояние сознания и Бессознательного. Поведение человека определяется этим противоречием. Человек не решается понять и заметить бессознательное, это место вечных желаний в человеке .

ПОНЯТИЕ СОЗНАНИЯ.

Психика является отражением реальности в мозгу человека и различается в разной степени.

Высшим уровнем психики, характерным для человека, является сознание. Сознание — это форма психики, объединяющая ее в единое целое и являющаяся результатом социальных и исторических условий формирования человека в его трудовой деятельности, в процессе общения с другими людьми с помощью языка. В этом смысле разум есть не что иное, как существование, которое классики марксизма понимали как общественный продукт.

Какова структура сознания, ее важное психологическое определение.

Первое его определение дано в самом его названии, которое означает сознание. Разум человека состоит из комплекса знаний об окружающем нас мире. К. Маркс. «Знание — это образ жизни ума и существование чего-то для ума». он написал. В структуру сознания входят важные познавательные процессы. С их помощью человек постоянно обогащает свои знания. К этим процессам относятся ощущения и восприятие, память, воображение и мышление. В результате прямого отражения наблюдателя, воздействующего на мозг с помощью ощущений и восприятия, в сознании воплощается эмоциональная картина существования, сформировавшаяся в воображении человека в этот момент. Память воссоздает в уме образы прошлого. Воображение создает образную модель чего-то, что является предметом потребности, но отсутствует в данный момент. Мышление обеспечивает решение проблемы на основе обобщенных знаний. Это приводит к полному сбою любого из вышеупомянутых процессов психического познания.

Второе определение сознания состоит в том, что оно выражает четкое различие между субъектом и объектом, то есть тем, что связано с понятием «Я». Человек, который первым в истории мира живых организмов выделился и противопоставил себя окружающей среде, сохраняет в своем сознании этот конфликт и различие.

Среди живых существ он единственный способен к самопознанию, т. е. направить свою мыслительную деятельность на самоисследование. Человек сознательно оценивает свои действия и себя в целом. Разделение «я» на «не я» — процесс, который каждый переживает в детстве, и происходит он в процессе самореализации.

Третье определение сознания — обеспечение целенаправленной деятельности человека. Создание целей деятельности является частью функции ума. При этом возникают и оцениваются мотивы деятельности. Принимаются добровольные решения. Учитывается

то, как выполняются действия. В него будут внесены соответствующие исправления и так далее.

К. Маркс «не ограничивается изменением формы того, что дано человеку, но и реализует свое сознательное назначение с тем, что дано природой. Эта цель, как закон, определяет метод работы человека и характер этой работы, и человек должен подчинить этой цели свою волю.

При выполнении и направлении целенаправленной деятельности заболевание или иную причину следует рассматривать как нарушение сознания.

Четвертое определение сознания состоит в том, что оно содержит определенные установки. «Мое отношение к окружающей среде — это мой разум», — писал К. Маркс.

Мир чувств неизбежно проникает в сознание человека, в котором сложной призмой отражаются, прежде всего, общественные отношения, в которые он вовлечен. Здесь, как и во многих других (причастных) социальных случаях, патология помогает понять природу нормального сознания. При некоторых психических заболеваниях расстройство сознания определяется расстройством в сфере эмоций и отношений:

Больной не любит свою мать, которую он так любил. То есть он говорит о людях с сарказмом и хакадзо .

Язык является непременным условием проявления всех вышеперечисленных специфических свойств и формирования сознания. Человек создает знания в деятельности речевого процесса. Прежде чем человек приходит в мир, он обогащает свою жизнь человеческим мышлением и богатством, которые передаются ему на языке, созданном для него человечеством. А. И. Герцен писал: «Каждый человек уходит корнями в страшное генеалогическое древо, уходящее в древние времена: за нами, как волна на берегу, мы чувствуем напряженность всего океана — историю всего мира: в этот момент в наш мозг - все идеи веков... язык, отдельная линза, система, отражающая социально-исторический опыт или общественное сознание. Пока он освоен конкретным человеком, язык становится в известном смысле его реальным сознанием.

Великие мыслители отмечали, что «Язык есть практическое, реальное сознание, потому что он существует для других, он существует и для меня...». Понятие сознания в психологии. В психиатрии и других науках оно употребляется в смысле, соответствующем основным определениям, данным выше.

Психиатров всегда интересует вопрос о том, есть ли у пациента сознание или оно нарушено, поэтому, когда говорят о сознании, речь идет о личной ситуации пациента о том, где он находится, когда, какова окружающая обстановка. они также понимают возможности сообщения о своих действиях. Хорошо сохранившийся человек оценивает новую информацию, поступающую в мозг, с учетом имеющихся знаний, отделяет себя от окружающей среды, поддерживает структурированную систему взаимоотношений с другими людьми, видами деятельности и ситуациями и на основе всей этой информации осуществляет управление его поведение . Сознание — это социальный продукт, уникальный для людей. У животных нет сознания. Низший уровень психики состоит из бессознательного.

Бессознательное состояние – совокупность психических процессов и ситуаций, связанных с впечатлениями, которые делают человека неспособным контролировать себя. Как психическое состояние бессознательное состояние представляет собой форму

отражения действительности, при которой прицеливание к месту и времени действия утрачивает его целостность, нарушается управление поведением с помощью речи. К бессознательному можно отнести следующие психические состояния: психические явления, возникающие во время сна (сновидения) реакции на наблюдателей, незаметные, но действительно воздействующие на них: раньше они были сознательными действиями, но стали повторяющимися и автоматическими, а потому являются и сейчас. Это также возможно. видеть некоторые протологические явления, происходящие в психике больного, например некоторые протологические явления, происходящие в психике больного, например некоторые склонности к активности действий, которые стали непонятны, но не поняты целеустремленностью, как-то появление вещи, которых нет в глазах. исходя из этого, было бы неправильно рассматривать бессознательное в противоположность сознанию, отождествлять его с психикой животных.

Бессознательное — это специфический психический образ человека, как и сознание, который находится в мозгу человека недостаточно однороден, но определенным образом связан с социальными условиями жизни человека.

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INFLUENCE OF FAMILY ENVIRONMENT ON PERSONAL SOCIALIZATION

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Abstract: *In this article, personality socialization, personality Information is provided on how important the role of the family is in socialization and what family members should pay more attention to.*

Key words: *Socialization, socialization, personality, development, psychology, pedagogy, society, family, parents, child, community, upbringing.*

Enter

The place of each of us in society, when and under what conditions it appeared, the process of the psychological mechanisms of our integration into society is called *socialization* or *socialization in psychology*.

Socialization is the process by which a person acquires the social norms and cultural values of the society to which he belongs during his life. The goal of socialization is personal characteristics that a child should acquire and social behavior that he should learn. The object of socialization is a person.

A person is a member of a certain society, he is psychologically developed, distinguished from others by his characteristics and behavior.

In order for a person to become a person as a social being, social environment conditions and upbringing are necessary. Under the influence of these, a person develops as a person and becomes a person.

Development is considered a complex process of action, from simple to complex, from bottom to top, from old qualities to new states, renewal, emergence of new, disappearance of old, change in quantity to change in quality.

Literature analysis and methodology

The source of development is the struggle between opposites . The development of the child's personality is based on the philosophical doctrine that a person is a social being. At the same time, a person is a living, biological being. Therefore, the laws of nature's development are also important in its development. Also, as a person is evaluated as a whole being, his development is influenced by biological and social laws together, they cannot be separated from each other. Because age, education, life experience, and other tragic situations and diseases also affect a person's activity and lifestyle.

The process of socialization of a person continues throughout his life, but it is especially intensive during childhood. It is at that time that the foundation of the spiritual development of the individual is created, which increases the importance of the quality of education, increases the responsibility of society, which defines a certain system of coordinates for the educational process, which leads to the formation of a worldview based on universal and spiritual values. includes; development of creative thinking; the ability to strive for new things and find an acceptable solution to life's problems in non-standard situations, to develop high social activity, self-sacrifice, and the ability to work in a team; the need for constant self-education and formation of professional qualities; the ability to make independent decisions develops.

Thus, a person changes throughout his life. He matures both socially and psychologically, and if the upbringing given to the child is appropriate, he matures as a member of society and takes his rightful place in the complex system of social relations. The family plays a key role in a person's

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spiritual qualities, in the emergence of the need and interest in the acquisition of spiritual knowledge. A healthy spiritual and spiritual environment in the family is of inestimable importance for children to grow up mature and mature. Because development is influenced by education. In order to correctly see the qualities of a person and make an accurate assessment, it is necessary to observe him in the course of various relationships. While parents are fulfilling their social duties, they should form love and respect in their children towards those who organize it, make them engage in socially useful work, and follow the rules and social norms while organizing relationships of various kinds. shows a positive role model in all respects in terms of unwavering compliance, creating a healthy lifestyle, ensuring the unity of goals, words and actions in determining the content of their personal lives.

As an integral part of society, the family, which has a socio-psychological basis of influence on the formation of the individual, performs social tasks and also reflects its own characteristics. can create the temperate climate necessary for regeneration. This feeling is one of the unique features of our people's psyche

One of the main goals of the policy carried out in our society today is to raise a mature generation. The 1st President of the Republic of Uzbekistan, IAKarimov, and our government recognize the family as the basis of society, take care of it, and use all the possibilities for its material and household development. For example, our president says about the role and importance of the family in society: "A child lives in a family environment from the day of birth. Family traditions, values, and customs form a child's personality. The most important thing is that children understand and feel the demands of society through the school of family life.

Family is a small group of people based on marriage or consanguinity, common way of life, moral responsibility and mutual support.

The family as a microenvironment has its influence on the mental, physical and social development of the child. Confidence and fear, calmness and anxiety, sincerity and openness in communication or, on the contrary, inaccessibility and coldness - all these qualities are possessed by a person in the family. These qualities are formed before the child goes to school and affect the child's development for a long time. Anxious mothers give rise to anxious children. Because it is in the family that individual abilities, personal, professional interests, and moral standards are formed. The family is responsible not only for laying the foundation of the edifice called man, but also until its last brick is laid. After all, the family factor affects a person throughout his life. From a social point of view, the family is a community in which a person occupies different social statuses. After all, the task of the family is to gradually prepare the child for society. Family helps a person to define himself, to increase his social and creative activity. A parent is an artist, a child is a work of art, and the process of education is art itself. After we gained independence, the restoration of our national values and the national customs and traditions of our people that have been preserved since time immemorial (in addition to the influence of parents, grandparents, relatives, and the neighborhood) are of great importance in this regard. But sometimes, as a result of the weakening of the educational function of the family and the lack of propaganda work, bad habits (drinking, smoking, drug addiction, being influenced by various religious trends, entering the path of spiritual corruption) appear in the behavior of family members. is one of the worrying cases.

Discussion and results

The formation and education of a perfect citizen of society belongs to the level of this

function of the modern family. Because the socialization of the individual takes place in the family first. In order to understand the importance of family - this place, it is enough to analyze the saying "A bird does what it sees in its nest". That is, any child will use the experiences acquired in his family throughout his life and will later teach them to his children. Through upbringing in the family, a certain political-ideological outlook, moral standards and behavior patterns, and physical qualities are inculcated in a person. As a result of the socialization process that takes place in the family, a person learns social norms and values and enters social life. It is in the family that the child learns to work and be independent.

The development of any society depends on a healthy family environment in that society. In a healthy family environment, healthy generations are brought up and grow up. It is known that the socialization of a newborn baby first takes place in the family. It is in this environment that the child adapts to the social environment and learns social norms and values. Based on these, he enters social life. As the child grows up in the family, he always learns from the interactions of the family members. Then social institutions such as kindergarten, school and street enter human life. On this basis, he begins to study and distinguish the behavior and behavior of other people, and learns the methods and forms of communicating with them, and these concepts remain in his adolescence and adulthood. .

The process of social education carried out in the family also takes place in two main directions. On the one hand, the acquisition of social experience occurs in the process of direct interaction of the child with his parents, brothers and sisters. On the other hand, socialization is carried out by observing the characteristics of social interaction of other family members with each other.

Four parameters of parental behavior towards the child were studied: control, maturity requirement, communication, goodwill . **Control:** i.e. trying to influence the child's activities. Determining the level of obedience of the child to the demands of the parents. **Demand for maturity:** Parents pressure children to act at the limits of their mental abilities, at a high social and emotional level. **Communication:** the use of beliefs by parents to gain privileges from the child, to explain his opinion or attitude towards something. **Goodwill:** the extent to which parents show interest in a child, such as praise, joy at his or her successes, warmth, love, care, and affection.

The role of the family is to gradually integrate the child into the society, and his development corresponds to the nature of the person and the culture of the country where he was born. It is the direct duty of parents to teach a child the social task that humanity has accumulated, the culture of the country where he was born and grew up, its moral norms and folk customs.

Every person cannot feel the feeling of the Motherland in the literal sense without understanding the role and functions of the family in the society, and without understanding that the Motherland begins at the threshold. It is in this place that every person first learns the essence of the concepts of "Motherland", "people". Therefore, the family itself is a part of the Motherland. Protection of family honor and concern for its preservation is the basis of socio-political education organized in the family. should be This work is mainly about the traditions of education in every Uzbek family and their improvement, turning national values into an integral part of the lifestyle, harmonizing modern forms of communication culture with eastern forms, labor education, and its important principle of children's happy marriage. can be realized by achieving appreciation as

In order to achieve educational goals in the family, parents use various means of education: they encourage, punish, and try to be an example for the child. Praise given in a friendly manner

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is more effective than praise from indifferent and cold parents. Due to the intelligent use of praise in relation to punishment and prohibition, it is possible to have a positive influence on the formation of a child as a person. Punishment can also be used when the child cannot be changed in any other way. If there is a need for punishment, it is necessary to seek punishment for the behavior as much as possible in order to increase its educational effect. Punishment should be fair, but not too cruel. Punishment that is too severe can cause fear in the child. Punishment will be effective if the child's mistake is explained well. Children who are punished and yelled at more, withdraw from their parents, become emotionally apathetic and show higher aggression.

Conversations held in family settings are particularly noteworthy. Articles on legal topics brought to the public's attention through the mass media, broadcasts, as well as public legal literature and conversations held on the basis of the ideas put forward in them, improve children's legal imagination, perception, literacy, thinking, activism, it leads to determination of greatness, faith and potential. In the family environment, giving children information about their responsibilities and, in turn, showing them ways to exercise their rights can be very effective in this regard. Children's interaction with their parents allows them to practice and improve social skills, which will be very useful later in communication with their peers.

The value and importance of family socialization is that, under its influence, a person is first prepared for a large, independent life, including family life. He develops his own qualities and qualities. Secondly, he will have the opportunity to become a fully mature, mature, intelligent, healthy and healthy person. That is, the family and its healthy spiritual environment enable the child to live in society, to compromise with people similar to him, to work in cooperation, to be professional, to obey the standards of ethics in dealings. educates, prepares psychologically.

Summary

In conclusion, it should be said that a person's future personality, that is, his future life, depends on the level of social well-being of the family, the level of involvement with children in the family. Thus, analyzing the influence of the family in the life of a person, we see that the family is a social institution, the cell of society where the formation of a person comes into life, it is the first house where a person grows up and receives his first life lessons. becomes In the family, a person receives support and help, where he learns to love the world and people, and remembers the kindest and most vivid memories of this throughout his life, warms his heart in the most difficult moments of life and strengthens his bright will. Therefore, the future personality of a person, his future life depends on the level of social well-being of the family, the level of the family's involvement with the child.

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“Nutq o‘stirish mashg‘ulotlarida interfaol metodlardan foydalanish”

Osiyo Xalqaro Universiteti

Pedagogika va psixologiya kafedrasida o‘qituvchisi

Madina O‘ktamovna Shukurova

Annotatsiya: Maktabgacha ta‘lim tashkilotida barcha guruh bolalarida interfaol metod va usullardan foydalanib mashg‘ulotlarni tashkil etish va amalda keng targ‘ib etish

Kalit so‘zlar: interfaol, adabiyotlar, yarim tillilik, kuzatish, kommunikativ yo‘naltirilganlik, ijtimoiy vaziyat, emotsional kechinmalar, ermak o‘yinlar, diksiya, nutq, empatiya

Yosh avlodga zamonaviy ta‘lim berish bilan birga ularni umuminsoniy va milliy qadriyatlar, yuksak insoniy fazilatlar ruhida tarbiyalash, ongi va qalbini mafkuraviy va ma‘naviy tahdidlardan ishonchli himoya qilish, ularda g‘oyaviy immunitet shakllantirish muhim vazifa hisoblanadi. Maktabgacha ta‘lim tashkilotlarida interfaol metodni bolalar qalbi va ongiga singdirish vositasi turli-tumandir.

Ulardan *birinchisi* badiiy adabiyot hisoblanadi, badiiy adabiyot orqali bolalar qalbi va ongiga Vatanga muhabbat, yurtga sadoqat, mardlik, ezgulik, yaxshilik, fidoiylik kabi fazilatlar singdirilib, ular ushbu ilg‘or ma‘naviy-axloqiy xislatlar ruhida tarbiyalanadi.

Ikkinchidan, xalq og‘zaki ijodi bilan tanishtirish, ona tiliga muhabbat uyg‘otish orqali bolalarga Vatan tuyg‘usi singdirib boriladi. Bunda adabiyot asosiy vositalardan biri bo‘lib hisoblanadi. Badiiy adabiyot inson ma‘naviyatini shakllantirishning va e‘tiqodini qaror toptirishning eng sermahsul vositasidir. Adabiy ertaklardagi badiiy obrazlar, personajlarning xatti-harakatlari bolalar ruhiyatiga ta‘sir ko‘rsatadi, uni ezgulik va faollikka undaydi. Bola o‘z ona tili jozibasini xalq qo‘shiqlari, erkalashlari, ovutmachoqlar, maqollar, topishmoqlar, tez aytishlar, dostonlar, ertaklar, she‘ru qo‘shiqlar orqali sezadi hamda o‘zi tug‘ilib o‘sgan Vatandan, uning xalqidan, milliy an‘ana va bayramlari, urf-odatlarini, qadriyatlaridan bahra oladi.

Xalq ertaklari, badiiy adabiyot namunalari o‘g‘il bolalarni o‘sha qahramonlardek jasur, pahlavon, uddaburon, aqlli bo‘lishga, qizlarni esa oqila, dono, go‘zal, mehnatsevar bo‘lishga undaydi.

Bolalar maktabgacha ta‘lim yoshidayoq Amir Temur va uning qudratini, Beruniy, Al-Xorazmiy, Ibn Sino, Navoiy, Bobur, Ulug‘bek va ularning dunyo ilmidagi boy ma‘naviy meroslarini anglay bilishlari kerak. Bolalarga Bobur haqida so‘zlay turib, uning bir umr Vatan sog‘inchi bilan yashagani haqida aytib berish, shu asnoda ularda Vatanga muhabbat ruhini tarbiyalab borish mumkin. Shuningdek, Alisher Navoiyning dostonlari tarkibidagi “Donolar donosi”, “Sher bilan Durroj”, “Ikki vafoli yor”, “Bir kabutar”, “Arslon ila ayiq”, “Xotam toyi”

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kabi hikoyalari, “Tilga ixtiyorsiz-elga e’tiborsiz”, “Oz-oz o’rganib dono bo’lur”, “Bilmaganin so’rab o’rgangan olim, orlanib so’ramagan o’ziga zolim” va boshqa shu kabi hikmatli so’zlari bolalarga turmushda, jamiyatda, o’z jamoasida yurish-turishning tog’ri qoidalarini egallashida, ularda ijobiy fazilatlarining shakllanishida katta yordam beradi. Bolalar buyuk mutafakkirlarimiz haqida faqat ilk ma’lumotga ega bo’lib qolmasdan, balki ularning boy ma’naviy merosi haqida ham tasavvurga ega bo’ladilar. Mashg’ulotlar orqali bolalar yurtimiz buyuk allomalar yurti ekanligini his eta borib ularda bundan faxrlanish, g’ururlanish tuyg’ulari shakllana boshlaydi. Badiiy ertak bolalarning axloqi, bilimi, dunyoqarashining shakllanishiga ta’sir ko’rsatadi. O’z navbatida bolalar bularni o’yinlarda ifodalaydilar. Bolalar she’r, ertak, hikoyalarni qiziqib tinglaydilar, ijobiy qahramonlar obraziga taqlid qiladilar, ularning xatti-harakatini, so’zlarini eslab qoladilar. Tarbiyachi tomonidan berilgan topshiriqlarni bajarish bilan birga bolalar o’zlariga berilgan rollar, ertak qahramonlarining obrazlari, she’rlar orqali, o’rtoqlarining quvonchiga, qayg’usiga sherik bo’lish, o’stirgan guli qurib qolsa qayg’urish, birovlarining narsasini so’roqsiz olmaslik, o’rtog’i yiqilsa turqizib qo’yish, kattalarga hurmatda, kichiklarga izzatda bo’lish kerakligini tushunib, “uvol”, “gunoh”, “savob”, “haq”, “nohaq” kabi so’zlarning ma’nosini uqib boradilar. Bolada yoshlik chog’idanoq atrofdan go’zallik axtarish, zavqlanish, go’zallikni his qilishning ilk, beixtiyor tuyg’usi uyg’ona boshlaydi. Gul yoki kapalakni sevib qolgan bola ularni avaylashga, asrashga ham intiladi. Ana shu ilk tuyg’u bolada atrofdegilarga nisbatan insoniylikni tarbiyalash uchun asos bo’la oladi. Eng muhimi, bolaning atrofdegilarga nisbatan beparvo bo’lmasligidir. Bu beparvolik oilaga, qolaversa, jamiyatga juda qimmatga tushadi. Zotan, maktabgacha ta’lim muassasalarida bolalar tarbiyasiga ta’sir etuvchi omil, birinchidan tashqi muhit hisoblansa, ikkinchidan uni bevosita bolalarga yetkazuvchi tarbiyachining shaxsiy va kasbiy mahorati ekanligi barchaga ayondir. Adabiyot bolaning aqliy va hissiy dunyosini rivojlantiradi, nutqini boyitadi, ijodiy fikrlash qobiliyatini o’stiradi, dunyoni tanitadi. Badiiy adabiyot tasvirlanayotgan narsa yoki kimsaning hozirgi holatini qanchalik ishonarli aks ettirsa, uning o’tmishini ham, kelajagini ham shunchalik ta’sirchan va jonli aks ettira oladi. O’z navbatida sahnalashtirish, kino, televidenie ham shunchalik imkoniyatlarga ega-ku, degan fikr tug’iladi. Har qanday sahnalashtirish, kino, televideniyeining asosida ham badiiy so’z yotadi. Badiiy ertak loqaydlikdan xalos etadi. Boshqalarning tuyg’ulariga sherik bo’lishga odatlantiradi. Ertak qahramonlarining holatiga befarq bo’lmagan odam atrofdegil kishilarning dardu quvonchlariga ham loqayd bo’la olmaydi. Biror qiziqarli she’r, hikoya, ertak eshitgan bola: “hayotda shunday ham bo’lar ekan-da”, deb qo’ya qolmaydi. U qaysidir qahramonni yaxshi ko’rib qoladi va unga o’xshagisi keladi. Boshqa bir qahramonni esa yomon ko’rib qoladi va unga o’xshamaslikka intiladi.

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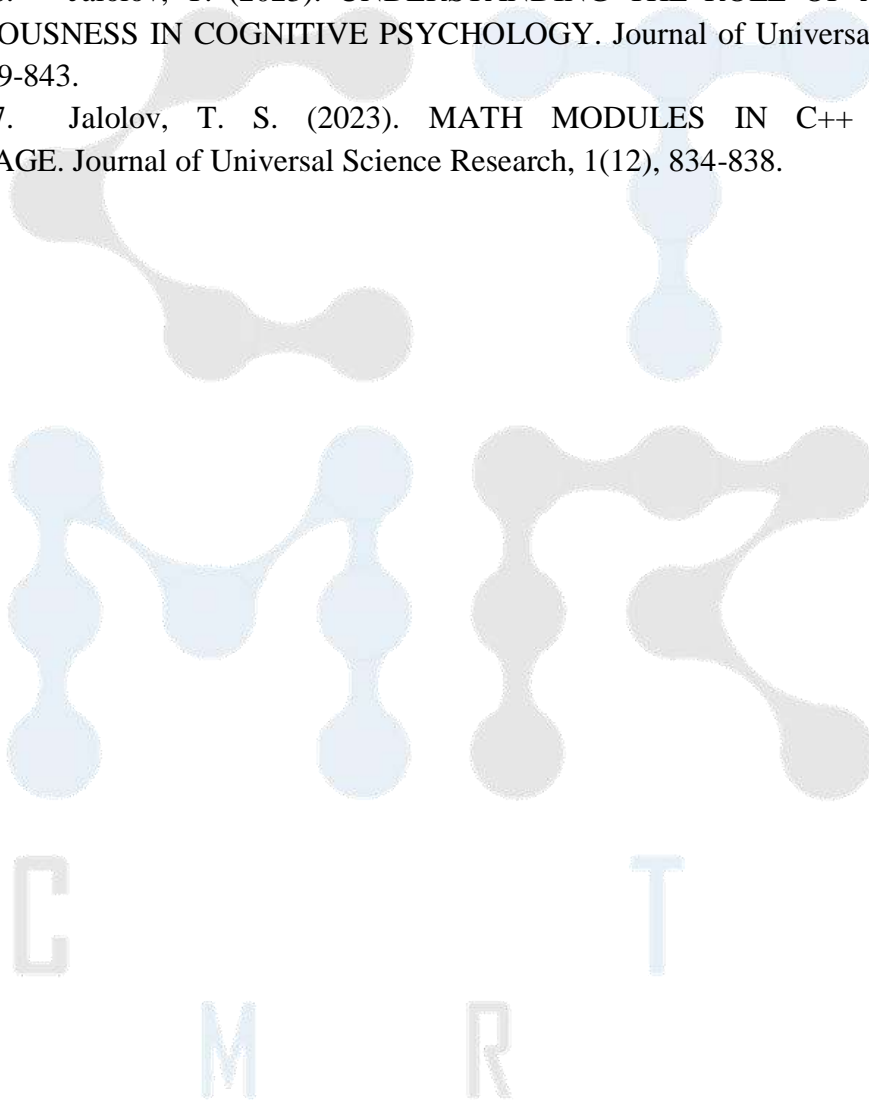
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Dynamics of commodity indices and shares of manufacturing companies as a factor in managing the assortment and inventory of an enterprise

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Abstract:

The study of the effective functioning of various business entities is one of the key areas in the research of various authors. At the same time, one of the factors in achieving such efficiency is to consider the issue of providing the enterprise with inventory for production. A solution to this issue is proposed based on an analysis of the dynamics of quotations of the corresponding commodity indices and shares of companies producing goods. Such an analysis is carried out based on the study of various data series using descriptive statistics and wavelet ideology. For the study, the methodology of wavelet coherence assessments was used, which allows us to obtain the necessary solutions. The work presents various graphs and diagrams that allow you to understand the progress of the study and the results obtained.

Key words: Commodity inventories, Business entity, Commodity indices, Shares of manufacturing companies, Statistical analysis, Wavelet analysis

Introduction

The effective and continuous functioning of a modern business entity is largely determined by the availability of a sufficient amount of necessary resources. Among such resources, as a rule, financial and energy resources are distinguished. At the same time, an important factor of production is the weighted volume of inventory necessary for the production and functioning of a business entity [1], [2]. Moreover, such a volume of reserves is determined by the type of a particular economic agent and the functional areas of its activity. In this aspect, inventory management of finished products is also equally important.

Thus, the relevance of the task is determined by the production tasks, efficiency and functional orientation of a particular business entity.

Consideration and solution of the designated area of research is possible on the basis of an analysis of the dynamics of data from the corresponding segments of the stock market [3], [4]. In this aspect, of interest is both the analysis of the dynamics of stock prices of manufacturing companies and the dynamics of the corresponding commodity indices. This interest is based on the analysis of supply/demand for individual product items and their components, which can influence the dynamics and assortment of various product inventories of the enterprise.

When studying the dynamics of quotes for various securities of the stock market, you can use both classical methods of analyzing economic data [5]-[16], and non-standard ones, which

allow you to identify new directions for research or obtain additional data [17]-[24]. In any case, such an analysis allows you to conduct a comprehensive study and obtain the necessary solutions. Also important is the mutual analysis of data, which allows you to justify the necessary decisions, consider special points in carrying out the relevant analysis.

Thus, the main goal of this work is to analyze the dynamics of commodity indices and shares of companies producing goods as a factor in managing the assortment and inventory of an enterprise. Moreover, such an analysis involves, first of all, consideration of related works on the research topic and generalization of the general analysis procedure.

Related work

The problem of managing the assortment and inventory of an enterprise is multidimensional and is revealed from different points of view. Based on the main goal of this work, we will pay attention to its solution based on the analysis of the dynamics of the relevant stock market data.

O. Onyshchenko, O. Bukharina and A. Tupikina explore the features of inventory management in the logistics system of a trading enterprise [25]. The authors consider both general theoretical aspects of inventory management and practical aspects. Particular attention is paid to analysis and information technology in inventory management. In this aspect, analysis of the dynamics of securities quotes is a relevant and priority area in such research.

S. Mishra, S. B. Modi and A. Animesh empirically analyze the relationships between information technology capabilities, inventory efficiency and shareholder financial resources at the firm level [26]. The authors note the importance of such analysis, since the volume of reserves affects the welfare of shareholders. For this purpose, it is necessary to know the chains of effects connecting the capabilities of information technology, inventory efficiency, profitability and stock market risk. In this regard, consideration of securities quotations should be considered as a factor in inventory management. The work emphasizes that appropriate analysis plays an important role in increasing the efficiency of inventories and leads to increased returns on the stock market.

A. Mansur and T. Kuncoro consider the possibility of forecasting inventory volumes using a market basket analysis approach based on neural networks [27]. This forecast is used as decision support in determining the appropriate amount of inventory for each product that the enterprise produces. For this purpose, market basket analysis (MBA) and artificial neural network (ANN) backpropagation methods are used [27]. The needs of buyers are also taken into account, and it is possible to analyze the supply/demand relationship based on stock market data.

I. Britchenko and M. Bezpartochnyi use enterprise inventory optimization based on HML-FRM clustering [28]. The work examines the process of forming an enterprise's inventory and determines the optimal volume of commodity resources for sale. An analysis of the structure of the enterprise's inventory is also carried out, and the volume of turnover is determined. The authors use XYZ and ABC analysis to obtain more reliable results and predictive values of the enterprise's product supply, taking into account HML-FMR clustering [28]. For such purposes, you can use stock market data in the segment where the relevant enterprise operates.

T. L. Olsen and R. P. Parker consider the problems of enterprise inventory management, taking into account the size of the corresponding market segment [29]. For these purposes, various models are considered that allow taking into account consumer behavior, market size and the number of business entities in such a market. The basic operating conditions are also established

under which the enterprise optimally applies the inventory policy based on the basic cost equilibrium policy. It is in this context that stock market data should be considered.

H. Srouf and A. Azmy study the effectiveness of inventory management and the impact of this management on enterprise productivity [30]. For these purposes, the work examines data from the Egyptian stock market. The analysis of this study was conducted using both descriptive statistics and multiple regressions. This study confirms the importance of considering stock market data to analyze the research problem at hand.

Thus, the analysis showed the importance of considering the chosen issue as a direction for research. At the same time, to consider this issue, it is advisable to analyze stock market data.

The study [31] considers a comprehensive deep learning inventory management model. The authors analyze the problem of multi-period inventory replenishment based on data with uncertain demand. This formulation of the problem also allows the use of stock market data for deep training of the model and justification of decisions made.

A generalized procedure for analyzing the dynamics of commodity indices and company shares as an element of enterprise inventory management

Before moving on to a direct analysis of the dynamics of quotations in the corresponding segment of the stock market, we will consider a generalized procedure for this process as an element of managing the inventory of an enterprise. In Fig. 1 presents such a generalized analysis scheme.

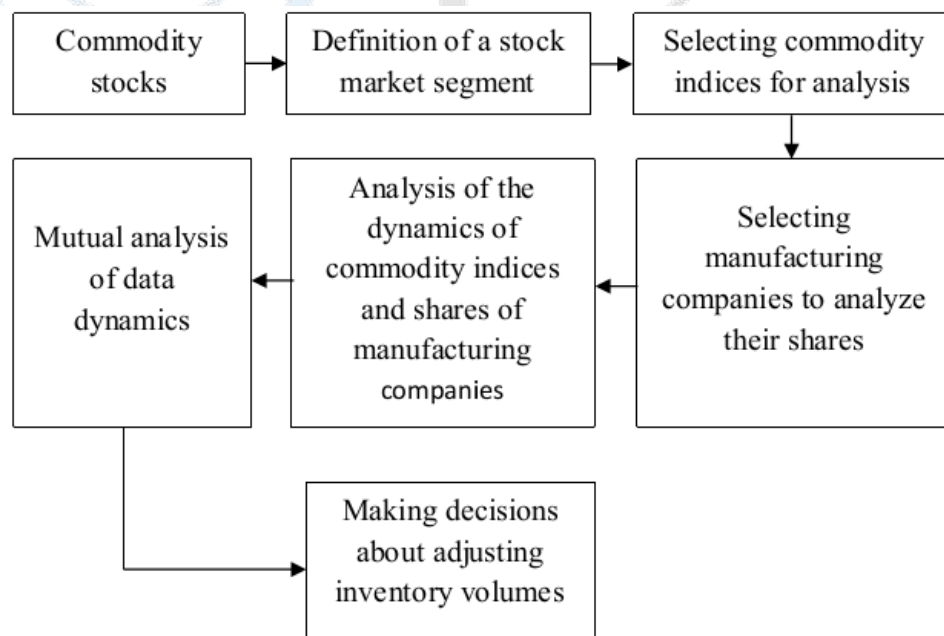


Figure 1: Generalized procedure for analyzing the dynamics of commodity indices and company shares as an element of inventory management

First of all, it should be noted that it is important to consider a specific segment of the stock market associated with the range of inventories and products that are produced. This helps to understand the dynamics of the supply/demand relationship, determine possible moments of

entering the stock market, and develop appropriate inventory and production management strategies.

However, generalizing the presented procedure, it is also important to note the conduct of mutual analysis with manufacturers and competitors of the relevant product. This helps to better understand the market and the need to accumulate inventory, and possibly sell it over a certain period of time. In any case, such an analysis allows us to understand and estimate a certain effective volume of such inventories for the continuous production of goods.

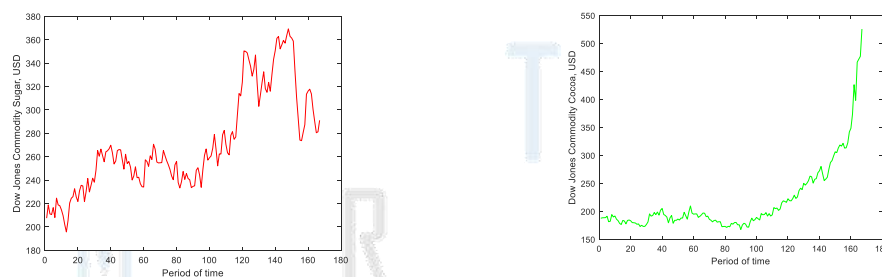
It is also possible to consider the mutual dynamics for different market segments. This will make it possible to assess the overall dynamics of the development of market relations under the influence of various influencing factors. The expediency of such an analysis is due to the fact that in modern conditions it is necessary to take into account the transience of changes in various influencing factors. This allows us to imagine the general dynamics of changes in the market, the development of various types of production, and evaluate the efficiency of their functioning.

For further research, we will adhere to the simplified analysis scheme, which is presented in Fig. 1. First, we will select a certain segment of the stock market with the corresponding types of goods and products of manufacturing companies. We will also first look at the dynamics of individual quotes for commodity indices and shares of manufacturing companies. Such an analysis will allow us to understand the general development trends of this market segment.

Next, we will consider the mutual dynamics of data for commodity indices and stocks. This will allow us to somehow track the reciprocity of the supply/demand link in terms of the formation of inventory. Among the areas for relevant analysis are considered: individual food manufacturers and the production of soft drinks, as well as some types of goods. All data is taken from American stock market data (<https://www.investing.com/>).

Dynamics of individual commodity indices and shares of manufacturing companies

In Fig. 2 and Fig. 3 shows the dynamics of quotations for individual commodity indices during the period 01.03.21-03.10.24 in their weekly averaging.

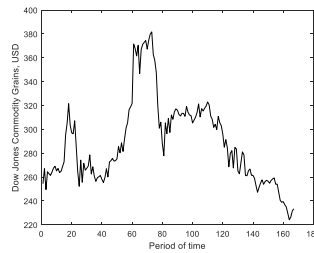


a) Sugar

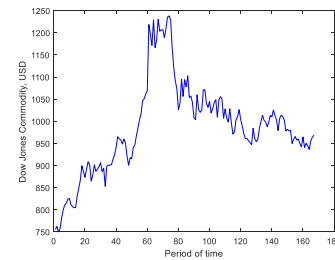
b) Cocoa

Figure 2: Commodity indices for sugar and cocoa

All figures show diverse dynamics for the corresponding quotes.



a) Grains



b) Commodity

Figure 3: Commodity index on grains and generalized index on commodity

At the same time, it should be emphasized:

- for most of the time under study, sugar prices have been on the rise. However, recently there has been a decline in commodity index prices for sugar. This must be taken into account when forming inventories for this type of goods;

- the dynamics of quotations for the cocoa commodity index during the period of time under study is characterized by constant growth. Moreover, such growth has recently been accelerated (see Fig. 2b);

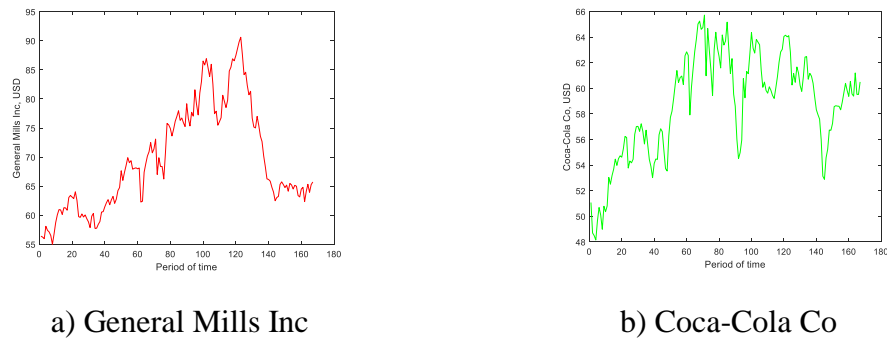
- prices for grains have been trending downward since the second half of the period under study. At the same time, one clearly defined maximum should be noted in this trend. Although at the beginning of the period under study there is also one local maximum;

- quotes for the general group of commodities have trends similar to quotes for grains. What should be noted here is the period of reaching the global maximum. Then there is a decrease in prices in terms of the general index for the commodity. All this should also be taken into account when developing an inventory management strategy.

A common fact is that three of the four commodity indices have been on a downward trend recently. Although the pace of such decline in commodity indices quotes is different.

In Fig. 4 shows the price dynamics for shares of General Mills Inc (food production) and Coca-Cola Co (soft drink production).

It should be noted that price dynamics for shares of manufacturing companies are not identical. Stock prices for General Mills Inc are somewhat similar to the dynamics of quotes for the commodity index for Grains and the general index for Commodity. The price dynamics of Coca-Cola Co shares are variable.



a) General Mills Inc

b) Coca-Cola Co

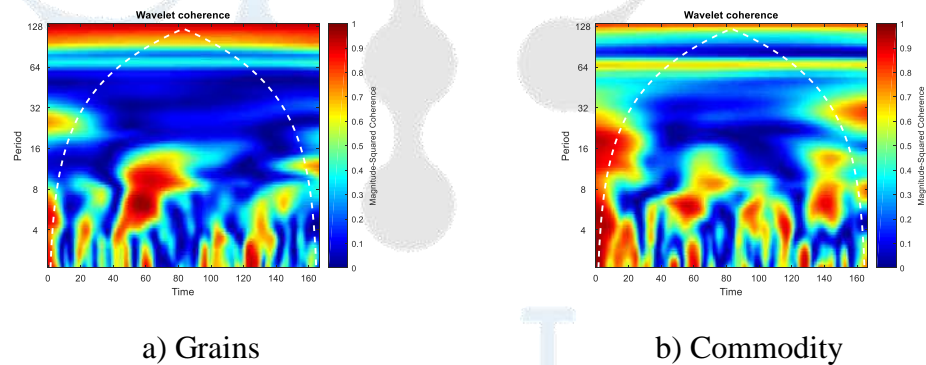
Figure 4: Price dynamics for shares of manufacturing companies

Next, we will consider estimates of the comparative dynamics of the data under consideration.

Comparative assessment of the mutual dynamics of the studied data

To conduct a comparative assessment of the mutual dynamics of data, we use the wavelet coherence method [32]-[34], which is used in this type of research [35]-[39].

In Fig. 5 presents an assessment of the mutual dynamics of prices for shares of General Mills Inc and the commodity index for Grains and the generalized index for Commodity.



a) Grains

b) Commodity

Figure 5: Assessment of the mutual price dynamics of General Mills Inc shares and the commodity index on grains and the generalized index on commodity

First of all, it is worth noting the relationship between the data that displays certain estimates in Fig. 5. At the same time, the data in Fig. 5 shows the fragmentation of estimates between General Mills Inc shares and the Grains commodity index, as well as the Commodity summary index. At the same time, such fragmentation has a certain periodicity. It should also be noted the depth of relationships between the data under study. This can be taken into account in the process of forming and regulating the volume of inventory for production.

In Fig. 6 shows estimates of wavelet coherence of the mutual dynamics of prices for Coca-Cola Co shares and commodity indices for sugar and cocoa.

For the data in Fig. 6 there is also fragmentary consistency between share prices for Coca-Cola Co and commodity indices for sugar and cocoa. Moreover, the relationship for sugar is more significant than for cocoa. This indicates the different impact of individual products on the activities of the manufacturing company. At the same time, fragmentation in the sugar commodity index has a certain periodicity. The depth of such a connection is also significant. It is advisable to take this into account in the process of forming and regulating the volume of inventory for production, developing strategies for entering the stock market to replenish such reserves.

Considering the fact of random selection of data for analysis, the significance of the results obtained for the analysis and management of industrial inventories should be emphasized.

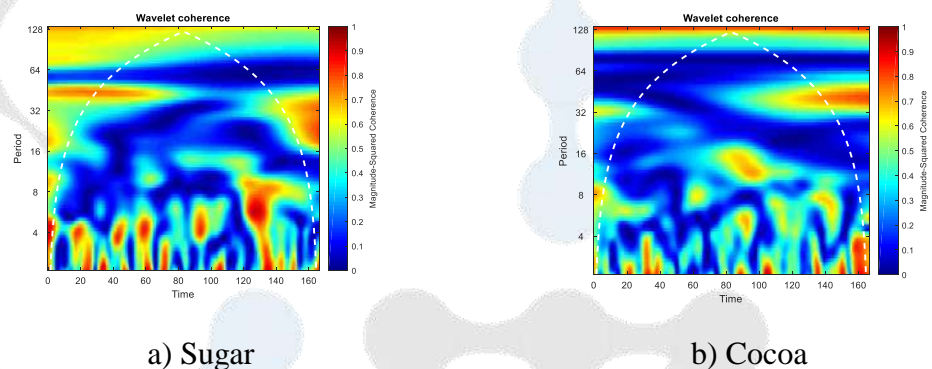


Figure 6: Assessment of the mutual dynamics of prices for shares of Coca-Cola Co and commodity indices for sugar and cocoa

Overall, the results obtained are significant and interesting.

Conclusion

The work examines certain aspects of the analysis of the dynamics of commodity indices and shares of commodity manufacturing companies. This was done taking into account the study of the possibility of influencing the management of the assortment and inventory of the enterprise.

At the first stage of the analysis, we examined the dynamics of individual commodity indices and stock prices of manufacturing companies.

At the second stage, the relationship between the dynamics of data reflecting commodity indices and stock prices was investigated. This made it possible to determine the level of such a relationship and justify the feasibility of using the results to manage inventory, determine a strategy for entering the stock market, the market for certain goods for production.

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**ВЛИЯНИЕ РАСТЕНИЯ БОЯРЫШНИКА ПРИ ЛЕЧЕНИИ И ПРЕДОТВРАЩЕНИИ
ГИПЕРТОНИИ И ДРУГИХ БОЛЕЗНЕЙ**

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Аннотация: Средства на основе боярышника оказывают благоприятное воздействие на сердечно-сосудистую систему и на организм в целом. В народной медицине их рекомендуют принимать для того, чтобы снизить артериальное давление, нормализовать ритм сердечных сокращений, снизить уровень холестерина и усилить желчеотделение.

Ключевые слова: гипертония, лечение сердечно-сосудистой недостаточности, эффективность лечения боярышником, гипертензия.

Введение: Боярышник – это ягода, хорошо знакомая каждому человеку; кустарник или дерево семейства розовые. *Чаще всего используют боярышник при гипертонии.* Растительные средства эффективно снижают артериальное давление, устраняют тахикардию и укрепляют стенки сосудов. Благодаря насыщенному составу растение оказывает эффективное терапевтическое действие, наряду с сердечными гликозидами. Боярышник богат витаминами: В1, В2, РР, С, Е. Но больше всего в ягодах боярышника находится витамина В9 (фолиевая кислота). Полезные свойства боярышника можно объяснить его составом: ягоды содержат обширный комплекс витаминов, а также множество биологически активных веществ. Он улучшает кровоснабжение, борется с неврологическими заболеваниями, помогает при мигрени, головокружении, проблемах со сном, нервозности. Но самая главная особенность боярышника – его влияние на сердечно-сосудистую систему и нормализация артериального давления. Ягода оказывает расширяющее действие на сосуды, помогает сердцу усваивать кислород и бороться с аритмией. Также он повышает иммунитет, выводит вредный холестерин и предотвращает образование бляшек, снимает отечность, снижает уровень сахара в крови. В боярышнике есть соединения, которые расширяют кровеносные сосуды и улучшают кровообращение, что может привести к снижению артериального давления. Кроме того, снижается уровень стресса и тревоги, что также может влиять на давление. Давление более активно понижают плоды, а сердечную мышцу лучше укрепляют цветки этого растения. Древняя медицина считала, что при приёме во внутрь плоды боярышника очень питательны, закрепляют, снижают возбуждение желчи и повышенное давление крови, успокаивают рвоту, укрепляют горячий желудок и печень, лечат истечение мочи по каплям, лечат застарелые болезни живота и понос. В народной медицине плоды боярышника применяют как средство от усталости, для улучшения работы мозга, при головной боли, головокружении, бронхиальной астме. Чай из сухих плодов и листьев боярышника пьют при болях в сердце, удушье, гипертонической болезни, желудочно-кишечных заболеваниях. В современной научной медицине боярышник применяют очень широко. Настой коры боярышника применяют как десенсибилизирующее средство при аллергических заболеваниях. Плоды, цветы, листья боярышника, благодаря наличию

фенольных соединений обладают антиоксидантными свойствами. Определены также иммуномодулирующие, противоаллергические, анти-мутагенные и противоопухолевые свойства боярышника. Очень широко боярышник применяется в кардиологической практике. Боярышник известное пищевое и лекарственное растение. С древности применяется как эффективное лекарственное средство. Древняя медицина считала, что при приёме во внутрь плоды боярышника очень питательны, закрепляют, снижают возбуждение желчи и повышенное давление крови, успокаивают рвоту, укрепляют горячий желудок и печень, лечат истечение мочи по каплям, лечат застарелые болезни живота и понос. В народной медицине и современной фармацевтике используются цветки и плоды боярышника. Растение может употребляться в виде чаев, настоек и отваров. К числу дополнительных полезных эффектов относятся: повышение кровенаполнения и снабжения кислородом всех органов, улучшение кровотока по коронарным сосудам (надёжная профилактика ишемической болезни сердца), нормализация липидного профиля (способствует снижению «плохого» холестерина – ТАГ, ЛПНП, ЛПОНП и повышению числа «полезных» холестерина – ЛПВП). Растение нормализует психическое равновесие, способствует устранению проявлений страха и тревоги у людей в пожилом возрасте. Подобные эффекты являются надёжным средством профилактики развития гипертонических кризов и «неврогенных» скачков артериального давления. По данным исследований, боярышник рекомендован для лиц, страдающих гипертонической болезнью, которая сопровождается различными невротическими расстройствами: страх смерти или болезни, депрессия, подавленное настроение и т.п. При изучении свойств на лицах с генерализованными тревожными расстройствами наблюдалось снижение частоты обострений и приступов. По данным отдельных исследований частота данного симптомокомплекса среди больных кардиологического профиля достигает 50 %, замедляет ритм сокращений миокарда, увеличивая время на отдых и расслабление, повышает интенсивность метаболизма в кардиомиоцитах, предотвращает развитие тахикардий (экстрасистолия, синусовая тахикардия, фибрилляция или трепетание предсердий или желудочков). А также содержит массу витаминов (В2, В5, В6, В9, Е, А, аскорбиновая и никотиновая кислоты, Р), макро- и микроэлементы (бор, фтор, йод, железо, медь, марганец), множество дубильных веществ и пектины. Плоды рекомендуется употреблять только в составе комплексной терапии (с антигипертензивными медикаментами) на начальных этапах развития заболевания (ГБ I и II стадии). А также способствует понижению кровяного давления за счёт блокады кальциевых каналов гладкой мускулатуры сосудистой стенки. В результате все артерии среднего и крупного калибра в организме расширяются. За счёт данного эффекта также обеспечивается снижение активности сердца, в сосудистое русло попадает меньше крови. Описанные эффекты обеспечивают эффективность от высокого артериального давления, боярышник также обладает мочегонными свойствами, нормализует жировой и белковый обмен веществ. Научно доказано, что при систематическом употреблении растения в течение 2 недель наблюдается снижение атерогенных ЛПНП на 30 %, а число «полезных» липидов (ЛПВП) возрастает почти на 40 %. Многие полезные вещества, которые содержатся в листьях, ягодах и других частях боярышника, **обладают мощными антиоксидантными качествами**. Как известно, антиоксиданты способствуют нейтрализации свободных радикалов — нестабильных молекул, которые могут образовываться в нашем организме во

время течения естественных процессов жизнедеятельности и наносить вред тканям. Выработка свободных радикалов увеличивается при неправильном питании, а также влиянии ряда токсинов, например, содержащихся в загрязненном воздухе и сигаретном дыме. Употребление боярышника способствует уничтожению свободных радикалов, соответственно, **помогает предупредить многие проблемы со здоровьем и позволяет продлить молодость**. Обеспечить себе такую защиту при помощи изменения лишь привычного рациона питания очень сложно. Поэтому чтобы ощутить антиоксидантные свойства боярышника на собственной практике, стоит присмотреться к специализированным добавкам, которые имеют на 100% натуральный состав и содержат четко отмеренное количество активного вещества. На основании ряда исследований ученые пришли к выводу, что **питательные вещества, содержащиеся в боярышнике, обладают мощными противовоспалительными качествами**, поэтому могут принести ощутимую пользу здоровью человека. В частности, они помогают справиться с хроническим воспалением, которое, как известно, коррелируется со многими проблемами со здоровьем, в том числе, с диабетом 2 типа, астмой и некоторыми видами онкологии.

Проведенные эксперименты на мышах, имевших заболевание печени, показали, что **дополнительный прием экстракта ягод боярышника способствует значительному снижению уровня воспалительных соединений**. Испытание среди животных с астмой подтвердило эту информацию и показало, что такая добавка снимает воспаление в достаточной степени, чтобы существенно уменьшить проявления астмы. Поэтому препараты на основе боярышника могут принести пользу при терапии различных заболеваний, **связанных с острым или хроническим воспалительным процессом**. На сегодняшний день ученые продолжают изучать потенциал данного растения, чтобы определить, при каких именно состояниях оно может быть самым эффективным. Проведенные исследования подтверждают антигипертензивные свойства такого растения, которые **обусловлены его способностью расслаблять суженные кровеносные сосуды**. Благодаря этому боярышник действительно снижает давление.

Потенциальные антигипертензивные качества боярышника продолжают изучаться учеными в разных уголках мира. При этом пациенты с гипертонией могут попробовать использовать добавки с экстрактом данного растения **как один из методов контроля артериального давления**.

Несколько исследований показало, что **препараты на основе боярышника помогают снизить концентрацию вредных жиров в крови**. Как известно, основные липиды, которые всегда циркулируют в нашем кровотоке, - это холестерин и триглицериды. Если их концентрация находится в пределах нормы, они не наносят никакого вреда здоровью и, даже наоборот, приносят пользу человеку — принимают участие в синтезе гормонов и транспорте ряда питательных веществ.

Но несбалансированный уровень жиров, в особенности, повышение концентрации триглицеридов и снижение уровня ЛПВП (липопротеинов высокой плотности или «хорошего» холестерина) **приводит к развитию атеросклероза и формированию атеросклеротических бляшек в просвете кровеносных сосудов**. Если сосудистые бляшки продолжают накапливаться, они способны полностью перекрыть кровеносный сосуд, что вызывает сердечный приступ или инсульт.

Один из экспериментов на мышах показал, что у особей, получавших разные дозы экстракта боярышника, была зафиксирована более низкая концентрация общего холестерина и холестерина ЛПНП (липопротеинов низкой плотности или «плохого» холестерина), а также более низкий уровень триглицеридов (на 28-47%) по сравнению с животными, которые не получали такую добавку. Другое испытание на мышах, которые получали питание с повышенным уровнем холестерина, показало, что экстракт боярышника дает практически такой же эффект как симвастатин (лекарство, которое прописывают для лечения атеросклероза). У особей, получавших такие средства, одинаково снизился уровень общего холестерина и триглицеридов, но добавка боярышника также привела к снижению концентрации ЛПНП. При этом стоит подчеркнуть, что БАДы с таким растением являются абсолютно натуральными. Они намного безопаснее для здоровья, чем химические медикаменты (тот же симвастатин), имеют меньше противопоказаний и крайне редко вызывают нежелательные побочные эффекты.

Вывод:

Таким образом, добавки с боярышником могут принести огромную пользу людям, которые занимаются активной профилактикой или лечением атеросклероза, а также тем, кто хочет сохранить свои сосуды чистыми и избежать сердечного приступа, а также инсульта.

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A COMPARATIVE STUDY OF APHORISMS WITH THE CONCEPT OF
EDUCATION AND SCIENCE (IN THE EXAMPLE OF ENGLISH AND UZBEK
LANGUAGES)

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Annotation: The main feature of aphorisms is a brief artistic expression of a wise, typical thought in which expression, not image, is the leader of meaning. One in the article on the other hand, interest in studying the syntactic features of aphorisms in speech on the other hand, semantics in the speech of English and Uzbek languages characteristics have been thoroughly analyzed. The purpose of the study is to generalize ideas of the pragmatic qualification of aphorism as a verbal means of expression aspects and differential features of reality in the form of a phrase (phrase text). Identify and describe universal generalizations.

Key words: Aphorism, English aphorisms, Uzbek aphorisms, culture, special factors, concepts of time.

Introduction : Aphorisms are general truths about life, human behavior, or the world or are concise and often intelligent statements that convey an understanding. They are usually short, memorable and full of wisdom. Aphorisms are often used to give guidance, offer a different perspective, or make a short and memorable point used to wake up. They have been in literature, philosophy and everyday life for centuries has been a popular form of expression in conversation. As you know, in English and Uzbek languages .Describing and classifying aphorisms is also important. The term "aphorism" derived from the Greek "(aphorismos - "a short phrase containing a general truth"). Aphoristic phrases are quoted in writing as well as in our everyday speech. Them the existence of truth makes them universally accepted. Contrary to proverbs, wise the origin of words is attributed to a specific person (writer, poet, publicist, philosopher, scientist, statesman, etc.) are relevant and retain their identity. Representing achievements and losses in human life in English and Uzbek languages It is very interesting to understand that there are many aphorisms. Therefore, they are linguists has become a linguistic phenomenon that researchers cannot ignore.

Main Part. In today's modern linguistics the anthropocentric direction, the view of the human factor as an important phenomenon in the study of language, is growing. The linguocognitive, linguopragmatic and linguoculturological aspects of language units are widely studied on the basis of this direction. One of the main problem to be studied in cognitive linguistics is concept and according to acknowledgement of many researcher's cognitive linguistics and linguoculturology are leading areas of the anthropocentric paradigm. If cognitive linguistics is a science that studies the nature of a particular concept in the linguistic image of the world and its relation to world realities, the concept is one of the leading categories of cognitive linguistics and is an element of communication between culture and humanity. Although the term "concept" has been widely used in linguistics since the 1990s, it still does not have a single explanation or interpretation. Professor G. M. Hoshimov describes the concept as follows: "A concept is the result of not only two important processes, conceptualization and categorization, which are closely related to each other, but also it is an end result of a number of other important processes (such as psychologization, cognition, sociology, (linguo) semantization, sociolectization, stylization (like

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dialectization, variantization, and idiolectization), and it constitutes the cognitive basis of the linguistic semantics as a holistic conceptual/cognitive semantics". As a consequence of considering the aforementioned notions, we may conclude that the concept is the end product of various processes occurring in our thoughts, and it is a unit that necessitates further research in cognitive linguistics. At this point, we'd like to concentrate on the notion of "wedding" in English and Uzbek, two unrelated languages. Many aphorisms in English and Uzbek languages researchers conducted research. For English aphorisms, see Taylor, Ridout and Many scholars such as Whiting, Norrick, Collis, Galperin and others are great in this field contributed. However, due to different approaches and objectives, their publications focus on one aspect or another of the aphorisms. In general. In short, these linguists theorize how we learn to use language provides an overview of the basics. From the point of view of Uzbek aphorism studies, Some thorough works related to aphorisms contribute to the knowledge of this field added, and in this regard, the difference between phrases and aphorisms is two criteria: content and grammatical structures, aphorisms collected and collected by authors based on which it is mentioned. Here we are primarily research methods, sampling, data related to data collection, data analysis, instrumentation. Procedure for conducting research are also presented at the same time. Accuracy and reliability in this study is stated and substantiated. In general, in English and Uzbek The studied aphorisms are composed in simple, compound, complex and comparative sentences. As for complex sentences, English and Uzbek aphorisms are second in percentage is in place. In terms of comparative sentences, English and Uzbek aphorisms are the lowest was found to have a percentage. Comparative sentences in English and Uzbek languages. As far as the data are concerned, the difference between Eq comparison is more commonly used. As for compound sentences, the number of compound aphorisms in English is the same as in Uzbek much less than the joint Aphorism. Moreover, English is synthetic. Aphorism in the form of coordination than in the form of synthetic coordination there are more aphorisms, only compound sentences without a coordinator in Uzbek examples 98 aphorisms make up 100% and Uzbek in coordinating clauses an aphorism cannot be formed.

Of course, one should take into account here the specifics of the English-speaking way of life, which manifests itself in an increase in the value status of people of respectable age in society. This is convincingly evidenced by such signals in the English-speaking society as:

- appearance of the word middlescence –the period of life between 40 and 65;
- softening in everyday vocabulary communication age discrimination [from 65 years and on]: great age; honorable age; autumn years; golden age; golden years; advanced age; ripe age; the value of years; age of seniority; the vintage years; third age [3];
- it is considered undesirable to use the word old, which indicates person's age; it is replaced by multi-component phrases - euphemisms with a positive connotation: woman of certain age; September people; nature lady; retired people; white top; experientially enhanced person; seasoned man; chronologically gifted; middleaged man; venerable man; nature American; people of the "third age"; third age; golden age; a man in years; senior citizen advanced in age person; advanced adult, etc.

This feature of English-speaking culture should certainly be taken into account in linguodidactic perception Uzbek-speaking environment. Uzbek-English idiomatic the similarity is widely revealed by the most various semantic collections. Wed parallelism of Uzbek-English USK expressing semantic-figurative proximity of the dominant "young" [specifically "youth" /

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“inexperience” / “lack of life experience”]: yoshlik – beboshlik – Salad days [resp. Russian “milk on the lips not dry”, “young-green”, i.e. in general, “it’s time for life’s inexperience”] followed by a deepening into the Uzbek idiomatic diversity.

Uzbek-English comparison is determined by the dependence on the mentality of the carriers of the corresponding language, provides for taking into account methods thinking [concreteness - abstractness], formed in compared cultures of relations to one or another linguo-philosophical category, features of communicative behavior and etc. When represented in languages, they intersect, forming the general and distinctive in the system of reflection specifically a selected fragment of the picture of the world. Progressive assimilation of the English language by the Uzbek-speaking society led to close attention to broad typological problems and the theory of linguistic universals. This not only solves the current linguistic tasks, but also done forecasts for the future Uzbek-English comparative comparisons, removing difficulties in Uzbeks learning English in based on new pedagogical technologies.

These examples are only one of a large collection of aphorisms in English and Uzbek languages is a part of Each aphorism deals with different aspects of life, human nature and providing brief and memorable insights into cultural values covers a specific topic or message. There are many English and Uzbek aphorisms in literature. In literature many aphorisms that are used have lost their literary use and appeared besides the work, it remains relevant in its meaning. Shakespeare in his works used aphorisms. The use of many aphorisms is his keen insight and indicates his judgment. Here are some examples: Having nothing, nothing can he lose. (Henry VI) Life is a tale told by an idiot-full of sound and fury, meaning nothing. (Macbeth) Lord, what fools these mortals be! (A Midsummer Night's Dream) Wise words in independent scientific genres, scientific, philosophical, historical, artistic can also be found in works. Sometimes the work is Wise from beginning to end may consist of words (Farobi). Some works of Alisher Navoi rich in wise words ("Nazm ul-jawahir", "Arbain", "Mahbub ul-qulub" and others). He is wise in the literature of Eastern peoples, including Uzbek literature most of the words are found in the form of advice and rebuke. In Uzbek: Open the truth, follow the right path. (Abu Ali ibn Sina) .Wise words close to the living language and folk proverbs are also widespread. In Uzbek: "A soldier without a bullet is a sheath without a sword" (Oybek) "You can't chew soup for a teething child" (A. Qahhor) Among Uzbek writers, Hamza, A. Qadiri, G. Ghulam, Oybek, H. Olimjon, A. Qahhor, Shaikhzada, modern examples of wise words in his works created and made a modern contribution to the development of the Uzbek literary language. Most of their own is used in everyday conversation due to its charming and charming word choice. Aphorisms found in common phrases as well as popular literature.

CONCLUSION

Studying the above aphorisms is advice, guidance or allows you to get advice, vital conclusions. In general, each is wise the word is an expression of folk wisdom, a summation of many years of life experience. The appearance of wise words in the language is determined by the history of the people who created them. Many aphorisms were created in ancient times and are still their creators lives with people who are Aphorisms are popular and passed down from generation to generation, lives for centuries. In the process of scientific research, most aphorisms are two at the same time meaning: we have also determined that it includes a direct and figurative meaning, that's why we sometimes have a hard time understanding aphorisms at first glance. Basically, the figurative or implied meaning of aphorisms is usually a metaphor, through expensive

devices such as metonymy, hyperbole, simile or metaphor delivered. The aphorism is indispensable for the next generation. Who read these aphorisms if he understands, he will be perfect in every way.

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APPLICATION OF THE FRANKLINIZATION METHOD FOR MEDICAL
PURPOSES

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Abstract. *Franklinization is intended for the therapeutic effect of a constant high-voltage electric field, a “quiet” electric discharge and a flow of negative ions. It is used in the treatment of functional diseases of the nervous system (headache, insomnia, itching, decreased skin sensitivity, long-term non-healing wounds or ulcers and other diseases). Makes it possible to carry out procedures as general, and local franklinization.*

Keywords: *franklinization, positive, negative ions, electrons, light ions, heavy ions, aeroion therapy, therapeutic effect, air ionizer.*

Introduction.

Under terrestrial conditions, the air almost always contains a certain amount of ions due to natural ionizers, mainly radioactive substances in the soil, gases, and cosmic radiation. Ions and electrons in the air can, by joining neutral molecules and suspended particles, form more complex ions. These ions in the atmosphere are called air ions. They differ not only in sign, but also in mass; they are conventionally divided into light (gas ions) and heavy (suspended charged particles of sand, particles of smoke and moisture) [1].

Heavy ions have a harmful effect on the body. Light and mostly negative air ions have a beneficial effect, they are used in particular, for treatment – aeroionotherapy. There is natural aeroionotherapy associated with the patient’s stay in natural conditions with natural air ionization (mountain resorts, waterfalls, forest air). Changes in the ionic composition of air are associated with solar activity, probably one of the reasons for the influence of the Sun on terrestrial biological organisms. Artificial special air ionizer devices, which can be any air ionizer that creates ions in the air. However, when used for medicinal purposes, it should not cause harmful side effects on the body. A type of artificial aeroion therapy is an electrostatic shower (franklinization) [2-3]. During franklinization, a constant high voltage electric field is used. (up to 50 kV). The resulting air ions and a small amount of ozone have a therapeutic effect. Franklinization is carried out in the form of general and local procedures. During general franklinization, the patient sits on an isolated wooden chair with a metal plate connected by the positive pole of the device. An electrode in the form of a “spider” is installed above the patient’s head at a distance of (10÷15) cm, connected to the negative pole of the device. Under the influence of an electric field, polarization occurs in the dielectric faces, microcurrents arise in conductive tissues, and static charges are formed on the surface of the body [4-5].

A quiet electrical discharge that occurs near the tips of the head electrode creates a flow of ions directed to the patient’s body, mainly in the area of his head and neck. Aeroions act on the nerve endings embedded in the skin of this area, as well as on the receptors of the mucous membranes when inhaling ionized air. These phenomena underlie the primary effect of a high-voltage electric field on the body. **Franklinization** or “**electrostatic shower**” is one of the oldest

methods of electrotherapy, apart from the use of electric fish, still used today. The constant electric field during the general exposure procedure can reach 50 kV, with local exposure (15 ÷ 20) kV.

Mechanism of therapeutic effect.

The franklinization procedure is carried out using an apparatus for franklinization and aeroionization Af-5-5 : Maximum output voltage (with a load resistance of 2500 MOM) 50 kV. Power supply from AC mains voltage 220V. Power consumption no more than 150 watts.

The number of steps for adjusting the current voltage is -10, so that the patient's head (with general exposure) or another part of the body (with local exposure) becomes like one of the capacitor plates, while the second is an electrode suspended above the head or installed piled above the impact site at a distance of (6 ÷ 10) cm. The role of a dielectric is played by the air between them. Due to the fact that the body's resistance to air resistance is small, almost all of the voltage generated by the device falls on the air gap between the patient's body and the electrode. However, air with such a small gap is not an absolute insulator.

Under the influence of high voltage under the tips of the needles attached to the electrode, air ionization occurs with the formation of air ions, ozone and nitrogen oxides. In tissues located opposite the electrodes, under the influence of the same voltage, polarization occurs. formation of tissue dielectric molecules and a microcurrent appears in areas with good electrical conductivity, as well as changes in the normal ratio of ions in the tissues of the area affected by the sensitive trigeminal nerve and the collar region. Inhalation of ozone and air ions causes a reaction in the vascular network. After a short-term spasm of blood vessels, capillaries expand not only in superficial tissues, but also in deep ones.

Results and discussion.

As a result, metabolic and trophic processes are improved, and in the presence of tissue damage, the processes of regeneration and restoration of functions are stimulated. As a result of improved blood supply, normalization of metabolic processes and nerve functions, skin itching, hypertension, Peresthesia. Improving blood supply to the brain and its membranes leads to a reduction in headaches, high blood pressure, increased vascular tone, decreased heart rate. Due to the effect of ozone, ozonides and peroxides on the surface of wounds or ulcers, as well as the activation of tropical metabolic processes in tissues, better cleansing of wounds and ulcers occurs and their healing is accelerated. The duration of procedures carried out daily or every other day is (10 ÷ 15) minutes per course of treatment (10 ÷ 15) effects. During the procedure, patients should not touch any objects or touch anyone.

When carrying out therapeutic treatment, the wound or ulcer surface must be cleaned of pus, rejected masses, crusts treated with appropriate medicinal solutions and dried with a sterile napkin. At a distance of (5-7) cm from the surface of the wound or ulcer, a bracket attached to a coil or chair is fixed electrode. A foot electrode is placed under the corresponding area of the body. For local influences, a voltage of (10 ÷ 20) kV is applied. The duration of the procedures, usually carried out during dressings (after 2 ÷ 3 days), is (10 ÷ 15) minutes, per course of treatment (10 ÷ 15) effects. At the end of the procedure, turn off the voltage regulator. After this, the patient can get up from the couch or chair. The use of general franklinization is indicated for functional disorders of the nervous system : neurasthenia with asthenic syndrome, migraine, insomnia, physical and mental fatigue and overwork, residual effects of arachnoiditis.

Conclusion.

Local franklinization is used for trophic ulcers, infected wounds with a sluggish course, burns, local itching, and peresthesia.

Contraindications: systemic blood diseases, malignant neoplasms, severe cerebral atherosclerosis, cerebrovascular accidents, febrile conditions, pregnancy, active pulmonary tuberculosis.

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The impact of the monetary policy of the Central Bank on the balance of payments

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Abstract : Monetary and credit policy is very important in the regulation of economic activity. For example, central banks regulate the country's foreign exchange market by setting exchange rates and create conditions necessary for the stability of the economic system. This article presents the results and analysis of scientific research on the impact of the monetary policy of the Central Bank on the balance of payments .

Key words : monetary policy, currency income,

Introduction: In the world economy, as a necessary condition for increasing the effectiveness of the Central Bank's monetary policy instruments, attention is being paid to the high-level organization of the stock market, money market, and bank credit and deposit operations . In particular, "in developed countries, taking the interbank money market interest rate as an indicative interest rate for commercial banks, the share of bank assets in GDP is higher than 80 percent, and the ability to dramatically influence consumer purchases through consumer loans increases the effectiveness of monetary policy instruments."

PF-60 dated January 28, 2022 of the President of the Republic of Uzbekistan "On the development strategy of New Uzbekistan for 2022-2026", PF-6079 dated October 5, 2020 On approval of the "Digital Uzbekistan-2030" strategy and measures for its effective implementation", dated May 12, 2020 No. PF-5992 "Banking system of the Republic of Uzbekistan for 2020-2025 on reform strategy", No. PF-5296 of January 9, 2018 "On radical improvement of the activities of the Central Bank of the Republic of Uzbekistan", No. PF-5877 of November 18, 2019 "Decrees on improving the monetary credit policy by gradually moving to the inflation targeting regime, PQ-3270 of September 12, 2017, "Measures to further develop and increase the stability of the banking system of the Republic" "On" and other normative legal documents in this field, this dissertation serves to a certain extent to implement the tasks.

The main part: Concept of implementation of monetary policy - the new stage of economic reforms aimed at the liberalization of the economy and increasing the role of market mechanisms, which began in 2017, determined the priorities for the development of the banking system and monetary policy in the medium term.

this direction was practical steps related to the gradual liberalization of the domestic currency market by introducing the principles of formation of the national currency exchange rate based on market mechanisms.

The use of a completely new approach to the formation of the exchange rate, in turn, provides an opportunity to improve the monetary policy while focusing the main attention of the Central Bank on the stability of prices in the domestic market.

At the same time, the successful implementation of the reforms regarding the liberalization of the foreign exchange market is closely related to the improvement of the monetary policy, strengthening of commercial banks, and the effectiveness of measures to develop the banking system.

Based on this, immediately after the announcement of the Decree of the President of the Republic of Uzbekistan "On the first measures to liberalize the currency market" "On measures" was adopted and the Complex of measures on the development of monetary policy in 2017-2021 and gradual transition to the inflation targeting regime was approved.

One of the next important steps in this regard was the adoption of the Decree of the President of the Republic of Uzbekistan dated January 9, 2018 "On radical improvement of the activities of the Central Bank of the Republic of Uzbekistan" .

and appropriate measures are provided to ensure the independence and institutional development of the Central Bank . The concept of development and implementation of monetary policy of the Central Bank of the Republic of Uzbekistan in the medium-term perspective was developed taking into account the leading role of the communication channel in the formation of public opinion and the implementation of the inflation targeting regime .

The purpose of this Concept is to convey to the general public and explain in detail the conceptual foundations of the transition to inflation targeting and the medium-term plans for creating the necessary conditions for the successful implementation of this monetary policy regime.

Monetary and credit operations are carried out in order to increase the effectiveness of the transmission mechanism and the interest channel in the economy, which is the **main goal of the Central Bank's activity, to ensure price stability.**

Monetary and credit operations are aimed at managing short-term interest rates by regulating the general liquidity of the banking system.

These operations are carried out by the Central Bank on the basis of the interest corridor mechanism and ensure the formation of money market interest rates in a ± 2 percent corridor compared to the main rate.

The operational mechanism of the Central Bank

| The purpose | Instrument | Conditions | Interest rate | The task |
|---------------------|------------------------------|--|----------------------------------|---|
| Providing liquidity | REPO auctions | 7 days (every Monday) (11:00 - 11:30) | Basic rate | Covering the temporary deficit in the liquidity of the banking system |
| | SWOP auctions | 7 days (every Monday) (11:30 - 12:00) | | |
| | Overnight REPO transactions | 1 day (10:00 - 16:00) | Base rate + 2% | Covering the daily deficit in the liquidity of the banking system |
| | Overnight SVOP operations | | | |
| Attract liquidity | Overnight deposit operations | 1 day (10:00 - 16:00) | Prime rate - 2% | Attracting the daily surplus in the liquidity of the banking system |
| | Deposit auctions | 7 days (every Thursday) (11:00 - 11:30) | Basic rate | Attracting a temporary surplus in the liquidity of the banking system |
| | Central bank bonds | Up to 12 months (depending on the schedule) (11:00 - 11:30) | Basic rate + 2% (upper limit) | Attracting structural excess in banking system liquidity |

A number of scientific and practical results were obtained as a result of researches on the improvement of the methodological foundations of the use of monetary policy instruments by the world's leading scientific research centers, including the following scientific and practical results: availability of additional instruments for In particular, it was noted that a sufficient reduction of the main nominal interest rate by the central banks and, as a result, a negative real interest rate will limit the ability of the central banks to use the interest policy to provide economic stimulus . In such a situation, central banks are advised to focus on long-term interest rates, other asset prices or securities to stimulate the economy (Federal Reserve System) . The distribution of central banks' monetary policy decisions to

gross consumption was studied in the Italian and US economies. Economists have analyzed the impact of three channels of monetary policy, namely, income heterogeneity channel from income inequality, Fisher channel from unexpected inflation and interest rate channels on aggregate expenditure. According to the results of the analysis, conclusions were drawn that all three channels increase the impact of monetary policy on economic growth (Stanford University). He compared the effect of mandatory reserve policy on the probability of bank failure and bank capital requirements. Although these two requirements have the same effect on banks' balance sheets and loan interest rates, these requirements have different effects on the bank's financial stability. When the frequency of interest on bank deposits is short, high reserve requirements increase their indirect costs (Technische Universität München). Losses (losses) on the central bank's balance sheet through open market policies of changes in inflation and gross output originally described the general neutrality feature and described the theoretical conditions supporting it (University of Cassino and Southern Lazio). The role of the mandatory reserve instrument in influencing the liquidity of commercial banks and the percentage of loans of the central banks of developing countries is analyzed. That is, although monetary policy in developing countries uses the mandatory reserve instrument to affect the lending period of banks, but its transmission mechanism has not yet been sufficiently revealed, they reduce the liquidity of banks with the increase of the mandatory reserve, and this leads to a new transmission that reduces the lending capacity. researched the mechanism channel (Bülent Ecevit Üniversitesi). Scientific centers of the world are conducting a number of studies on improving the scientific-theoretical, methodological and practical foundations of ensuring the stability of the money supply through the instruments of the monetary policy of central banks, including in the following priority directions: conducting open market policy and its basics of sustainable operation; improving the quality of the account rate and pawn loans in ensuring the stability of the money supply through monetary instruments; the relationship between banking system stability and monetary policy; ways to ensure the liquidity of the banking system through monetary instruments and, as a result, to ensure the stability of banks, etc. The central bank's monetary policy is spread throughout the economy through commercial banks. It is the healthy state of commercial banks, their liquidity and high lending potential that opens wide opportunities for the Central Bank. Through central bank instruments, it affects the liquidity of commercial banks and subsequently their lending capacity and banks' interest policies. We used two different models in the econometric analysis evaluating the impact of monetary policy instruments on the liquidity and lending

capacity of commercial banks. The first model is a least square model, while the second is a structural vector autoregression model.

Monetary policy means measures aimed at changing the amount of money in circulation in order to reduce or eliminate the effect of inflation on the production of the gross national product under conditions of full employment. The monetary policy is determined by the state and implemented by the Central Bank. With its help, any state implements the task of ensuring economic stability in the country. employment, the ultimate goals of implementing the monetary policy are to ensure economic growth, full prices and stability of the balance of payments. In order to achieve these goals, it is necessary to maintain the optimal values of the national currency in circulation, the interest rate, and the national currency exchange rate. To fulfill these tasks, the Central Bank uses a number of tasks.

Three main instruments of monetary policy are distinguished:

1. Account rate;
2. Norm of mandatory reserves;
3. Open market operations. With their help, the Central Bank affects the money supply or interest rate in the form of money or mainly bank deposits, changes its supply and thereby regulates the monetary and credit circulation. One of the tools of monetary and credit policy is the policy of changing the mandatory bank reserve ratio. Mandatory reserves are the part of bank deposits that are not used for lending purposes. Monetary policy instruments do not necessarily need to be used separately. On the contrary, several tools are often used at once, that is, complex policy implementation is often encountered in practice. So what are the implications for monetary policy? The monetary policy implemented by the government has a direct impact on the level of GDP, employment and prices. Suppose that output in the economy is decreasing and the number of unemployed is increasing. In such conditions, the state tries to increase the money supply through the Central Bank using the tools we discussed above. As a result, the money supply will increase, and the interest rate will decrease. This increases the demand for investments and, in turn, leads to an increase in the amount of GDP. In this way, the state will achieve its goal in a certain period of time, the backwardness of production will stop, the number of unemployed will decrease, and the income of the society will increase. When talking about the consequences of monetary policy, it is necessary to distinguish between short-term and long-term consequences of this policy. If in the short term the increase in the state money supply stimulated the growth of the GDP and achieved a certain level of efficiency, in the long term the effectiveness of these measures may decrease.

Discussion: The impact of the Central Bank's monetary policy on the balance sheet can be observed during the pandemic. In 2020, in order to ensure a balance between the tasks of mitigating the impact of the pandemic situation on the economy, supporting economic activity and ensuring price stability, the main rate of the Central Bank was reduced from 16% to 14%, and the monetary credit conditions were slightly softened and transferred to a relatively solid phase. In 2021, these conditions remained unchanged, and real interest rates on deposits in the money market are formed at an average level of 2-3 percent based on the general liquidity situation in the banking system. Only in May-July of this year, a significant decrease of these interest rates was observed due to a sharp increase in the volume of total liquidity. But this gained temporary significance, due to the necessary changes made to monetary policy instruments, interest rates returned to the level envisaged under relatively strict conditions starting from August. Also, nominal interest rates on time deposits of individuals in national currency, calculated by indexation with their inflation expectations, were also formed at a positive level of 2-3 percent. Taking into account the characteristics of the national economy, the analysis of specific aspects and effectiveness of monetary policy regimes shows that the inflation targeting regime is very suitable for the task of achieving price stability as a priority goal of the Central Bank in the medium-term perspective. Based on this, the necessary legal bases and basic economic conditions were created for the gradual orientation of the principles and methods of monetary policy implementation to inflation targeting.

In particular, measures to ensure the liberalization of the currency policy and the formation of the exchange rate in market conditions, the clear definition of the priority goals and practical independence of the Central Bank, the transition to the active stage of the implementation of the monetary policy, the improvement of the methods of calculating and evaluating inflation, as well as transparency practical measures such as increase and strengthening of communication policy create basic conditions for transition to inflation targeting.

At the same time, existing risks and obstacles make it difficult to implement the inflation targeting regime.

In turn, the Central Bank focuses on strengthening the forecasting and analytical base, improving monetary policy instruments and strengthening their channels of influence, developing communication policy and increasing public confidence.

will combine efforts and work in cooperation with the relevant ministries and agencies in the implementation of measures for the gradual transition to this regime

In general, the transition to inflation targeting requires a radical revision and improvement of all aspects of monetary policy. This, in turn, means a qualitatively new stage in ensuring macroeconomic stability, which is the basis of long-term sustainable economic growth.

Conclusion: In order to increase the impact of Central Bank's monetary policy instruments on the economy, based on the results obtained above, it is appropriate to implement the following:

- central banks, when using monetary policy instruments, initially aim to influence the situation in the money market. Therefore, it is desirable to further increase the impact of changes in instruments on the money market, as well as the formation of the real interest rate.

- the results of the analysis showed that the increase in the money supply by the Central Bank does not affect the interest rate in the money market. With this, we can say that the exit channel of excess change in the money supply to the money market remains closed. That is, the increase in the money supply also increases the representative account number of commercial banks in the Central Bank in national currency. This resource does not bring interest to commercial banks, and therefore it is desirable to ensure the movement of these resources in the money market.

- It is desirable to increase the influence of the central bank refinancing interest rate on the interest rates of deposits and loans of commercial banks. Fourthly, it is desirable to reduce the influence of the administrative arms of the Central Bank in the formation of market interest rates in our country.

- in order to further develop the stock market, increase its level of capitalization, and expand the participation of individuals and legal entities in the stock market, it is advisable to widely introduce financial instruments such as exchange traded funds and crowdfunding instruments in order to develop an open market policy.

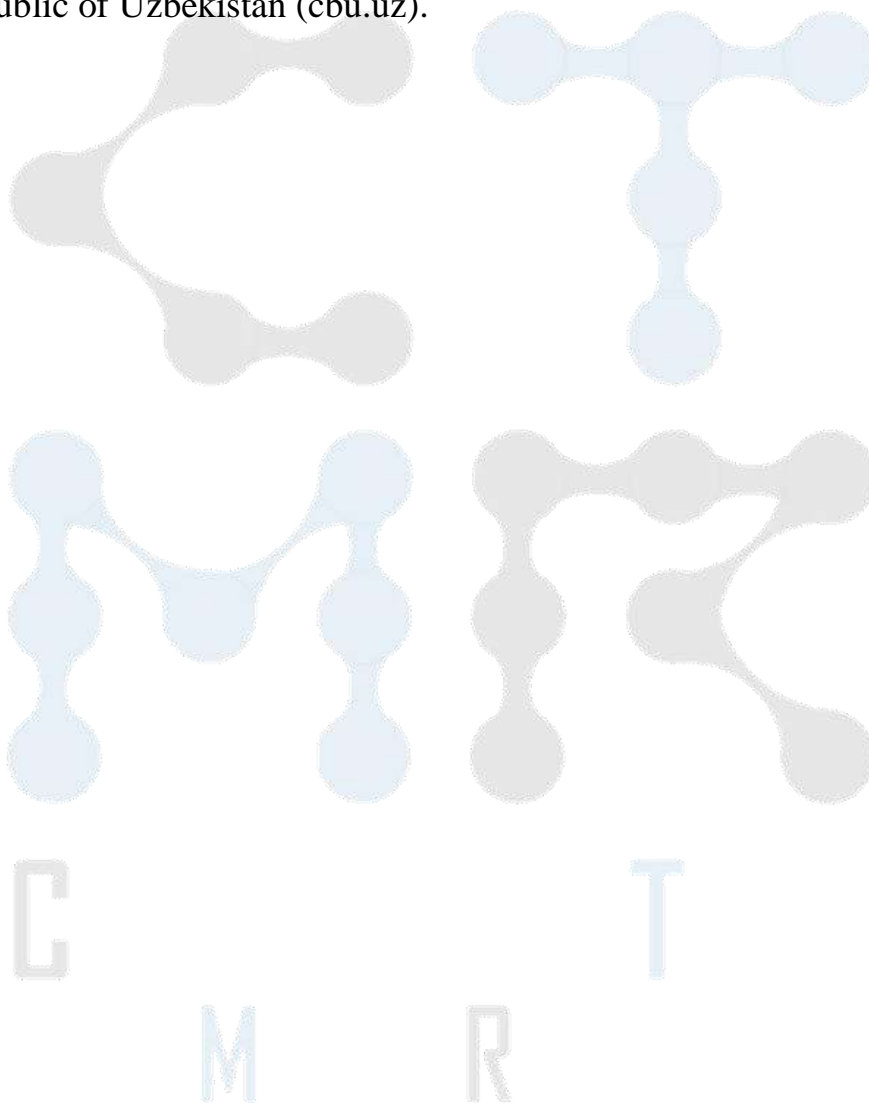
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IMPROVEMENT OF DIAGNOSTICS AND TREATMENT OF POLYPOSIS ETMOIDITIS

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Introduction. The frequency of polyposis etmoiditis (PE) has a clear tendency to increase, the specific gravity in the structure of the incidence of ENT organs is 5-20%. The search for new approaches to earlier diagnosis and well-timed medical treatment of polyposis etmoiditis is relevant not only due to frequent recurrence of the disease, but also to the high prevalence of this disease. The frequency of PE has a clear tendency to increase, the specific gravity in the structure of the incidence of ENT organs is 5-20% [1].

According to the observations of A.S. Lopatin polyps in the nasal cavity are found in 1.02% of people, and this only applies to clinical manifested forms of the disease, taking the real prevalence of PE into account subclinical forms is much higher [2].

According to normative document EP³OS, adopted in 2012, PE is a chronic disease of the nasal cavity and paranasal sinuses, characterized by two or more necessarily present symptoms: blockade (obstruction) of nasal breathing and runny nose (rhinorrhea), and associated symptoms (pain or sensation) tension in the forehead and nose, loss and decrease in smell), last more than 12 weeks. According to EP³OS, about 1% of the world's population suffers from polypous etmoiditis [3].

The p53 protein is a transcription factor that regulates the cell cycle. p53 acts as a suppressor of the formation of malignant tumors; accordingly, it is a tumor marker and is expressed in all cells of the body.

In the absence of damage to the genetic apparatus, the p53 protein is in an inactive state, and when DNA damage occurs, it is activated. One of the stimuli of p53 activation is hypoxia, which is inevitable with a long course of PE. The result of p53 activation is stopping of cell cycle and DNA replication; with a strong stress signal - the start of apoptosis.

One of the markers of disruption of biological processes at the cellular level is VEGF.

VEGF (Vascular Endothelial Growth Factor) is one of the members of the family of structurally similar proteins that are ligands for the receptors family of VEGF. VEGF affects the development of new blood vessels (angiogenesis) and the survival of immature blood vessels (vascular support) by binding to activating two closely related membrane tyrosine kinase receptors (VEGF receptor-1 and VEGF receptor-2). These receptors are expressed by endothelial cells of the blood vessel wall [4]. The binding of VEGF to these receptors triggers a signaling cascade that ultimately stimulates the growth of vascular endothelial cells, their survival and proliferation [4.5].

Endothelial cells are involved in such diverse processes as vasoconstriction and vasodilation, Presentation of antigens, and also serve as very important elements of all blood vessels - both capillaries and veins or arteries. Thus, by stimulating endothelial cells, VEGF plays a central role in the process of angiogenesis. VEGF stimulates the permeability of small blood vessels. Increased permeability leads to "leakage" of plasma proteins through the vessel wall and the formation of extravasal fibrin gel. This gel is a suitable medium for the growth of endothelial cells [4.].

Epidermal growth factor (EGF) - refers to a group of growth factors and is a polypeptide, it is resistant to acids and high temperatures. It belongs to the most stable of all studied proteins. It is present in the cells of all body tissues, regulates cell growth [6]. EGF plays an important role in the regulation of metabolic and recovery processes. It binds to receptors on the surface of cell membranes specifically, stimulates taxis of anti-inflammatory cells.

Under normal conditions, the content of growth factors in the human body is relatively small and stable. However, with any damage, the number of receptors sensitive to EGF increases, due to this its concentration increases [6.7].

The search for new approaches to early diagnosis and timely medical treatment of PE is relevant not only to the frequent recurrence of the disease, but also to the high prevalence of this disease.

After analyzing the foregoing, we set the goal of the study - to assess the presence or absence of dynamics of the concentration indicators of p53, VEGF-A and VEGFR-2 and EGF in polypous tissue and blood plasma before and after surgical removal of polypous tissue in PE.

Objective of investigation: to determine quantitative indications and their importance in treatment of p53, VEGF-A and VEGFR-2 and EGF in blood serum and polyps in patients with polypous etmoiditis.

Material and methods:

We examined 122 patients with PE treated in the ENT department of the Khorezm Multidisciplinary Medical Center from 2020 to 2023.

Patients aged from 27 to 34 years, the average age was 29.1 ± 0.7 . Among patients, women were 47 (38.5%), men - 75 (61.5%).

The diagnosis of PE was made according to generally accepted criteria based on complaints, medical history, data of anterior, posterior rhinoscopy, radiography and computed tomography of SNPs. The general condition of patients, the presence of concomitant somatic diseases were determined.

All patients were divided into 4 groups depending on the duration of PE:

Group I - 30 patients with a duration of PE of up to 3 years;

Group II - 31 patients with a duration of PE of 3-6 years;

Group III - 29 patients with a duration of PE of 6-10 years;

Group IV - 32 patients with a duration of PE of 10-15 years.

The control group consisted of 26 practical healthy people of a comparable age category who did not have a history of bad habits and polypous diseases.

Patients were divided into 3 groups according to their complaints, rhinoscopy and endoscopic examination. Endoscopic examination of the patients' nasal cavity was done by using Endoscope apparatus Eleps (Kazan, TO-ElePS po TU 9442-034-12966357-2010) with diameter 3 mm, length 175 mm and viewing angle 0° .

Also, patients were divided into 3 groups according to the degree of obstruction of the nasal cavity with polypous tissue:

A group - 1/3 of the lumen of the nasal cavity;

B group - 2/3 of the lumen of the nasal cavity;

C group - complete obstruction of the lumen of the nasal cavity.

Samples of polypous tissue were taken during surgery and immediately sent for enzyme immunoassay. The concentration of indicators was expressed per 1 mg of total protein determined by the Lowry method. The studied parameters in the lysates were evaluated using standard kits for direct enzyme immunoassay in accordance with manufacturers' instructions. Values were measured on an ELX800 automatic universal micro plate reader.

When comparing the indicators were used Student t-test, Mann-Whitney test, median test, Pearson correlation test (r) and Spearman rank correlation test (R). Statistical data processing was carried out using the software packages "Statistica 6.0" (StatSoft Inc.) and "R-2.15.0 for Windows" (R-project).

Results. The concentration of p53 in polypous tissue with PE increases with increasing duration of PE. The same trend was observed in the study of the content of p53 in serum, so with a duration of PE of up to 3 years, the number of p53 exceeded the norm by 1.5 times, and with a pathology of 10-15 years, 2.9 times.

Determination of the level of EGF revealed a significant difference in the median values of this indicator in blood plasma, while the median level of EGF was 1.4 times higher with PE compared with the control group.

We found that the VEGF content in blood plasma is higher than the indices of the control group in 104 (85%) of 122 examined patients, while the average value and median of this indicator also significantly increased in polypous tissue ($p < 0.05$). A significant increase was also revealed in the level of VEGFR-2 ($p < 0.05$) in polypous tissue. Comparing the levels of VEGFR-2 in blood plasma compared with the control group, we found an increase in its polypeptide content by 3-87% in 82% of patients.

A weak but significant direct correlation was observed between the levels of VEGFR-2 and VEGF in polypous tissue ($r = 0.35$; $p < 0.05$). Determining the level of VEGF revealed a significant difference in the median values of this indicator in blood plasma, while the median level of VEGF was 1.5 times higher with PE compared with the control group.

In all patients, the amount of p53 in the blood plasma were 6 months after the operation taken a comparable value with the parameters of the control group, the level of p53 in the blood plasma returned to normal after 1.5 ± 0.14 months in group A, after 3.4 ± 0.28 months in group B, in group C, the p53 level reached normal values after 5.8 ± 0.12 months. The level of VEGF and VEGFR-2 in blood plasma returned to normal after 1.1 ± 0.14 months in group A, after 2.8 ± 0.17 months in group B, in group C the level of VEGF and VEGFR-2 reached normal values after 4.9 ± 0.17 months. In turn, the level of EGF in the blood plasma returned to normal after 2.1 ± 0.28 months in group A, after 3.8 ± 0.24 months in group B, in group C the level of EGF reached normal values after 5.2 ± 0.21 months.

Summary:

1. The study of the concentration of p53 protein, VEGF and VEGFR-2 and EGF in plasma in patients with PE is important in the diagnosis of the disease and the control of the recurrence of the process.

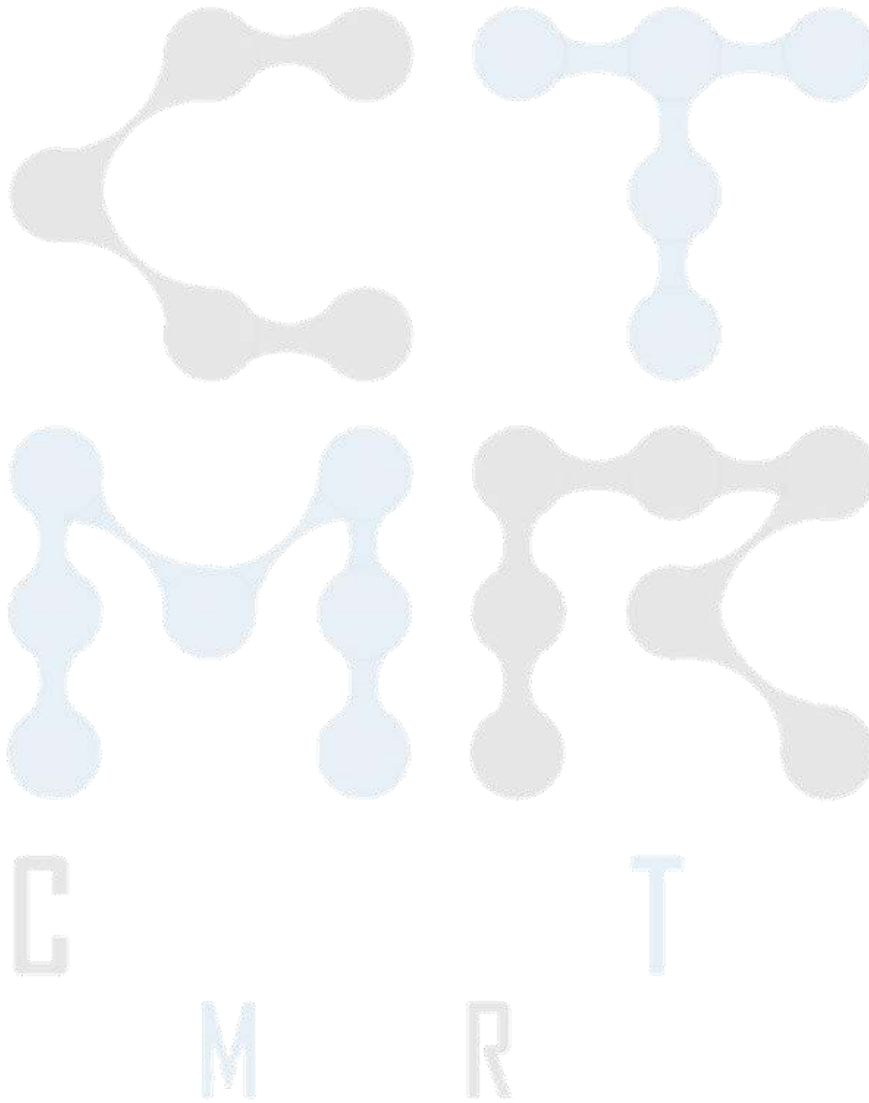
2. After surgical removal of polypous, the levels of p53, VEGF and VEGFR-2 and EGF in the blood serum decrease inversely with the duration of the disease, normalizing for 6 months. 3. The level of p53 protein, VEGF and VEGFR-2 and EGF in the blood are significant prognostic markers of PE.

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COVID-19 и постковидный синдром у детей (Обзор литературы)

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Аннотация.

Постковидный синдром является актуальной проблемой современной медицины, требующей внимания врачей различных специальностей. Учитывая разнообразные клинические проявления и необходимость проведения комплексной реабилитации пациентов, в том числе детей и подростков, был проведен обзор литературы, связанной COVID-19 и ЛОНГ-ковидом. В обзоре рассмотрены клинические проявления данного заболевания. Были отражены особенности течения постковидного синдрома у детей: наличие мультиорганных поражений организма ребенка, аутоиммунных поражений, выраженных изменений со стороны иммунной системы, вопросы вакцинации детям против COVID-19. Всё это определяет необходимость проведения дальнейших исследований в этом направлении.

Ключевые слова: COVID-19, постковидный синдром, мультисистемный воспалительный синдром, дети, реабилитация, осложнения, васкулопатии, коагулопатии, прививки, иммунитет.

В начале пандемии COVID-19 в связи с небольшим количеством подтвержденных случаев заболевания среди детей считалось, что дети и подростки менее восприимчивы к заражению SARS-CoV-2, чем взрослые. Однако со временем стало ясно, что низкая доля подтвержденных случаев связана с преобладанием бессимптомных и легких форм COVID-19 и, соответственно, с низким уровнем тестирования детей (1,2,7). Особую обеспокоенность вызвали данные о развитии у детей, перенесших COVID-19, мультисистемного воспалительного синдрома (МСВС), характеризующегося тяжелым полиорганным поражением (3,17). В начале пандемии большее внимание уделяли острому периоду COVID-19, но на данный момент вектор интереса сместился в сторону последствий перенесенной коронавирусной инфекции — long COVID-19 и постковидного синдрома (4,19).

По классификации Национального института здоровья Великобритании (National Institute for Health and Care Excellence, NICE) выделяют (14):

- острый COVID-19 (симптомы COVID-19, проявляющиеся до 4 нед. от начала заболевания);
- продолжающийся симптоматический COVID-19 (ongoing symptomatic COVID-19, от 4 до 12 нед.);
- постковидный синдром (свыше 12 нед.).

Термин «длительный COVID» (long COVID) включает в себя симптомы, которые продолжаются или развиваются после острого периода COVID-19, по классификации NICE к long COVID относятся как продолжающийся симптоматический COVID-19, так и постковидный синдром (6,14).

В первых описаниях клинического течения новой коронавирусной инфекции COVID-19 уже были сообщения о частых поражениях нервной системы — от инсультов до некротической энцефалопатии и синдрома Гийена—Барре. Позже появились описания отсроченных нарушений: длительный ковид (англ. *long-COVID*), постковидный синдром. Общепризнанной клинической картины, классификации и эпидемиологии этого синдрома нет. Вместе с тем в Великобритании за 6 мес повторная госпитализация среди выписанных из больниц после перенесенной коронавирусной инфекции возросла в 4 раза, а смертность — в 8 раз (2).

По данным П.А. Воробьева с соавт. (2021). У взрослых была сформирована группа из 29 наиболее часто встречающихся симптомов и признаков постковидного синдрома: 17 из них связаны с дисфункцией нервной системы, 8 признаков могут иметь нейрогенную природу, а 4 — относятся к проявлениям васкулита. В патогенезе постковидного синдрома, лежит менигоэнцефалит, связанный с тромбоваскулитом. Выделенные состояния в классификации постковидного синдрома требуют разработки комплексной патогенетической терапии.

Патологические синдромы и состояния, обусловленные инфекцией SARS-CoV-2 как в острой фазе, так и при постковидном синдроме, формировались в виде постковидного тромбоваскулита различных отделов нервной системы (постковидный менигоэнцефалит), ипохондрический постковидный синдром, постковидный васкулит микро- и макрососудов в бассейне кожи и ее придатков, вторичные функционально-морфологические изменения тканей и систем, отдельные синдромы аутоиммунных реакций, отсроченного сочетанного постковидного осложнения с поражением кожи, сосудов и нервной системы (1).

Первые случаи в мире COVID-19 у детей: первым ребенком с COVID-19 был 10-летний мальчик из Шэньчжэня, обследованный по семейному контакту из ранее диагностированной семьи из Шэньчжэня. Заболевание у него протекало бессимптомно (Чан Дж. Ф. с соавт. 2020).

Позже, 19 января 2020 года, было сообщено о 7-летнем мальчике с лихорадкой и кашлем в Шанхае после посещения деда в Ухане. Заражение детей и от детей, по большей части, происходит в семьях (6).

По данным О.Н. Ивановой, (2021), медики выявили британский штамм коронавирусной инфекции у жителей Якутии. У детей после перенесенной инфекции британского штамма SARS-COV-2 отмечается постковидный синдром. Изучение особенностей течения постковидного синдрома у детей после инфекции британского штамма SARS-COV-2 показал, что все пациенты перенесли инфекцию SARS-CoV-2 в течение предыдущих 6 месяцев. Возраст пациентов составлял от 1 до 15 лет. У детей после COVID-19 отмечались частые ОРВИ и тонзиллиты в последующие 6 месяцев, утомляемость и слабость, изменение вкуса и запаха, нарушения сна. В период последующих месяцев у детей отмечены изменения общеклинических, биохимических анализов и иммунограммы (3).

По данным Huang R. с соавт., (2020) особенностями течения COVID-19 у детей являются, то, что дети болеют реже по сравнению со взрослыми, у них менее выраженная клиническая симптоматика, реже требуют госпитализации, заболевание в большинстве случаев протекает легче. Дети составляют до 10% в структуре инфицированных SARS-CoV-2, а в Российской Федерации - около 7,6% зарегистрированных случаев COVID-19.

У детей так же, как у взрослых, доминируют лихорадка и респираторный синдром, однако менее выражены лимфопения и воспалительные маркеры. Заболевание регистрируется также у новорожденных, но внутриутробная передача инфекции активно обсуждается, но не доказана (Jonas F., 2021). Относительно редкими и не превышающими 10%, у госпитализированных детей, отмечались диарея, слабость, ринорея, рвота, а также у половины госпитализированных детей были выявлены тахикардия, а у трети – тахипноэ. У детей редко наблюдается снижение сатурации менее 92%.

Факторами риска тяжелого заболевания у детей является неблагоприятный преморбидный фон (дети, имеющие заболевания легких, врожденные пороки сердца, бронхолегочную дисплазию, болезнь Кавасаки); иммунодефицитные состояния разного генеза, в т.ч. ВИЧ (чаще заболевают дети старше 5 лет, в 1,5 раза чаще регистрируют пневмонии); коинфекция с респираторно-синцитиальной инфекцией (11). Тяжелые и крайне тяжелые формы COVID-19 у детей приходились на возраст от 0 до 5 лет.

С началом распространения дельта-вируса и омикрона отмечаются новые особенности в течении новой коронавирусной инфекции у детей, где инкубационный период так же, как и у взрослых, стал более коротким, и дети активнее вовлекались в эпидпроцесс. Прослеживается более быстрая манифестация заболевания. Если в 2020 году речь шла о 7,6% детей в общей структуре заболевших, то в настоящее время их доля увеличилась до 11%. Ранее преобладали бессимптомные и легкие формы, но с появлением дельта-вируса и омикрона возросла манифестация заболевания, особенно у детей до года и в подростковом возрасте.

Многие авторы задают вопрос: «Почему дети болеют легче?». Есть разные предположения, среди которых, наличие у них более активного врожденного иммунного ответа, более здоровых дыхательных путей, потому что они не подвергались воздействию такого же количества сигаретного дыма и загрязнения воздуха, как взрослые. У детей также отмечается меньшее количество хронических соматических заболеваний (Hagmann S., 2020) (9).

Одновременное присутствие других вирусов в слизистой оболочке легких и дыхательных путей, которые часто встречаются у детей раннего возраста, может ограничить рост SARS-CoV2 путем прямого вирусно-вирусного взаимодействия и конкуренции (синергизм) (12).

Одна из гипотез более легкого течения заболевания у детей – особенности строения и количество рецепторов ангиотензинпревращающего фермента II типа. Существует связь между количеством вирусных копий и тяжестью COVID-19 (13).

Zhvania M. с соавт. 2021, провели научное исследование и выявили осложнения в постковидном синдроме у детей. В 2020–2021 гг. в одной из клиник под наблюдением находились 60 детей с пост-COVID-осложнениями и поздним COVID-синдромом. Более половины (32 ребенка — 53,3%) были в возрасте до 5 лет, с преобладанием мальчиков (33 ребенка — 55%), у которых была инфекция COVID-19 за 1,5–2 мес до обращения с положительной реакцией на антитела. Большинство из них (51 ребенок — 85%) до болезни были здоровы. Отмечались васкулопатия, иммунная тромбоцитопения, малая талассемия, первичный диабет, железодефицитная анемия, коагулопатия, пневмония, ателектаз, обострение основного заболевания — артралгии, артрита и аномальных проявлений нарушения сна, общей слабости и головокружения.

Отдельно необходимо выделить мультисистемный воспалительный синдром у детей — MIS-C (8 детей — 13%), протекающий с клиническими признаками болезни Kawasaki (кожно-слизисто-лимфатический синдром) с гектической лихорадкой, полисерозитом, гепатоспленомегалией, высокими показателями маркеров воспаления, склонность к гиперкоагуляции. У одного пациента была аневризма коронарной артерии. Всего было госпитализировано 22 (36%) пациента, остальные наблюдались амбулаторно. На основании вышеизложенного можно сделать вывод, что даже при бессимптомном течении COVID у детей могут наблюдаться осложнения и синдром так называемого позднего COVID, что диктует необходимость тщательного обследования этих пациентов и наблюдения в динамике (21).

В просмотренной литературе имеются данные о вакцинации детей против COVID-19. FDA проанализировало исследование, в котором приняли участие более 2200 детей в США в возрасте от 12 до 15 лет. Через неделю после введения второй дозы вакцины не выявили случаи COVID-19 у 1005 детей, которым была введена вакцина Pfizer-BioNTech. Среди 978 детей, получивших плацебо, было выявлено 16 случаев COVID-19. Ни у одного из детей ранее не был диагностирован COVID-19. Результаты показывают, что вакцина на 100 % эффективна в предотвращении COVID-19 в этой возрастной группе. В России снизить вероятность инфицирования и уменьшить риск развития осложнений предложено с помощью вакцинации Спутник М, которая стала одной из первых противокоронавирусных вакцин в мире зарегистрированных для иммунизации лиц младше 18 лет. Спутник М - вакцина для детей и подростков, по составу является полным аналогом Спутника V, концентрация которого была снижена в 5 раз. Из-за особенностей работы иммунной системы в детском возрасте, такого количества векторных частиц достаточно, чтобы выработать необходимые антитела. С 11 ноября 2021 года препарат находится на третьей фазе испытаний. На этом этапе будет изучено влияние вакцины, возможные побочные эффекты и ее эффективность при участии 3000 подростков: 2400 получают вакцину, 600 – плацебо. Вакцина от коронавируса для подростков испытывается только на здоровых добровольцах в возрасте от 12 до 17 лет. Детям младшего возраста в настоящее время прививку не делают из-за отсутствия данных об эффективности и безопасности препарата у данной категории населения. Спутник М был зарегистрирован Министерством Здравоохранения Российской Федерации 24 ноября 2021 года. Временные методические рекомендации «Порядок проведения вакцинации против новой коронавирусной инфекции (COVID-19) Москва 2021 22.12.2021 разрешают применение вакцины «ГамКОВИД-Вак-М» у детей в возрасте 12-17 лет (4).

Таким образом, работы, посвященные исследованию роли в формировании и прогрессировании постковидного синдрома у детей, а также влияние различных патогенов на организм в литературе практически отсутствуют, что доказывает необходимость проведения дальнейших исследований в этом направлении.

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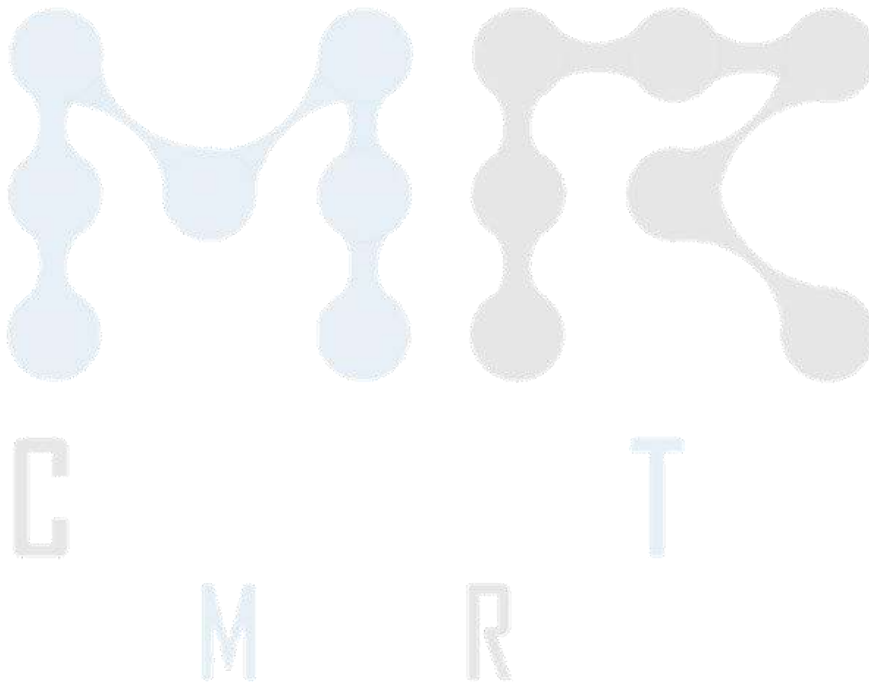
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THE IMAGE OF AXONOMETRIC PROJECTIONS IN CONJUNCTION WITH
COMPLEX DRAWINGS

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Annotation. While the working drawing of a part is the basis of production, it takes mental effort and time to quickly visualize its shapes and structural structure. And in this case, there is a need for an auxiliary clear image, that is, an axonometric projection of the object. This article presents theoretical material on the graphical construction of an axonometric projection such as a trimetric projection of a part based on a complex drawing of a part and with its binding. At the same time, it relies on an auxiliary projection method.

Keywords. Complex drawing, orthogonal projection, working drawing, image, axonometry, projection direction, axonometry axes, compression ratio, axonometry plane, trimetry, trimetry axes, true axonometry, mentioned axonometry.

Introduction. We all know that in production mainly rely on working and assembly drawings of details and items. These drawings are necessarily based on the orthogonal orthogonal projection type of the parallel projection method. On the basis of the working drawing, the detail is divided into full information about the metric characteristics of all the elements contained in it. A drawing is therefore a constructor document with a restoration property, also holds, because in orthogonal projection, the object is conveniently placed relative to the planes of projections. In orthogonal projective drawings, one can sufficiently determine the interior and exterior of an item using shears and cross sections.

But according to the drawings of the object in orthogonal projections, it is difficult to imagine their spatial forms. In such cases, the need arises to supplement the drawing of an item with its obvious image. Such images can be axonometric projections. But not all axonometric projections are evident. Illustrating the object vividly will depend on the direction of projection and the plane of projections' other situations. Axonometric projection is briefly referred to as axonometry (axonometry is a Greek word meaning axon – axis, metrien – measure, i.e. measure on axes). [1]⁵

Axonometric projections draw through $O'zDST$ 2.317:96.[3]⁶ A projection of an object placed in a Descartes coordinate system and its projections on an arbitrary derived P plane along the direction s given in conjunction with that system is called its axonometry.

The plane P is referred to as the plane of axonometry. Axonometric projections are of two types: right angle axonometric projection (angle $\varphi=90^\circ$ between plane s and plane P); oblique angle axonometric projection (angle $0^\circ < \varphi \neq 90^\circ$ between plane s and plane P). [2]⁷

The group of vivid images also includes perspective images and technical images. But axonometric projections are standardized, with the types being classified. By constructing an

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axonometric projection of a detail, an object, a building, it is possible to visualize it in a short time. However the detail, item, buildings are not made through given axonometric projections, but instead serve as an additive-auxiliary image.

The construction of a standard axonometric projection of a detail requires certain knowledge, skills, and is also a somewhat time-consuming process. especially for the construction of real axonometry, mathematical calculations are also murijaat. There is a need for new approaches to perform axonometric projections to reduce the number of these geometric and mathematical operations, to save time, and to attract future engineer, constructor young students to think differently, to develop their scientific worldview.

Methods. The right-angled axonometric projections themselves are further divided into three. These are, right angle isometry ($KX=KZ=KY$; 1:1:1), right angle dimetry ($kx=KZ \neq KY$; 1:0.5:0.1), right angle trimetry ($kx \neq KZ \neq KY$; 0.86:0.58:0.96). In right-angle axonometric projection, the sum of the squares of change coefficients on the axes are 2: $KX^2 + KY^2 + KZ^2 = 2$.

In right-angle isometry, the contraction coefficients in all three axes are $KX=KZ=KY=0.82$, and it is called True axonometry. But scientists, among themselves, called it a Celt axonometry, introducing it into the quoted axonometry and introducing it into the standard. In rectangular quoted isometry, the contraction coefficients in all three axes are taken to be equal to $KX=KZ=KY=1$, and the detail is described as slightly larger than its actual magnitude. This process follows as follows:

$$K^2x + K^2y + K^2z = \text{Equation 2 and } KX = KY = KZ \text{ from equation}$$

$$K^2x + K^2x + K^2x = 2;$$

$$3K^2x = 2;$$

$$K^2x = 2/3;$$

$$k_x = \sqrt{\frac{2}{3}};$$

$$K_x \approx 0,82;$$

The actual contraction coefficient $kx=KY = KZ \approx 0.82$ follows. From which $KX=KY=KZ \approx 1$ is converted to quoted axonometry - isometry.

In rectilinear quoted dimetry, the contraction coefficients of two $KX=KZ$ axes are taken as equal to 1.00 and KY da as equal to 0.5 ($KY \neq KX/2$), and the detail is described as slightly larger than its actual size. This process follows as follows:

$$K^2x + K^2y + K^2z = \text{Equation 2 and } KX=KZ \neq KY \text{ (} KY=KX/2 \text{) from equality } k_x^2 + k_x^2 + \left(\frac{k_x}{2}\right)^2 = 2;$$

$$k_x^2 + k_x^2 + \frac{k_x^2}{4} = 2;$$

$$9k_x^2 = 8;$$

$$k_x = \sqrt{\frac{8}{9}} = \frac{2\sqrt{2}}{3} \approx 0,94$$

The real contraction coefficient $K_X \approx 0,94$ follows ($K_X \approx 0,94$; $K_Z \approx 0,94$; $K_Y \approx 0,47$). From it, $K_X = K_Z \approx 1$, $K_Y = 0,5$ are transferred to the quoted axonometry - dimetry.

Oblique angle axonometric projections are divided into four. These are the oblique oblique frontal isometry ($K_X = K_Z = K_Y$, $1:1:1$), oblique angle horizontal isometry ($K_X = K_Z = K_Y$; $1:1:1$), oblique angle frontal dimetry ($K_X = K_Z \neq K_Y$; $1:0,5:1$), oblique angle trimetry ($K_X \neq K_Z \neq K_Y$, $0,88:0,55:0,95$). In a skew axonometric projection, the sum of the squares of the coefficients of variation on the axes is equal to the sum of the square of the cotangency of the angle of projection by the number 2: $K_X^2 + K_Y^2 + K_Z^2 = 2 + \text{ctg}^2 \varphi$. [4]⁸ Even in oblique-angle axonometric projections, the contraction coefficients of the real axonometry axes can be determined as above, and the transition from it to the quoted axonometry.

Results. Drawing axonometric projections according to a given complex drawing requires a lot of work, since it requires determining the actual coordinates of the points of the object, taking into account the shrinkage coefficients, and then moving these coordinates from the complex drawing to the axonometric projection.

In order to calculate real coordinates and get rid of operations to move measurements from complex drawing to axonometry, axonometric images can be constructed directly in relation to their right-angle projections, using the auxiliary projection method.

The axonometric projection is generated by projecting the object in its given direction to an additional plane, the plane of axonometric projections (via the auxiliary projection apparatus), and it is re-projected unchanged to the main (frontal) plane.

Depending on the direction of axonometric projection and the state of the plane of axonometric projections, a diagram of the auxiliary projection method is determined for each type of axonometry.

Consider constructing a diagram of the auxiliary projection method. let a be required to project the additional projection of a straight line onto the auxiliary plane perpendicular to it, and then to descend the resulting image with the drawing plane superimposed.

We give the plane of auxiliary projections at point a through the intersecting horizontal AB and frontal AC (image1). Where the frontal projection of the horizontal line (A"B") and the horizontal projection of the frontal line (A'C') are overlapped. The horizontal projection of the horizontal line (a'B') and the frontal projection of the frontal line (A"C") are perpendicular to a' and a'' respectively. We bring the given plane to the frontal position by rotating it around the AC frontal. We define the new situation of the horizontal line AB using the fixed points A and The moved points B. Where B'' point is perpendicular to C'' and acting in a state parallel to a'' B₀ determines the situation. Where A''B₀ = A'B', because AB is equal to its actual size in a sectional rotated state.

⁸ Муродов Ш., Ҳакимов Л., Одилов П., Шомуродов А., Жумаев М. Чизма геометрия курси. -Тошкент: "Ўқитувчи", 1988-йил, 245-бет.

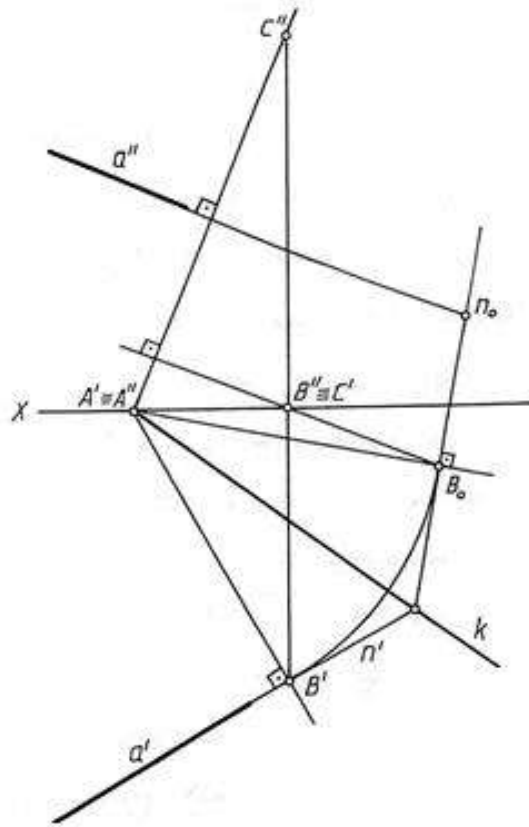


Image 1.

The point at which a straight line a intersects with the plane of auxiliary projections belongs to the greatest deviation line n of that plane, the horizontal n' projection of that line being perpendicular to $A'B'$.

The situation (n_0) of the line n overlapped with the plane of the drawing will be perpendicular to the $A'B_0$ line. Where n_0 is called the line defining the linear image.

The rotation of the plane of auxiliary (perpendicular) projections can be replaced by the projection onto the bisector plane between that plane and the plane of frontal projections. This line of the bisector plane intersecting the bisector plane of the fourth quarter is described as the bisector of the angle $B'A'B_0$ and determines the K axis of the auxiliary projection method.

The auxiliary projective axis is the line passing to the lines that define the images of the horizontal projections of the projective lines.

Now, based on the above theory, consider constructing the axonometry of a cube in right-angle isometry and dimetries in the auxiliary projection method.

The right-angle isometry of a cube can be constructed by auxiliary projection in its diagonal direction, by auxiliary projection perpendicular to that direction.

The second image depicts rectangular (horizontal and frontal) projections of the cube. Where the direction of projection is at an angle of 45° relative to the horizontal line. The image-detecting lines are positioned at an angle of 15° with respect to the vertical line, while the auxiliary projection axis K is positioned at an angle of 30° with respect to the horizontal line.

Since the situation of the K axis and all other directions are known, there is no need to build a diagram when applying the auxiliary projection method in practice.

There is also a disadvantage in the construction of right-angle isometry, despite the simplicity and convenience of the auxiliary projection method. This is when isometric images are located in a deviant situation relative to the vertical orientation. This is of course the detail axonometry causes a certain discomfort in being able to see or observe quality, evoking in a person the same feeling as if the detail was partially resting on itself.

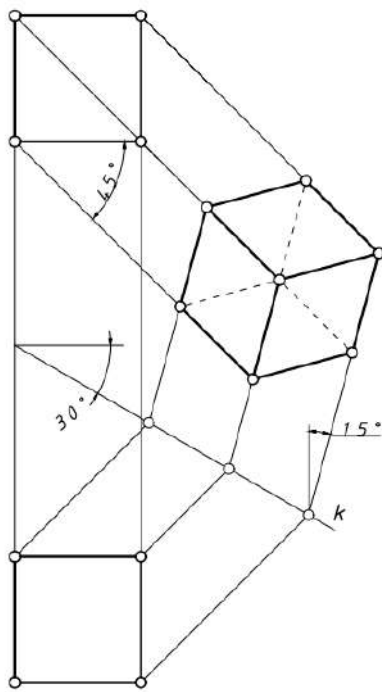


Image 2.

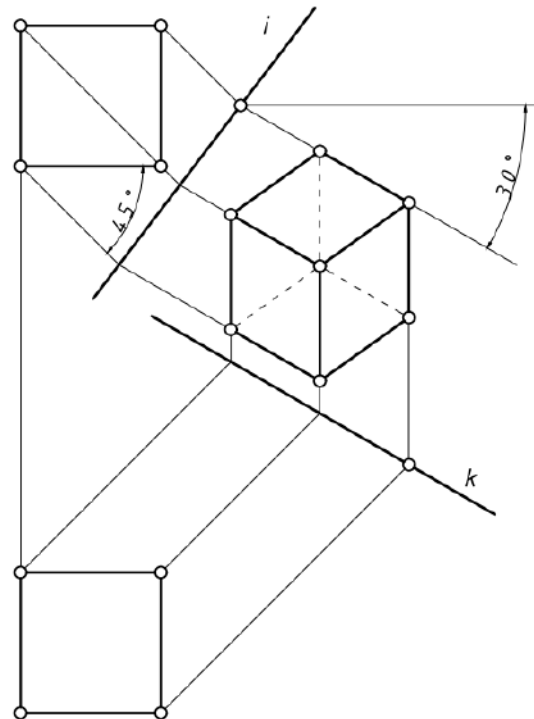


Image 3

To eliminate such inconvenience, additional arrows can be inserted into the projection apparatus that change the direction of the projecting beams. (image 3).

Above the frontal projection of the projection direction, we select point E at an arbitrary position, and through it we pass an arrow so that the projective rays turn 30° relative to the horizontal line. This axis will be the bisector of the angle between the main and twisted directions. The resulting axonometric projection of the Cube will be an image constructed with contraction coefficients.

In order for it to be convenient to measure dimensions from an axonometric drawing, it is advisable to build it with the presented shrinkage coefficients. In this case, it is necessary to use such a scheme of building a right angle isometry, in which the axonometry axes are placed with dimensions that are not reduced.

The fourth drawing shows a scheme for constructing a right-angle isometry of a cube through the quoted contraction coefficients (Image 4).

In this case, the frontal projections of the projective Rays are deflected using the vertical axis obtained at an arbitrary position of the drawing, and they are directed at an angle of 30° with respect to the horizontal line using the horizontal axis. The axis that deflects the horizontal projections of the projective rays is positioned at an angle of $\approx 9^\circ$ with respect to the horizontal line. Such an angle is easy to build graphically. To do this, we construct an axonometry of Point A(A') by optionally selecting a point " F". Then we measure the equal cross section A'B 'and pass a vertical line from

point B'. This line intersects with the horizontal projection of the projective beam passing through point B' to give point F. The line passing through points E and F will be the deflecting axis.

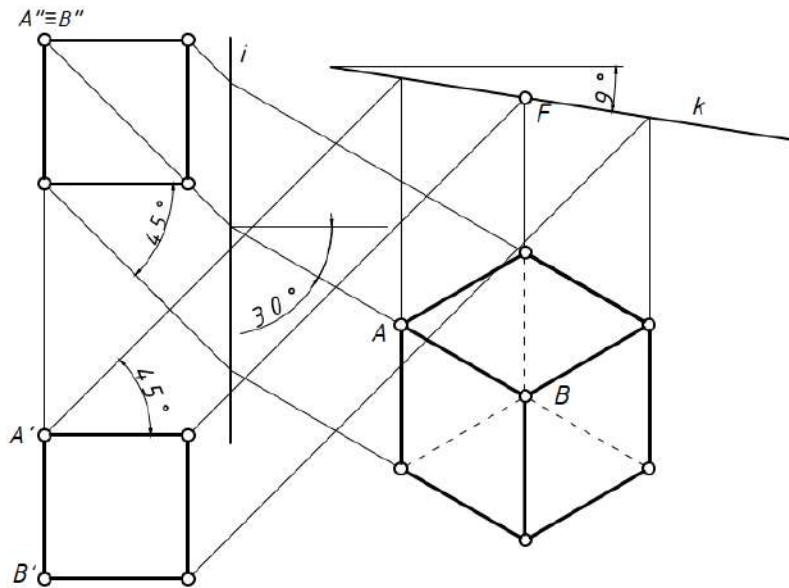


Image 4

A rectangular isometric projection of the detail was constructed using this method in the fifth image (Image 5).

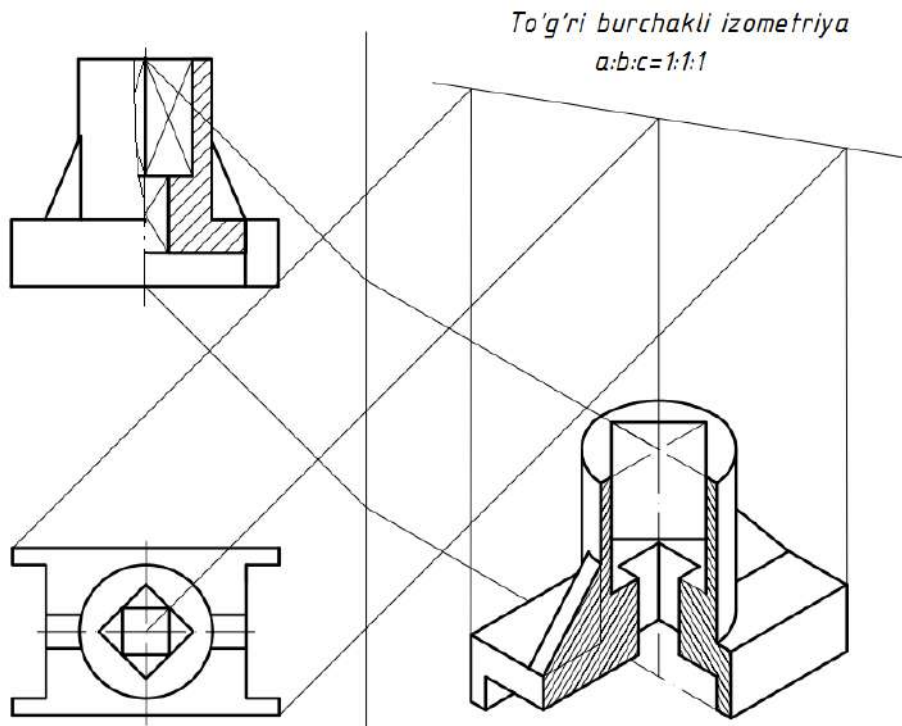


Image 5

When constructing a rectangular diameter projection of a cube in the auxiliary projection method, the frontal and horizontal projections of the projection directions are placed at an angle of $20^{\circ}42'$ relative to the horizontal line. The determining line is $7^{\circ}11'$ relative to the vertical line, while the K axis is positioned at an angle of $41^{\circ}42'$ relative to the horizontal line (Image 6).

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To produce a dimetric projection with a vertical axis, Arrows are inserted that deflect the direction of the projective rays.

In order to construct a dimetric projection through the induced contraction coefficients, the axis deflecting the frontal projections of the projective rays is taken vertically, while the axis (K) deflecting the horizontal projections of the rays is determined by 2 points, as in the construction of a right-angle isometry (image 3). To do this, we select an arbitrary point E in the horizontal projection of light passing through point A' and construct a dimetry of Point A (A', A''). From point A to the line passing at an angle of $7^\circ 11'$ with respect to the horizontal line, we measure the $A'B'$ cross section equal to the actual size of the cube edge and have the AB cross-section dimetry. Then we pass a vertical line from point B and determine the point F , which intersects it with the horizontal projection of the projective beam passing through point B' . The EF line auxiliary projection axis is k .

The seventh drawing gives examples of the construction of the rectangular dimetry of the detail (image 7).

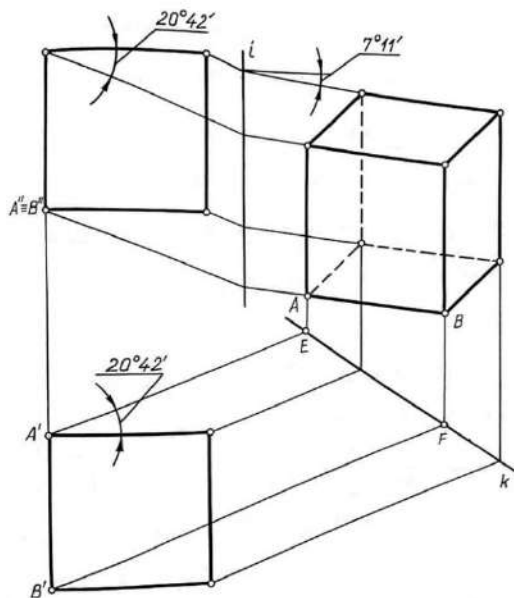


Image 6

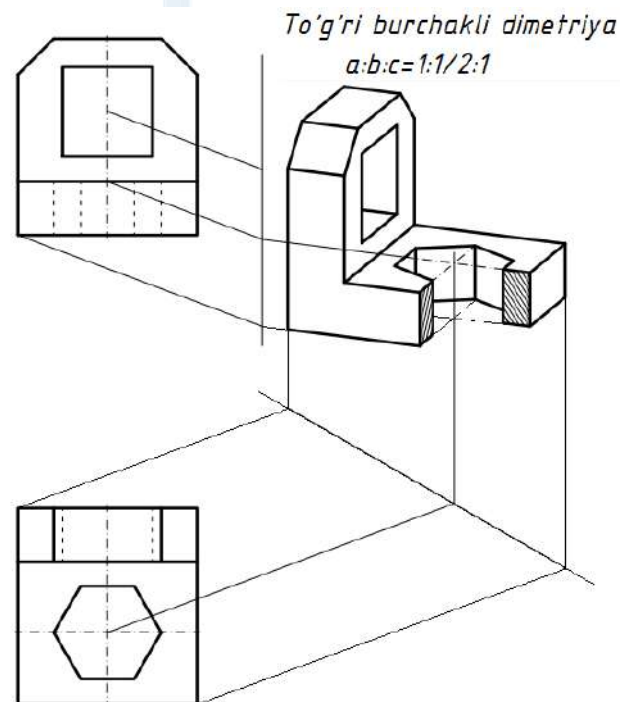


Image 7

Discussion. In general, vivid images are considered auxiliary images that can quickly bring a person to the sight of the origin of an item. There are many references to vivid images in marriage and technique, engineering work, fine arts. For example artists refer to the rules of perspective when they want to depict the painting they are drawing in a realistic direction, and draw a perspective representation of the objects in their work (both the geometric structure of the object and the depth of space in the colors).

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Architects, on the other hand, refer to the axonometrics and perspective image of the building. As a result, the project will make changes and adjustments to the structure of the building in the process.

The constructor also paints an axonometric projection of the detail or object he designed in conjunction with working and assembling drawings. It will definitely serve as an auxiliary material for the detail-making worker.

And in the educational process, vivid images, especially axonometric projections, serve to quickly structure the drawing of details and objects of the student and students, and to develop reading skills, to cultivate graphic and technical literacy.

Mastering scientific theoretical materials related to the implementation of standard axonometric projection and its types in combination with their direct connection to a complex drawing will serve as useful material for the future teacher of drawing, constructor, architect.

Conclusion. As a result of communicating, teaching the materials of this scientific article to undergraduate students of higher education, especially at the graduate level, they develop such qualities as scientific thinking and observation. Also their graphic and technical literacy grows, improves.

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The use of dynamic econometric models in estimating the production volume of small business

Uzbekistan

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Abstract. This article aims to analyze the state of events and processes that may occur in the future in the production volume of small businesses in Surkhandarya region based on econometric modeling, in which the GNP and the relationship between the volume of small business production are evaluated scientifically based on quantity and quality, proposals and recommendations are developed.

Key words: GDP, small business, small business production volume, time series, Almon model, lag value

Introduction

The importance of using dynamic econometric models evaluating the impact of small business in ensuring the social and economic development of the region is high. Not all models based on time variation are dynamic econometric models. The term "dynamic" characterizes not the entire period during which the model is being built, but each moment of time t separately.

If the econometric model takes into account the values of the variables related to the current and previous moments at a given moment of time, and if this model reflects the dynamics of the studied variables at each moment of time, it is considered as dynamic.

Almon's method or Almon's lag are used to estimate the uncertain coefficients of the lag-distributed model. This method can be used in models characterized by a polynomial lag structure and a finite lag value (L):

$$y_t = \beta_0 + \beta_1 x_t + \beta_2 x_{t-1} + \dots + \beta_L x_{t-L} + \varepsilon_t \quad (1)$$

The lag structure is determined graphically when reflecting the dependence of the parameters of the factor variables on the value of the lag.

Almon method algorithm is implemented in several steps.

The essence of the Almon method is as follows:⁹

1) dependence of the coefficients on the j lag value for the factor variable b_j is approximated by a polynomial function:

a) first class $b_j = c_0 + c_1 j$;

b) secondary $b_j = c_0 + c_1 j + c_2 j^2$;

c) Third level $b_j = c_0 + c_1 j + c_2 j^2 + c_3 j^3$;

g) Polynomial function of degree k in the general case:

$$b_j = c_0 + c_1 j + c_2 j^2 + \dots + c_{3k} j^{3k} \quad (2)$$

Almon proved that it is much easier to calculate the values of the coefficients c_j ($j=0,P$) than to find the values of the β_j coefficients directly.

⁹ Yeliseeva I.I. Ekonometrika. M.: Finance and statistics. -2003.-S. 299-301

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2) Each coefficient of the model (1) can be expressed as follows:

$$\begin{aligned}
 b_0 &= c_0; \\
 b_1 &= c_0 + c_1 \dots + c_k; \\
 b_2 &= c_0 + c_1 + 4c_2 + \dots + 2^k c_k; \\
 b_3 &= c_0 + 3 c_1 + 9c_2 + \dots + 3^k c_k;
 \end{aligned}$$

...

$$b_l = c_0 + l c_1 + l^2 c_2 + \dots + j^k c_k \tag{3}$$

We replace the obtained expressions into the model for b_j coefficients:

$$\begin{aligned}
 y_t = a + c_0 \cdot x_t + (c_0 + c_1 + \dots + c_k) \cdot x_{t-1} + (c_0 + 2 \cdot c_1 + 4 \cdot c_2 + \dots + 2^k \cdot c_k) \cdot x_{t-2} \\
 + (c_0 + 3 \cdot c_1 + 9 \cdot c_2 + \dots + 3^k \cdot c_k) \cdot x_{t-3} + \dots + (c_0 + l \cdot c_1 + l^2 \cdot c_2 + \dots \\
 + l^k \cdot c_k) \cdot x_{t-l} + \varepsilon_t \tag{4}
 \end{aligned}$$

3) We apply the method of regrouping the participants to the obtained result:

$$\begin{aligned}
 y_t = a + c_0 \cdot (x_t + x_{t-1} + x_{t-2} + \dots + x_{t-l}) + c_1 \cdot (x_{t-1} + 2 \cdot x_{t-2} + 3 \cdot x_{t-3} + \dots + l \\
 \cdot x_{t-l}) + c_2 \cdot (x_{t-1} + 4 \cdot x_{t-2} + 9 \cdot x_{t-3} + \dots + l^2 \cdot x_{t-l}) + \dots \\
 + c_k \cdot (x_{t-1} + 2^k \cdot x_{t-2} + 3^k \cdot x_{t-3} + \dots + l^k \cdot x_{t-l}) \\
 + \varepsilon_t \tag{5}
 \end{aligned}$$

4) After the c_j coefficient, we define the sums in parentheses as new variables:

$$\begin{aligned}
 z_0 &= x_t + x_{t-1} + x_{t-2} + \dots + x_{t-l} = \sum_{j=0}^l x_{t-j}; \\
 z_1 &= x_{t-1} + 2 \cdot x_{t-2} + 3 \cdot x_{t-3} + \dots + l \cdot x_{t-l} = \sum_{j=l}^l j \cdot x_{t-j}; \\
 z_2 &= x_{t-1} + 4 \cdot x_{t-2} + 9 \cdot x_{t-3} + \dots + l^2 \cdot x_{t-l} = \sum_{j=l}^l j^2 \cdot x_{t-j} \tag{6}
 \end{aligned}$$

$$z_k = x_{t-1} + 2^k \cdot x_{t-2} + 3^k \cdot x_{t-3} + \dots + l^k \cdot x_{t-l} = \sum_{j=l}^l j^k \cdot x_{t-j}$$

We can make the model look like this:

$$y_t = a + c_0 \cdot z_0 + c_1 \cdot z_1 + c_2 \cdot z_2 + \dots + c_k \cdot z_k + \varepsilon_t \tag{7}$$

The results of dynamic series application show that Almon's model is the most convenient method for solving tasks of econometric modeling of the relationship between GNI and the volume of small business production.

The preliminary statistics for modeling are presented in the table below.

Table 1

Dynamics of GDP and small business production volume of Surkhandarya region

| Years t | Y- GDP, bln. soum | Production volume of regional small business | X_{t-1} | X_{t-2} | X_{t-3} | X_{t-4} | Z_0 |
|---------|----------------------------|--|-----------|-----------|-----------|-----------|-------|
|---------|----------------------------|--|-----------|-----------|-----------|-----------|-------|

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| | | (billion soums) X | | | | | | | | |
|------|----|-------------------|----------|----------|----------|----------|----------|------------|---------|---|
| 2002 | 1 | 165,8 | 64,8278 | | | | | | | |
| 2003 | 2 | 261,8 | 124,0932 | - | - | - | - | - | - | - |
| 2004 | 3 | 395,1 | 175,8195 | - | - | - | - | - | - | - |
| 2005 | 4 | 489,8 | 217,961 | - | - | - | - | - | - | - |
| 2006 | 5 | 573,2 | 249,342 | 217,961 | 175,8195 | 124,0932 | 64,8278 | 582,7015 | 1201,19 | |
| 2007 | 6 | 724,4 | 310,04 | 249,342 | 217,961 | 175,8195 | 124,0932 | 767,2157 | 1709,09 | |
| 2008 | 7 | 981,5 | 606,57 | 310,04 | 249,342 | 217,961 | 175,8195 | 953,1657 | 2165,88 | |
| 2009 | 8 | 1220,9 | 780,16 | 606,57 | 310,04 | 249,342 | 217,961 | 1383,9132 | 2846,52 | |
| 2010 | 9 | 1531,5 | 1029,17 | 780,16 | 606,57 | 310,04 | 249,342 | 1946,1073 | 3920,78 | |
| 2011 | 10 | 1836,7 | 1285,69 | 1029,17 | 780,16 | 606,57 | 310,04 | 2725,9333 | 5649,35 | |
| 2012 | 11 | 3394,7 | 2434,00 | 1285,69 | 1029,17 | 780,16 | 606,57 | 3701,5801 | 8110,75 | |
| 2013 | 12 | 5217,1 | 3850,22 | 2434,00 | 1285,69 | 1029,17 | 780,16 | 5529,013 | 11213,5 | |
| 2014 | 13 | 6436,4 | 4775,81 | 3850,22 | 2434,00 | 1285,69 | 1029,17 | 8599,0777 | 16691,9 | |
| 2015 | 14 | 7436,4 | 5510,37 | 4775,81 | 3850,22 | 2434,00 | 1285,69 | 12345,7185 | 24921,0 | |
| 2016 | 15 | 9213,2 | 6863,83 | 5510,37 | 4775,81 | 3850,22 | 2434,00 | 16570,4009 | 36348,6 | |
| 2017 | 16 | 11114,4 | 8524,74 | 6863,83 | 5510,37 | 4775,81 | 3850,22 | 21000,235 | 47612,8 | |
| 2018 | 17 | 12179,6 | 9500,09 | 8524,74 | 6863,83 | 5510,37 | 4775,81 | 25674,76 | 57886,7 | |
| 2019 | 18 | 14404,4 | 11307,45 | 9500,09 | 8524,74 | 6863,83 | 5510,37 | 30399,0392 | 69182,5 | |
| 2020 | 19 | 18674,9 | 14939,92 | 11307,45 | 9500,09 | 8524,74 | 6863,83 | 36196,1208 | 83337,2 | |
| 2021 | 20 | 22393,5 | 17511,72 | 14939,92 | 11307,45 | 9500,09 | 8524,74 | 44272,2068 | 100154, | |
| 2022 | 21 | 24912 | 19207,15 | 17511,72 | 14939,92 | 11307,45 | 9500,09 | 53259,179 | 119314, | |

Using the above data, the calculation of the relationship between the volume of small business production and GDP in Surkhondarya region was carried out using the “Finding a solution” application of the Excel electronic processor (Table 2).

Table 2

Regression analysis in Excel for the relationship between GDP and small business production volume in Surkhondarya region

| <i>Indicator</i> | <i>Results</i> |
|--------------------|----------------|
| <i>R is plural</i> | <i>0,999</i> |

| | |
|---------------------------------------|----------|
| <i>R is a square</i> | 0,992 |
| <i>Normalized R-squared</i> | 0,990 |
| <i>Standard error</i> | 789,053 |
| <i>F</i> | 525,3529 |
| <i>Coefficient (Y₁)</i> | 896,03 |
| <i>Coefficient (Z₀)</i> | 2.96 |
| <i>Coefficient (Z₁)</i> | -2.18 |
| <i>Coefficient (Z₂)</i> | 0.39 |
| <i>Standard error (Y₁)</i> | 297.6786 |
| <i>Standard error (Z₀)</i> | 1.44108 |
| <i>Standard error (Z₁)</i> | 1.432508 |
| <i>Standard error (Z₂)</i> | 0.28978 |
| <i>t-statistics (Y₁)</i> | 3.01007 |
| <i>t-statistics (Z₀)</i> | 2.054616 |
| <i>t-statistics (Z₁)</i> | -1.52212 |
| <i>t-statistics (Z₂)</i> | 1.32965 |
| <i>Tracking</i> | 17 |

According to Table 2, the parameters of the initial values of the distributed lag are:

$$\hat{y} = 896,03 + 2,96 \cdot z_0 - 2,18 \cdot z_1 + 0,39 \cdot z_2; R^2 = 0.992$$

Using the regression coefficients found for the variables $z_i, i = 0,1,2$ we find the regression coefficient of the initial model:

$$b_0=2.96, \quad b_1=1.17, \quad b_2 = 0.14, \quad b_3 = -0.11, \quad \Sigma = 4.56,$$

The distributed lag value looks like this:

$$\hat{y} = 896,03 + 2,96 \cdot x_t + 1,17 \cdot x_{t-1} + 0,14 \cdot x_{t-2} - 0,11 \cdot x_{t-3} + \varepsilon_t$$

$$R^2 = 0.992$$

The analysis of this model shows that the volume of small business production this year is 1 billion. Increase to UZS sum after 3 years the average size of GNP $(2.96 + 1.17 + 0.14 - 0.11) = 4.2$ billion. Leads to an increase of sum.

Now we determine the relative coefficient of regression:

$$\beta_0 = \frac{2,96}{4,56} = 0,65; \beta_1 = \frac{1,17}{4,56} = 0,26; \beta_2 = \frac{0,14}{4,56} = 0,031; \beta_3 = \frac{-0,11}{4,56} = -0,024$$

Almost the main part of the effect of the factor on the result, i.e. 65 percent, takes place in the first L lag year.

The average lag L of this model is:

$$\tau = 0,64912280 + 0,256578947 \cdot 1 + 0,030701754 \cdot 2 - 0,02412280 \cdot 3 = 1,14242377$$

The average increase in the volume of small business production in Surkhandarya region will have an effect on the growth of GDP after 1.14 years.

The built model shows that there is a close relationship between the studied factors. This shows that the importance of using time series in planning and forecasting the GNP and small business production volume of Surkhandarya region is high.

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PREGNANCY PLANNING FOR WOMEN WITH TYPE 2 DIABETES IN NUKUS CITY (2022-2023)

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Introduction: The incidence of diabetes mellitus (DM) is rapidly increasing in all countries of the world due to the prevalence of obesity, sedentary lifestyle and poor diet. According to the International Diabetes Federation (IDF), in 2021, 735 million patients with diabetes are registered in the world; by 2040, the projected number of patients will increase to 1042 million. It should be noted that the actual prevalence of type 2 diabetes in most countries of the world is 2 – 3 times higher than the registered one [1]. The negative impact of decompensated diabetes mellitus on a woman's reproductive system is known.

On the other hand, type 2 diabetes is usually detected in people over 35 years of age who have excess body weight and numerous concomitant pathologies that can aggravate the course of pregnancy and negatively affect its outcome. Over the past 10 years, according to our center, the number of pregnant women with type 2 diabetes has increased 4 times. Obesity occurs in 60–80% of patients with type 2 diabetes, arterial hypertension and dyslipidemia - in 70% of patients [2]. The development of all these diseases is based on insulin resistance. In the second half of pregnancy, severe insulin resistance develops, aggravating the course of diabetes mellitus.

The combination of type 2 diabetes and pregnancy poses a great threat to the health of both mother and fetus. Numerous studies on pregnancy planning in women with type 1 diabetes confirm the effectiveness of preconception preparation, while there are no data on pregnancy planning in women with type 2 diabetes in the domestic literature. According to our data, the number of planned pregnancies with type 2 diabetes in Nukus does not exceed 12–15% (with type 1 diabetes this percentage is 15–18%) [3].

Once ideal compensation for diabetes has been achieved and diabetic microvascular complications and concomitant diseases have stabilized, contraception is discontinued. If pregnancy does not occur within a year, a thorough examination of the couple is carried out, and

in the case of male infertility or tubo-peritoneal factor, assisted reproductive technologies may be carried out.

In order to evaluate the effectiveness of preconception preparation in women with type 2 diabetes, we conducted a study.

Material and methods: The course and outcome of pregnancy was analyzed (retro- and prospectively) in 80 women with type 2 diabetes observed in the Nuku region from 2022 to 2023. 20 women applied for pregnancy planning, which was 25%. It should be noted that these were women with a burdened obstetric history (perinatal losses) or planning to use assisted reproductive technologies. The remaining women (60) visited a specialized center during pregnancy (time of visit varied from 5 to 33 weeks), the average time of visit was 22.0 ± 1.6 weeks. All patients underwent a general clinical examination, correction of carbohydrate metabolism, and training at a diabetes school.

Diabetes compensation was assessed by the level of glycated hemoglobin, which was determined using a method certified in accordance with the National Glycogemoglobin Standardization Program and standardized in accordance with the reference values accepted in the DccT study (Diabetes control and complications Trial), and according to glycemic level (self-monitoring at least 6 times a day). The severity of vascular complications of diabetes before and during pregnancy, identification and treatment of concomitant pathologies were also assessed. To assess the degree of obesity, the criteria of the World Health Organization and pregravid body mass index, calculated using Quetelet's formula, were used.

The severity of gestosis was determined using the Goecke scale as modified by G.M. Savelyeva [2]. Ultrasound examination of the fetus with Doppler measurements of blood flow in the vessels of the fetoplacental complex was carried out using a Voluson E6 device (GE Healthcare, USA). For timely diagnosis of diabetic fetopathy and fetal cardiomyopathy, dynamic fetometry and echocardiography were performed. Also, for antenatal assessment of the fetal condition, cardiotocography was performed from the 30th week of pregnancy.

After delivery, the condition of the newborn was assessed by a neonatologist using the Apgar score in the first and fifth minutes of life, further along the course of the early neonatal period. Statistical processing of the results was carried out using methods of parametric and nonparametric statistics using Statistica for Windows V. 8.0 software.

Results and discussion: Most patients had a burdened obstetric history (non-developing pregnancies, spontaneous miscarriages, birth injuries, antenatal fetal death). In the group of women with a planned pregnancy, this figure was 40%, in the group of women in which there was no planning - 20%. The groups were comparable in age, duration of diabetes, presence of diabetic microvascular complications and arterial hypertension.

The vast majority of patients (80%) in both groups were obese. The severity of obesity (second and third) in the group of women with an unplanned pregnancy was significantly higher than in the group of women with a planned pregnancy. This can be explained by a clinically significant decrease in body weight before pregnancy in women who came to the center to plan pregnancy. At the stage of preconception preparation, all women reduced their weight from 6 to 25 kg (over 6–9–12 months), which amounted to 10–15–20% of the initial one.

Before pregnancy, all women who came to the center to plan pregnancy managed to achieve the target levels of glycated hemoglobin A1c. Most women received metformin (65%) before pregnancy; 6 women (30%) were switched to insulin therapy from the planning stage.

Metformin was discontinued before conception. In the group of women who contacted the center during pregnancy, diabetes was subcompensated and decompensated in the majority (70%).

When seeking specialized help during pregnancy, 25 women (41.7%) received oral hypoglycemic drugs - metformin, sulfonylureas, dipeptidyl peptidase-4 inhibitors; insulin therapy - 3 women (5%) and the rest only diet therapy (53.3%). In the group of women with a planned pregnancy, 75% during pregnancy received insulin therapy in bolus and basal-bolus regimens and 25% received diet therapy. In the group of women in which there was no preconception preparation, 84% of women were transferred to insulin therapy during pregnancy, the rest (16%) received diet therapy. The dynamics of glycosylated hemoglobin during pregnancy are presented in Figure 1.

Diabetes mellitus was compensated during pregnancy in all women who received preconception preparation. In the group of women with an unplanned pregnancy in the first trimester, diabetes was compensated in 40% of patients, decompensated in 17%, and subcompensated in 43%; in the second trimester it was compensated in 67%, subcompensated in 28% and decompensated in 5%; in the third trimester it was compensated in 73%, subcompensated in 24%, decompensated in 3% (in two women who first visited the center after the 30th week of pregnancy). Before pregnancy, 25% of women in both groups had arterial hypertension.

All women who contacted the center for the purpose of planning pregnancy were at this stage switched to drugs approved for use during pregnancy (methyldopa and calcium channel blockers). In the group of women with unplanned pregnancy, the majority of women (67%) did not receive antihypertensive therapy before pregnancy, two women received angiotensin-converting enzyme inhibitors and three women received β -blockers. Preeclampsia complicates the course of pregnancy in 40–80% of patients with diabetes mellitus [3, 4].

Risk factors are the duration of diabetes, the presence of arterial hypertension before pregnancy, the severity of microvascular diabetic complications (especially diabetic nephropathy), and unsatisfactory compensation of diabetes in the first half of pregnancy. The incidence of gestosis in our study was 60% in the group of women with a planned pregnancy and 87% in the group of women in which there was no preconception preparation. According to the literature, there is a direct correlation between the level of average daily glycemia in the first half of pregnancy and the severity of gestosis [4].

Indeed, in our study, severe preeclampsia was not detected in the group of women with a planned pregnancy, while in women who did not undergo preconception preparation and in the majority of patients with diabetes in the first half of pregnancy, diabetes was decompensated and subcompensated, its frequency was 25%, which in most cases required early delivery by cesarean section.

The rate of premature birth in this group of women was 38.3%; in the group of women with a planned pregnancy, this percentage was lower (15%). Fetoplacental insufficiency was detected in 20% of women in both groups. The rate of operative delivery was higher in the group of women with a planned pregnancy (70%) compared to the rate (53.3%) in the group of women with an unplanned pregnancy. Apparently, this is due to the fact that in this group the majority of women had a history of perinatal failures and in 20% of women, pregnancy occurred as a result of the use of assisted reproductive technologies.

In the group of women who received preconception preparation, 20 children were born in satisfactory condition (Apgar scores at the first and fifth minutes were 8 points or higher). The

average weight of newborns was 3280 ± 133 g, macrosomia was detected in three children (15%) and malnutrition in two newborns (10%). No congenital malformations were identified. Hypertrophic cardiomyopathy and neonatal hypoglycemia were absent. According to the literature, perinatal mortality in type 2 diabetes is 2.5–6.7% [5, 6]. In our study, there was no perinatal mortality in the group of women who received preconception preparation.

In the group of women with an unplanned pregnancy, in one case there was antenatal fetal death at 33/34 weeks and in one case, termination of pregnancy at 24/25 weeks of pregnancy due to the lack of effect of the therapy for severe gestosis. Perinatal mortality in this group was 3.4%. 59 children (1 twin) were born: 54% of newborns were in satisfactory condition, 37% had mild asphyxia, 9% had moderate and severe asphyxia. Fetal hypotrophy was detected in 10% of cases, macrosomia - in 22% of cases.

According to the literature [5, 7, 8], macrosomia occurs in 30–60% of children from mothers with diabetes and is a common cause of surgical delivery, trauma during childbirth, perinatal mortality and neonatal morbidity. In the future, these children have a high risk of developing obesity, diabetes, and arterial hypertension. Macrosomia was assessed using centile tables of G.M. Dementieva in accordance with height and weight indicators for gestational age (> 75th percentile). Mothers who gave birth to low birth weight babies had severe gestosis due to hypertension. The frequency of congenital malformations of the fetus in the presence of pregestational diabetes in the mother reaches 6–12% compared to population values of 2–3% [9, 10].

Up to 50% of all congenital malformations of the fetus during pregnancy complicated by pregestational diabetes are malformations of the cardiovascular system: septal defects, transposition of the great vessels of the heart and coarctation of the aorta. In our study, congenital malformations were found in two newborns (3.4%) - defects of the cardiovascular system (in one case an atrial septal defect and in one case a ventricular septal defect).

Hypertrophic cardiomyopathy was diagnosed in two newborns (3.4%). Six newborns (10%) required transfer to other hospitals for further treatment and observation.

Conclusion: In recent years, due to the increasing incidence of type 2 diabetes in the world, the number of pregnant women with this pathology has increased. The incidence of fetal congenital malformation, miscarriage, macrosomia and perinatal mortality in type 2 diabetes is 3 times higher than the population level. The results of the study suggest that the widespread introduction of preconception preparation in patients with type 2 diabetes will significantly improve the course and outcome of pregnancy.

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Philosophical undertones in Feinberg's poems

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Abstract: In Aleksandr Feinberg's poems, philosophical undertones permeate the verses, offering profound reflections on the human condition. Through his lyrical exploration, Feinberg delves into existential questions, pondering the nature of existence and the meaning of life. His poetry serves as a platform for introspection, inviting readers to contemplate the complexities of existence and the mysteries of the universe. Feinberg's philosophical musings are woven seamlessly into his poetic tapestry, challenging readers to grapple with profound questions of morality and purpose. With each poem, he offers a glimpse into the depths of human consciousness, urging us to seek understanding amidst the chaos of existence.

Key words:

In the realm of literary exploration, the poetry of Aleksandr Feinberg resonates with profound philosophical undertones that enrich the reader's experience. Through his eloquent verses, Feinberg delves into existential questions, inviting readers to contemplate the complexities of human existence. Themes of mortality, purpose, and the nature of reality are woven intricately throughout his poetry, prompting introspection and deep reflection. Feinberg's philosophical musings challenge conventional wisdom and invite readers to question their own perceptions of the world. His exploration of the human condition transcends time and place, offering timeless insights into the universal struggles of humanity. Through vivid imagery and lyrical language, Feinberg captures the essence of existential angst and the search for meaning in a chaotic world. His poems serve as windows into the depths of human consciousness, illuminating the complexities of the human experience. Feinberg's unique blend of poetry and philosophy creates a rich tapestry of thought-provoking verse that lingers in the mind long after the pages have been turned. With each poem, he invites readers on a journey of intellectual and spiritual exploration, challenging them to confront life's most profound questions. In essence, Feinberg's poetry serves as a beacon of enlightenment, guiding readers on a quest for understanding amidst the existential uncertainties of life.

There, beyond the city limits,
There, beyond the line of human rumor
An unknown artist lives
Under the roof of an old workshop.
There, away from success,
Not with money, not on horseback,
He swears like a shoemaker
When something is wrong on the canvas.
Only that is created there.
There's a coat hanging on a nail there.

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There's a sharpener on the floor, paints,
Planes, brushes, chisels.
He sometimes writes "shallow"
He calls his model,
She's getting beautiful
In his unheated paradise.
She can only be honest with him.
There's tobacco smoke on the ceiling,
And then the coffee gets cold in the mugs,
The candle burns for the two of them.
Everything is known in advance there –
The artist does not wait for exhibitions,
But a woman believes the law –
A hundred forever, it will not be lost.
The artist does not know you.
So what is tormenting you secretly?
How he draws his beloved,
How the rain sings to them outside the window.
There. Beyond the city limits
The lantern, swinging, shines dimly,
And the wind tears the leaf from the branch
Above the roof of an old workshop.

In this poem, the poet describes an unknown artist who lives beyond the city limits in an old workshop, away from the trappings of success and material wealth. The artist is portrayed as a dedicated and passionate creator who is committed to his craft, swearing like a shoemaker when things go wrong on the canvas. The imagery of the coat hanging on a nail, sharpener on the floor, paints, planes, brushes, and chisels scattered around the workshop paints a vivid picture of the artist's environment and creative process. The mention of the model he calls "shallow" suggests a sense of intimacy and vulnerability in his work, as he strives to capture her beauty in his art. The relationship between the artist and his model is depicted as honest and genuine, with the model only being able to be truly herself in his presence. The tobacco smoke on the ceiling, cold coffee in mugs, and burning candle create a cozy and intimate atmosphere in which the artist and his model share their creative space. The artist's lack of interest in exhibitions and the woman's belief in their eternal connection suggest a rejection of external validation and a focus on the enduring power of their bond. The repetition of "There. Beyond the city limits" emphasizes the secluded

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and intimate nature of their world, away from the distractions and pressures of urban life. The poem concludes with imagery of a swinging lantern, wind tearing leaves from branches, and the roof of the old workshop, creating a sense of nostalgia and fleeting beauty in this hidden sanctuary of creativity. The poem celebrates the purity and authenticity of artistic creation and the deep connection between the artist and his muse.

The rain went heavy. And the morning will not come.

Headlights rush along the highway.

Well, at least stop once, hitch a ride!

Take me with you from the night.

At least someone... Please... I'm good.

I shouldn't disappear among the forests.

Concrete wheels flying

They respond by spraying me in the face.

I shout to them. And my voice is cold.

I'm using obscenities, God forgive me.

Let no one need me today,

But tomorrow I will be needed on the road.

Cars hit the eyes with light.

They rush by, humming in their entire mass.

On my heart, swayed by the wind,

A wall of cold rain is flying.

She flies both steeply and gently.

And I stand there, wiping sweat from my forehead.

The cars are rushing. And as always, the road –

The same thing in life as fate.

In this poem, the speaker uses vivid and evocative metaphors to convey a sense of loneliness, longing, and existential contemplation. The rain is described as heavy, symbolizing the weight of the poet's emotions and the darkness of their current situation. The idea that "the morning will not come" suggests a sense of hopelessness and a feeling of being stuck in a perpetual night.

The head lights' rushing along the highway represent the passage of time and the relentless movement of life around the poet. The writer's plea for someone to stop and hitch a ride with them reflects a desire for connection and companionship in the face of isolation.

The concrete wheels flying and spraying the poet in the face symbolize the harsh and unforgiving nature of reality, as well as the sense of being overlooked or disregarded by others. The writer's

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use of obscenities and plea for forgiveness from God indicate their inner turmoil and desperation for some form of relief or understanding.

The image of cars rushing by, humming in their entire mass, highlights the impersonal and mechanical nature of modern life, where people are often reduced to mere cogs in a larger system. The wall of cold rain flying against the poet's heart symbolizes the emotional barriers and challenges they face, as well as the relentless onslaught of external forces.

The writer's act of wiping sweat from their forehead suggests a physical and emotional struggle, while the repetition of cars rushing and the road symbolize the cyclical and repetitive nature of life and fate. Overall, the metaphors in this poem create a sense of alienation, yearning, and existential questioning, capturing the complexities of human experience in a modern world filled with uncertainty and disconnection.

Death lays his eyes on every of us,

And in vain I try to caulk my ears.

Some people shout that souls are immortal,

Others talk about oblivion.

Well, troubles! Some are rushing to heaven, some to hell.

And my neighbor is cutting up carcasses.

He lives in the butchers and doesn't bother.

There is a bone, there is meat – that's the whole situation.

I, as in the remote taiga, in this matter.

I'm standing like a stranger in the middle of the planet.

In this poem, the Feinberg grapples with the inevitability of death and the various beliefs and perspectives surrounding the afterlife. The metaphor of Death laying his eyes on every one of us conveys a sense of mortality and the universal experience of facing one's own mortality. The speaker's attempt to caulk their ears symbolizes a desire to block out or ignore the harsh reality of death.

The contrast between people believing in immortal souls and others talking about oblivion reflects the different ways individuals cope with the idea of death and what may come after. The mention of some rushing to heaven and some to hell highlights the diversity of beliefs and interpretations regarding the afterlife.

The image of the neighbor cutting up carcasses in a butcher shop serves as a stark reminder of the physicality and finality of death. The neighbor's indifference to the act of butchering suggests a sense of detachment or desensitization to the process of life and death.

The speaker's comparison of themselves to being in the remote taiga (a vast forest in Siberia) conveys a feeling of isolation and disconnection from the rest of humanity. Standing like a stranger in the middle of the planet symbolizes the speaker's existential contemplation and sense of alienation in the face of life's mysteries and uncertainties. The metaphors and symbolism in this

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poem explore themes of mortality, belief, indifference, and existential questioning, inviting readers to reflect on their own perspectives on life, death, and the unknown.

Not a stranger's house, but the moon's lair.

On the walls is the shadow of the owner's fence.

And you and I are two happy thieves.

And we have no guilt before anyone.

Two fugitives. Two singing strings.

Above the lunar bed are two criminal gazes.

But there is no shame in our kisses.

They are salty with tears of delight.

We steal love from death on the edge.

But we're not stealing someone else's, we're stealing our own.

So kiss me, my darling.

Blessed is the risky overnight stay.

We are thieves. And we will burn in the furnaces of hell.

But only because they didn't steal forever

In this poem, the speaker describes a clandestine and rebellious love affair that takes place in the moon's lair, a metaphorical setting that suggests a hidden and intimate space away from the prying eyes of society. The shadow of the owner's fence on the walls symbolizes the boundaries and restrictions imposed by others, which the speaker and their lover defiantly transcend.

The speaker and their lover are depicted as happy thieves, reveling in their forbidden love and feeling no guilt or shame for their actions. They are portrayed as fugitives and singing strings, suggesting a sense of freedom and passion in their relationship. The criminal gazes above the lunar bed symbolize the judgment and disapproval of others, but the lovers find solace and joy in their stolen moments together.

The kisses shared between the speaker and their lover are described as salty with tears of delight, implying a bittersweetness and intensity in their emotions. The act of stealing love from death on the edge conveys a sense of urgency and defiance in the face of mortality and societal norms.

The speaker emphasizes that they are not stealing someone else's love, but rather reclaiming and embracing their own love and desires. The declaration to kiss the beloved and embrace the risky overnight stay reflects a sense of passion, longing, and acceptance of the consequences that may follow.

The poem concludes with the acknowledgment that the lovers are thieves who may face punishment in the furnaces of hell, but they are willing to endure such consequences because they did not steal forever. This final line suggests a willingness to live in the present moment and cherish the fleeting nature of their love, even if it leads to eventual consequences. The poem explores themes of forbidden love, rebellion, passion, and acceptance of consequences, inviting

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readers to reflect on the complexities of human relationships and the pursuit of love in defiance of societal norms.

For everyone – Annette.

And for me you are Nyurka.

Where's your port? Where is the face with the bruise?

Where does the boar with the golden tusk come from?

Did you lure me into these alleys?

They bristled with their trunks.

In the Merc you drive to the villa with the breeze.

Your boar bought our public garden with a tavern,

Where you scattered cigarette butts between the tables.

Now the pool. And a massage in the morning.

In the evening – tennis. By night – makeup.

Seven dachas were leased to the French.

And I, as before, am cheerfully broke.

1. Aw! – I shout to the former dissidents, -

That's life.

In this poem, the poet addresses someone named Annette, referring to them as “Nyurka” in a more intimate and personal manner. The poem explores themes of social status, wealth, and the contrast between different lifestyles. The speaker questions the origins of Annette/Nyurka's wealth and luxury, symbolized by references to a port, a face with a bruise, a boar with a golden tusk, and a villa with a breeze. These images suggest a sense of mystery and intrigue surrounding his background and lifestyle.

The mention of alleys with trunks bristling implies a sense of danger or deception, hinting at the possibility that the poet may have been lured into a situation that is not what it seems. The reference to the Merc driving to a villa with a breeze conveys a sense of opulence and luxury.

The image of Annette/Nyurka buying a public garden with a tavern and scattering cigarette butts between the tables suggests a disregard for public spaces and a sense of entitlement. The mention of activities like pool, morning massage, evening tennis, and nighttime makeup further emphasizes the lavish lifestyle being described.

The leasing of seven dachas to the French highlights his business dealings and connections to high society. Meanwhile, the speaker contrasts this extravagant lifestyle with their own state of being cheerfully broke, indicating a sense of resignation or acceptance of their own financial situation. The final lines, where the speaker shouts to former dissidents that “That's life,” suggest a resigned acceptance of the inequalities and injustices present in society. The poem overall paints a picture

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of contrasting worlds and lifestyles, exploring themes of wealth, privilege, and the harsh realities of life for those who are not part of the elite social circles.

Your Leonardo is always in smoke.

Either he's dumb like a fish, or he gets drunk stupidly.

That's nudity again

Posing for him among the canvases.

Everywhere you look, everything is out of your mind.

Reinforcement sticks out from under the cornice.

It would be better to become a plasterer.

There is no joy or money in the house.

A squirrel grows old, turning a wheel.

A broken plate flies into the bucket.

And you cry, standing by the window.

Hey Leonardo! That's your luck.

Hurry up and paint the portrait while she is

She cries so beautifully by the curtain.

What is your Notre Dame to me? What is your Colosseum to me?

If snow falls on the graves of friends?

What, girl, I need a swimming pool? What do I need your limousine for?

If you have no one to go to the corner store with?

What do I care about your cell phone in restaurant smoke?

If there is no one else to call on it?

I will walk between the crosses on the January ice.

I will sweep the snow off the cold slabs with a broom.

You, friend, go. Don't feel sorry for me.

I will walk to my den.

To the yard where the jeeps are crowded in the morning

With businesslike faces, dud kids.

Where on the bare trees is the cathedral of crows,

Where is the den – and it's almost not mine.

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In this poem, the poet addresses Leonardo, who is depicted as constantly smoking and either appearing foolish or getting drunk. The reference to nudity posing among canvases suggests a sense of artistic inspiration and sensuality. The speaker expresses frustration with their own lack of joy and money, contrasting their mundane existence with Leonardo's artistic pursuits.

The image of a squirrel growing old while turning a wheel symbolizes the monotony and futility of daily life. The broken plate flying into a bucket and the speaker crying by the window convey a sense of despair and hopelessness. The poet urges Leonardo to hurry up and paint a portrait of someone crying beautifully by a curtain, highlighting the emotional depth and beauty in suffering.

The poet dismisses iconic landmarks like Notre Dame and the Colosseum, emphasizing the insignificance of grandeur and luxury in the face of personal loss and loneliness. The references to swimming pools, limousines, cell phones, and restaurants convey a sense of materialism and superficiality that the writer rejects in favor of simpler, more meaningful connections.

The writer resolves to walk among graves in the snow, sweeping cold slabs with a broom, symbolizing a sense of acceptance and resilience in the face of hardship. The imagery of jeeps crowded with businesslike faces and cathedral crows in bare trees evokes a stark contrast between the speaker's humble surroundings and the hustle and bustle of urban life. The poem explores themes of loneliness, disillusionment, and the search for meaning in a world marked by materialism and superficiality. The speaker finds solace in their own humble den, where they can retreat from the chaos and find a sense of belonging and identity.

Ultimately, Feinberg's philosophical insights add layers of depth and richness to his poetry, inviting readers to embark on a journey of intellectual and spiritual exploration.

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О СИЛЕ В ФОРМИРОВАНИИ РАЗУМА
МЕСТО ВЫЗЫВАНИЯ

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Аннотация : это читатель в статье мышление информация художественный место литературы , чтения в развитие аспекты внимание фокус в частности освещенный .

Ключевые слова : книга , чтение , знания . сокровище , искусство литература , работа анализ, книга чтение

" Книга Это персона для счастливый учитель Драгоценный книги каждый в минуту нас из мудрецов знание сокровище с привычный " - написал был большой мыслитель наши мудрецы . Особенно будущее поколение в сердце с детства к книге был любовь да делать Это необходимо . Президент Шаукат Мирзиёев к до толкнул Пять важный в 4-й инициативе инициативы молодежь среди « Читающих продвигать достигать в соответствии с очень много дела брать собирается Студенты между " Йош «читательские » конкурсы наших детей к книге был любовь более увеличивается и их мышление расширяется . Художественный литература человека духовность , духовность , манеры , люди с отношение , обращение культура , интеллектуал глубина более поднимает . Мужчина в сердце прохождение бесчисленное множество мысли , вопросы отвечать дающий уникальный , счастливый компаньон этот художественный это литература . В этом слова Бенхойя к власти конечно быть может Он такой мощный потому что он человек в сердце тонкий опыт вот и все слово через выражение будет сделано .

Литературовед Умарали Норматов говорит о книге: «Ясно как день, насколько важна книга в жизни и развитии человечества, в том числе нации, и развитии личности, и что ни один инструмент не может ее заменить. Вспомните книжную историю разных стран и народов на земле, историю народов и наций этой страны, их наблюдения, мечты, горести и печали – все это запечатлено в книге. Действительно, всю свою духовную и духовную пищу мы получаем из книг. Потому что, как сказал учитель, в книге воплощены все исторические эволюции, разум и мудрость предков. Ни для кого не секрет , что наш народ испокон веков прекрасно владел турецким, персидским и арабским языками, изучал Навои-хана, Бедиль-хана, Яссави-хана, умел наблюдать тонкие аспекты газельной поэзии , и обращал внимание на суть слов. Во всем этом книга была счастливым спутником.

Для формирования любви молодого поколения к книгам и ощущения удовольствия от чтения особое значение имеет глубокое использование слова на занятиях по литературе, изучение произведения и его анализ. Для этого учителю следует прежде всего внимательно изучить художественное произведение и различить его во всех мелких деталях. Из этого только позже из студентов в сердце художественный работы эффективность и несравнимость доставляет занимает Литературовед ученый А. Расулов чтение в частности так говорит : « Читай , спи». в процессе в создании разумное лидерство Точнее , читатель – это целое без принятие деятелю , хозяину становится Работа учиться , на самом деле , сам для исполнение это достичь Читатель книг на мероприятия вмешивайтесь , герои оживляет их слова слышит , духовный случаи чувствуется сердцем » . Действительно , читатель художественный работа чтение в течение героя каждый один опыт его собственный опыт такой как принятие делает Его грусть и к его радости партнер будет

Хар один своего опыта единственный и беспристрастный свидетель будет Героя достигнуто успех и его который книга о информация иметь существование мысль если он ходит , то и студент книга с привычный это происходит чувствуется от души . Студент где уровень много книга чтение если он это сделает , самое то Сара работает глубокий понимает Книга через это собственный история , личность зная занимает Студенты межличностный доброта , друг друга уважать делать и ценить такой как концепции книга через улучшит . Вот почему к литературе тоже персона души зеркало как Считается . Мужчина в его жизни происходящий осложнения литература отражение делает Читатель книг студент большинство художественный работать обращаться когда он это сделал работа героя простой семья ребенок дело в том, что и его тяжелая работа с взрослый и весь сила знание получить тратя в жизни достойный на сиденье иметь что это было в частности заявление будет сделано .

Романтика жанр основной фундамент созданный любимый « Откан » нашего писателя Абдуллы Кадыри. дней », « Из Михраба « Скорпион » работает молодые и старые - все с языка глубоко укоренившийся большинство Сара это одна из работ . В этом месте « От алтаря « Скорпион » . чтение когда мы это сделаем Анвар символ получит если так , то изначально героя его семья там окружение , родители профессия о информация иметь мы будем « Бахмальбофда » произведения бедный один семья по имени " в сезоне Анвара рождение следующее описывает . « Матери рожденный их дети тебе « Желание за желанием полученный мой ребенок » — как; отцы : « Бог отдал « Мальчик », сказал он они будут , но наши Анвар если просьба матери тот, кто получил « не говоря описывает . То есть Анвар бедный и едва сводит концы с концами бедный один семьи желчный пузырь тот факт , что « его родители по их желанию против « рожденного ребенок существо , его сколько несколько дней к миру посещать соседи хранящий тайну между своими безымянный лечь такой как выражения через к ручке получил В этом месте писателя слова умело использовал его что это такое? из пунктуации доказательство дам . Известно , что мир гибкий и один в месте стабильный стоя возможно, нет Время проходить с изменено и обновлено идет Их содержание и к точке смотреть Если бросили , поменяйте только в виде проявление будет В содержании и в некотором смысле емкость есть . Анвара с детства просто расслабься что он ребенок родители в груди незрелость и мать из-за любви эквивалент способ взросление судьба снижаться это вердикт . Его счастливый половина этого урок в процессах друзьям присоединиться от неспособности знать может Его собственный одинаковый дети с маленький контакт сделать с ними меньше вмешательство , избыток играть или смеяться и всегда его в глазу один маш лечь жизнь сложности рано потому что он понял . Его этот уровень печали причина десять три в возрасте третий семья это увидеть . Потому что его сестры дома собаки придурки под взрослый ребенка этот до жизнь рано поднятый никогда Это ни для кого не секрет .

Сиротство его грудь раздавить такой как отсутствие , беспомощность молодой ребенка сердце к горю заполнен был Анвар жизни все сложности терпеть , терпение с наука учеба , его десять три в возрасте школа программа закончил , молодой хотя , халфалик , вот это для учителя помощь делать его знание прилежный с от обучения доказательство дам . Его урок от тренировки пустой во время Из произведения Саади «

Гюлистан ». . один Сколько абзацев читать , их значения с запоминать его к знаниям от жажды доказательство дам .

У студентов Анвар символ и его детство , младенчество сложности его к знаниям жажда в частности воображение просыпается и они также произвольны Анвар нравиться быть желание начинается

Мужчина сердце с детства к природе и в этом к красотам , цветникам смущенный будет Почувствуйте эту красоту возьми , его для психики является типичным . Наш герой Детство Анвара большинство хороший пила место цветник и в этом цветы что это было писатель навик с описывает .

Человек идеальный существование в образовании семья , образование и окружающая среда где уровень эффект достигать всем очевидно . Это с вместе Аллах отдал не забывая о способности Это необходимо Анвара мать вот и все аспекты в описании писатель весь тонкость с подходы. Анвар цветы осторожность с обслуживание делать им был любовь Ране был любовь с в сравнении будет Имя к телу и ради этого в соответствии с упал Рана не только внешний красота с сердце красота отдельно с стоит Цветок красота с Раны красота точно один что-то . Рана один в Хусне нет , но В Ране интеллект , чтение был любовь и меньше у девочек происходящий храбрость в этом это воплощение . « Смелая » работа названная девочка в сезоне этого свидетель быть может Его Анвар был чистый любовь каждый как от богатства начальство стоит Его в сердце осторожно пришел любовь , верность , уникальность сердце руда был любовь Для него дух храбрость и сила в подарке достаточно Рана Чин в некотором смысле храбрость символ признание как потому что это возможно такой храбрость из рук каждого не придет Он его уникальный к драгоценности храбрость из-за достигать взял Слово « Перспектива ». каждый ВОЗ иначе понимает . Не только это Анвар , может быть Рана тоже собственный перспектива один любовь через кто видит храбрый являются героями .

из студентов сегодняшняя молодежь с работа герои в середине который с точки зрения зависимость и другой сторона в частности мнения с делюсь ими зная их мнение получать возможно. В работе каждый один героев состояние , менталитет , мировоззрение и работа анализ в частности студенты с споры брать если ты пойдешь , мама наш язык богат и несравненность , работа язык и очарование , он для психики они чувствуют эффект и понимать они получают. Вот почему Мы читаем для этого от семьи , от наших родителей начнем , следующий поколение умственный потенциал широкий , глубокий и умный будет.

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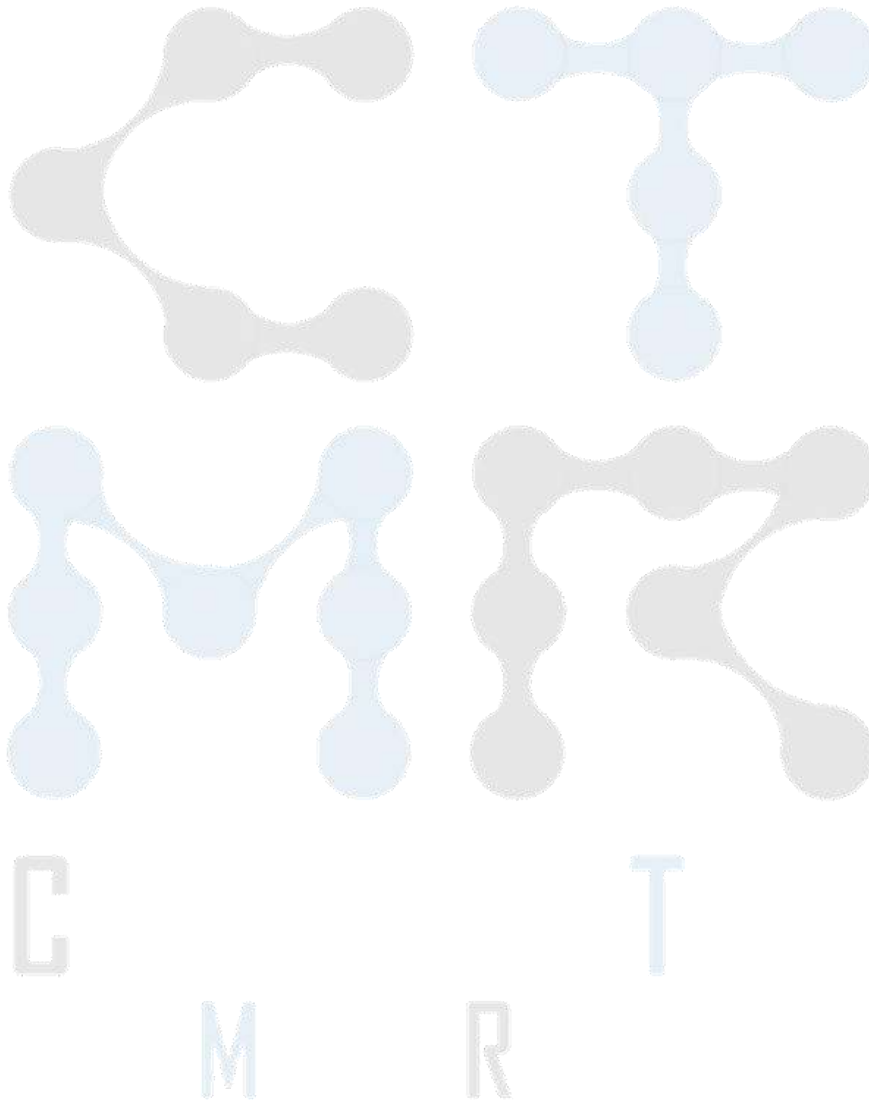
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Primary in classes dictionary on work methodology .

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Abstract : In the article initial class students for created mother language and reading textbooks and in them there is words with connected without dictionary on work through the word wealth development methods and as well as recommendations giving passed .

Key words : Dictionary , word , reader , development , synonym words , connection , word activity , reading , education , writing .

Perfect a person adult in delivery initial education no doubt strong foundation role passes . As you know , the beginning class to his students education in giving important of duties main part reading in their classes done is increased . Mother language and reading in their classes take to go all of training leader place speech to grow being , he is literate teaching , beautiful to write skills formation and of students thinking scope expand such as tasks own into takes Students speech to grow , first of all , theirs dictionary enrichment with depends . Word wealth in raising dictionary on work big practical important have Under study the text on the surface dictionary work transfer in the process students of the tongue dictionary to the composition special was outdated words , new appear was words , profession about words , dialect special words , artistic to style special words with practical in terms of getting to know they go In our language there is was innumerable words in mind save staying and them in speech right and appropriate apply in getting of the tongue dictionary content certain layers or to groups separate learning ie outdated the word is new appear was word , profession about word , dialect special the word such as concepts The first theory about data with introduction very important is counted . To the students of the tongue dictionary content in teaching dictionary on work ways . Word of the tongue meaning means main is unity . Word and the word compound sure things , abstract concepts , feelings represents In the language there is has been all word and of phrases sum dictionary composition or lexicon is called Lexicology Uzbek of the language dictionary content who learns is a department . Lexicology dictionary contained of words in speech meaning to express feature , use activity , rich to go , some of words wear and tear out departure , meaning to move event such as learns . For this reason lexicology dictionary on work methodology linguistic basis is considered Har how speech statement grammar in terms of mutually linked to content suitable word and word of compounds known in consistency from placement is made . A person's dictionary how rich and developed if , his the speech will be so rich ; own his opinion sure and expressive statement to reach wide chance is created . Artistic works students dictionary and speech in enrichment the most believable source is considered Reading in their classes artistic works with acquaintance , analysis to do in the process students dictionary known topics is also rich in goes For example , year to the seasons about topics with get to know in the process in nature changes , birds , animals , animals world , trees , grasses with depends concepts if formed , spirituality , goodness and evil , friendship in topics works learning through human relations , manners on the surface certain to conclusions will come . Dictionary on work for special lesson not separated . He is all subjects in learning , mainly , mother language and reading in their classes textbook materials to teach with depends without take will go Mother language in their classes dictionary on work students speech to grow , literacy to form , word wealth to enrich , speech culture to upgrade focus because of this the work in schools it starts from the 1st grade and whole study in the process continue will be delivered .

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At school speech of cultivation important of duties one dictionary on to work to improve , to arrange put , his main directions separate and students ' reasoning dictionary enrichment process manage is considered At school dictionary on work methodology four main direction in the eye holds :

1. Students ' dictionary enrichment , that is new words as well as children in the dictionary was some of words new meanings appropriation . Mother of the language dictionary wealth knowing get for student own to the dictionary each 8-10 new ones a day the word , that's it including mother language in their classes 4-6 words addition , i.e that's it words the meaning assimilation it is necessary 2. To the students ' dictionary accuracy input .This is own into the following takes :

a) student thorough did not master of words the meaning complete appropriation , i.e that's it words to the text input , meaning near to words comparison , antonym choose ways with their meaning accuracy input ;

b) speak sarcastic meaning , many meaningful words mastering ;

c) of words synonyms , synonyms of words meaning edges mastering ;

d) some phraseological of units the meaning appropriation .

3. Activation of the dictionary , ie students the meaning understanding , but own speech in welfare not using inactive in the dictionary the words active to the dictionary transfer Of this for that's it words in the presence of the word compound and sentences will be made , they those who studied again narration , conversation , statement and in the essay is used .

4. Literary in the language unused words students active from the dictionary inactive to the dictionary transfer Such to words of children speech environment under the influence of by itself the rest literary language to the norm not included , some literary work and conversation in the language applicable simple the word and phrases , dialect and social to the group about words enters

Literary language norm said the concept After mastering , students above explained words instead of literary in the language from words use they start Students dictionary and speech in enrichment the most believable source artistic works is considered Uzbek language high artistic images using they absorb . Reading in class children dictionary known to topics about words he gets rich at the expense of it . They are to the dictionary moral concepts expressive cute , sweet , kind , brave , brave , brave , hardworking such as many words will be added . Text on work in the process a lot meaningful words , synonyms , portable in a sense usable words , some phraseological compounds knowing they get

Summary by doing so to speak initial class to his students lexicon knowledge to give only mother language lessons with limited without staying , reading lessons teaching during will go In general start class to his students of the tongue dictionary content by teaching to go their the word wealth increases , speech culture raises , national of our language great power , magic and charm felt full people to be growth provides .

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Технологии разработки методов педагогического общения в образовательном процессе сделанный увеличивать технологии

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Халилова Шахло Рашиановна.

Аннотация: В статье анализируются технологии развития методов педагогического общения в образовательном процессе. Кроме того, при правильном использовании метода педагогического общения в статье отражены манеры дошкольников, аспекты, связанные с усвоением информации. Подробно проанализировано влияние методов педагогического общения на процесс усвоения в профессиональной деятельности учителя.

Ключевые слова: Общение, педагогическое общение, образовательная система, методы общения, образ мышления, культура речи, учебный процесс и этикет, профессиональная деятельность.

Важным условием развития нашей страны является реализация усовершенствованной системы подготовки современных кадров, основанной на развитии науки, техники, культуры, экономики. Известно, что, как отметил Президент Ш.М.Мирзиёев, «Еще один вопрос, который никогда не потеряет для нас своей актуальности и важности, – это вырастить наших детей самостоятельными, современными знаниями и профессиями, с твердой жизненной позицией, истинно патриотичными людьми». , это задача воспитания как¹⁰

Создает образовательные условия для растущей личности в образовательном учреждении. Профессиональная квалификация будущих современных учителей, прежде всего, будучи направлена на формирование и развитие потребностей педагогических кадров, еще больше развивает ответственность учителя.

Сегодняшний учитель должен быть умелым мастером своей профессии, верным своему долгу, компетентным человеком, ставящим общественный интерес выше личного и выполняющим свои обязанности. В связи с этим от учителей требуется неустанная работа над собой, достижение высокого уровня физической, умственной и профессиональной подготовки.

¹⁰ (М. Мы построим наше великое будущее вместе с нашим храбрым и благородным народом. - Т.: Узбекистан, 2017, с. 103).

Актуальность проблемы разработки технологий метода педагогического общения будущего учителя заключается в том, что общение будущего учителя как сложная внутренняя психологическая деятельность должно служить критерием, определяющим его будущую профессиональную зрелость. В ходе широкомасштабных преобразований и реформ, проводимых в нашей стране, особое внимание уделяется подготовке современных педагогов, которые, в свою очередь, отвечают за расширение мировоззрения учащихся и молодежи, формирование всесторонне развитой личности, реализацию своих творческих способностей. потенциал. .

Технологии развития метода педагогического общения будущего учителя реализуются в образовательном процессе. В связи с этим, зная, что использование некоторых традиционных образовательных моделей, применяемых в нашей стране, нецелесообразно, учитывая важность учебно-воспитательной работы, основанной на современных педагогических технологиях, воспитательной, духовной - с учетом несравнимости инновационных технологий в проведении и проведение воспитательной работы, В.Б.Песпалько, И.Я.Лернер, Б.Т.Лихачев, М.В.Кларин, Е.С.Полат, Н.Саидахмедов, О'.Толипов, М.Очилов, Н.Азизходжаева, Б С учетом мнений, высказанных в трактатах и учебниках Фарбермана, К. Зарипова, Ж. Ёлдошева, О. Розикова, Б. Ходжаева, Ш. Олимова, К. Усмонова, К. Олимова, С. Огаева мы получили

С точки зрения потребности человека в общении друг с другом, сначала процесс общения проявлялся через различные звуки и движения тела, а позже выражал свое мнение осмысленными жестами. Со временем мышление человека прогрессировало, и эти действия уступили место процессу речи. Без общения невозможно представить развитие человека, его социализацию, становление личности как личности, его связь с обществом. Сознание человечества развивается, и в процессе взаимного общения оно выражает свои мысли посредством слов, душевные переживания и эмоции посредством тембров голоса, артикуляции-дикции. Еще одним важным аспектом способа общения является взаимное движение участников речевого процесса не только речью, но и действиями. Например, когда мы общаемся, мы жестом вступаем в отношения, если он нами доволен. Следующий аспект отношений – это способность собеседников воспринимать друг друга.

Общение – это многостороннее состояние развития связей, вытекающее из потребностей и требований совместной деятельности между людьми. Общение происходит в результате взаимного обмена идеями между участниками совместной деятельности.

Диалог происходит от греческого слова, означающего разговор, беседу, межличностную беседу и обмен идеями, и происходит, когда говорят два или более человека.¹¹

Коммуникация – это информационный процесс. Информация идет в двух направлениях: от субъекта управления (учителя) к объекту управления (учащимся) и наоборот – от объекта к субъекту.¹²

Общение – это многогранный процесс развития связей между людьми, возникающий из потребностей совместной деятельности. Общение (отношения) предполагает обмен информацией между участниками. Учитывается педагогический аспект взаимоотношений. Когда вступают в отношения, люди в первую очередь обращаются к языку.¹³

Каждому важно знать правила общения и развивать навыки и умения его налаживать. Собственное «Я» каждого человека формируется в процессе общения с другими, жизненные пути личности сначала складываются в семье, детском саду, школе, институте, на рабочем месте, среди пожилых людей, то есть в группах и сообществах. Одна из наших высших духовных потребностей – потребность в общении.

Если наша потребность в общении не будет удовлетворена, наш ум не будет развиваться. Поэтому мы всегда должны удовлетворять свои потребности в общении. Мы получаем удовлетворение от общения с кем-то, но в некоторых случаях чувствуем неудовлетворенность.

Общение – это потребность людей в совместной деятельности, их совместная деятельность во взаимоотношениях, взаимодействиях, информации и обмене информацией.¹⁴ При формировании общения человека необходимо учитывать его возраст, пол, профессию, мировоззрение.

По сей день, на какой бы аспект нашей жизни мы ни смотрели, красивое обращение, правильно выбранный стиль общения показывают свое влияние на эффективность работы. В то же время, влияние на процесс обучения студента посредством методов педагогического общения становится сегодня актуальной проблемой. Общение также

¹¹ А. Холиков Педагогические навыки Изучать руководство Ташкент «ЭКОНОМИЧНО-ФИНАНСОВЫЙ А» 2010 www.ziyouz.com библиотека стр. 117

¹² Л. Я. Рувинский редактировать в разделе « Образовательные работа методика « Ташкент « Учитель » 1991г. Страница 27 .

¹³ М. МАКСУДОВА ПСИХОЛОГИЯ ОБЩЕНИЯ Образование руководство ТАШКЕНТ "ТУРОН-ИКБОЛ" 2006 www.ziyouz.com библиотека

¹⁴ <http://arm.sammoi.uz/library/download/482>

является особой потребностью. Как говорил польский психолог Э. Мелибрда ¹⁵, межличностные отношения для нас так же важны, как воздух. В периоды детства и подросткового возраста общение формируется как деятельность, непосредственно влияющая на приоритетную деятельность, то есть на формирование новых психологических характеристик.

Известный психолог С. Л. Рубинштейн писал: «Когда мы взаимодействуем с людьми в повседневной жизни, мы ориентируемся на их характер. Потому что мы читаем суть их критической информации, т. е. выкапываем ядро, и в этом случае мы определяем содержание текста, которое воплощено в тексте, имеющем внутренний психологический аспект.

Для людей, входящих в каждую возрастную группу, используются разные слова. Следует учитывать силу слов. Важно использовать способы общения в зависимости от особенностей личности человека. Роль общения в формировании у человека умений, знаний, умений неопределима. Простым навыкам («сидеть прямо, пить чай, мыть руки, идти к себе, здороваться») также обучают посредством общения.

А.А. Педагогическое общение, по определению Леонтьева, — это «...учитель, создающий наилучшие условия для развития мотивации ученика и творческого характера учебной деятельности, правильного формирования личности ученика (и в более широком смысле — студенческого коллектива). учителя) находится в контакте со школьниками в ходе учебного процесса. Обеспечивает благоприятный эмоциональный климат обучения (в частности, предотвращает возникновение «психологического барьера»). Обеспечивает и позволяет максимально использовать личностные особенности учителя в образовательном процессе».¹⁶

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¹⁵ Мелибрда, Э. Я – Ты – Мы: Психологические возможности улучшения общения : пер. с польск. / Э. в Мелибру . - М.: Прогресс, 1986. - 256 с.

¹⁶ А.А. Леонтьев Педагогическое общение. М.; Нальчик, 1996, стр. 20.

¹⁷ А.А. Леонтьев Педагогическое общение. М.; Нальчик, 1996, стр. 20.

В.А. Слостенин считает, что общение в педагогическом процессе является средством решения образовательных задач; социально-психологическая поддержка в ходе образовательного процесса; это метод организации отношений педагога с молодежью, определяющий успех преподавания и обучения. С этой точки зрения содержание профессионально-педагогического общения включает в себя:

- обмен информацией;
- оказание образовательного воздействия;
- организация отношений с использованием средств коммуникативной коммуникации¹⁸

Преподаватель ожидает от учеников уважения и внимания в процессе общения с ними. Студенты также требуют уважения и доверия от своих учителей. Это считается эффективным способом педагогического воздействия, и опытные педагоги организуют общение, исходя из самооценки ребенка, и таким образом осуществляют взаимное общение.¹⁹

Педагогическое общение – это многостороннее состояние развития связей между будущими учителями и учащимися, возникающее из потребностей совместной деятельности. Общение (отношения) выражается в обмене информацией между участниками. При этом учитывается коммуникативный аспект взаимоотношений. Вступая в человеческие отношения, они в первую очередь обращаются к языку.

Изучение взаимосвязи методов, правил и приемов общения в педагогической деятельности станет основой правильного выбора метода педагогического общения у будущих учителей.²⁰

профессиональные ²¹взаимоотношения между преподавателем и учениками во время урока, которые создают комфортное психологическое состояние и создают хороший психологический климат в их послеклассной деятельности. Содержание и формы педагогического общения сравнительно строго регламентированы, четко определены ролевые позиции его участников.

В.А. Кан-Калик определяет педагогическое общение как «систему приемов и методов, которые представляют собой реализацию целей и задач педагогического процесса,

¹⁸ В. А. Слостенин и другие. Педагогика: учебник, учебное пособие. М.: Академия, 2002. Страницы 559-560

¹⁹ Кан-Калик «Учитель по педагогическому общению: книга для учителей» 1987г.

²⁰ Кан-Калик «Учитель по педагогическому общению: книга для учителей» 1987г. Страница 59

²¹ А. Халиков «Педагогическое мастерство» Ташкент «ЭКОНОМИКА-ФИНАНСЫ» 2011, стр. 118

и управляют организацией социально-психологического взаимодействия между педагогами и обучающимися²²».

Сегодня в Законе Республики Узбекистан «Об образовании» важно не ограничиваться мотивами выбора профессии, подготовки к профессии, профессиональной компетентности и профессиональных навыков, а формировать профессиональную культуру в личной деятельности будущих педагогов.

В нашей стране в разные эпохи проводилось множество научных исследований, посвященных конкретным этнопсихологическим особенностям, способностям, качествам представителей педагогической профессии, способам труда, способам реализации секретов педагогического мастерства, культуре межличностного общения.

Педагогическое общение является незаменимым качеством педагогической деятельности. Это метод профессионального общения в образовательном процессе, при котором преподаватели и учащиеся обмениваются информацией и оказывают воспитательное воздействие на учащихся. Оно рассматривается как основа формирования двустороннего общения, служит взаимному уважению и доверию. Преподаватель ожидает уважения от учеников в процессе общения с ними. Студенты также требуют уважения и доверия от учителя. Это полезный способ педагогического воздействия, квалифицированные педагоги организуют отношения, исходя из самооценки ребенка, и таким образом осуществляют взаимоотношения.²³

Педагогическое общение – это профессиональные взаимоотношения между учителем и учащимися во время урока и после урока, дающие возможность создать подходящую для него психологическую среду и создать положительное психическое состояние.²⁴

Если рассматривать педагогическое общение, то оно представляет собой уникальную по своей структуре форму творчества педагога. Хотя в своих научных работах педагоги описали множество описаний общения учителя с учениками, общение – это, прежде всего, личностно-психологическая особенность учителя.

²² Кан-Калик «Учитель по педагогическому общению: книга для учителей» 1987г. Страница 3

²³ М. МАКСУДОВА «ПСИХОЛОГИЯ КОММУНИКАЦИИ» Учебное пособие ТАШКЕНТ «ТУРОН-ИКБОЛ» 2006г.

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²⁴ А. Холиков Педагогические навыки Изучать руководство Ташкент «ЭКОНОМИЧНО-ФИНАНСОВЫЙ А» 2010 www.ziyouz.com библиотека стр . 118

Стоит сказать, что общение со студентами в педагогическом процессе будущего преподавателя, обучающегося в высших учебных заведениях, имеет важное образовательное и воспитательное значение.

Это требует повышения его духовного содержания в целостной системе педагогического общения, и с этой точки зрения педагогическое общение направлено на формирование нравственных основ воспитания.

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**By forming labor education in preschool children
education of moral qualities.**

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Abstract: Ways and means of educating moral qualities in preschool children through the formation of labor education are analyzed. Thoughts and opinions about preparing children for life through work were analyzed.

Key words: Labor education, moral education, aesthetic education, self-service, work in nature, work of adults, household work, manual work.

Abstract: Ways and means of educating moral qualities in preschool children through the formation of labor education are analyzed. Thoughts and opinions about preparing children for life through work were analyzed.

Key words: Labor education, moral education, aesthetic education, self-service, work in nature, work of adults, household work, manual work.

The issue of providing labor education to the young generation is the most urgent topic at the present time. Work plays an important role in the development of each person and the development of society as a whole. Labor education is important in the physical, intellectual, moral and aesthetic upbringing of children of preschool age. Work is organized taking into account the specific characteristics of children of each age group, and sufficient results can be achieved only with proper guidance. The specific aspects of children's work of preschool age have been widely studied in scientific works conducted by many scientists. The main goal of labor education is to develop children in all aspects, to bring them up morally, to mentally prepare them for future work activities, to inculcate the desire to work. The tasks of labor education are diverse, so they are divided into categories as follows. The tasks of the first group are determined by pedagogical influence on the independent work of children:

1. To teach children to set goals, to choose the necessary materials and work tools according to labor qualifications, skills, labor culture.

To teach children to appreciate the work of adults and to appreciate the value of work through the formation of future work activities in children, the distribution of work flows among those who participate in work, and the formation of skills to achieve good results in work

3. Forming the initial social reasons for labor activity, achieving labor results by arousing interest in objects and actions, and understanding the social importance of labor in large groups. The tasks of the second group are aimed at fostering a positive attitude towards the work of adults:

1) To explain to children what results adults are working to achieve.

2) Cultivate children's respect for working people, desire to help them as much as possible.

3) Teaching adults to preserve the results of work.

The tasks of the third group are aimed at forming the child's personality in work activities:

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- Cultivating in children hard work, participation in any kind of work, sparing no effort to finish the work they started, and the right attitude towards their personal work.

- Cultivating the moral qualities of a child's personality, such as responsibility, independence, goal orientation, determination, initiative and activity, patience, endurance.

- Cultivating cultural behavior and a positive attitude towards one's peers, being able to work together in mutual agreement, participating in team work until the result is achieved, objectively evaluating the work of oneself and one's peers, helping, etc. Thus, labor activity is formed during preschool age. Under the guidance of a teacher, all important aspects of the social causes of work are formed. Knowledge of adult work and its social importance is acquired.

The word ethics is derived from the Latin word "myeros", which means moral, logic, and it is a social law that is not strictly written down anywhere. Man uses moral norms in his daily life.

The norms of moral education are the basis of the legal norms of every society. In moral education, a person who not only acquires moral knowledge, but also behaves according to these norms in any situation, is considered to be morally educated. A morally educated person will have stable moral motives. These motives encourage that person to behave appropriately in society.

Educating the young generation in accordance with the moral qualities that reveal the attitude to society, work, and oneself is a complex process that requires deep knowledge of the educated person, the pedagogical and psychological foundations of moral education. Only the conscious acquisition of moral knowledge will help students to understand what aspects of the behavior of people around them are good and which are bad. Morality is one of the forms of social consciousness and is a set of certain rules of behavior that people living in a certain society must follow.

Morality is manifested in the system of rules of behavior that regulate the behavior of people to each other, to society, to the state, to public property, to the family.

Morality exists as a person's inner world, beliefs, and qualities, while manners are a person's conspicuous manners, behavior, and the level of formation of moral concepts at different ages. Moral values are manifested in moral feelings, especially in hard work. In the rich spiritual heritage of our forefathers, morals have taken a central place in their heritage and creativity. They called morality the "foundation" of society. Therefore, the behavior of each member of the society is paid special attention.

Work requires children to be attentive, sharp minded, resourceful, able to apply learned skills and abilities in practice, and acquire creativity. In the process of work, children have to use a number of concepts and terms that mean certain types of work (actions such as folding a sheet of paper, measuring the required length, cutting a shape according to a template), and describe the consistency of the work done. These enrich the child's speech with new words, allow it to be grammatically correct in a logical manner.

Children should be introduced to the simplest tools and methods of processing materials. Work at MTT prepares them for polytechnic education at school. The moral value of labor is determined by how important it is for society. Work allows every child to understand the social importance of his work, to enter the life of society, to feel himself a member of this society. Every child should be able to feel that he has his share in the family and children's work. Organization of work in this way educates children in teamwork and discipline, a sense of duty. Therefore, it is important to educate children in teamwork.

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Formation of work education in children of preschool age can be achieved by forming the following types of work. may involve:

1. Ethical education through involvement in self-service.
2. Ethical education by teaching household labor.
3. Ethical upbringing by teaching nature to love and respect nature through work in nature.
4. Ethical upbringing by teaching children to work through manual labor and by cultivating feelings of enjoyment and satisfaction from their own work.

Through these methods, the educator forms strong work skills in children. In addition, stories and role-playing games are also important in the process of moral education through labor training. In the fairy tale "Emerald and Precious", the behavior of Precious arouses hatred in the hearts of children. Zumrad's attitude to the environment, hard work, and humility create joy in hearts. Not only Zumrad and Kimmatt fairy tale, but also all Uzbek fairy tales are one of the most important tools to encourage children to work hard, to create goodness, and to form the concepts of manners and ethics in children of preschool age. Labor education of preschool children helps their socialization, forms positive habits, strengthens relationships in the children's community. But it should be remembered that love for work cannot be fully inculcated in a child without the participation of parents. Therefore, joint activities aimed at training labor skills are often held in kindergartens. It harmonizes the child's development, teaches him to respect other people, elders. Labor education of preschool children should be started from a young age. Teachers strive to inculcate in the child a sense of responsibility and duty to complete a certain task, to expand the range of his worldview, morals and interests. In such training, tasks involving self-service, keeping order in the group and in their own closets, as well as observing the rules of personal hygiene are of great importance. Starting from the middle group, children learn to clean dust and take care of plants.

Labor education of preschool children includes not only group games or assignments. Various activities are also held on the grounds, for example, cleaning the kindergarten area (collecting leaves, scraps of paper, sweeping the roads). It should be noted that not only physical strength, but also mental activity is activated during the work process, because the child must understand what sequence of actions must be performed to complete the task. The child begins to think about how to do this task faster and better.

We must not forget that the role of the family is very important in raising children in the spirit of hard work. At home, children should also be given simple tasks and assignments by their parents. The child should be taught to help family members. The child should be entrusted with an easy but responsible task, and then the results of the child's work should be taken seriously.

Labor education of preschool children is one of the most important tasks of any preschool educational organization. Here the child learns about the work of adults and tries to imitate them. At this time, educators must help the child and introduce him to this activity in various ways. Using a number of methods, adults try to instill in the child a love of work, a desire to help others in some kind of work, respect for results.

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CONCENTRATION AND ANALYSIS OF IODINE CONTAINED IN GROUND SALINE WATERS ON THE BASE OF HEXAMETHYLENETETRAMINE.

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Abstract. Groundwater and ocean salt water contain high concentrations of various salts, and iodine ions present in it are mainly in the form of potassium iodide. They are first oxidized under the influence of special oxidizers. The released iodine was precipitated on the basis of hexamethylenetetramine, and its composition was observed using the X-ray fluorescence method. According to the analysis of the results of this analysis, it was suggested that a complex compound with iodide was formed through the amino group in the compound.

Key words: Ground saline waters, iodine, potassium iodide, radioactive isotope of iodine, hexamethylenetetramine, X-ray fluorescence.

Introduction. Currently, the problem of iodine deficiency is being observed all over the world, it is important to use its available reserves and extract them from natural waters based on economically and ecologically productive methods.

Groundwater is widespread in nature, and the concentration of iodine in a multicomponent solution of salts is slightly higher than in the normal composition. The annual production of iodine in the world is 30 thousand tons. Production figures for the United States were weak, but accounted for about 5% of global production. Of the world iodine production, Chile (66%) and Japan (32%) are the largest producers [1]. Bound waters are promising for iodine production if the iodine content is at least 10-18 mg/l. In the development of iodine extraction technology based on iodized groundwater containing iodine compounds, it is necessary to justify a number of scientific solutions in the following directions: - determination of the optimal technological parameters of the kinetics of iodine ions and the oxidation mechanism during drilling. -water in an acidic environment; selection of oxidizing agents and determination of optimal process conditions for precipitation of iodine from iodine concentrates, as well as development of molecular crystalline iodine separation technology [2, 3]. In the territory of our republic, a number of industrial iodine groundwaters located mainly in the Fergana, Bukhara-Karshi and Surkhondarya basins and on the Ustyurt plateau were found. They are characterized by increased concentrations of iodine, cesium, rubidium, strontium and bromine. Calcium iodate, potassium iodate and potassium iodide refer to iodine-containing compounds that are added to animal feed and salt to prevent medical diseases due to the lack of iodine and iodide ions in the body [4]. In the Surkhondarya artesian basin, 3 deposits of strong hydrogen sulfide, iodine waters were identified and studied, their formation is also related to oil fields and oil rocks: Uchkizil, Khaudag, Kakayti and Ortabulok - objects containing iodine and bromine. The amount of iodine in the waters of the Surkhondarya basin is 17.4-24.34 mg/l, bromine 313.2-426.4 mg/l, pH 5.1-6.7, temperature 39-76°C, and mineralization 142.9-283.0 g/l depending on the deposit. Khaudak mine Kattakum-2 well, Uchkizil underground salt water deposits, Kakayti and Ortabulok underground salt water deposits according to the type of anion: bicarbonate, sulfate, chloride and according to the cation: calcium-magnesium - the concentration of sodium cations is high. According to the content of iodine and bromine, these waters are industrial waters [5].

The fact that the concentration of iodine in nature changes depending on the conditions shows that it is one of the important things to pay attention to its isolation even in the case of complex compounds. For example, a sample of the pyrroloperylene-iodine complex was subjected to a dry nitrogen purge at TGA below 25 mL/min. The ramp rate was 10 °C/min to 650 °C. A weight loss corresponding to the volatilization of iodine is seen, followed by complete sublimation of the organic part [6]. Iodine complex compounds in the form of biocides are used in medicine for a wide range of procedures [7]. As a result of the conducted research, the complex precipitation of iodine in the content of underground saline waters with the participation of starch was isolated. When analyzing the composition and amount of the iodine precipitate extracted by the synthesis method using scanning electron microscopy and elemental analysis methods, it can be seen that almost half of the iodine contained in the original Khaudak salt water has been absorbed [8].

At first, 0.3 g of urotropin was dissolved in 19.7 g of water, then 350 g of iodine solution with a concentration of 40 mg/l was taken and the reaction was carried out at room temperature until the precipitate was completely separated. The obtained precipitation infrared spectrum is presented below (Fig. 1).

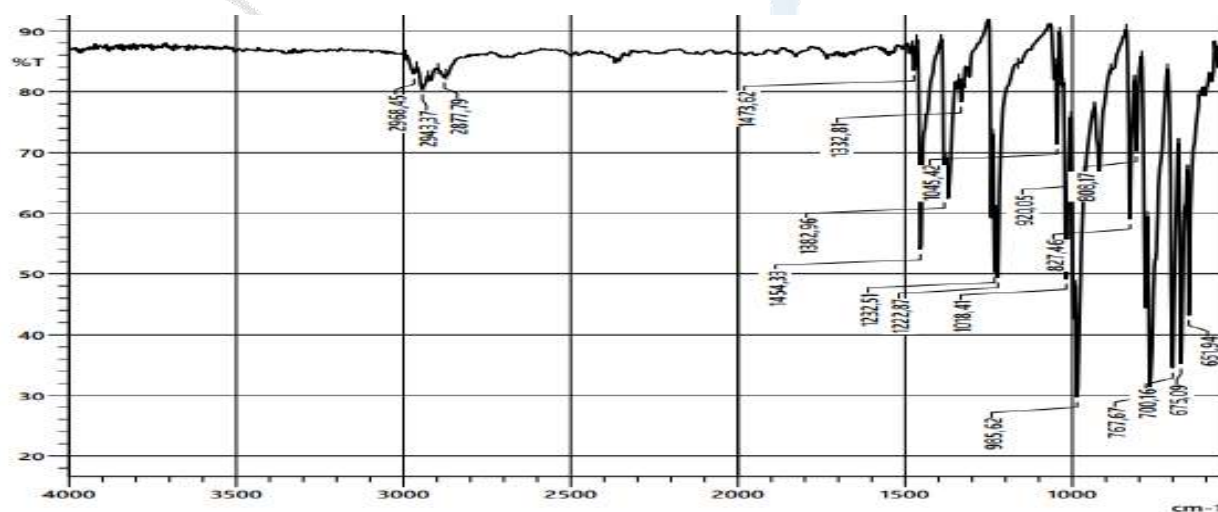


Figure 1. IR spectrum of urotropin (hexamethylenetetramine) iodine compound.

In this case, a slightly different situation was noted from the first obtained spectra. The light refraction indicators shifted slightly to the left and showed the presence of iodine ion in the region of 785-730 cm^{-1} . This allows the iodine ion to be separated from the existing compounds first through the chlorine compound and then through the urotropin solution, without iodine precipitation. 10 ml of 0.02 N solution of KI was taken. Oxidation was carried out by adding 1 ml of 0.2 N solution of FeCl_3 to this solution at room temperature. As a result, a reddish solution of iodine was formed. An equivalent amount of aqueous solution of hexamethylenetetramine was added to the liberated iodine. As a result of the reaction, a reddish-brown cloud was formed and settled. The composition of the precipitate obtained was examined using the infrared spectroscopy method (Fig. 2) [8].

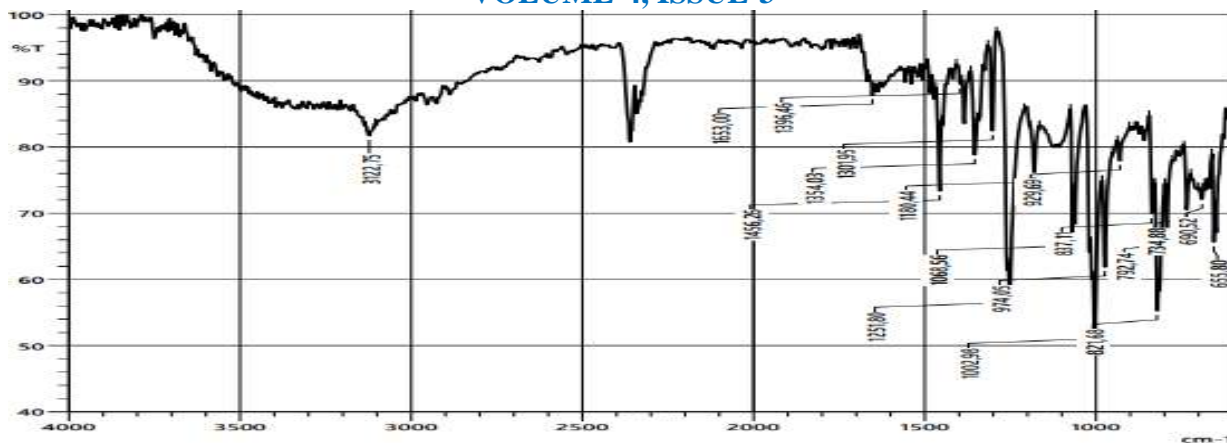


Figure 2. IR spectrum of urotropin precipitate of oxidized KI solution

The same experiment was carried out in Uchkyzil underground salt water, i.e. instead of KJ solution, salt water was used, and the IR spectrum of the resulting precipitate was obtained (Fig. 3).

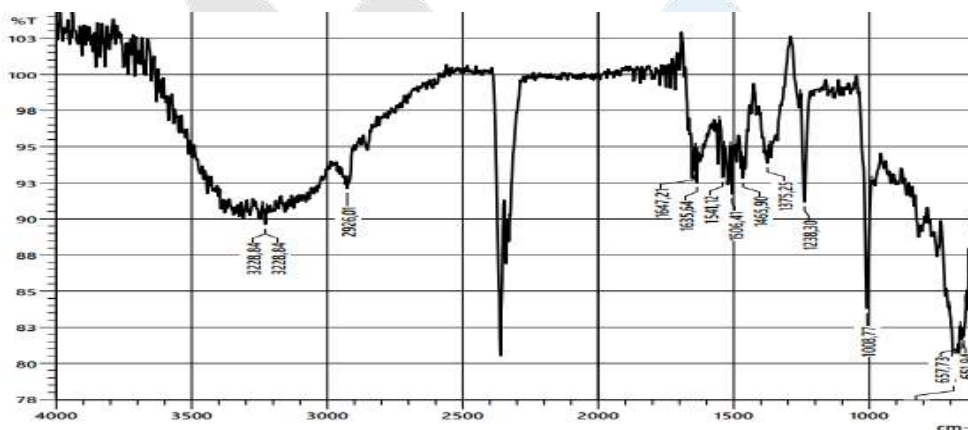


Figure 3. IR spectrum of urotropin precipitate formed by oxidizing KI contained in the trident water

In this figure, bands of symmetric valence vibration of the groups in almost the same area as the spectra of the figures 1 and 2 obtained above, as well as the vibration of iodine anion groups, were observed [8].

Experimental part

As we know, Uchkizil and petroleum waters contain high concentrations of various salts, and iodine ions are present in the form of potassium iodide. During the work, 0.5 liters of Uchkizil groundwater in Surkhandarya region (Uzbekistan) was taken. In order to oxidize the iodine ions in this water, 8 ml of a 3 percent solution of H₂O₂ was added and stirred for 5 minutes. After the solution turned yellow, 8 ml of a 0.5 molar solution of hexamethylenetetramine (urotropin) in water was added. It was waited for 2 hours until a complex compound was formed and settled. The reaction was carried out under normal conditions at 20-25 °C. As a result, 0.733 g of dry sediment was separated.

Results and their discussion

The composition of the complex sediment isolated in the research work was analyzed in an X-ray fluorescence analyzer (Fig. 4).

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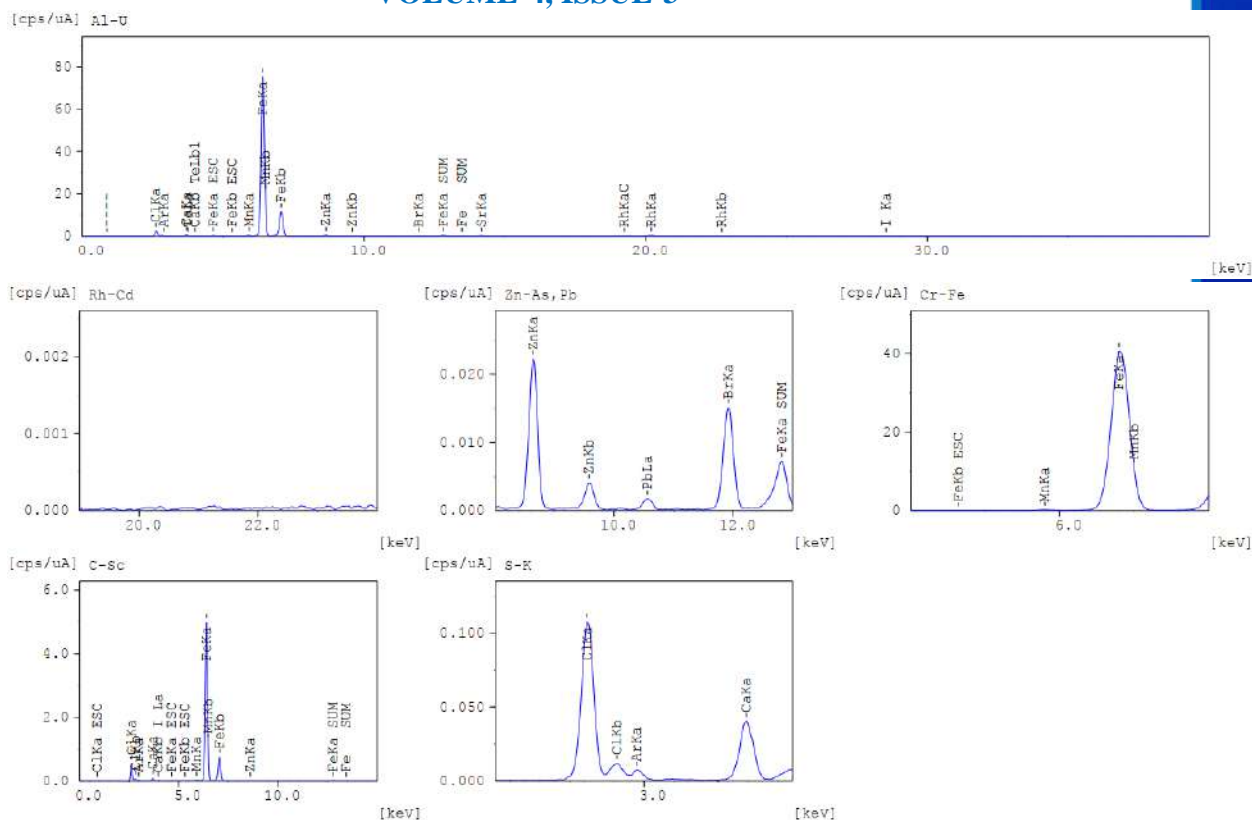


Figure 4. The spectrum of the iodine-urotropin compound in a Centgen fluorescence analyzer.

As can be seen from the picture, vibration bands were formed in the composition of the complex sediment based on the phenomenon of luminescence of several elements. In addition, the elemental analysis of the complex precipitate separated from the complex mixture was presented based on the X-ray fluorescence analyzer (Table 1).

Table 1

The obtained elemental composition of the complex sediment based on the X-ray fluorescence analyzer

| Analyte | Result | [3-sigma] | Proc.-Calc. | Line | Int.(cps/uA) |
|---------|----------|-----------|-------------|-------|--------------|
| Fe | 73.043 % | [0.186] | Quan-FP | Fe Ka | 297.1188 |
| Cl | 23.202 % | [0.405] | Quan-FP | Cl Ka | 1.0992 |
| Ca | 1.864 % | [0.069] | Quan-FP | CaKa | 0.9684 |
| I | 0.633 % | [0.051] | Quan-FP | I Ka | 0.9347 |
| Zn | 0.581 % | [0.023] | Quan-FP | ZnKa | 0.1918 |
| Mn | 0.379 % | [0.014] | Quan-FP | MnKa | 1.1356 |
| Sr | 0.176 % | [0.010] | Quan-FP | SrKa | 2.6117 |
| Br | 0.121 % | [0.005] | Quan-FP | BrKa | 0.1502 |

According to the analysis of the amount of iodine in the initial salt water, 733 mg of dry complex was separated from 500 ml of salt water in the sample (Trial underground salt water),

and it was determined that 0.633% of it consists of iodine. The amount of iodine in the initial sample was 20.7 mg/l and 4.64 mg, i.e. 44.83% was separated by complex precipitation.

Conclusion. As a result of the conducted research, iodine contained in underground saline waters was separated in the form of a complex compound by precipitation in the presence of hekmethylenetetramine. The composition, structure, and quantity of iodine extracted by the synthesis method were analyzed using analytical methods.

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5. Infinite Polyiodide Chains in the Pyrroloperylene–Iodine Complex: Insights into the Starch–Iodine and Perylene–Iodine Complexes Sheri Madhu, Hayden A. Evans, Vicky V. T. Doan-Nguyen, John G. Labram, Guang Wu, Michael L. Chabinyс, Ram Seshadri,* and Fred Wudl* *anie_2016*
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SOME CONSIDERATIONS ON FUNCTIONAL ANATOMY OF THE INNER EAR AND
CHANGES IN THE AUDITORY ORGANS

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Abstract. This article discusses the functional anatomy of the inner ear, age-related changes and structure of auditory organs and balance. It provides information on the anatomical features of the auditory field of the ear, the functional functions of the organ parts, internal features and pathological changes based on examples and analysis.

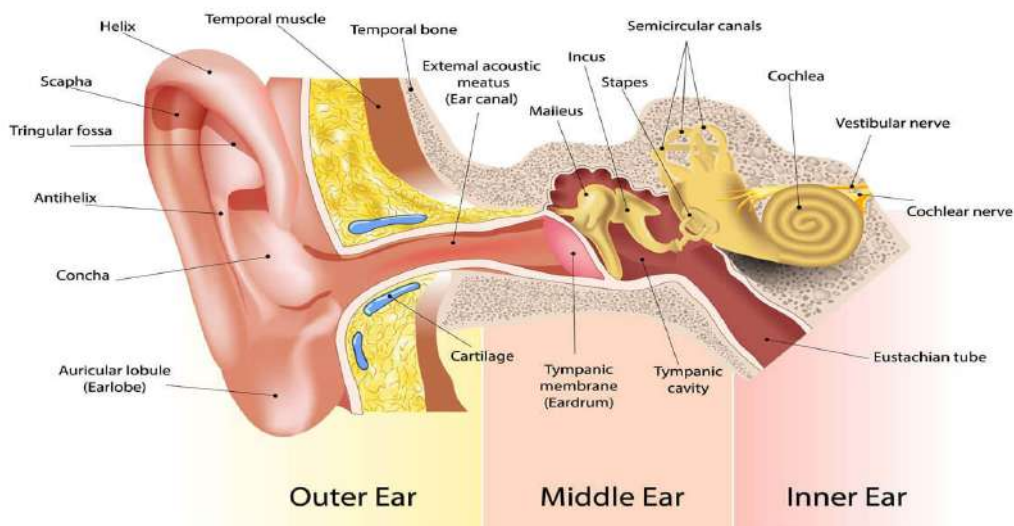
Key words: sound vibrations, inner ear, impulse, vestibule, malleus, stapes, semicircular canals.

INTRODUCTION

The main functions are auditory and vestibular. The auditory analyzer allows you to perceive sound vibrations and ensures the transmission of nerve impulses to the auditory nerve centers, where recognition of the received information occurs. The vestibular analyzer implements sensory, somatic and other reactions. The inner ear contains the cochlea, which contains receptor cells responsible for receiving sound waves. The organ was named cochlea due to its spiral structure. The cochlea converts sound waves into electrical signals, which are then transmitted to the brain to process and perceive sound.

The human ear is a complex organ that helps maintain communication with the outside world and gives a person information about his location and movement in space. It consists of three sections: external, middle and internal. The unique structure of the auditory organ ensures: reception, transmission of sound and conversion of vibration energy into a nerve impulse.

Sounds surround a person from birth. There are 3 sections of the hearing organ:



- *external ear;*

- *middle ear;*
- *inner ear.*

The outer ear is the visible part of the organ. It is represented by the auricle and the external auditory canal. The concha is a funnel-shaped cartilage covered with skin. On its surface there are various formations: pits, curls, hills. They help improve sound quality, make it louder and direct it into the ear canal.

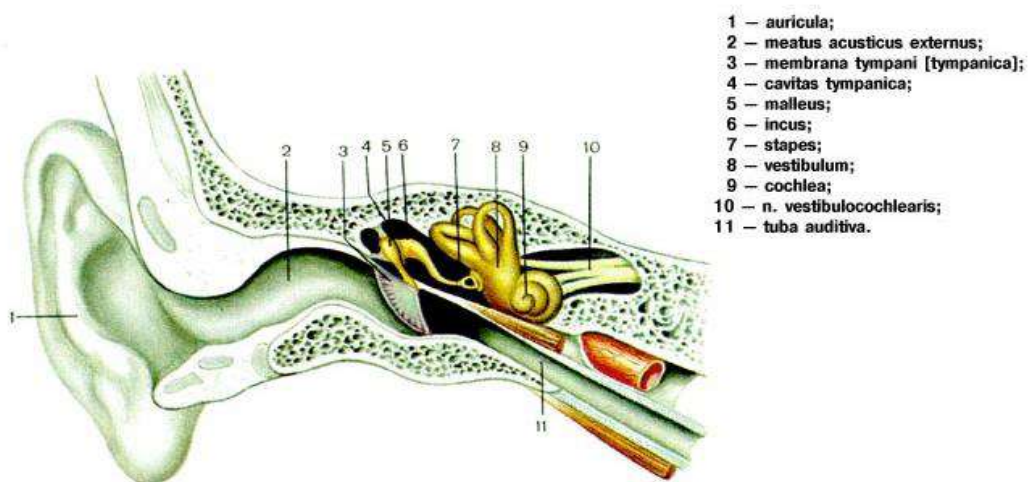
Material and methods

The fibers of the ear muscles are attached to the concha. In the process of evolution, man has lost the ability to “move his ears” in order to more accurately localize sounds; these muscles work in rare “lucky” people. The skin of the shell has sebaceous and sweat glands.

The external auditory canal is a winding canal, the length of which is slightly more than 2 cm, and the diameter is up to 0.7 cm. In it, the sound signal continues to be amplified and transmitted to the middle ear. The passage is lined with skin containing sebaceous and sulfur glands. Earwax is a yellowish substance that provides hydration to the canal and protection against infectious agents. When accumulated and compacted, it forms plugs that disrupt the movement of the eardrum. This can lead to conductive hearing loss.

Describing the structure of the auditory organ, anatomists indicate that the outer part of the canal has cartilaginous walls, and the part in contact with the middle ear has bone walls. The structures of the middle and inner ear are located in the body of the temporal bone. The eardrum is a thin membrane covered on the outside with skin and on the inside with mucous membrane. In young children, it has an opening that exposes the middle ear to the outside environment and is more vulnerable to infection and it closes by 3 years.

The middle ear is a cavity whose volume is slightly more than 1 cubic centimeter. It



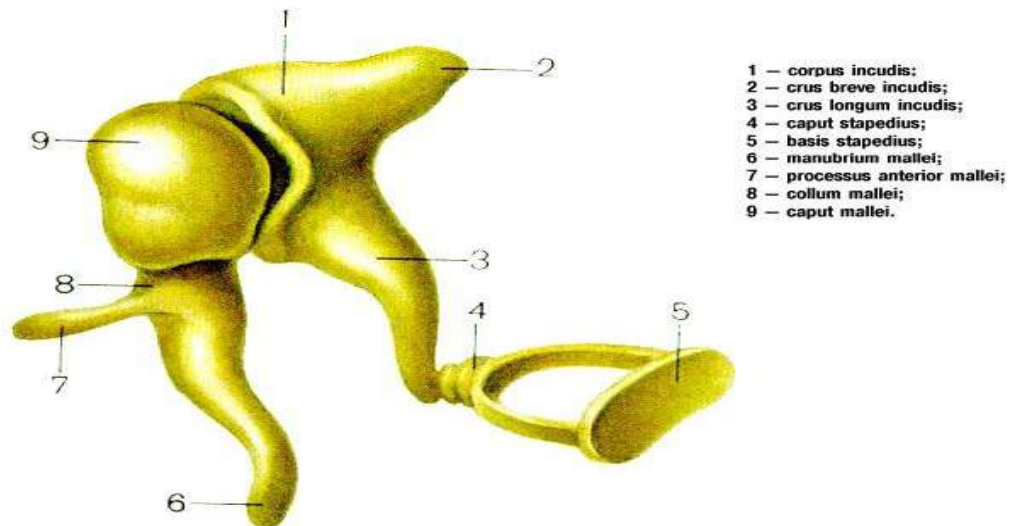
contains three small auditory ossicles, which are connected to each other in a chain:

malleus – (*malleus*) attached to the eardrum,

anvil (incus)

stirrup (stapes) - inserted into the oval opening of the inner ear.

These ossicles are connected in series with each other and transmit vibrations from the eardrum to the inner ear.



They are named so because of their resemblance to everyday objects. The stapes connects to the window of the vestibule. The middle ear is also connected to the nasopharynx via the Eustachian tube.

The inner ear is the most bizarre formation of the human auditory organ. It consists of:

- *vestibule (vestibulum);*
- *snails;*
- *semicircular canals.*

The organ of auditory includes only the cochlea. It contains lymphatic fluid and stretches fibers (the main membrane). Each of the fibers is like a small string and “responds” (resonates) to a sound of a certain frequency. There are about 25 thousand of these fibers. On the wall of the cochlear canal there is a receptor field, which consists of nerve (hair) cells - the organ of Corti. The death of hair cells can lead to sensorineural hearing loss.

The human ear is responsible not only for the perception and further transmission of sound information. The inner ear is the organ of auditory and balance. This is a complex formation in which a wave of mechanical vibrations, like sea surf, spreads through the lymphatic fluid and sways the processes of nerve cells, forming an electrical impulse. This signal carries information about the volume, duration, and pitch of sound to the brain.

Another part of the inner ear is the organ of balance (vestibular apparatus). It consists of: the vestibule, the three semicircular canals located in it, the utricle and the sac. The vestibule is a round-shaped cavity with a diameter of about 5 mm. It is located between the canals and the cochlea. The canals are mutually perpendicular and at the junction with the vestibule they have expansions - ampoules. The channels are filled with endolymphatic fluid.

The utricle and saccule are fields of nerve cells that perceive various irritations. A change in body position is registered by the receptors of the uterus and causes a reflex reaction of the muscles, helping a person maintain balance. The vibration is picked up by the ends of the sac. The vestibulocochlear nerve runs from the organ to the brain.

Results and discussion

When talking about the functions of the auditory organ, physiologists describe them in accordance with their anatomical structures. So, each department has its own specific tasks:

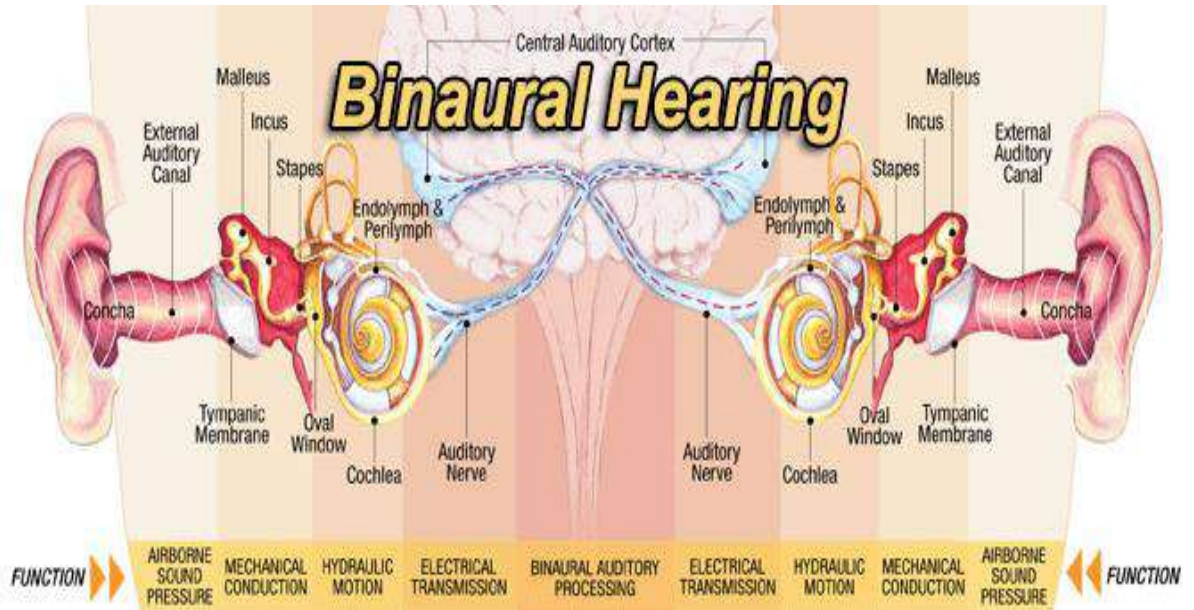
- catches sounds and sends them further (outer ear);
- transmits sound waves (outer and middle ear);

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- protects against infections, loud sounds, damage to internal parts (outer ear, eardrum);
- transforms sound energy into electrical energy (inner ear).

The auditory functions are evolutionarily closely related to danger notification and communication in the community. In order to maintain your ability to hear for a long time, you must follow simple rules for preventing hearing loss.



Human auditory organs are paired. What does this mean? A person can listen with both the right and left ear at the same time. Binaural hearing gives more information about the sound and amplifies it under certain conditions. If the source of mechanical vibrations is at the same distance from the right and left ears, the signal volume increases by 50%. This means that in case of unilateral impairment, compensation with the help of a hearing aid of even low power significantly improves the quality of life.

Perceiving with two ears is better for determining the localization of sound. Binaural hearing gives:

- *feeling of surround sound;*
- *idea of the location of the source.*

This helps you avoid danger (such as an approaching car) and isolate useful sounds from all the background noise when talking to one person in a noisy room. If you experience any hearing problems, you must urgently undergo a hearing test using professional equipment. If you seek help in time, you have a chance to fully restore your hearing.

Special possibilities are associated with adaptation of the auditory organ and the cortical part of the analyzer in case of injury, simultaneous exposure to several sound waves, and the ability to “complete” a conversation based on existing experience.

The development of the temporal areas of the cerebral cortex occurs gradually in response to signals from the outside. The physiology of the auditory organ is such that if the cortical part of the analyzer is damaged, the surrounding neurons can take on the “responsibilities” of the dead cells. This phenomenon is called neuroplasticity. Its supply is especially large in children at an early age, which indicates the importance of auditory stimulation for brain and auditory development. The auditory pathways are a collection of nerve fibers responsible for transmitting nerve impulses from the cochlea to the auditory centers, which are located in the temporal lobes

of the brain. This is where complex sounds, such as speech, are processed and analyzed. The speed of transmission of the auditory signal from the outer ear to the centers of the brain is approximately 10 milliseconds.

The ear sequentially converts sounds into mechanical vibrations of the eardrum and auditory ossicles, then into vibrations of the fluid in the cochlea, and finally into electrical impulses, which are transmitted along the pathways of the central auditory system to the temporal lobes of the brain for recognition and processing.

Receiving nerve impulses, the brain not only converts them into sound, but also receives additional information that is important for us. This is how we distinguish the pitch and volume of a sound and the time interval between the moments when the sound is captured by the right and left ear, which allows us to determine the direction in which the sound comes. At the same time, the brain analyzes not only the information received from each ear separately, but also combines it into a single sensation. In addition, our brain stores so-called “templates” of familiar sounds, which helps the brain quickly distinguish them from unfamiliar ones. With hearing loss, the brain receives distorted information, sounds become quieter and this leads to errors in their interpretation. The same problems can occur as a result of aging, head injuries and neurological diseases. This proves only one thing: for good hearing, the work of not only the hearing organ, but also the brain is important.

Adults do not have this ability, but communication experience allows them to replenish information that is lost during a conversation - for example, during a poor telephone connection or conversation in noise. This is achieved due to the increased work of neurons in the temporal regions and leads to rapid fatigue.

Conclusion

How does the ear react to very loud sounds? It has been proven that after exposure to such signals, a person develops a temporary decrease in hearing sensitivity. This is the so-called post-stimulus fatigue. Full recovery requires up to 16 hours. Such a mechanism should protect the hearing organ from damage, but people who listen to loud music for a long time involuntarily “turn it up loud” and harm their health.

Phantom sounds are another phenomenon that describes the functioning of the hearing organ. Sometimes a person “hears” low sounds, although in reality there are none. The peculiarity of vibrations of the cochlear membrane leads to the “appearance” of low-frequency sounds, while there is no signal source. Such vibrations, especially loud ones, have the interesting ability to mask high-frequency sounds until they disappear completely.

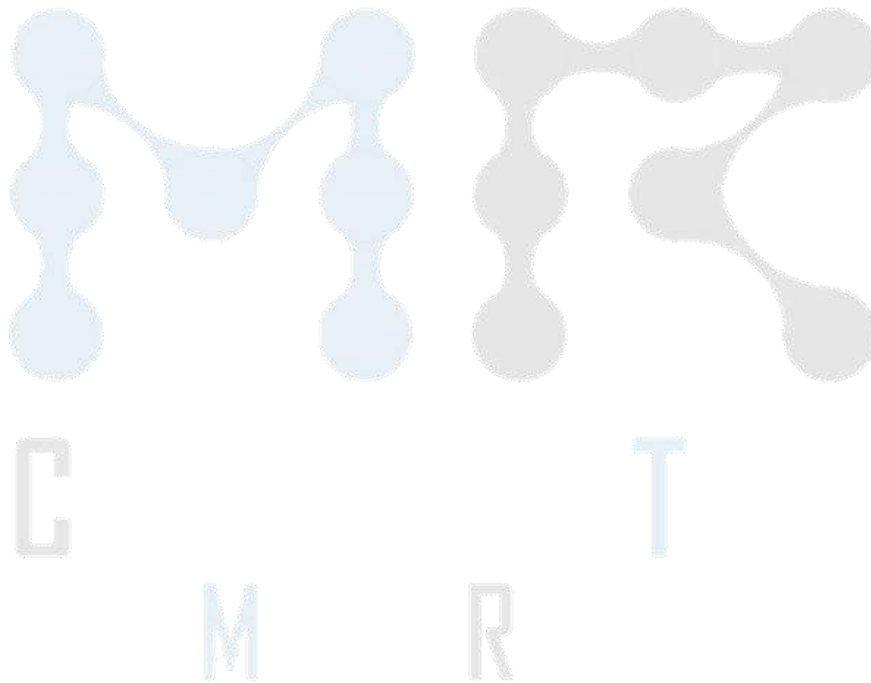
The hearing organs are complex and fragile formations. Attentive attention to their condition will help maintain health and prevent the development of a number of serious diseases.

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COMPREHENSIVE DIAGNOSIS OF NERVOUS SYSTEM DAMAGE IN OLDER CHILDREN WITH BRONCHIAL ASTHMA

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ANNOTATION

In this article, using scientific literature, it is discussed about complex diagnosis of nervous system damage in older children with bronchial asthma, their complications and preventive measures for treatment.

Keywords: Bronchial asthma, pain, lungs, dysfunction, inflammation, pathology, virus, children.

INTRODUCTION

In recent years, much attention has been paid to the influence of comorbid pathology on the course of bronchial asthma (BA). Among the diseases that often accompany asthma, gastroesophageal reflux disease, chronic obstructive pulmonary disease (COPD), lipid metabolism disorders, tobacco smoking, respiratory infections, and dys hormonal disorders are especially highlighted. However, the most important role among the concomitant pathologies of asthma belongs to diseases of the upper respiratory tract (UR), in particular, allergic rhinitis (AR) and polyposis rhinosinusitis (PRS). This is determined by the high frequency of these diseases in patients with asthma, as well as their impact on achieving asthma control. According to various epidemiological studies, more than 85% of patients with asthma suffer from AR, and 10–40% of patients with AR are diagnosed with asthma [1–3]. Meanwhile, data on the incidence of asthma and PRS are heterogeneous: 45–76% of patients with PRS are diagnosed with asthma, of which 14% of patients have intolerance to nonsteroidal anti-inflammatory drugs (NSAIDs) [4, 5]. A clear connection between the development of PRS in patients with asthma and increasing age was found. Thus, it was noted that in patients with asthma over 40 years of age, PRS occurs 4 times more often than in patients under 40 years of age (12.4% versus 3.1%) [6].

Etiology and pathogenesis

Bronchial asthma, being predominantly one of the main links in the atopic march in children, once it occurs, it “accompanies” the patient all life. Chronic inflammation of the airways, which underlies the pathogenesis of bronchial asthma, determines the heterogeneity of the disease and is the cause reversible airway obstruction, characterized by recurrent respiratory symptoms - wheezing, shortness of breath, chest tightness and unproductive cough. Airway hyperresponsiveness is associated with excessive smooth muscle contraction in response to allergens, nonspecific irritants and viral infections. The cytokine cascade of an allergic reaction that develops in a sensitized organism upon repeated contact with an allergen, causes the development of allergic inflammation, tissue damage and contributes to narrowing and hyperresponsiveness of the airways.

Bronchial obstruction is initiated by a combination of edema, infiltration, increased secretion of mucus, contraction of smooth muscles and desquamation of the epithelium. To a large extent, these changes are reversible, but in severe cases, airway obstruction may be progressive and become permanent. Features of the etiopathogenesis of the disease are not determined only

the principles of classification, but also approaches to the management of pediatric patients with asthma.

Classification

There are 3 types of bronchial asthma, these are:

Phase I (initial or relative compensation phase) is longer than 12 hours is a persistent and unstoppable suffocation attack. Broncholytic in patients resistance to drugs develops, mucus does not move. Hypocapnia and compensated alkalosis occur due to hyperventilation will be.

Drainage activity of the bronchi to stage II (decompensation stage).

Characterized by a sudden breakdown. Their hole is filled with sticky mucus and that's it due to this, dry wheezes that were previously well heard disappear ("dumb lungs" stage). or syndrome). Blood gas content is disturbed, hypoxemia occurs. (O₂ wire pressure 50-60 mm. above decreases to), hypercapnia (CO₂ pressure 60 - 80 mm sim. above increases to). Asthmatic status in the absence of effective treatment.

Stage III, hypercapnic coma stage develops. hypoxemia,

As a result of worsening hypercapnia and acidosis (blood pressure of oxygen is 40 mm wire. above drops below, CO₂ thousand blood pressure is 90 mm sim. above from increases) to severe neurological, including cerebral and hemodynamic disorders and may end with the death of the patient.

Diagnostic tests

With the help of X-ray during the period of exacerbation of chest organs high degree of transparency of the borders of the lungs during examination, the diaphragm is low standing and low mobility are recorded. Eosinophilia and lymphocytosis in blood tests is determined. Eosinophils in mucus obtained after an attack of bronchial asthma, Kurshman spirals and Sharko-Leyden crystals are found. Now, when diagnosing bronchial asthma, the body reacts to various allergens special skin tests are used to determine the reaction. Bronchial functional methods of examination to study permeability - spirometry, pneumotachometry is used. Accompanying chronic bronchitis or chronic When zotiljam is detected, bronchoscopic and bronchographic examinations are performed.

Treatment

It is aimed at stopping the effect of one or another allergen on the patient's body measures (for example, the patient with certain plants during their flowering period restriction of contact, especially in case of food allergy, elimination use of diets, rational employment in the case of occupational allergies and others) will be seen. When the patient's reaction to certain allergens is determined specific in order to reduce the body's reaction to them trying to hyposensitize. In order to eliminate suffocation attacks, bronchial tubes are currently being used expanding selective β -adrenomimetic aerosols are widely used: orciprenaline sulfate (astmopent), terbutaline, salbutamol, fenoterol (berotek), etc. The dose of the tool is selected individually, often 2 breaths of a dosed aerosol consists of getting Also for treatment M - cholinolytic aerosols (ipratropium bromide or atrovent, berodual) are used. Also, patients and doctors use methylxanthines widely. For example, an attack of bronchospasm to eliminate it, theophylline is often injected slowly into a vein. Long-acting drugs of this group to prevent choking attacks it is prescribed to drink orally. As a symptomatic treatment, it improves mucus secretion and sputum expectorant and mucolytic agents are prescribed (thermopsis, Altei vein tincture, mukaltin, bromhexine, etc.). Chronic bronchitis is accompanied by exacerbation of bronchial asthma or antibacterial agents in case of

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exacerbation of chronic zoster will be appointed. Bronchial asthma is accompanied by severe suffocation attacks and glucocorticosteroids when the use of other drugs is ineffective will be appointed. About 20% of patients will need them. Usually in one day on average 15-20 mg of prednisolone, antacids (almagel, maalox), H2 histamine used together with blockers and proton pump inhibitors (morning in hours). The last group of drugs causes erosion and ulceration of the mucous membrane of the stomach protects against damage. After achieving the effect, the dose of the drug is gradually reduced (by 2.5 mg every 5-7 days), and then maintenance the dose is left (5-10 mg per day).

Implications

If asthma has a significant neurobehavioural component, the highly inheritable nature of asthma, as suggested by twin studies in which identical twins are far more likely to both have asthma than non-identical twins, could be due to mimicry. While psychologists define mimicry as the unconscious automatic repetition of behaviour performed by others, mimicry can also result in the repetition of autonomic responses.^{48 49} Identical twins are more empathic to each other than non-identical twins. An identical twin is therefore more likely to have autonomically driven bronchoconstriction than a non-identical twin when confronted by their wheezy sibling. Such a mechanism might explain why the heritability of asthma cannot be explained genetically.⁵ While allergic nasal symptoms as a trigger for the diving reflex might in part explain the relationship between atopy and asthma, this relationship is far more complex. There is now increasing epidemiological evidence suggesting that the atopic march's prevalence has been overstated and that the hygiene hypothesis is incorrect. These findings have reignited discussion about alternative models to better explain the pathophysiological and epidemiological processes that result in what may or may not be ongoing allergic disease.⁵⁰

Conclusion

Bronchial asthma is the most common chronic lung disease in children, if uncontrolled significantly reducing the quality of life of patients. Many For years, childhood asthma has been studied in the institutions where the authors of this book work. The information presented in this monograph is intended to help look at the disease from a positions of an integrated approach, theoretical and clinical medicine. Particular attention is paid to the clinical and laboratory-instrumental diagnosis of asthma, and therapy is also described in detail. Difficulties in diagnosing asthma in childhood are associated with the high incidence of bronchial obstruction in children and a large number of asthma-like in their clinical manifestations of diseases, both acute and chronic. Therefore, the diagnosis of bronchial asthma in children in modern conditions should be based on a criteria-based approach, for example, the PRACTALL criteria, according to our experience of many years of use, have proven themselves to be highly informative, and therapy takes into account the individual characteristics of the patient (disease phenotype). At the same time, an urgent problem in the conditions of underdiagnosis of bronchial asthma is the need for a certain diagnostic alertness in relation to of this disease. Assistance to pediatricians, allergists, immunologists, and pulmonologists in the formation of such "asthmatic alertness" for timely diagnosis and prescribing adequate therapy was one of the goals of this publication.

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УДК 159.99

**ОРГАНИЗАЦИИ САМОСТОЯТЕЛЬНОЙ РАБОТЫ И САМООБРАЗОВАНИИ В
ВЫСШИХ УЧЕБНЫХ ЗАВЕДЕНИЯХ**

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АННОТАЦИЯ:

В статье кратко излагается о разработки внедрения повышение качества учебного процесса, формирование навыков самостоятельного умственного труда. Приведены результаты исследования работы предыдущих ученых и информации о самостоятельности человека, различные трактовки самостоятельной работы, а также проведенные опыты зарубежных ученых над этим вопросам и результаты анализа работы по повышения эффективности процесса обучения и подготовки учащихся к самостоятельному выполнению своих заданий.

Ключевые слова: Великая дидактика, независимое обучение, азбука

**ORGANIZATION OF INDEPENDENT WORK AND SELF-EDUCATION IN
HIGHER EDUCATIONAL INSTITUTIONS.**

ANNOTATION:

The article briefly describes the development of implementation of improving the quality of the educational process, the formation of skills of independent mental work. The results of research on the work of previous scientists and information about human independence, various interpretations of independent work, as well as the experiments of foreign scientists on these issues and the results of analysis of work to improve the effectiveness of the learning process and prepare students for independent completion of their tasks are presented.

Keyword: Great didactics, independent learning, alphabet

В процессе зарождения и развития информационного общества огромное значение имеют проблемы, связанные с организацией образовательного процесса. Перспективная система образования должна быть способна не только вооружать знаниями обучающегося, но и вследствие постоянного и быстрого обновления знаний в нашу эпоху формировать потребность в непрерывном самостоятельном овладении знаниями, а также самостоятельной и творческой деятельности в течение всей активной жизни человека.

На сегодняшний день нет необходимости убеждать преподавателей в важности разработки и внедрения в педагогическую практику более совершенных методик обучения, обеспечивающих повышение качества учебного процесса, способствующих активизации познавательной деятельности учащихся, развитие их умственных способностей. В решении этой проблемы значительная роль отводится формированию у них умений и навыков самостоятельного мышления и практического применения знаний. Немаловажным является и формирование навыков самостоятельного умственного труда. Это тем более важно, что, какие бы знания имеют необратимую тенденцию устаревать, отставать от потребностей жизни. Где же выход? Выход в решении задачи - научить учащихся учиться

самостоятельно, приобретать знания из различных источников информации самостоятельным путем, овладеть как можно большим разнообразием видов и приемов самостоятельной работы.

В современной педагогической литературе существуют различные подходы к определению понятия самостоятельная работа студента наиболее глубокий анализ данного понятия с организационной и содержательной сторон рассмотрен в работах П.И. Пидкасистого. Под самостоятельной работой (СРС) студентов он понимает разнообразие типов учебных производственных или исследовательских заданий, выполняемых студентами под руководством преподавателя (или самоучителя), с целью усвоения разных знаний, приобретения умений и навыков, опыта творческой деятельности и выработки системы поведения.

В педагогике это положение не ново. Наиболее проницательные педагоги прошлого неоднократно отмечали, что, несмотря на огромную роль преподавателя, основные цели образования достигаются, прежде всего как результат собственных усилий обучающихся. Так Я.А. Коменский в книге “Великая дидактика” призывал педагогов к изысканию и открытию такого способа, при котором учащие (педагоги) меньше бы учили, а учащиеся больше бы учились.

Одна из главных целей воспитания состоит в переводе человека из объекта в субъект деятельности и управления. Это значит, что в результате воспитания человек должен стать способным управлять собой и делать всякое дело сам. Самостоятельность является наиболее существенным признаком человека и как личности, и как субъекта деятельности.

Быть самостоятельным-это, значит, “стоять самому”, делать что либо без посторонней помощи, без внешнего побуждения, по своему намерению. В этом смысле личности, и как критерий его зрелости в той или другой области социальной практики. В области познавательной деятельности можно говорить о научной самостоятельности. Один из признаков учения состоит в том, что познавательная деятельность учащихся, студентов осуществляется под руководством учителя развития степень вмешательства и внешней помощи со стороны педагога должна сокращаться, а уровень самостоятельности обучаемых возрастать. Однако пока в сложившейся реальной практике обучения не наблюдается желаемой степени самостоятельности школьников и студентов.

Затруднение в деятельности преподавателей по организации самостоятельной работы в учебном процессе состоит в том, что многие учебные пособия еще не в полной мере содействуют успешному развитию познавательной активности учащихся, их самостоятельности. В них в основной дано содержание учебного материала, недостаточное количество заданий, требующих от каждого обучаемого самостоятельного наблюдения примеров; нахождения сходства и различия между сопоставляемыми явлениями; раскрытия существенных признаков, характеризующих сущность понятий, правил, законов; формулирования новых выводов. Правила, законы, выводы часто даются в готовом виде и требуют только заучивания. Понятие самостоятельная работа используется различными авторами в разном значении. Различные трактовки зависят прежде всего от того, какое содержание вкладывается три значения этого понятия: - ученик должен выполнять работу сам, без непосредственного участия учителя; - от ученика требуются самостоятельные мыслительные операции, самостоятельное ориентирование в учебном материале; -

выполнение работы строго не регламентировано, ученику предоставляется свобода выбора содержания и способов выполнения задания.

В зарубежной педагогической литературе для обозначения самостоятельной работы используется ряд терминов, подчеркивающих различные аспекты самостоятельной работы. В ФРГ используется выражение “косвенное (опосредованное) обучение”, что подразумевает работу, проводимую под косвенным руководством учителя. В педагогической литературе Австрии, Швейцарии применяется термин “тихая работа”, который подчеркивает тишину и уединенность, царящие во время самостоятельной работы. Во французской и английской литературе встречается термин “независимое обучение”, при котором ученикам раздают программы, но оставляют относительную свободу выбора материалов и способов усвоения.

Продолжая тему определения того, что такое самостоятельная работа необходимо привести определения, которые даются в отечественной педагогической литературе.

В учебном пособии “Педагогика и психология высшей школы” самостоятельная работа трактуется как планируемая работа студентов, выполняемая по заданию и при методическом руководстве преподавателя, но без его непосредственного участия. Автор В.М.Рогозинский в своей работе “Азбука педагогического труда” характеризует самостоятельную работу как планируемую познавательную. Организационно и методически направляемую деятельность студентов, осуществляемую без прямой помощи преподавателя, для достижения конкретного результата. учебнике Т.А. Ильина “Педагогика” самостоятельная работа определяется как особый вид фронтальной, групповой и индивидуальной учебной деятельности учащихся, осуществляемой под руководством, но без непосредственного участия учителя, характеризуемой большой активностью протекания познавательных процессов, которая может выполняться как на уроке, так и во внеурочное время и служит средством повышения эффективности процесса обучения и подготовки учащихся к самостоятельному пополнению своих знаний. По мнению А.Г. Казаковой (“Организация самостоятельной работы студентов”), основными признаками самостоятельной работы учащихся принято считать: -наличие познавательной или практической задачи, проблемного вопроса или задачи и особого времени на их выполнение, решение; - проявление умственного напряжения мысли обучаемых для правильного и наилучшего выполнения того или иного действия;

-проявление сознательности, самостоятельности и активности обучаемых в процессе решения поставленных задач; владение навыками самостоятельной работы; - осуществление управления и самоуправления самостоятельной познавательной и практической деятельностью обучаемого. Основным смыслом дидактических целей, считает И. В. Горлинский, состоит в том, чтобы: научить учащихся самостоятельно добывать знания из различных источников; способствовать формированию навыков и умений, необходимых будущим специалистам; повысить ответственность слушателей за свою профессиональную подготовку, формирование личностных и профессионально – деловых качеств; формировать у слушателей профессиональное мышление на основе самостоятельной работы над выполнением индивидуальных творческих заданий по курсам и учебным дисциплинам. По частной дидактической цели можно выделить три типа самостоятельных работ: формирование у обучаемых умений выявлять во внешнем плане то, что от них требуется на основе данного им алгоритма деятельности и посылки на эту

деятельность, содержащихся в условии задания. В качестве самостоятельных работ этого типа чаще всего используются домашние задания – работа с учебником, конспектом, лекцией и др. формирование знаний – копий и знаний, позволяющих решать типовые задачи. К самостоятельным работам такого характера относятся отдельные этапы лабораторных работ и практических занятий, типовые курсовые проекты и т.д. создание предпосылок для творческой деятельности. Этот тип самостоятельных работ реализуется обычно при выполнении заданий научно – исследовательского характера, включая курсовые и дипломные проекты. Как и всякая форма учебно – воспитательного процесса, самостоятельная работа призвана выполнять несколько функций: образовательную (систематизация и закрепление знаний учащихся), развивающую (развитие познавательных сил учащихся – их внимания, памяти, мышления, речи), воспитательную (воспитание устойчивых мотивов учебной деятельности, навыков культуры умственного труда, самоорганизации и самоконтроля, целого ряда ведущих качеств личности – честности, трудолюбия, требовательности к себе, самостоятельности и др).

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INTRODUCTION

Since the beginning of the 21st century, computers have been widely used in educational testing. A special direction in pedagogical innovations has appeared - computer testing, in which the presentation of tests, evaluation of student results and giving them results is carried out using a personal computer. The test creation phase can proceed technologically in various ways, including by entering blank tests into the computer. To date, there are many publications on computer testing, and software and tools have been developed for creating and presenting tests. What is the test? The test is a control task in the form of choosing the correct one from the given alternative answers. The control tests, which are created for the academic subject, are composed of four different elements, similar to other educational assignments; content, purpose, function, method.

The Decision of the Cabinet of Ministers of the Republic of Uzbekistan dated February 5, 1993 "On admission of students to higher educational institutions of the Republic of Uzbekistan by the test method" was the first among the CIS countries to use the test widely. opened the way. The test method, which has a strong place in world pedagogy and psychology, is being rapidly applied in the education system of our country. The functioning of the Republican State Test Center is a clear evidence that test science has risen to the level of a matter of national importance in our country.

Determining the quality of computer tests.

The mock test is conducted in groups of students for which this test is structured or similar. To process the test results, an $m * n$ matrix is built, where m is the number of tasks in the test, n is the number of subjects. The matrix does not represent tasks where there is no answer or where all the answers are correct . If there are many missing tasks, the test is corrected and retested. Using the matrix, the characteristics of each task are determined: the ratio of correct and incorrect answers, dispersion and standard deviation, as well as the characteristics of the quality of the entire test: reliability, validity, discriminating ability.

When interpreting test results, you can use the following types of scales (in increasing complexity): nominative (names), ordinal, interval and proportional (ratio). The use of an interval scale is one of the requirements for ensuring the effectiveness of the test (at the same time, the classic five-point knowledge assessment system belongs to the simplest of the listed scales). The relative scale (Figure 1.1) allows you to compare test scores obtained by different tests and does not depend on the number of tasks. There are different ways to transfer test scores to a five-point system, one of which is shown in Table 1.2 (the margin between the intervals is in favor of the student).

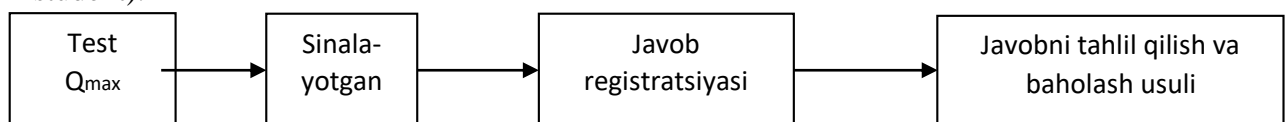


Figure 1.1. Evaluation of test results on a relative scale.

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The actual testing process - presenting test questions to subjects and getting answers to them - is the shortest stage of testing. Before taking the test, the subjects are given instructions about the conditions of the test, including the presence of time limits.

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Table 1.2.

| Grades in a five-point system | | Test scores (at $q_{max}=20$) | |
|-------------------------------|----------------|--------------------------------|---------|
| Grade | Relative value | Relative value | Account |
| Excellent - 5 | $5/5=1$ | $1=20/20$ | 18-20 |
| Good - 4 | $4/5=0.8$ | $0.8=16/20$ | 14-17 |
| Satisfactory - 3 | $3/5=0.6$ | $0.6=12/20$ | 10-13 |
| Unsatisfied - 2 | $2/5=0.4$ | $0.4=8/20$ | 0-9 |

Test the results again work different purposes done increase possible : test and test of assignments features determination , test of objects features identification , professional activity success prophecy to do and others

Mostly , the test the results again at work they are hidden structural to the analysis appeal they do , his main Mother of God hidden of adjectives external appearance is to determine . Hidden structural analysis of theory from the results one this Rash is a model . Rasch model is universal and each how o ' sish process describes this on the ground initial stage vibration forces strong and dumping forces is weak . From turning after curve line fullness mode includes , this on the ground restrictive forces movement do it starts The Rasch model allows describing the whole family of curved objects and the whole family of curved test tasks

The concept of "test system" includes two semantic loads [1]:

- First , it is a set of test materials and their application methodology and technology. In this sense, test systems are used in various fields - technology, physiology and medicine, psychology and pedagogy, sociology;

- secondly , it is a software product designed for computer-assisted testing. A computerized testing system (CTS) is usually referred to as a set of software tools used to measure the manifestation of human mental activity through tests.

It is mainly devoted to the construction of computer test systems designed to monitor the knowledge of technical university students using various pedagogical tests. In psychology and pedagogy, a test is understood as a standardized task, as a result of which it is possible to measure the subject's psychophysiological and personal characteristics, knowledge, skills and abilities. Educational tests (Figure 1.1) differ from others in that they require special training and do not require the consent of subjects. Achievement tests are mainly used in technical higher educational institutions , they may differ in the nature of test assignments, the method of interpreting test results, etc. The offered KTS tests are flexibility, integration, parallelism, etc. The adaptive test allows changing the complexity of the tasks depending on the correctness of the subject's answers, the integrative test is aimed at the general diagnosis of the subject's readiness, consists of parallel tasks called parallel tests. the content is different, but they have the same statistical properties.

The method of construction of test computer test systems was considered. The proposed method makes it possible to describe the operation of the test system within the production

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formalism and automatically move from the formal description of the test structure and types of test tasks to special test options. Using the developed method and the software created based on it, a new quality of computer tests and training tools was achieved, the efficiency of data updating was significantly increased, the complexity of test construction was reduced, and their variability was increased.

Objectives, content and structure of computer-based tests examines the objectives, content and structure of computer-based tests. This section contains parts such as determining the purpose, content, and structure of computer testing, computer testing models, and determining the quality of computer testing.

The current state of computer testing programs in the department, all AES provide interactivity, support, and different levels of flexibility (ability to teach individuals with different abilities and training levels, ability to develop throughout the course, learning content ability to change). The structure of the studied section helps to remember. Hypertext technology simplifies navigation and provides an opportunity to choose an individual scheme for studying the material.

The main scientific and practical results are as follows:

The current state of the problem of the development of computer test systems was analyzed. The main disadvantages of the existing systems are as follows: high complexity of their implementation and narrow specialization, limited number of test tasks and the difficulty of making changes to the set of test tasks, which causes the problem of adapting test and training systems to rapidly changing conditions. Technical university requirements. It was found that common tools allow to solve the problems of applying test methods and technologies, designing interfaces, installing various software, filling the database of questions and answers, but building tests with maximum labor intensity does not allow to automate processes. Compared with other stages of the testing process, a model of the computer test system was developed, which differs from the established traditional models by the presence of mechanisms for dynamic formation of test tasks and the possibility of presenting tasks in a dynamic mode according to the given test structure.

The method of automatic creation of test tasks based on production equipment was developed and formalized. Types of tests created to evaluate student knowledge in different educational systems section shows the types of tests created to evaluate student knowledge.

Innovative forms of test assignments for computers are shown in the section on testing innovative forms of tests for computers.

Test requirements and standards section contains standard requirements for tests.

the linguistic content of specific knowledge, which are characterized by the ability to quickly change the system characteristics, taking into account the dynamics of the educational process, and allow the formation of the structure and content of the practical test system, tests using formal grammar. This method allows the developer. Automated creation of almost unlimited application software and information testing systems for all disciplines of the technical university and formation of various individual, non-intersecting options. The interpretation of the method was considered for all cycles of subjects of the technical university.

and training systems based on the method of automatic creation of test tasks is proposed and based.

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ANNOSTATION.

The term "thermodynamics of living systems" refers to "thermodynamics", a physical science devoted to the study of the behavior of living systems. It includes properties such as temperature, pressure, and volume, and describes their interrelationships, changes in them, and energy exchanges. The following are the basic laws of thermodynamics of living systems: Energy is conserved and conserved. It has average quality in law, energy management and manufacturing practices. The total entropy of the system shows how accurate the temperature is. This law is related to the structure and behavior of the system. Provides information about the accuracy of sources related to temperature and how energy is obtained and consumed from them. Thermodynamics of living systems studies energy exchange, temperature changes, work changes, and energy distribution. It is widely used in practice in chemistry, physics, administrative culture and other fields.

ENTER.

Organism tissues (biological systems) are also important in the study of thermodynamics. It supports the principles of thermodynamics to cover the study of energy exchange, work changes, and its reaction to changes in biological systems (for example, in human control). This law reflects the non-loss of energy. It is important to learn how much energy can be stored and how it is used. It regulates the energy exchange and consumption programs of biological systems to maintain their proper structure and function. Organisms increase entropy, and they operate with information about how correctly it is transferred. The correctness of sources related to the temperature and other properties of biological systems and energy extraction and consumption from them. It contains information about thermodynamics of biological systems, metabolism, production, temperature regulation, energy use and other processes that help in the study of species. It is important to support the principles of thermodynamics in medicine, ecology, food industry, biotechnology and other fields.

LITERATURE ANALYSIS AND METHODOLOGY

Heat is a critical factor that plays an important role in all basic processes of life. Metabolism includes the supply of energy necessary for the body's vital processes and heat for its consumption. The organism includes molecular changes, control systems, and assimilation processes for vital activity. All these processes require heat for energy exchange and consumption. In life processes, it is important to regulate, control and adapt to changes in temperature from the external environment. Organisms use temperature regulation mechanisms to maintain a stable and comfortable temperature for their lives. A lot of the work involved in the production and delivery of DNA molecules involves energy consumption. In these processes, DNA construction, replication and copying processes are known as complex life activities that require energy. Heat is important in regulating the energy, temperature and changes required for the functioning of several systems in life. Therefore, a good understanding of the principles of thermodynamics is necessary

to study and manage life in an understandable way. In organisms, the role of heat is determined through the following main manifestations of vital activity: Metabolic processes are the main source of the molecular structure and activity of the organism itself. These processes involve chemical reactions that provide heat. Through oxidation and addition reactions with the help of metabolism, glucose is used in these physical models. Temperature control is important for organisms to normalize their vital activities and adapt to changing environmental conditions. Anti-heating and anti-cold forces, organisms keep vital activities at optimal temperature. When the muscles of the body (myocardium, waves, etc.) are activated, they produce energy, and heat is generated through this process. Myocardial activity increases energy consumption and causes an increase in body temperature. Thermogenesis refers to all the processes of increasing physical heat. This process includes all of the metabolic, muscle, and heat response systems. Thus, the body's processes are critical in determining the location of heat. These processes include the energy and temperature needed to sustain life. Therefore, the study and management of heat transfer is an important information widely used in the field of biological systems and medicine. is the study of thermodynamics, which is concerned with the processes and energy exchange of organisms themselves. It helps to explain the principles of thermodynamics, the functioning of the systems of internal organs, temperature, energy consumption and laws. Metabolic processes include the production of necessary energy and substances to ensure the vital activity of the body, and the processes of obtaining energy from them. These processes include oxidation, addition, fermentation and other chemical reactions. Metabolic processes lead to the production and use of heat. Internal organs, muscles and movement changes require a lot of heat for energy production and consumption. These processes include physical temperature changes associated with work. Internal organs use mechanisms to allow adaptation, regulation and regulation of body temperature to maintain their vital functions. These mechanisms require energy to adapt to and respond to temperature changes. The chemical reactions carried out in the internal parts of the body change with the influence of heat and respond to its influence. These reactions are of great importance in ensuring energy exchange and consumption. They are of critical importance in understanding the thermodynamics of internal organs, biological systems and processes in the field of medicine. It helps to understand the concepts of processes, organic physical structure and activity and control of life processes. Cardiac system is the main part of life activity, and it is mastered from the processes of energy production, its consumption and energy exchange. : The heart, through its myocardium or muscles, is activated myocardially. These processes require the use of oxygen and glucose to provide energy through oxidative metabolism. Cardiac activity is an important source of energy production. The heart muscle ensures the warm transmission, growth and proper distribution of blood. These movements help the myocardial work of the heart and require energy. The heart contains the energy to control changes in electrical impulses. Electrical impulses are necessary to change blood flow and blood flow. This process is of great importance in regulating and controlling the activity of the heart. Thermodynamics of internal organs is thermodynamics devoted to the study of temperature changes between the internal parts of the body and the movements and activities carried out in them. related to their working processes and energy exchanges. It helps to explain the principles of thermodynamics, the functioning of the systems of internal organs, temperature, energy consumption and laws. Internal organs use mechanisms to allow adaptation, regulation and regulation of body temperature to maintain their vital functions. These mechanisms require energy to adapt to and respond to temperature changes. The chemical

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reactions carried out in the internal parts of the body change with the influence of heat and respond to its influence. These reactions are of great importance in ensuring energy exchange and consumption. They are of critical importance in understanding the thermodynamics of internal organs, biological systems and processes in the field of medicine. It helps in understanding the concepts of processes, organic structure and activity and managing life processes. The human body needs to exchange and consume energy to carry out its vital activities. These processes of energy production and consumption are based on the basic laws of thermodynamics (first and second laws).

Summary.

Thermodynamic principles help to determine laws and show ways of spending energy. Heat helps the body to exchange temperature with the external environment. Temperature regulation is necessary to regulate body temperature and adapt to changes in the external environment. Heat plays a big role in muscle and movement changes. Heat is expended through movement and muscles working and producing energy. Heat is necessary for biological processes. These processes use heat to ensure the activation of reactions and other biological processes. For these reasons, heat is of great importance in human activity. Heat is necessary for maintaining vital processes and plays a major role in the normal functioning of the body. The importance of heat in human life is in reaching the normal place of vital activity, important systems of the body, such as metabolism, temperature regulation, muscles and movements, biological processes and critical for others. The importance of energy balance for the human body is of great importance in ensuring the stability of the amount of energy supplied and consumed. It is critical for the normalization of metabolic processes, proper maintenance of activity and adaptation to changes in the external environment.

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**DIDACTIC POSSIBILITIES OF TEACHING THE EDUCATIONAL PROCESS ON
THE BASE OF DIGITAL EDUCATIONAL TECHNOLOGIES**

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Annotation . In the article general professional science didactic teaching of improvement approaches suitable respectively done increase, data digital technologies based on to express and their more clearer, simpler in appearance to describe service to do about word goes

Key words : digital educational technologies, strategy, modeling, dynamic environment, motivation .

Today, different opinions are expressed about the teaching of professional subjects and its place in the higher education system. In our opinion, the science of quantitative methods in higher education is considered not only the main discipline, but also one of the most important components of the culture of the individual, the achievements in the development of the science are the reason for the serious development of the worldview both materially and spiritually [1].

Studying the topic of evaluation of actions and errors in the conscious and deep mastery of science creates a number of difficulties for students. With this, students' demands for modern education and digital educational technologies will increase. These activities, in turn, should include the necessary conditions for the development of skillful use of digital technologies. However, the use of digital learning technologies requires the ability to perform many elements. Without denying the advantages of using this type of digital technologies, it should be noted that familiarity with them often has the character of passive thinking, which encourages the independent search for certain relationships.

The wide use of digital educational technologies in the educational process allows to increase the effectiveness of educational and educational work, to further increase the effectiveness of the pedagogical process. A change in the thinking methodology, forms and methods of all kinds of educational activities is inevitable, and therefore there are certain advantages and at the same time certain problems. Solving these problems occupies one of the central places in the theory and practice of teaching today. In this regard, the strategy of using digital technologies as a teaching tool in the educational process, as well as in the development of the methodology for the full implementation of appropriate educational programs for their use, require certain adjustments [2].

Today's education system is at its current stage and management of this system cannot be imagined without the use of digital technologies. The use of digital technologies in the educational process is an urgent requirement for modern society. The use of digital technologies in the educational process allows to reduce the burden on the student, to increase the quality of teaching, and at the same time, it serves to make the educational process more culturally, scientifically and creatively interesting.

By carrying out the technological process of preparation for professional activity : lectures and practical trainings are formed using fully modern technologies ; pre-prepared presentations, video lectures and animations are used for training; the materials prepared by the

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teacher are of great importance to the students' perfect education. The training is aimed at a specific goal and is managed by the teacher, as a result of which skills and competencies are formed based on the knowledge obtained from the theoretical lessons necessary to perform a specific task. Independent in education teacher by prepared materials students individually they learn .

The didactic possibilities of using digital educational technologies are decisive and depend on the correct and perfect organization of the educational process by students. Using software-pedagogical tools, the teacher is obliged to determine in which order it is appropriate to use them during the lesson in order to stimulate the mental activity of students in each specific case.

The link "Resource type - student's actions - teacher's management actions" is reflected in the table below .

| Electronic resource type | Software from the product use according to of students actions | Teacher's management actions |
|---------------------------------|--|--|
| Information reference | Perception about information . Traditional study (from class except) tasks solution to do for helper information (text , image , music). | Electronic resources choose area create them search organize do , information perception reach in the process to students advice to give |
| Instrumental - practical | Information objects practical design , real processes models Create and analysis to do | Students software products with mutually in communications advice and pedagogical help to give |
| Educational assessment | Computer command with actions perform Computer results based on done increased actions reflection carry on and management | Digital electron from the resource pedagogical in terms of to the goal according to to use organize to achieve |
| Complex | Education (from class except) tasks solution to do for each different kind of digital electron of resources to the combination based on himself learning | Study programs and addition education programs work exit with electron of resources to use synchronization . |

Our research shows that the highest came alive m u amm o l a r n i n g The solution is for teachers j a r a y o n i d a f o y d a l a n i l a d i g a n [11-15] modern technologies and knowledge In conclusion, modeling of the process of change in our studied science with the help of digital technologies allows us to highlight their features through observation. Increasing students' motivation, training basic abilities and skills creates qualitatively new didactic opportunities.

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USAGE OF SPATIAL INFORMATION MODELS IN THE MANAGEMENT OF
PASTURE LANDS

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Annotation This article provides ways and guidelines for the use of advanced technologies in the implementation of geodetic and GIS work.

Key words : Geodesy, geoinformatics, technology, project, pasture.

Enter. In our republic, objective conditions are being created aimed at ensuring the level of social, economic and political reconstruction based on the market economy, aimed at the liberalization of all sectors in our society, regulation of land relations, preservation and rational use of land resources.

Relevance of the topic. It is known that meeting the demand of the population of our country for food, including meat and dairy products, depends on the activity of the livestock sector and its development. Today, a number of laws and regulatory documents have been adopted and put into practice by the government of the republic for the development of this field.

In particular, the Law of the Republic of Uzbekistan No. 538 "On Pastures" dated May 20, 2019 was adopted.

According to the law, pastures are lands with a natural cover of plants that are fodder for livestock. Mountain pastures are seasonal and are used only at certain times of the year. Pasture users have the right to organize associations of pasture users for joint use of pastures and their protection. Pastures can be given to permanent ownership, lease and temporary use according to the decision of the governors. On the lands of the Forest Fund, pastures are used according to the permission of the state forestry authorities. [1]

Taking this into account, it is worth noting that sustainable management of pastures, increasing fodder production , increasing the productivity of pasture lands, in particular, combating and eliminating pasture degradation, which has now become a global problem in the whole world, are among the urgent problems of today.

In our republic, geo-information has a special place in conducting geodesy and cartography . The volume , quality and accuracy of pasture lands largely depend on the quality of data collection , analysis , processing and systematization . Spatial data models of grasslands are mainly created in simple ways . It can be considered that the spatial information model of pasture lands will make an important contribution to the actual implementation of the land fund by forming and improving the management through the software system . Because the perfection of the pasture land system reveals the advantages of effective use of the district's land fund. In this regard , scientific research works are being carried out by the State Committee " Dave rgeodezkadastr" , organizations under the authority of the committee, field scientists and independent researchers . However, a holistic and integrated approach to the problem has not been observed.

Research object and subject. Currently, the relations that arise in the development of the spatial information model of pasture land and the control of existing land resources in our Republic

are the subject of research.

Studying the method of developing the spatial data model of pasture land, analyzing and improving the methods of developing the spatial data model of pasture land in developed countries.

Development of scientifically based proposals and recommendations on the creation of a spatial data model related to the research object of the systemization and improvement of the principles of the establishment and management of the pasture land base, methods of improvement of the pasture land system.

Eliminating pasture degradation by creating a certain systematization in the creation of a spatial data model of pasture lands, solving the problem of pasture degradation on the spot and using world experience in solving this problem, finding alternative sources of income for the population living in the research object, and developing mechanisms for sustainable pasture management. are the main issues and hypotheses of the research.

The level of study of the problem. The analysis of the available scientific literature in the field shows that the monitoring of the current state of agricultural land, the improvement of the organizational and economic mechanisms of the restoration of pasture land in agriculture, and the development of the necessary proposals and specifications is envisaged. To make proposals on the scientific bases and problems of efficient and rational use of pasture lands in accordance with the extensive experience in continuous monitoring of pasture lands in the developed countries of the world. Their scientific work consists of deepening economic reforms and modernization of production, as well as improving the method of regularly monitoring the land condition in the conditions of increasing demand for land resources in all sectors of our Republic, using existing methods of pasture land restoration.

Description of the methodology used in the performance of the work. Systematic analysis of spatial data, study of the fertile layer of pasture land, use of computer programs, formation of a database, implementation of a rapid land-information system. Laws adopted by the Oliy Majlis of the Republic of Uzbekistan, presidential decrees, decisions and normative documents of the Cabinet of Ministers, scientific works of scientists who have conducted and are conducting scientific research were widely used in conducting scientific research.

Summary. For all types of research, GAT-technologies are the perfect guiding tool. It increases work efficiency several times. GAT is a product of new ideas that can show a vivid image in the mind of a person, reflecting the location of events and events from existing information. The technology of developing a spatial data model of pasture lands mainly consists of the above. Spatial data model is very convenient for describing spatial data about the data about the objects in the place with the relief of the place, and the modeling of the landscapes, which has received the term of the current virtual real view, describes the high level of realism and stability of its appearance. In particular, if we use software systems in the productive use of pasture lands, we would achieve high results in the economy of the society and in the agricultural sector. This will ensure the creation of geoinformation systems and, in turn, create an effective data bank for geodesy and cartography.

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ANNOTATION. This module is used to find out what the requirements are about teachers, the level of knowledge and character of teachers.

Key words : Module . Web page Create technologies . ASP technology . SQL language .

ASP technology .

ASP (Active Server Pages). It is a powerful technology developed by Microsoft for fast and easy development of WWW pages. ASP runs on Windows NT and IIS (Internet Information Server) platforms.

ASP is an internal technology that allows applications to be attached to Web pages. An advantage of ASP is its ability to use scripting languages (Visual Basic Script or Java Script) and external COM components.

VBScript has all the constructs (if, while, case, etc) for structured programming. In addition, this language has variables (it is not possible to indicate which type they belong to). Supports objects. Working with them is simple - Object.Property, Object.Method. There are also several additional objects (Request, Response, Session, Server, Connection, Recordset). In addition, the programmer himself can install the necessary components, for example, when working with e-mail "Download, buy...". [5]

Release command in ASP technology

The information to be shown to the user is sent to the output stream using the HTML language. The user's browser interprets this HTML stream. Response to facilitate information release. The facility is available. Output is performed using the Write method. For example:

Response.Write ("

##

In this way, the operation of writing to the internal buffer of the Response object is performed. After the script completes its work, the buffer is given to the client in its entirety. It should be mentioned that the client receives "top-clean" HTML, and the main thing is that ASP programs do not depend on the client's software at all. Other methods and properties of the Response object provide output control. For example, the Response.Buffer method controls whether the client receives the data using the Response object or whether it reads everything or not according to the end of the page . Response. The Redirect method redirects the client's browser to another page. When using this method, you should not use the Response.Write method on the page until then.

Input command in ASP technology

A program built in ASP cannot directly ask the user about anything. It can retrieve data from other pages or URLs. The input data is placed in the output stream and received using the Request object. To give the value of the var variable to the test.asp program, it is necessary to write the following sentence:

test.asp?var=abc

To get the value of the variable from the program, we need to write the following code:

var = Request("var")

If there is more than one variable, they are separated using the & symbol:

test.asp?var1=abc&var2=def

SQL language.

The database world is becoming increasingly unified. This process required the creation of a single standard language that could be used to create information systems that operate in different computer environments .

A standard language that allows users who know the command set to create, search, and transmit information, whether they are working on a personal computer network workstation or on a large HMI.

SQL (Structured Query Language, usually called « sequel »), meaning — Structured query language. It is a language that allows you to work on relational databases. The characteristic of these language expressions is that they are focused on the results, not on the procedures of data processing.

SQL itself determines where the data is located, what the indexes are, and even how the actions can be sequenced; these details do not need to be specified in database queries. The SQL language was developed in the process of creating MBBT DB2 at IBM and is widely used in large computer systems built on the basis of UNIX systems and on mainframes and supercomputers on machines with RISC processors. At the same time, it is encapsulated into internal programming languages such as PL/SQL and Transact-SQL, without being independent. In 1986, ANSI (American National Standards Institute) of the SQL language official standard work came out in 1992 this standard expanded . Whole language 30 ha near to operators have there are some versions little more , in some little is less . Har what MB each different to objects , that is tables , procedures , functions , representations , sequences and etc have

« Client -Server » to technology according to the user EHM (Client) . requests special Information on servers (Server) again processed , user exposure only request again work results will be returned . Of course , with a server communication to do for the only one language need and such language SQL is selected as .

That's why for everyone modern in relational MBBT versions (DB2, Oracle, Ingres, Informix, Sybase, Progress, Rdb) and even in non - relational MBBT versions (for example , Adabas) « Client - Server » technology and from the SQL language is used . in SQL information table in appearance to describe directed deeds concept a lot not (from 30 few) of expressions consists of compact language to create possibility gave Two type : Interactive and Embedded SQL is available . A lot cases both forms are the same different works , but two different is used . Interactive SQL Data of the base in itself activity shows and customer use for exit harvest in doing is used . of SQL this in the form of you command enter it immediately is done and immediately the result (if it exists if) you can see can Embedded SQL is another in the language created to the program from nested SQL commands consists of SQL interactive and placed in their uniforms a lot numerous groups or subvolumes there is . They are by ANSI attention received and conceptual level useful , but most SQL programs them separately again doesn't work , so for they are actually of SQL commands functional are categories .

- DDL (Data Describe Language) is a schema in ANSI describe language , objects (tables , indexes , views and etc .) creator from commands consists of

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- DSL (Data Change Language) is this in tables how values to be kept desired per minute determiner commands complex .

- DCL (Info Management Language) to the user known objects on known effect to transfer permission to give or not to give determiner from tools consists of SQL Standard by ANSI determined and now ISO (Standardization according to international organization) by acceptance done But commercial data bases programs ANSI SQL without warning expand , that is themselves considered useful each different properties they add

SQL query the language is Maium requirements based on givens to the base appeal from him request requirements answer giving the results get language Current at the time different givens base and their systems created But relational type all givens to the base appeal from them belongs to information get SQL language work developed In this language requests how tools using organize to be done stopping let's go That's it to say well , in some BBTS (for example , in Access) it without using to choose request or special example according to request letterhead as appeal by doing belongs to data is taken , such requests organize to do for while Base dannyx — Sozdat (Given base create) from the command is used . Request the result answer as table in the form of get can

SQL language now optional givens to the base request from him answer to receive provider model tool is considered This is the language with dating in real life own place full reflection seven will receive examples based on seeing we go out

Necessary concepts possibility as long as being viewed circumstances explain for is entered.

For example , in Table 1, the factory servants about information given .

Table 1. Factory

| Name | Dob | Paul | Los | Department | Salary | Telno |
|------------|----------|------|-----|------------|--------|----------|
| Rustam V. | 17/01/50 | M | 22 | Admin | 2700 | 1338234 |
| Erkin J. | 20/02/55 | M | 17 | Worker | 2300 | 1445754 |
| Barot V. | 02/07/75 | M | 21 | Sales | 2250 | 6506133 |
| Paul F. | 05/07/62 | M | 12 | Worker | 2250 | 420627 2 |
| Edwin E. | 12/19/69 | M | 4 | Account | 2000 | 1334567 |
| Maria G. | 11/20/72 | F | 4 | Sales | 2100 | 905994 4 |
| Bianca A. | 14/03/75 | F | 5 | Service | 1950 | 6789082 |
| Dinara I. | 01/02/79 | F | 1 | Service | 1900 | |
| Dolly S. | 07/11/69 | F | 14 | Account | 2000 | 6789872 |
| Clint E. | 12/12/70 | M | 5 | Tecknic | 2400 | 5564672 |
| Joan A. | 04/25/62 | F | 11 | Tecknic | 2550 | 5515431 |
| Star S. | 30/06/67 | F | 10 | Service | 2470 | |
| Paulina I. | 11/04/66 | F | 9 | Worler | 2250 | 1335675 |
| Donovan A. | 05/14/67 | M | 7 | Worker | 2250 | 1450986 |
| Zilola I. | 19/02/69 | F | 9 | Tecknic | 2400 | 9049301 |

This table consists of 7 columns and 15 rows. Each column has its own name.

Name - servants Name

Dob is the date of birth

Paul - sex , Los - in the factory the work seniority (period)

Department — in the factory servant working department

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Salary is the employee's monthly salary

Telno - phone number

The columns above are named matrix attributes. Each line contains information about a specific employee (employee).

one column has different lengths and types. In the Name column, the last names of the factory employees are used, that is, words with a maximum length of 15 characters. A dob column has a date type, a different length, etc. Column type and length are its attributes. As column 1 shows, these definitions are different and therefore should be defined accordingly when defining the table. Finally, in order to distinguish table 1 from other tables, it must have its own name. Here and henceforth, we name Table 1 << Factory >> .

When creating tables, they should not have 2 exactly the same lines. It should be noted that not all columns in the table define each row in the same way. For example, Paul, Los, Salary columns contain duplicate names. This means that they have a low functional weight, they are not suitable for uniquely identifying each string. Moreover, it is difficult to determine from them what this table is about.

In the table above, the Name and Telno columns uniquely identify each row.

A column or group of columns that can uniquely identify each row is called a key. They must be separated when compiling Table 1 .

Now let's learn how to create tables. When creating a table, it is necessary to give the name of the table, the name of the columns, the type and length of its attributes. SQL allows input of variable types such as string, numeric, realtime, date, etc.

A string type consists of characters and numbers used to describe variables. The first character must be a letter. Char — intended to represent a string variable of length no longer than 254 bytes.

The keyword NUMBER is used to describe numeric variables.

1.0E -100 to 1.0E+ 100 has been to 22 numbers in a circle have be will receive numbers describes . Date and the time Date standard in description is used .

He: - time determines (hours , minutes , seconds standard . For example , 18.02.2007);

— the date to express for Europe from the standard or America from the standard is used .

Now create Table 1 for the following our writing can :

```
CREATE TABLE factory
(id NUMBER(5,0) PRIMARY KEY,
Name CHAR( 15) NOT NULL,
Los NUMBER( 2,0),
Dept CHAR( 15),
Salary NUMBER (7 ,2 ),
Telno CHAR( 7)).
```

We column Name each one attribute to 15 characters have has been stringed variable length with we determined . In practice attribute length from behind according to more is given That's it thing with It depends that we are in advance stringed of the variable which meanings to the table to be included we don't know That's why for known one reserve that it was ok From this except empty seats reserve columns between of distance to growth possibility will give . Table 1 is also more attractive in terms of design when printed. The NAME column contains NOTNULL. This means that it cannot contain empty strings. Each SQL statement must end with a << semicolon >>

. For the given statement, EHM creates a factory table, but the table is empty because no data has been entered into it.

In standard SQL, data insertion is performed based on the INSERT command. This command allows you to insert a single line, the next line being inserted is generated by the return of the INSERT command:

```
INSERT INTO factory (Name, Dob, Paul, Los, Dept , Salary, Telno ) Values (Paul F. 05.07.1962, 'm' ,12 'worker', 2250.75, '420027');
```

All stringed variables to apostrophes the introduction it is necessary If we are someone of the variable the meaning if we don't know , in input his the meaning down to leave can , EHM his place automatic respectively space with fills

Example : INSERT INTO factory (Name, Job , Pol, Dept, Salary)

Values ('Clint E', 12. 12.1970, 'm\ 'technic' ,2400);

Such in case Telno and Los seats , until they are in order until it is determined , using EHM probel and zeros with is filled in process correct until close continue will be delivered . Separately values down the rest if , them also with NUII to fill can

Select command - b u in the department of the user tables with work methods seeing will be released . Select command of the SQL language main from orders one is considered This is a command all actions data row with provides . Below is the select command main opportunities seeing we go out

a) *View all information.*

```
Select* from factory ;
```

(F) symbol of the factory table all columns choose need means

This result from the Select command after all columns name to give with if possible will be :

```
Select Name, Dob , Pol, Los, Dept , Salary, Telno  
from factory;
```

As a result All of Table 1 on the screen columns appear will be

Columns order in the Select command as specified will be :

b) *columns selective call .*

Columns separately to call in the Select command for show need :

```
Select Name, Dept from factory;
```

As a result, we get a table with Name and Dept:

d) *Strings choose to see* Information with when working most of the time from the table only sure one string to see must has been cases meeting stands Such without the Select command common appearance as follows will be :

```
Select - columns name ;
```

```
from — tables name ;
```

```
where is a string choose condition .
```

Example : All from Table 1 employees , workers choose for the following input need :

```
Select name, dept
```

```
from factory
```

Where Dept — dmik ; command to give it is necessary

As a result, the following will appear on the screen:

e) *Application of comparative opera strings.*

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<< equality >> sign was used to describe the string selection condition .

<< Equality >> sign, there are 7 more basic comparison operators that can be used to select a comparison condition.

These are:

! = — is equal it's not ;

> — big ;

Name

Rustam V.

Joan A.

admin

admin ;

Dept

< > is equal it's not ;

! > — given big it's not ;

< — from given small

! < — from given small it's not ;

> = is big or equal

< = is small or equal to

The following example to compare of operators application opportunities shows .

Example 1: From the Factory table the work 10 years of experience more than has been of workers their names choose

Select Name, Los

from factory

where Los > 10;

The result is on the screen

NAME Los

Rustam V. 22

Barot V. 21

Azamat T. 17

Dolly S. 14

Paul F. 12

Joan A. 11 comes out .

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Abstract: Education is one of the main concepts in pedagogy. During the historical development of society and pedagogy, different approaches to the explanation of this category appeared. First of all, education in the broad and narrow sense is distinguished below.

Key words: education, education process, purpose of education, content of education, general tasks of education, types of education, principles of education, laws of education, process, mental, moral, mindset formation, outlook, physical education, team, children's collective, team education .

Education is the process of comprehensively raising the young generation based on a specific, specific goal and social experience, forming their mind, behavior, worldview.

In a broad sense, education is considered as a social phenomenon, the influence of society on an individual. In this case, education is combined with socialization.

means specially organized activities of pedagogues and students to realize the goal of education in the conditions of the pedagogical process . In this case, the educational activity of pedagogues is called educational work.

The theory of education is an important component of the science of pedagogy and studies the content, principles, laws of the educational process, issues of its organization, methodology, forms, methods, tools, methods and problems.

The educational process is the progress and development of cooperative activities between the teacher and the student (educator and student) organized on the basis of a specific goal.

is an organizational and technical organization of pedagogical activities aimed at forming moral and moral qualities in students, based on a specific goal and social idea.

The specific features of the educational process are as follows:

- clear goal orientation;
- long duration (results of education are not immediately visible);
- continuity (continuous, systematic joint actions of students and the teacher);
- holistic , systematic organization;
- existence of two- way communication and contradictions.

In the process of education, changes such as the development of consciousness, the development of feelings, and the formation of behavioral habits that serve to organize social relations necessary for social life are observed in the personality of the student.

The success of the educational process depends on its goals, forms, methods, tools, existing pedagogical conditions, and the need for self-education and re-education of the individual.

The goal of education is determined on the basis of social order. It explains the essence of the process of organizing a large-scale social movement, from the simplest movement.

The purpose of education is general and individual.

The education process is based on the following laws:

- dependence of education on objective and subjective factors;
- unity and interrelationship of education with personal development;

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- activity and attitude are the basis and main source of formation of socially significant qualities of a person;

- the existence of a connection between the mutual educational influence, mutual relations and active activities of the students .

The content of education consists of the essence of social requirements for the formation of a person, and the social and economic development, the nature and level of personal relationships, and the ideas of the society's ideology are determined as a basis.

The influence of upbringing on personality development is seen in the following:

1) under the influence of upbringing , knowledge and information that could not be given by the environment are acquired, skills and competencies related to work and technical activity are formed;

2) due to education , congenital defects are changed and the person matures;

3) it is possible to eliminate the negative effects of the environment with the help of education ;

4) education sets a goal for the future.

Education is a pedagogical process organized for purposeful improvement of the personality, which allows regular and systematic influence on the personality of the student.

includes two interrelated activities - teacher's and student's activities. In the process of education, the student's mind is formed, feelings and emotions develop, and behavioral habits necessary for social life and serving social relations are formed.

Pedagogically correct organization of children's life and activities during education is extremely important. In the process of activity, the child has a certain attitude towards the educational influence coming from outside. This attitude represents the inner needs and desires of the individual.

of psychologists and pedagogues show that the influence of external factors (both positive and negative) on a person depends on the child's attitude towards them. The needs of the child's personal experience determine his attitude to external influences and are reflected in his behavior. Therefore, organizing children's activities is not enough. In order to properly educate, it is necessary to know how to understand, evaluate, feel the attitude of the student towards this activity, how to evaluate and feel what he is aiming for from them. It should also be taken into account that all this happens on the basis of communication with different people, relationships in the team. As the child grows up, these connections and relationships become more complex and affect the child's development either positively or negatively. That's why education envisages regular influence, because in this way, the demands of the society on the individual become an internal need that governs the behavior of the student.

In the process of education, it is necessary to develop not only the student's mind, but also his feelings, and to form moral skills and habits in him that are in accordance with the moral requirements of the society. To achieve this, the student's mind (on the basis of the educational process), emotions (in class and extracurricular activities) and will (in the process of organizing activities, managing behavior) are regularly influenced. If any of these (consciousness, emotions, will) are neglected while educating the student, it will be difficult to achieve the goal. Therefore, the educational process is multifaceted and complex. The process of education in school is a continuous process, it is led by a teacher, an educator, and he determines the necessary goal of education for the given time, the activities that serve to solve this goal. By ensuring the

participation of students in these activities, it creates conditions for social, community and friendship relations and relationships between them.

Through the participation of students in activities, their independence and creative initiative will be achieved. It is in this process that the child's views, beliefs and his own point of view on events are formed and strengthened. These determine how the child reacts to environmental influences.

Thus, school education consists of the process of formation and maturation of the human personality, and its content is not in separate subjects, as in education, but in the life-activities and interactions of students. These are the characteristics of the educational process.

Pedagogical requirement in the process of education

Pedagogical demand is the initial method in the process of education, which ensures the stimulation or stopping of certain activities of the student and the manifestation of specific practical and human qualities.

The method of demand helps to form many moral qualities of students, at the same time, it plays a special role in the development of responsibility and demand in students.

If we look at the single pedagogical requirements, only in our society, the pedagogical requirement can become an effective method of the educational process in strengthening the spiritual and political unity of the people.

While working with students, organizing their activities, the teacher encourages certain actions of students with his instructions. In the process of educational and educational work, he gives them specific comments, reprimands or encourages them, and concludes. Some of his orders are short and blunt, almost coercive, while others take the form of broad explanatory guidelines. Some of them were created due to the need to attract students to work, others were created due to the need to make adjustments to the acquisition of certain skills and competencies of children; some stop students from making unnecessary and inappropriate actions, while others reinforce and support successful actions. It is impossible to imagine the organization of educational and socially useful activities of students without the demand of the pedagogue.

An experienced pedagogue goes to children with a wide program of activities, each of his pupils knows exactly what to do and when. After all, requirements are only a means of implementing this program in their work and behavior. We will look at the main types and forms of pedagogical requirements in the process of education .

Educator's requirements can be indirect requirements, where the educator expects them to achieve certain actions.

The requirements of the teacher are instrumental requirements, in which the teacher with his requirements creates further requirements in children in relation to their friends. The main forms of requirements, the choice of one or another form of this method arise from two main conditions, two factors of the pedagogical situation.

The first factor is the attitude of the one from whom the request is made towards the requester.

The second factor is the pupil's attitude to the activity encouraged by the pedagogue. In general, we describe these relationships as positive, neutral, and negative, although in practice these relationships can take many forms.

Now let's turn to the demand forms. The request may be blunt, with the teacher's appeal having a clear instruction expressed in a firm, bold tone.

Direct demand is especially effective in the first days of working with students. If there is no sincere, transparent, convincing, intense and firm demand, it is impossible to start the educational process, therefore, if anyone thinks to start work from the hesitant ones, he will make a mistake. It should also be noted that the direct request is often used in situations where the student has a neutral attitude towards the pedagogue or the activity he started. In such a situation, it is especially important to observe the following rules of direct, unmediated demand.

The first rule: as a rule, the demand should be positive, that is, it should cause absolutely certain behavior, not simply prohibit or stop children's actions. Of course, the teacher's prohibitions are used especially in cases where students violate the established rules of behavior in various ways. However, the main content of the demands of pedagogues is not prohibitions.

The second rule: the exact requirement should be in the form of a guide, that is, it should be unambiguous, clear and understandable. At the beginning, when encouraging new actions of students, the requirement seems to be combined with guidance, which clearly defines them.

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**СИНТЕЗ ИОНООБМЕННЫХ СМОЛ ДЛЯ ПОЛУЧЕНИЯ МЕМБРАН НА
ОСНОВЕ ЭПИХЛОРГИДРИНА И ВТОРИЧНЫХ АМИНОВ.**

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Аннотация. В данной работе синтезированы ионообменные смолы на основе эпихлоргидрина и вторичных аминов и полученные смолы использованы в синтезе ионообменных мембран. Было обнаружено, что полученная смола эффективна для увеличения микропористости и отсутствия пор при ионном обмене и формировании мембран.

Annotation. In this work, ion exchange resins based on epichlorohydrin and secondary amines were synthesized and the resulting resins were used in the synthesis of ion exchange membranes. The resulting resin was found to be effective in increasing microporosity and absence of pores during ion exchange and membrane formation.

Ключевые слова. Эпихлоргидрин, ионообменная мембрана, диметиламин, этилендиамин.

Keywords. Epichlorohydrin, ion exchange membrane, dimethylamine, ethylenediamine.

Введение. Эпоксидные смолы — новое и перспективное направление в химии синтетических материалов. Эти смолы, открытые П. Кастаном в середине 1930-х годов, не нашли в то время широкого практического применения из-за высокой стоимости исходных продуктов, которые в основном получали из природных веществ растительного и животного происхождения. На эту тему появляется множество статей, патентов, корпоративных сообщений, отчетов, количество которых увеличивается с каждым годом. В настоящее время проводятся синтезы эффективных ионно-модифицирующих мембран с ионно-модифицирующими смолами, полученными на основе эпоксидных смол.

Мембраны представляют собой тонкие полимерные пленки толщиной не более 0,3 мм, которые на микроскопическом уровне обычно имеют вид капиллярной сети или губчатого каркаса. Отверстия в мембранах представляют собой пространства между стыками пористого каркаса. Таким образом, в отличие от фильтров мембраны являются типичными представителями двухфазных коллоидных систем типа «газ-твердое». Разбираясь подробнее в терминологических деталях, отметим, что, на наш взгляд, разница между обычными и мембранными фильтрами довольно диалектична: переходя от фильтров к мембранам, мы обычно переходим к пористым деталям с все меньшими и меньшими порами. В настоящее время мембранные фильтрационные и обменные процессы используются во многих технологических схемах и сфера их применения все больше расширяется. Это обусловлено, главным образом, технологической простотой, высокой эффективностью, малой материалоемкостью и энергоемкостью мембранных процессов. Мембранная очистка является классическим примером низкой энергоемкости, например, опреснение воды с помощью обратного осмоса обходится примерно в 10 раз дешевле, чем

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опреснение воды путем дистилляции. В настоящее время мембранные устройства устроены настолько компактно, что в их очень небольшом объеме — 23 см³, что соответствует размеру спичечного коробка, можно разместить мембраны с площадью поверхности около одного квадратного метра. В настоящее время технологии на основе мембранных процессов быстро развиваются, поэтому мембраны и сопутствующее оборудование производят многие компании за рубежом.

2. Использованные материалы

Глицерин 99% и этилендиамин 99,6% были закуплены у компании «Пром.уз» (Узбекистан), Диметиламин безводный — у завода ВРЕР USP CAS 124-40-3 (Китай). Эпихлоргидрин для основной реакции был синтезирован обработкой первого глицерина нативным хлоридом натрия в специальных условиях.

Экспериментальная часть.

Сначала в колбу вводили 2,5 моля эпихлоргидрина и 2 моля диметиламина, затем повышали температуру до 35-40 °C при непрерывном перемешивании в течение 0,5 часа. Вещества вступили в реакцию и образовали однородную желтую массу. К полученному материалу добавляли 1 грамм 67% этилендиамина и выдерживали при 65-70 °C в течение 1,5 часов, образовывалась темно-желтая ионная смола.

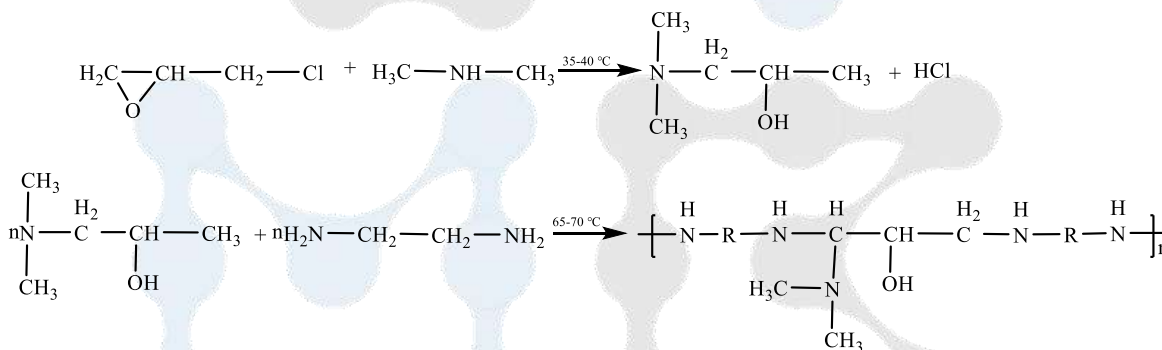


Рис. 1. Общий вид структуры исследованных соединений

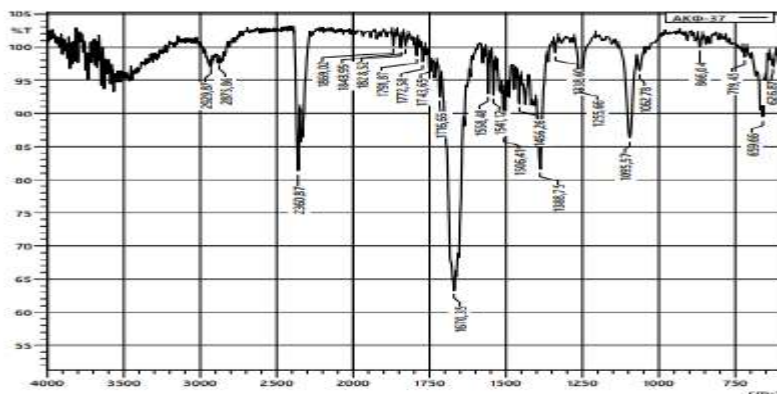


Рис. 2. ИК-спектр ионообменной смолы, синтезированной на основе эпихлоргидрина и вторичных аминов.

На рисунке 1 видны валентные колебания связей –CH₃ в диапазоне 1388,75 см⁻¹, валентные колебания связей –CH₂ в диапазоне 1388,05 см⁻¹, в диапазоне 1255,66 см⁻¹ обнаружены валентные колебания связей –C–N–, валентные колебания связей –C–OH наблюдаются в области 1095,57 см⁻¹, а в области 1062,78 см⁻¹ наблюдаются валентные колебания, соответствующие связям –N<.

Вывод. Данная смола была выбрана из-за медленного отверждения ионообменной смолы, из-за легкости формирования иононосной мембраны и создания для нее микро- и нанопор.

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**PROFESSIONAL TA'LIM TIZIMIDA PEDAGOGIKA FANLARINI
O'QITISHDA MILLIY AN'ANALARDAN FOYDALANISH METODIKALARINI
TAKOMILLASHTIRISHNING AHAMIYATI.**

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**ЗНАЧЕНИЕ СОВЕРШЕНСТВОВАНИЯ МЕТОДОВ ИСПОЛЬЗОВАНИЯ
НАЦИОНАЛЬНЫХ ТРАДИЦИЙ В ПРЕПОДАВАНИИ ПЕДАГОГИЧЕСКИХ НАУК
В СИСТЕМЕ ПРОФЕССИОНАЛЬНОГО ОБРАЗОВАНИЯ.**

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**IMPORTANCE OF IMPROVING THE METHODS OF USING NATIONAL
TRADITIONS IN THE TEACHING OF PEDAGOGICAL SCIENCES IN THE
PROFESSIONAL EDUCATION SYSTEM.**

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Professional ta'lim dasturi YUNESKO tashkiloti tomonidan qabul qilingan Ta'limning Xalqaro standart tasniflagichi (MSKO) darajalari bilan uyg'unlashmaganligi, o'quv jarayoniga O'zbekistonning milliy kvalifikatsiya tizimi to'laqonli joriy etilmaganligi tayyorlanayotgan kadrlarning mehnat bozorida munosib o'rin egallashlariga to'sqinlik qilmoqda.

Professional ta'lim tizimini ilg'or xorijiy tajribalar asosida takomillashtirish boshlang'ich, o'rta va o'rta maxsus professional ta'lim bosqichlarini joriy qilish orqali mehnat bozori uchun malakali va raqobatbardosh kadrlar tayyorlash hamda mazkur jarayonga ish beruvchilarni keng jalb qilish ko'zda tutilgan.

2020-2021 o'quv yilidan boshlab O'zbekiston Respublikasida Ta'limning Xalqaro standart tasniflagichi darajalari bilan uyg'unlashgan yangi boshlang'ich o'rta va o'rta maxsus professional ta'lim tizimi hamda tabaqalashtirilgan ta'lim dasturi joriy etiladigan ta'lim muassasalari tarmog'i tashkil etildi.

Xalqaro tasniflagichning 3-darajasiga mos keluvchi ta'lim dasturlari asosida 9-sinif bitiruvchilarini ijtimoiy qo'llab quvatlashga qaratilgan boshlang'ich professional ta'lim (kasb-hunar maktablari) bosqichida kadrlar tayyorlaydigan ta'lim muassasalari .

Xalqaro tasniflagichning 4-darajasiga mos keluvchi ta'lim dasturlari asosida o'rta professional ta'lim (kollejlari) bosqichida kadrlar tayyorlaydigan ta'lim muassasalari .

Xalqaro tasniflagichning 5-darajasiga mos keluvchi ta'lim dasturlari asosida oliy ta'lim tizimi bilan integratsiyalashgan o'rta maxsus professional ta'lim (texnikumlar) bosqichlarida kadrlar tayyorlaydigan oliy ta'lim muassasalari huzurida faoliyat yuritadigan ta'lim muassasalari faoliyat yuritadi. Mamlakatimizda amalga oshirilayotgan islohotlarning asosiy maqsadi siyosiy iqtisodiy sohalar bilan bir qatorda ta'lim tizimida tubdan o'zgartirish, uni zamon talabi darajasiga ko'tarish. Shu o'rinda O'zbekiston Respublikasi Prezidenti Shavkat Mirziyoevning "Yoshlarimizning mustaqil fikirlaydigan, yuksak intellektual va ma'naviy salohiyatga ega bo'lib, dunyo miqiyosida o'z tengdoshlariga xech qaysi sohada bo'sh kelmaydigan insonlar bo'lib kamol topishi, baxtli bo'lishi uchun davlatimiz va jamiyatimiz bor kuch imkoniyatini safarbar etamiz", [2:146] -degan fikrlar yosh avlodni milliy an'analar ruhida, yetuk, barkamol etib tarbiyalashda asosiy manba bo'lib hizmat qiladi. Sharqda milliy an'nalar asosida tarbiyalash avvalo oiladan boshlanadi. Masalan kichkinalarning kattalarga salom berishi, uylarni tartibga keltirib qo'yish, mehmonlarga hurmat ko'rsatish, qariyalardan, kasallar, o'zlar qiyalanganlardan xabar olish, qo'ni -qo'shnilarga yordam berish va boshqalari o'zbek xalqiga xos bo'lgan urf-odatlar hisoblanadi. Odob -axloq milliy an'ana va qadriyatlarimizning bir qismidir. "Davlat o'z faoliyatini inson va jamiyat farovonligini ko'zlab, ijtimoiy adolat va qonuniylik prinsiplari

asosida amalga oshiradi” [1:5]. Shu o’rinda har bir insoning o’zinig qadriyatlarini muhimdir. Milliy an’ana va urf-odatlarini o’zida mujassamlashtirgan ma’naviy munosabatlarni shakllantirishda asosiy manba bo’lib xizmat qiladi. *Qadriyatlar ichida milliy qadriyatlar ham inson ijtimoiy mohiyatini belgilashda muhim ahamiyatga egadir. Milliy qadriyatlarga yuksak axloq, imon, e’tiqod, insof-diyonat, yaxshi xulq-atvorni targ’ibot qiluvchi boy ma’naviymerosimiz, urf – odatlarimiz, an’analarimiz kiradi. [10:240] Har qanday davrda ham jamiyat va davlat aholi sonining bir maromda o’sib borishi, muayyan an’analar va muqaddas udumlarning saqlanib, avloddan-avlodga yetkazilib turilishidan manfaatdor bo’lgan. Buyuk rus psixologi A.N.Leontev avlodlararo muloqotning jamiyat taraqqiyoti uchun ahamiyatini o’rganib, ilk asarlaridan birida, agar shunday muloqot bo’lmaganida, taraqqiyotning o’zi ham mutloq bo’lmas edi, deb ta’kidlagan. Bu vazifani bajarishda jamiyatning muhim bo’lari bo’lmish oilaning roli kattadir. Har bir jamiyatning betakror qadriyatlari, o’lmas merosi, avloddan-avlodga o’tib boradigan an’analar bo’ladi. Fuqarolik holatlari, madaniy o’sish, madaniy yuksalishga xizmat qiluvchi qadriyatlarning saqlanib kelayotganligi ham oila tufaylidir. Masalan, shunday oilalar sulolasi borki, ular asrlar osha u yoki bu muqaddas qadriyatlarni kasb-kori, turmush tarzi orqali saqlab keladi. [7:18,19] S. Temurovaning «Axloqiy tarbiya tizimida xalq an’analarini» mavzusidagi nomzodlik dissertatsiyasida axloqiy tarbiya jarayonida milliy an’analaridan foydalanish yuzasidan bir qator nozik kuzatishlar qilingan, sog’lom xulosalar chiqarilgan. R.R.Hakimovning ishida esa kasb-hunar kollejlari o’quvchilarida tadbirkorlik ko’nikmalarini shakllantirish jarayoni, mazmuni, shakli, usuli, vositalari va texnologiyalari o’rganilgan. Lekin mazkur ishlarda pedagogika kollejlari o’quvchilarini ma’naviy – marifiy, milliy an’analardan foydalanib tarbiyalash orqali ularning ma’naviy madaniyatini shakllantirish masalalari deyarli tadqiq etilmagan.[4:21] Har bir milliy an’analardan, asosiy qismini muayyan bir millat yaratsa ham, unda jahon xalqlari milliy an’analar, madaniyati, umuminsoniy tushunchalarining bu millat madaniyatiga, milliy an’analardan, urf odatlarga ta’siri mavjud buladi.*

Etnopedagog G.N.Volkovning ta’kidlashicha, «Har bir xalqning kuchli va o’ziga xos jihatlari ta’kidlovchi stereotip tavsiflar hozirgi kungacha o’z ahamiyatini yo’qotgan emas» [8:23] Nemischa batartiblik, amerikacha ishbilarmonlik, fransuzcha xushmuomalalik, inglizcha rasmiyatchilik, o’zbekcha mehmondo’sstlik kabi ijobiy fazilatlar shular jumlasidandir. Xalqlarning pedagogik madaniyati bilan juda qiziqqan rus yozuvchisi V.G.Belinskiy: «Har bir millatning o’ziga xosligi, asosan faqat shu millatga xos dunyoqurash, din, til, urf-odatlar va an’analaridir», - deydi. o’tmishda yig’ilgan ma’rifiy boyliklarni buyuk faylasuf Gegel «o’zidan kuch taratuvchi ona yer» bilan taqqoslagan. Uning ta’kidlashicha, «ilm-fan va ta’limning har bir yangiligi uning qadimiylikka murojaatidan kelib chiqadi». Demak, madaniyatning, jumladan pedagogik madaniyatning an’anaviyligi xalqlarning yuqori madaniyatining muhim belgisidir. Buyuk alloma Abu Nasr Forobiy: «Xalqlarning o’z qadimiy madaniyatiga e’tibori va qiziqishning uyg’onishi ularning xaqiqiy donoligidan dalolatdir» [3], - deydi. «Xalq pedagogikasi - xalq og’zaki ijodida, urf-odatlarida, marosimlarda, bolalar o’yinlari va o’yinchoqlarida va hokazolarda saqlanib qolgan pedagogik ma’lumotlar va tarbiya tajribasining majmuasidir». [8:53] O’rta professional ta’lim tizimi pedagogika kollejlari o’quvchilarning milliy an’analar va qadriyatlar asosida tarbiyalash usullari xilma-xildir. Bunda o’quvchilar bilan ishlash mazmuni ota-onalar va pedagoglar jamoasining hamkorlikka asoslangan, maqsadga yo’naltirilgan ish rejalarini bilan belgilanishi zarur. Yoshlarda milliy qadriyatlar va an’analar asosida tarbiyalashda xilma-xil usullardan foydalanish lozim:

- dars, ta’lim jarayonida axloqiy tarbiyani qo’shib olib borish;
- ahil, inoq uyushtirilgan intizomli jamoa orqali axloqiy tarbiya berish
- samarali natijalarni kafolatlaydigan tarbiyaviy tadbirlarni tashkil etish orqali;
- ijobiy emosional muhit yaratish orqali: Masalan, Mustaqillik kuni, Navro’z bayramini nishonlash; “Avlodlar uchrashuvi”; “Ochiq eshiklar kuni”, “Sog’ tanda – sog’ aql” kabi tadbirlarni uyushtirish;

- *tarbiyaviy soatlar, "Ma'naviyat kunlari"; "Ma'naviyat asoslari", pedagogika, adabiyot darslarining saviyasini oshirish orqali;*

- *turli kechalar, olimpiada, festivalb, musobaqalar o'tkazish, turli axloqiy-ma'rifiy, milliy bayramlar badiiy-estetik tele-radio eshittirishlaridan foydalanish;*

- *dars va tarbiyaviy tadbirlar jarayonida milliy qadriyat va an'analarimiz aks etgan ma'rifiy asarlarni o'qib-o'rganish orqali.*

- *O'quvchilarda ma'naviy madaniyatni tarbiyalashda axloqiy tarbiya mazmuni asosan quyidagilarda o'z ifodasini topadi: jamiyatga, Vatanga muhabbat va sadoqatni tarbiyalash. Milliy g'urur, milliy odob, milliy iftixor. Bu xildagi munosabatlar shaxsning vatanparvarligi, fuqaro yetukligi, baynalminallik kabi fazilatlarda aks etadi, uning maqsadlarida Vatan boyliklarini ko'paytirish, mustahkamlash va himoya qilishga qaratilgan amaliy ishlarida namoyon bo'ladi.*

mehnatga axloqiy munosabatni tarbiyalash (bu axloqiy munosabat shaxsning mehnat jarayonida namoyon bo'ladigan yuksak ongida, mehnatning hayotdagi rolini anglashida, xususiy va jamoa mehnatiga tayyorlik, mehnatsevarlikda ifodalanadi);

- *atrofdagi kishilarga axloqiy munosabat (shaxsning jamoatchilik, ko'pchilik manfaatini o'z shaxsiy manfaatidan ustun qo'yishidir);*

- *shaxsning o'ziga, o'z xulqiga axloqiy munosabatni tarbiyalashi – bu o'quvchini ongli intizom ruhida tarbiyalashdan iboratdir.*

Har bir xalqning og'zaki ijodi ham o'quv-tarbiyaviy jarayonga katta ro'l o'ynaydi. Og'zaki xalq amaliy san'ati yordamida bola o'z xalqining o'tmishini, urf-odat va marosimlari, uning tabiat va jamiyat hodisalariga munosabati. Nutqining rivojlanishida xalq og'zaki ijodi namunalaridan xususan ertaklardan foydalanish o'quvchilarni mehnatsevarlik, vatanparvarlik, qahramonlik, adolatparvarlik, shaxsga hurmat ruhida tarbiyalash eng muhim usullardan biridir. [6:15].

Professional ta'limning o'rta bosqichidagi Pedagogika kollejlari o'quvchilarida milliy an'analarni va qariyatlarimiz chuqurroq anglatishda Umumiy pedagogika va Maktabgacha pedagogika fanlari katta imkoniyatga ega. Ta'lim jarayonini kuzatish va mazkur fanlarning o'ziga xos xususiyatlarni o'rganish Umumiy pedagogika va Maktabgacha pedagogika o'quv fanlari vositasida o'quvchilarda milliy ruxda va ma'naviy-madaniyatni rivojlantirishda quyidagi natijalarga erishish imkoniyati mavjudligini tasdiqladi: 1. O'quvchilarni bunyodkor va buzg'unchi g'oyalari, mafkuraviy tahdidlar, shuningdek, milliy an'ana va qadriyatlarimizning mohiyati, ularning ijtimoiy-pedagogik ahamiyati to'g'risidagi ma'lumotlar bilan tanishtirish.

2. *O'quvchilarda etnopedagogika g'oyalari va unin mazmun moxiyatini yanada chuquroq undashda muxim vositadir.*

3. *Ularda milliy an'ana va qadriyatlarimizning mohiyati, o'zlashtirish yo'lida amaliy harakat qilish, xususan, o'z-o'zini tarbiyalash, o'z-o'zini tanqid qilish kabi sifatlarni tarbiyalash malakalarini yanada rivojlantirish.*

4. *O'quvchilarning mafkuraviy tahdidlar xavfi mavjud sharoitda g'oyaviy immunitet va tolerantlik sifatlariga ega bo'lishlariga erishish. Shunisi diqqatga sazovorki, pedagogika darslarida aks ettirilgan komil inson tarbiyasi, yuksak ma'naviy madaniyatning mazmuni, mohiyatini ochishda yoshlarda odob-axloq, milliy ruh va qadriyatlarning o'ziga xosligini anglash va o'z shaxsida, kundalik faoliyati davomida ham shunday ajoyib insoniy fazilatlarni hosil qilish istagini uyg'otish zarur buladi. Bu esa pedagogika boshqa fanlar bilan ta'lim-tarbiya masalalarini uyg'unlikda, uzviylikda olib borish imkonini beradi, pedagogika fanining imkoniyatlari naqadar keng ekanligini ko'rsatadi. O'qituvchi dars jarayonlari orqali milliy an'analarimizning insonlar hayotidagi, o'zaro insoniy munosabatlardagi o'rnini uning kishi ongi va xulqiga ta'sirini, voqealar rivojidagi rolini ko'rsatib, o'quvchilarga bu mavzuda ilk tushunchalarni beradi, ma'naviyat yuksak ma'naviy madaniyat va unga nisbatan munosabatni shakllantiradi. Shu jihatlarni hisobga olgan holda, biz avvalo pedagogika kollejlari o'qituvchilar tomonidan ushbu mas'uliyatli vazifaning*

bajarilishi o'rganildi. Bundan ko'zlangan maqsad – o'qituvchilarning kollej o'quvchilarida milliy an'anaviy ruxda tarbiyalashda "Pedagogika" darslari orqali tarbiyaviy imkoniyatlarini o'rganish, tahlil qilish edi. Shunday qilib, bir necha oy davomida, so'rov varaqalari yordamida, suhbatlar natijasida olingan javoblar, ko'zlangan darslar tahlili asosida o'qituvchilarning bu masalaga nisbatan bir necha xil nuqtai nazar mavjudligi hamda ular o'z usullari, o'ziga xos metodikalarga asoslanishlari aniqlandi.

Xulosa qilib aytganda milliy urf-odatlar, an'analar, marosimlar zamirida katta tarbiyaviy imkoniyatlar mavjud, zero ularning barchasi ajdodlarimizdan qolgan madaniy meros sanaladi. Milliy to'ylar, ommaviy bayram - sayllar, sharqona va turkona an'analar, hayit bayramlarida xalqimizning o'zigaxosligi yorqin aks etadi. [5:11] Shu o'rinda professional ta'lim tizimida pedagogik fanlarni o'qitishda milliy an'analardan foydalanish metodikalarini takomillashtirish usullaridan eng muhimi o'quvchilarga o'tilayotgan dars mashg'ulotlari davomida berilayotgan ilmiy ma'lumotlardir. Hozirgi kunda professional ta'lim tizimida har bir fan uchun o'qitish materiali ishlab chiqilmoqda. Aytish joizki pedagogika fanlaridan yaratilayotgan o'qitish materllaridagi mavzularga milliy an'ana va qadriyatlarimiz bilan boyitib borilsa o'quvchi yoshlarni ma'naviy barkamol shaxs etib tarbiyalashda ulkan zamin bo'lib xizmat qiladi. Pedagogika kollejlarning ixtisoslik yo'nalishlaridan kelib chiqib, mutaxassislik fanlari imkoniyatlarini inobatga olgan holda o'quvchilarning milliy an'alarimizni yaanada chuqroq bilishlari uchun manbalarni yaratish. Professional talim tizimida o'quvchilarning milliy an'alarimizni yanada chuqroq bilishlarini rivojlantirishga oid tajribalarni ommalashtirish maqsadida pedagogik o'quv va amaliy seminarlarni tashkil etish.

Pedagogika kollejlari o'quvchilarini shaxs ma'naviy madaniyatini boyitishda katta imkoniyatlarga ega milliy meros namunalari (milliy hunarmandchilik, xalq og'zaki ijodi, milliy qo'shiq va raqs san'ati, xalq teatri va milliy dorbozlik tomoshalari, milliy me'morchilik, milliy adabiyot, miniatyura va hattotlik san'ati hamda hokazolar) bilan bevosita tanishtirib borish, shu maqsadda ekskursiya va sayohatlar uyushtirish.

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UNLOCKING THE WONDERS OF CHEMICAL MIRACLES: EXPLORING THE
MARVELS OF SCIENCE

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Abstract.

Chemical miracles encapsulate the extraordinary transformations that occur at the molecular level, revolutionizing diverse fields ranging from medicine to materials science. This abstract delves into the realm of chemical miracles, exploring key examples and their profound impact on society. From the synthesis of life-saving pharmaceuticals to the emergence of green chemistry and nanotechnology marvels, these miracles showcase the transformative power of chemical innovation. Through conscious design and meticulous experimentation, chemists continue to unlock potentials once thought unimaginable, shaping a world that is safer, healthier, and more sustainable for all.

Keywords: Chemical miracles, pharmaceutical synthesis, green chemistry, nanotechnology, molecular gastronomy, innovation, sustainability, transformative power, societal impact.

Аннотация.

Химические чудеса воплощают в себе необычайные преобразования, происходящие на молекулярном уровне, производящие революцию в различных областях — от медицины до материаловедения. Этот реферат углубляется в сферу химических чудес, исследуя ключевые примеры и их глубокое влияние на общество. От синтеза жизненно важных фармацевтических препаратов до появления чудес «зеленой химии» и нанотехнологий — эти чудеса демонстрируют преобразующую силу химических инноваций. Благодаря сознательному проектированию и тщательным экспериментам химии продолжают раскрывать потенциал, который раньше считался невообразимым, формируя мир, который будет более безопасным, здоровым и устойчивым для всех.

Ключевые слова: химические чудеса, фармацевтический синтез, зеленая химия, нанотехнологии, молекулярная кухня, инновации, устойчивость, преобразующая сила, влияние на общество.

Introduction:

Chemistry, as a fundamental science, encompasses a realm of miracles where seemingly ordinary substances undergo extraordinary transformations. These chemical miracles span various domains, from the synthesis of life-saving pharmaceuticals to the emergence of sustainable materials and avant-garde culinary experiences. This paper explores some notable examples of chemical miracles and their profound impact on society. Through conscious design, meticulous experimentation, and technological innovation, chemists continue to unlock potentials once thought unimaginable, shaping a world that is safer, healthier, and more sustainable for all.

In the realm of science, chemistry stands as a cornerstone discipline, unraveling the mysteries of matter and its transformations. From the humblest laboratory to the grandest industrial complexes, chemical processes drive innovation, shape industries, and enrich lives in countless ways. Within this vast domain lies a tapestry of chemical miracles, where seemingly ordinary substances undergo extraordinary transformations, unlocking potentials once thought

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unimaginable. Let us embark on a journey to explore some of these awe-inspiring chemical miracles that continue to redefine our world.

Methods:

To explore the subject of chemical miracles, a comprehensive review of scientific literature and reputable sources was conducted. Various databases including PubMed, Google Scholar, and Web of Science were searched using keywords such as "chemical miracles," "chemistry innovations," and specific topics like "pharmaceutical synthesis," "green chemistry," "nanotechnology," and "molecular gastronomy." Relevant articles, research papers, books, and authoritative websites were selected for inclusion based on their relevance to the topic and credibility of the sources.

Results:

1. Synthesis of Life-saving Pharmaceuticals:

The synthesis of pharmaceuticals represents one of the most profound chemical miracles in modern history. Chemists meticulously design and synthesize molecules that combat diseases, alleviate suffering, and prolong lives. From penicillin, the first widely used antibiotic, to complex cancer-fighting drugs, chemical synthesis has revolutionized medicine, offering hope where there was once despair.

Recent advancements in chemical synthesis techniques, such as automated synthesis platforms and computer-aided drug design, have accelerated the discovery and production of life-saving medications. These breakthroughs not only enhance the efficacy of existing treatments but also pave the way for the development of novel therapies for emerging health challenges.

2. Green Chemistry:

In an era marked by environmental concerns, the concept of green chemistry emerges as a beacon of sustainability and responsibility. Chemical miracles in this realm focus on designing processes that minimize waste, reduce energy consumption, and mitigate environmental impact without compromising efficiency or efficacy.

From biodegradable plastics to eco-friendly solvents, green chemistry innovations demonstrate the transformative power of conscious chemical design. By harnessing the principles of nature and employing renewable resources, scientists endeavor to create a harmonious relationship between chemistry and the environment, ushering in a new era of sustainable development.

3. Nanotechnology Marvels:

At the intersection of chemistry and physics lies the fascinating world of nanotechnology, where materials are manipulated at the atomic and molecular scale to bestow them with remarkable properties. Chemical miracles in nanotechnology encompass a diverse array of applications, ranging from ultra-efficient solar cells to targeted drug delivery systems.

Through precise control of material composition and structure, chemists engineer nanomaterials with tailored properties, unlocking unprecedented functionalities. These nanoscale wonders hold the promise of revolutionizing diverse fields, including electronics, medicine, and energy storage, offering solutions to some of humanity's most pressing challenges.

4. Molecular Gastronomy:

In the realm of culinary arts, chemical miracles extend beyond the laboratory and into the kitchen, giving rise to the phenomenon of molecular gastronomy. By applying principles of chemistry and physics to food preparation, chefs create avant-garde culinary experiences that tantalize the senses and challenge traditional notions of taste and texture.

Table 1: Examples of Chemical Miracles

| Field | Examples | Impact |
|-------|----------|--------|
|-------|----------|--------|

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| | | |
|-----------------------------|---|--|
| Pharmaceutical Synthesis | Penicillin, cisplatin, paclitaxel, vaccines | Improved healthcare, disease eradication, prolonged life expectancy |
| Green Chemistry | Biodegradable plastics, renewable feedstocks, solvents | Reduced environmental impact, sustainable resource utilization, safer chemical processes |
| Nanotechnology | Carbon nanotubes, nanoparticle drug delivery, energy applications | Enhanced materials properties, targeted drug delivery, energy efficiency |
| Molecular Gastronomy | Spherification, foams, gels, innovative cooking techniques | Culinary innovation, new textures and flavors, enhanced dining experiences |

Techniques such as spherification, foams, and gels transform familiar ingredients into gastronomic delights, pushing the boundaries of culinary creativity. Molecular gastronomy not only delights food enthusiasts but also fosters a deeper understanding of the science behind cooking, bridging the gap between art and chemistry.

Conclusion:

The realm of chemical miracles is vast and ever-expanding, encompassing a myriad of scientific disciplines and technological applications. From life-saving pharmaceuticals to sustainable materials and culinary innovations, chemistry continues to enrich our lives in ways both profound and diverse.

As we marvel at these feats of chemical ingenuity, it is essential to recognize the responsibility that accompanies such advancements. With great power comes the obligation to wield it wisely, ensuring that our chemical endeavors contribute positively to society while safeguarding the planet for future generations.

In the grand tapestry of human progress, chemical miracles serve as threads of innovation and enlightenment, weaving together the fabric of our collective journey towards a brighter tomorrow. Let us continue to explore, discover, and harness the transformative power of chemistry to shape a world that is safer, healthier, and more sustainable for all.

Chemical miracles exemplify the transformative power of chemistry, transcending boundaries and reshaping our world in profound ways. From the synthesis of life-saving pharmaceuticals to the emergence of sustainable materials and culinary innovations, these miracles showcase the ingenuity and creativity of human endeavor. As we marvel at these feats of chemical ingenuity, it is imperative to recognize the responsibility that accompanies such advancements. By fostering a culture of innovation, collaboration, and sustainability, we can harness the potential of chemical miracles to address pressing societal challenges and pave the way for a brighter future.

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OBRTANING OF ANTICORROSION COATINGS BASED ON METHYL
METHACRYLATE AND MONOETHANOLAMINE

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Abstract. In this research work, the optimal conditions of a new type of organic anti-corrosion coating based on methyl methacrylate, monoethanolamine and phosphoric acid and ED-20 epoxy resin were studied. At first, a new compound was synthesized based on methyl methacrylate, monoethanolamine and phosphoric acid, and its structure was studied by YAMR and PMR. The resulting mixture was mixed with ED-20 epoxy resin at different mass percentages of 10, 15, 20, 25 and 35%. The resulting mixture was mixed at a speed of 600 rpm and a temperature of 90 °C for 1,5 hours until a uniform mass was formed in the entire volume. The durability of the resulting coating was tested on a HUATECH scratch tester to assess hardness and scratch resistance. According to the obtained results, the coating thickness is one of the factors affecting the corrosion resistance. It was found that when the thickness of the coating is in the range of 120 μm, the level of stability is better than that of coatings of other thicknesses.

Keywords: methyl methacrylate, monoethanolamine, phosphoric acid, ED-20 epoxy resin.

Introduction.

At the same time, corrosion is causing great damage not only to industrial infrastructures, but also to cultural heritage[1]. We can say that there is no sector that does not suffer from the corrosion process, for example: energy, transport, chemical and chemical technology, food and drinking water system, oil and gas production industry, pharmaceutical, engineering, construction. did not Corrosion of metal and reinforced concrete structures, pipelines carrying hydrocarbons and water, air, land and sea transport infrastructure, bridges, piers, marine structures, chemical plants and nuclear reactors, power plants, electronic devices, body implants, cultural heritage ob causing unprecedented damage to objects, artifacts and many other structures[2,3].

If we talk about the economic damage of this process, as an example, we can cite the following figures, for example: according to the results of international research conducted by NACE (IMPACT 2016), the annual economic damage of the corrosion process worldwide is 2.5 trillion US it is concluded that it is \$, if we analyze this figure in each country section, it is about 3.4% of the average gross domestic product (GDP) of each country. Searching for new types of anti-corrosion coatings with high efficiency and low cost, environmentally friendly in preventing the corrosion process remains one of the current directions of research[4].

The inhibition mechanism of anti-corrosion coatings is based on preventing or completely stopping the corrosion of the anti-corrosion coating obtained in certain concentrations by passivating the surface of metal and metal structures by various physical and chemical mechanisms [5]. In the next work[13], two layers consisting of a highly cross-linked polyethylene glycol diacrylate (PEGDA) bottom layer and a nanostructured poly(perfluorodecyl acrylate-co-ethylene glycol diacrylate) (P(PFDA-co-EGDA)) top layer were used. layered polymer coatings are synthesized with each other. Two-layer polymer coatings provide a protection mechanism as shown in Figure 1.

Functionalized montmorillonite as polymer coatings by Mo, Q. F. The main properties of this compound are fire resistance, high level of hydrophobicity, antibacterial activity and the ability to significantly improve the absorption of solar radiation, which is the reason for its use as an anti-corrosion coating. Exchanged with metal ions or metal oxides also provide improved super-hydrophobicity of the coating[6].

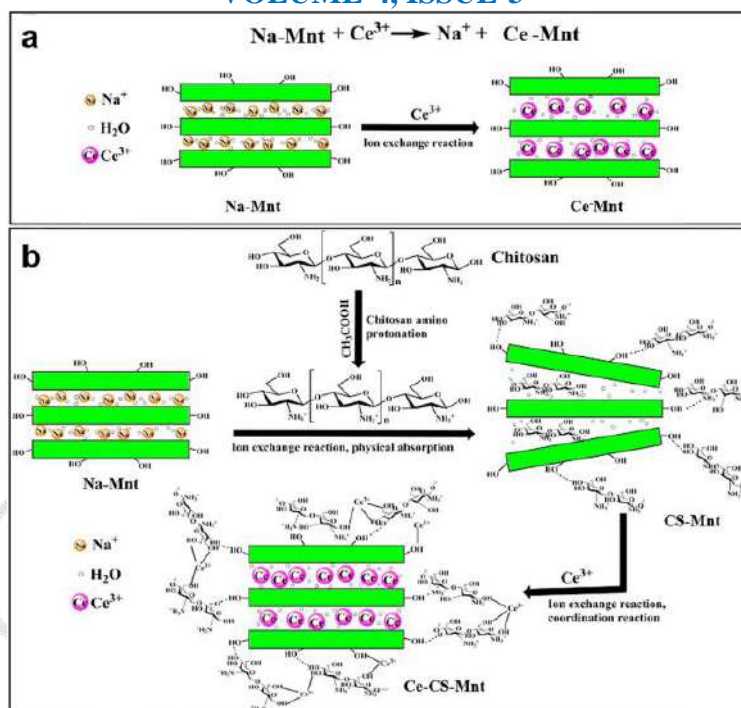


Fig. 1. Schematic presentations of the preparation steps: a Ce-Mnt and b Ce-CS-Mnt CS: chitosan; Mnt: Montmorillonite.

An electrostatic interaction can occur between Ce^{3+} -Mnt and the aqueous polyurethane anionic matrix. Active Ce^{3+} released from Ce^{3+} -Mnt can also significantly increase the cross-linking density of polyurethane molecules with hydroxyl groups in polyurethane (Figure 1a). In addition, the surface of the polyurethane coating becomes rough due to the addition of Ce^{3+} -Mnt to its composition, which helps to increase the super-hydrophobicity of the coating. Pretreatment of Mnt with chitosan can increase the Ce^{3+} loading capacity of Mnt, and Ce^{3+} -chitosan-Mnt particles in polyurethane coatings can increase the hydrophobicity of the coatings (Figure 1b) [7-9].

Experimental part

Synthesis of anti-corrosion coating based on methyl methacrylate and monoethanolamine.

In this case, 1 mole of methyl methacrylate (102 g) and 2 moles (122 g) of monoethanolamine were placed in a round-bottomed flask with a volume of 500 cm³. In this case, the process was carried out at a temperature between 35 °C and 40 °C and a time interval of 48 hours. The reaction was cooled and the dark orange compound was obtained in 95.2% yield.

IR-spectrum of the substance obtained on the basis of methyl methacrylate and monoethanolamine.

The composition and structure of this obtained anti-corrosion coating was studied using IR-spectrometer (IK-Fure, SHIMADZU, Japan) technology in the range up to 4000 cm⁻¹ area (Fig. 1).

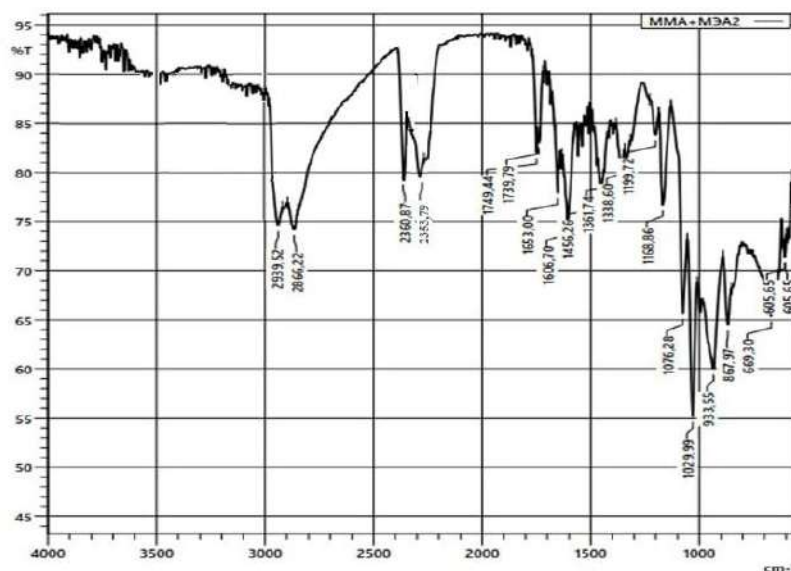
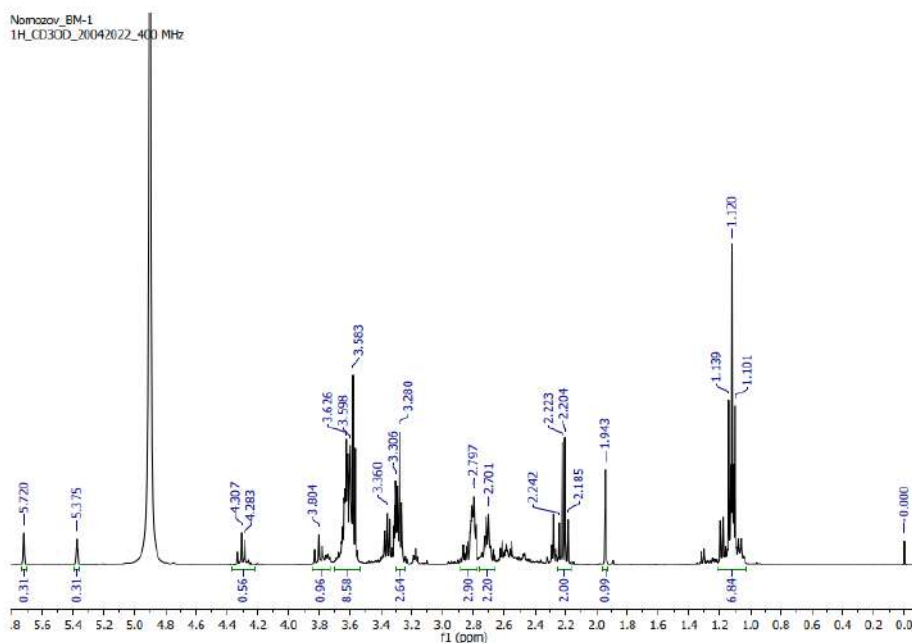


Figure 1. IR-spectrum of the substance obtained on the basis of methyl methacrylate and monoethanolamine

From the obtained IR-spectrum analysis, we can see that C-H in the methyl methacrylate monomer is in the area of 2989.66 cm^{-1} , -C=O is 1720.50 cm^{-1} for the double bond between carbon and oxygen, and 1300.02 for the carboxylate group. The valence vibrations of the cm^{-1} group were observed, the valence vibrations of the bonds for -O-CH_3 were observed in the 1637.56 cm^{-1} area, and a broad and intense absorption was observed. It can be seen here that valence fluctuations of specific bonds in the -OH or -C-N- bond were not observed in the original substance.

Analysis of results of YMR and PMR analysis. YMR and PMR analysis of oligomeric anti-corrosion coating based on methyl methacrylate and monoethanolamine was obtained and analyzed (Fig. 2).



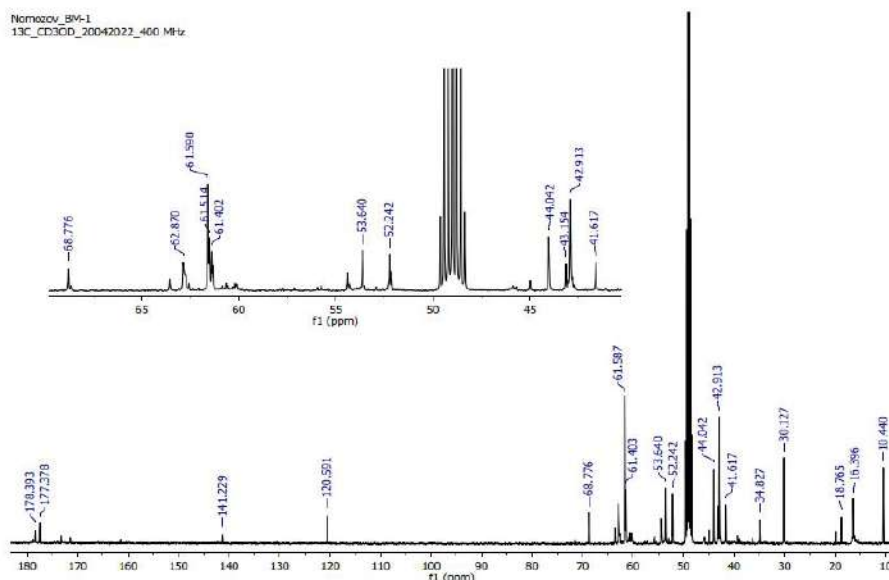
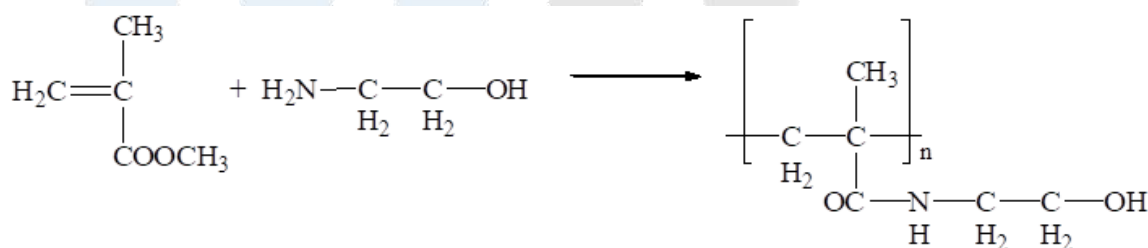


Figure 2. YaMR (A) and PMR (B) analysis of the obtained anti-corrosion coating

When analyzing the YAMR-spectrum (Fig. 2), proton signals spectrum PMR 1H (400 MGs, SD3OD, d, m.u., J/Gs) (N-5) 3.804 m.u., (N-7) 3.626-3.583 m.u., (H -8) 3,360 m.u., (N-4) 3,306-3,280 m.u., (N-6) 2,797-2,701 m.u., (N-1) 1,943 m.u. shows that Spectrum YAMR 13C (400 MGs, SD3OD, d, m.u., J/Gs) quaternary carbon (C-2) that is bonded to the NH group is 120.591 m.u., the carbon of the CH₂ group bonded to the NH group (C- 6) - 42,913 m.u., carbon in the CH₂ group (C-7) bonded to the OH group - 61,587 m.u., carbon in the CH₃ group (C-4) bonded to O in the sample -53,640 m.u., quaternary in the substance carbon in the methylene group bonded to carbon (C-1) -30.127 m.u. shows . The obtained spectra confirm the structure of the synthesized substance.



The gravimetric method is one of the widely used and effective methods for determining the corrosion rate of metal in laboratory conditions. In this case, the metal samples being tested are determined based on the difference in mass loss in the state of coating and without coating. We also conducted practical experiments at different temperatures and concentrations to determine the corrosion rate of steel. We determined the corrosion rate of the steel sample taken for the experiment in time intervals from 24 to 240 hours. For this purpose, experimental work was carried out to determine the corrosion rate of the steel electrode at different concentrations and at certain temperatures, and the corrosion rate (K) and weight loss (X) based on the gravimetric method.

$$K = \frac{(m_1 - m_2) \cdot 1000}{S \cdot \tau_1} [\text{g}/\text{m}^2 \cdot \text{сутка}] \quad (1),$$

$$X = \frac{K_{\text{инг}}}{K_0} \cdot 100, \quad Z = 100 - X, \% \quad (2),$$

Here: m₁ is the initial weight of the metal sample, g; m₂ is the weight of the metal sample after exposure, g; S is the surface area of the sample taken for the practical experiment, m²; t₁ is the exposure time, hours, days.

Results and Discussion

Corrosion medium containing 0.5 M H₂SO₄+200 mg/l NaCl was used as a working solution to determine the level of corrosion protection of this obtained anti-corrosion coating. According to GOST 9.506-87 by gravimetric method and at temperature range of 30-70oC, the speed of movement of working solutions in the system was determined at 1.1 m/s.

Table 1

Corrosion rate of steel 20, g/m²•h Corrosion rate and protection levels of coated and uncoated steel samples in 0.5 M H₂SO₄+200 mg/l NaCl environment

| Coating, % | Temperature, °C | Corrosion rate, g/m ² •h 0,5 M H ₂ SO ₄ +200 mg/l NaCl | Protection level, % (Z) |
|------------------------|-----------------|---|-------------------------|
| Without Coating | 30 | 0,0112 | – |
| | 40 | 0,0196 | – |
| | 50 | 0,0287 | – |
| | 60 | 0,0450 | – |
| | 70 | 0,0522 | – |
| 10 | 30 | 0,0028 | 74,08 |
| | 40 | 0,0025 | 77,17 |
| | 50 | 0,0021 | 79,15 |
| | 60 | 0,0018 | 82,02 |
| | 70 | 0,0014 | 85,13 |
| MFS-1 | 30 | 0,0029 | 75,11 |
| | 40 | 0,0044 | 77,81 |
| | 50 | 0,0049 | 79,91 |
| | 60 | 0,0056 | 83,14 |
| | 70 | 0,0047 | 89,04 |
| 20 | 30 | 0,0008 | 77,16 |
| | 40 | 0,0009 | 79,23 |
| | 50 | 0,0012 | 85,23 |
| | 60 | 0,0019 | 90,22 |
| | 70 | 0,0021 | 92,37 |
| 25 | 30 | 0,0011 | 91,88 |
| | 40 | 0,0018 | 92,18 |
| | 50 | 0,0026 | 93,13 |

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| | | | |
|----|----|--------|-------|
| | 60 | 0,0037 | 94,05 |
| | 70 | 0,0027 | 94,95 |
| 35 | 30 | 0,0010 | 89,12 |
| | 40 | 0,0016 | 90,15 |
| | 50 | 0,0025 | 91,08 |
| | 60 | 0,0035 | 92,17 |
| | 70 | 0,0027 | 91,85 |

The above table mainly shows the results of the study of the corrosion rate and protection levels of the hybrid coating in two types of corrosion (0.5 M H₂SO₄+200 mg/l NaCl) environments. According to the obtained results, it was determined that the protective efficiency of the hybrid coating in a corrosive environment is higher than that of other percentage coatings (0.5 M H₂SO₄+200 mg/l NaCl).

The analysis of the conducted experiments showed that the rate of corrosion and the degree of protection of the anti-corrosion coating depend on the concentration of the anti-corrosion coating and the ambient temperature. It can be seen that the corrosion rate of steel at a certain temperature decreases with an increase in the concentration of anti-corrosion coating.

Conclusion.

In this research work, the optimal conditions for obtaining an anti-corrosion coating based on methyl methacrylate and monoethanolamine and ED-20 resin were determined. It was found that the inhibition efficiency of this received anti-corrosion coating was 91.85% when studied by the gravimetric method. In addition, the mechanical strength of the coating was checked and studied and analyzed using the HUATECH scratch tester.

Acknowledgment

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Authors' Declaration

- Conflicts of Interest: None.
- We hereby confirm that all the Figures and Tables in the manuscript are ours.
- Ethical Clearance: The project was approved by the local ethical committee at the Termez Institute of Engineering and Technology, and Tashkent Institute of Chemical Technology.

Authors' Contribution Statement

M.T.M: conducted the research, K.Kh.Kh: did the conception, design, drafting and responsible for the acquisition of data; A.R.A: did the interpretation; A.N.: participated in the conception, design, drafting and all the authors took part in revision and proofreading.

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Dynamics of the relationship between the main stock indices in the context of changes in external factors

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Abstract:

Economic development presupposes the sustainable functioning of all structural elements, among which due attention is given to the stock market. This market allows us to understand the dynamics of the supply/demand relationship, redistribute resources between various business entities, and act as a platform for investment. To implement such tasks, an analysis of the dynamics of quotes for the corresponding shares or their group, which make up various stock indices, is used. Based on this, the work analyzed the dynamics of quotes for the main stock indices. For these purposes, the features of each of the considered indices are considered separately. The paper also provides an assessment of the mutual dynamics for some pairs of major stock indices. This analysis is made on the basis of constructing estimates of wavelet coherence. This approach allows us to justify possible investment strategies and the timing of entry into the corresponding segment of the stock market. The results of the study are presented in the form of graphs and diagrams. This helps to understand the progress of the study and evaluate the results obtained.

Key words: Dynamics, Relationship, Quotes, Stock market, Stock indices, Statistical analysis, Wavelet analysis, Mutual analysis

Introduction

The stock market is one of the key elements of a market economy [1], [2]. Securities of various business entities are serviced and traded on the stock market. Thanks to the securities market, financial resources are redistributed and funds are invested in profitable sectors of the economy. Also, the stock market can be used for private investment by the population. At the same time, the dynamics of securities quotes can serve as an indicator of the supply/demand relationship. Thus, the stock market is a key structural element of market relations [3]-[6]. This determines the relevance of this work, its practical and theoretical significance. At the same time, the objectives of the research may be different and cover individual market segments.

The dynamics of prices in the stock market are constantly influenced by various factors [7], [8]. These can be both features of the functioning and development of individual sectors of the economy, and general factors. Among the general factors, various natural disasters, pandemics, and armed conflicts should be highlighted.

Therefore, the functioning of the stock market and the dynamics of securities quotes are in the constant field of view of researchers and practitioners. Such analysis helps to better understand market dynamics and develop the necessary strategies, justify the timing of entry into various market segments.

The basis of stock market analysis is quotations for securities that are in circulation on the market. At the same time, for analysis, one should consider the dynamics of various stock indices [9], [10], which are based on a certain set of different securities.

This helps to better understand the functioning of individual areas of stock market development and the influence of external factors. For these purposes, both classical approaches

to analyzing economic data [11]-[21] and non-traditional methods [22]-[34], which can reveal new directions in research, can be used.

Thus, the main goal of this work is to study the dynamics of the main stock indices. For these purposes, we review some related works and identify for research data. Next, the dynamics of stock indices are analyzed and their mutual dynamics are assessed.

Related work

Analysis of the dynamics of stock indices is constantly in the focus of attention of researchers. Therefore, you can find many different works on different topics.

For example, in a study by F. B. Duarte, J. A. Tenreiro Machado and G. Monteiro Duarte, issues of analyzing quotes for the Dow Jones and NASDAQ indices were considered [35]. The work, first of all, analyzes the dynamic properties of financial data series of world stock market indices. The authors use a variety of methods and approaches, starting with classical concepts of signal analysis, Fourier transform and fractional calculus methods. Next, the pseudophase plane approach is used. This allows you to conduct a comprehensive analysis of the data and better understand the dynamics of quotes and their trends.

The study by M. Madaleno and C. Pinho also analyzes indicators of the international stock market [36]. The authors consider a time-varying transmission model of price shocks. At the same time, stock market connections are also studied using continuous time wavelet methodology [36]. For these purposes, the work considers data for FTSE100, DJIA30, Nikkei225 and Bovespa. The consequences of the financial crisis are also taken into account. The results show that the relationship between the indices is strong, but not uniform in magnitude [36]. The authors emphasize that this is due to the fact that local phenomena are felt more strongly than others. The results also support the view that geographically and economically closer markets exhibit higher correlations and shorter-term interactions between them [36].

E. M. Bhuiyan and M. Chowdhury analyze the relationship between macroeconomic variables and stock market indices [37]. The authors consider asymmetric dynamics using the example of the USA and Canada. First, it examines how certain macroeconomic variables affect different sectors of the stock market in the United States and Canada. For these purposes, monthly data for the period 2000–2018 and cointegration analysis are used [37]. Thus, the relationship between industrial production, money supply, long-term interest rates and various industry indices is modeled. The result found that there is a stable long-term relationship between macroeconomic variables and industry indices for the United States. No such relationship has been established for Canadian data.

The study [38] examined the joint movement of stock indices for the Islamic and traditional markets. This analysis is carried out on several time scales. The authors also try to detect chain reactions during 9 major crises and measure integration between markets. The study uses wavelet decomposition to reveal the multihorizontal nature of data co-motion. The subprime crisis has been shown to exhibit contagion based on fundamental factors [38]. At the same time, Islamic markets show signs of reduced exposure to the recent crisis due to the low leverage effect [38].

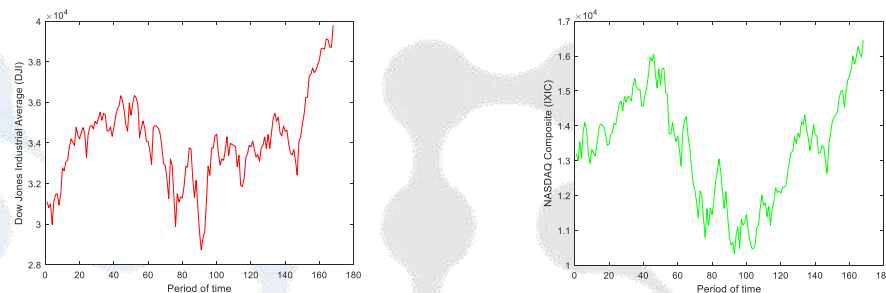
M. Youssef, K. Mokni and A. N. Ajmi explore the dynamic connectivity between stock markets during the COVID-19 pandemic [39]. For these purposes, various stock indices are considered. The study examined countries such as China, Italy, France, Germany, Spain, the USA and the UK. For the study, a VAR model (TVP-VAR) was used for daily data for the period from

01/01/2015 to 05/18/2020 [39]. It has been shown that stock markets were closely linked throughout the period, but dynamic spillovers reached unprecedented heights during the COVID-19 pandemic in the first quarter of 2020 [39]. These results have important implications for individual investors, portfolio managers, policymakers, investment banks and central banks.

Thus, the authors' research contains various aspects of analyzing the dynamics of the stock market. At the same time, various stock indices are considered as a reflection of such dynamics. The studies also contain different methods of analysis, evaluation and comparison. This helps to better understand the dynamics of the data under consideration, explore relationships and trends, and obtain the necessary information for decision-making.

Dynamics of the main stock indices as a reflection of the functioning of the stock market

This section will examine the dynamics of individual major stock indices that reflect the development of the global stock market. All data for analysis was taken from investing.com. The period from January 2021 to mid-March 2024 was considered in weekly averaging of such indices. In Fig. 1 presents data for the Dow Jones Industrial Average (DJI) and NASDAQ Composite (IXIC) stock indices.

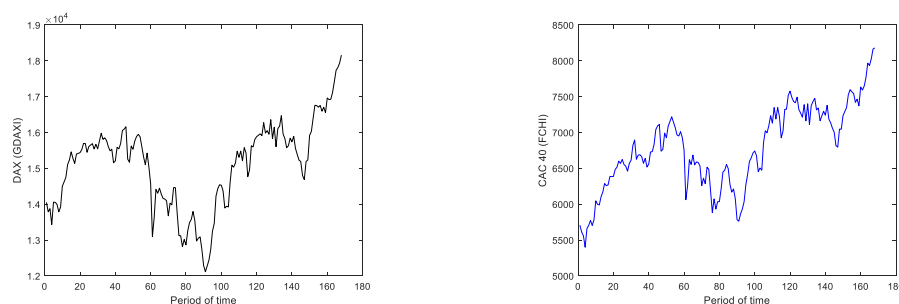


a) Dow Jones Industrial Average (DJI)

b) NASDAQ Composite (IXIC)

Figure 1: Dynamics of the Dow Jones Industrial Average (DJI) and NASDAQ Composite (IXIC) indices

In Fig. 2 shows the dynamics of quotes for DAX (GDAXI) and CAC 40 (FCHI).



a) DAX (GDAXI)

b) CAC 40 (FCHI)

Figure 2: Dynamics of the DAX (GDAXI) and CAC 40 (FCHI) indices

Shown in Fig. 1 and Fig. 2 data dynamics have some similarities. First of all, this is a drop in quotes in the middle of the period under study. Also characteristic is the rapid growth of the corresponding indices at the end of the period under study. All this suggests that such indices were influenced by the same factors. And this despite the fact that in Fig. 1 shows the dynamics of North American indices, and Fig. 2 – dynamics of some European indices.

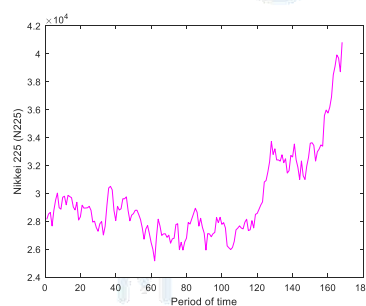
The presented dynamics are also evidence of the close relationship between the stock markets of these regions and their economies, respectively.

At the same time, shown in Fig. 1 and fig. 2 the dynamics of quotes for the Dow Jones Industrial Average (DJI), NASDAQ Composite (IXIC), DAX (GDAXI) and CAC 40 (FCHI) indices differ in specific details. These details highlight the regional characteristics of such indices.

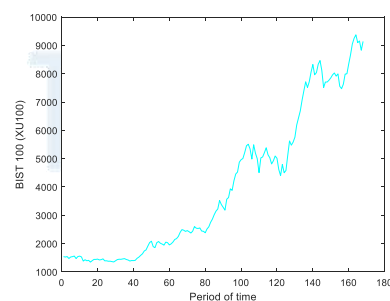
For example, there are different trends in changes in indices in the first half of the period under study until the quotes decline. The dynamics of the corresponding decrease in quotations for indices are also different. Moreover, in each specific case such dynamics are individual. Subsequent growth in index dynamics is also individual. At the same time, we see that the corresponding indices have different absolute values of such quotes.

Thus, against the background of relatively identical dynamics of the stock indices under consideration, their individual characteristics should be noted. This makes it advisable to conduct a comparative analysis to establish estimates of their mutual dynamics. This will allow us to better understand the influence of such dynamics of external factors or the manifestation of internal features of the formation of quotes for indices.

In Fig. 3 shows the dynamics of quotes for Nikkei 225 (N225) and BIST 100 (XU100).



a) Nikkei 225 (N225)



b) BIST 100 (XU100)

Figure 3: Dynamics of quotes for Nikkei 225 (N225) and BIST 100 (XU100)

First of all, it should be noted that the data in Fig. 3 display the dynamics of indices for stock markets of individual Asian regions. And such dynamics differ significantly from the data in Fig. 1 and Fig. 2.

In general, the dynamics of Nikkei 225 (N225) and BIST 100 (XU100) quotes is increasing throughout the entire time interval under study. At the same time, at the beginning of the period under study, a period of relative stability of such quotations can be identified. However, the Nikkei 225 (N225) at this point in time is characterized by significant variability in index values. At the same time, for BIST 100 (XU100) such variability is insignificant.

In the last third of the period under study, there is a significant increase in quotations, which is also typical for the data in Fig. 1 and Fig. 2. Here we can also identify different trends in the dynamics of the data under study. These trends highlight the regional characteristics of the functioning of individual markets. However, in this regard, we also note the influence of the same external factors.

As with previous cases of analyzing the dynamics of stock indices, it is interesting to study their mutual dynamics. This will allow us to understand the general trends in the functioning of stock markets and their interrelationships in the Asian region.

Thus, a significant addition to the study of stock index quotes is the study and analysis of their mutual dynamics. This will help not only to better understand the influence of external factors on the dynamics of quotes, but to study the dynamics of such markets and be the basis for developing investment strategies and strategies for entering a certain market segment.

Comparative assessment of the mutual dynamics of the studied data

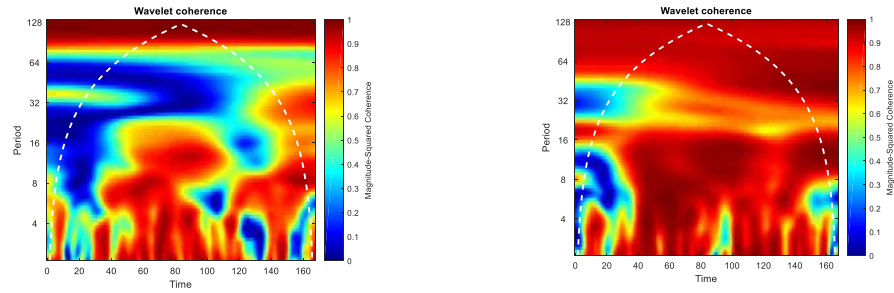
In this case, the wavelet methodology was chosen as the basis for considering a comparative assessment of the mutual dynamics of data. This methodology emphasizes the assessment of wavelet coherence [40]-[42]. This assessment applies to data that is presented as a time series.

Wavelet coherence estimation has found wide application in the study of similar data [43]-[47]. This allows us to consider significant relationships between data, both over the entire research interval and at its individual intervals. At the same time, the depth of the corresponding connections is also explored. This is important for developing market entry strategies and investment strategies.

First of all, let's consider estimates of the mutual dynamics of data for Fig. 1 – Fig. 3. Separately, one example will also be given to assess the dynamics of stock indices for different regions.

In Fig. 4 presents an assessment of wavelet coherence for data from the North America region (Fig. 1) and Europe (Fig. 2).

Data Fig. 4 confirm preliminary estimates of the relationship between the data for Fig. 1 and Fig. 2. This also confirms the influence of identical factors on the quotes of the corresponding stock indices. It is clear that for the European market the corresponding relationship is stronger. It is also worth noting the depth of such connections. This allows us to talk about the possibility of planning investment strategies and the timing of entering a certain segment of the stock market.

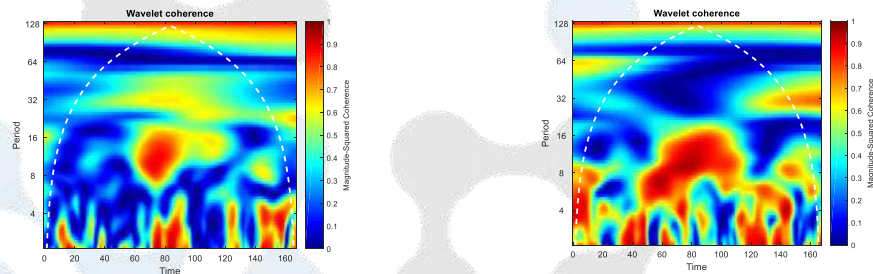


a) for the data Fig. 1

b) for the data Fig. 2

Figure 4: Wavelet coherence estimates for individual data

In Fig. 5 presents wavelet coherence estimates for individual indices of the Asian region (data from Fig. 3) and Nikkei 225 (N225)/DAX (GDAXI), respectively.



a) for the data Fig. 3

b) Nikkei 225 (N225)/DAX (GDAXI)

Figure 5: Wavelet coherence estimates for selected indices of the Asian region and Nikkei 225 (N225)/DAX (GDAXI)

Data Fig. 5 show fragmentary consistency. This is explained by the remoteness of the markets whose stock indices are being considered. However, this also allows you to plan your entry into the stock markets and develop appropriate strategies.

Conclusion

The paper examines various issues in the study of the dynamics of major stock indices. Based on the study of literary sources, appropriate indices and a tool for their analysis were selected.

A descriptive analysis of the comparative dynamics of stock indices allows us to talk about the impact of identical factors of influence within the same regions of the functioning of stock markets.

To assess the mutual dynamics of quotes by indices, we use the wavelet methodology. Wavelet coherence estimates allow us to confirm the influence of identical factors on the dynamics

of index values. This allows you to justify investment strategies and the timing of entering the stock market.

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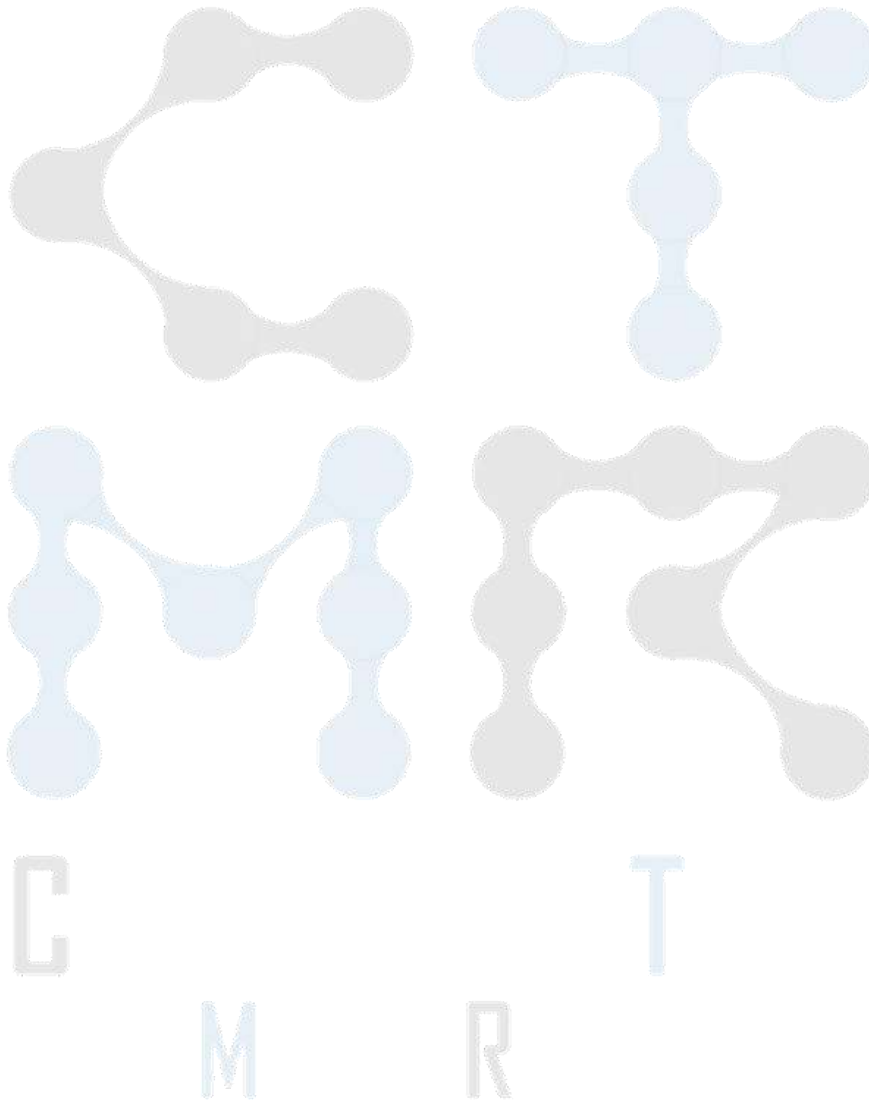
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THE ROLE OF DIGITAL EDUCATIONAL RESOURCES IN THE PROFESSIONAL
ACTIVITY OF A MODERN TEACHER

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Abstract. The article is devoted to a detailed consideration of the issue integration of digital technologies and electronic educational resources into within the professional activities of teachers. This work presents data on the relationship between the stages of integration of digital technologies and electronic educational resources for full-time education in accordance with the levels of ICT competence of the teacher. Analyzed digital technologies that exist today, allowing teachers to improve their professional activities.

Keywords. digital technologies, ICT competence of a teacher, digital competencies, successful teaching activities, modern educational space, ICT competencies, school teacher.

Digitalization of education is the answer to the challenges of a developing modern society. This is due to the emergence of the digital economy and the transition of industry to a new technological structure. The development of digital technologies and the accumulation of digital resources today create the preconditions for the transformation of almost all types of human activity. Government services are provided in electronic formats, telemedicine is being developed based on remote interactions, and Internet users are given access to digitized cultural values. Certain production processes are moving into the digital environment, and the production of new high-tech products is being intensified and enriched. In this regard, the demands of the labor market and the requirements for the competencies of modern specialists are changing significantly. The processes of change in production are accelerating with the development and improvement of new technologies.

The digital environment opens up opportunities for continuous professional development for teachers with remote access to online courses, network seminars, digital educational resources, electronic libraries and scientific databases, including those in foreign languages. In a corporate environment, digital competencies allow teachers to modify and improve the effectiveness of organizational communication, which is important for enhancing the productivity of professional activities. In the context of digitalization of the environment, organizational communication is implemented through network interactions, in multimodal formats, in synchronous and asynchronous communication, with the accumulation of electronic discourse. This enhances professional cooperation, interactions with colleagues, parents, and the scientific community. Joint implementation of innovative projects - exchange of ideas and materials with other educational organizations, joint work with documents.

Today, the issue of ICT competence is becoming increasingly relevant. teacher, as the main and necessary aspect for the development of digital educational technologies and distance learning, which are now are popularized quite often.

Thus, a modern teacher must have the skills and skills that correspond to the subject-pedagogical level of ICT competence and allow him not only to apply digital technologies (DT), but also create and publish your own electronic educational resources (EOR).

Digital competencies of teachers should open up new opportunities for the development of students. Thus, in inclusive education, the creation of digital educational resources in multimedia formats makes it possible to recode information into different symbolic forms. Audiobooks are being created for the visually impaired. Visualization of educational materials and automatic recoding of oral speech into written text for hearing-impaired students. Special sensory gadgets are used for people with sensory perception problems. Accessibility and inclusiveness of learning is complemented by the possible differentiation and personalization of learning using innovative pedagogical strategies and practices in a digital environment. New approaches to learning using the potential of the digital environment make it possible to improve the learning process through the active involvement of students who are motivated to work with new tools and technologies. By organizing joint online learning activities, exchange of ideas, distribution of roles, discussions in online interactions, etc. Formation of student competencies. The digital competencies of a teacher, when using a digital educational environment, allow, along with information literacy, to also develop the digital literacy of schoolchildren, necessary for life and activity in the digital world. Digital literacy includes the skills of reliable information search on the Internet and its critical selection. Communication and collaboration in the digital environment, in terms of media literacy and netiquette skills. Ability to create digital content and ensure the security of personal data. Promoting responsible use of digital technologies and solving problems using digital technologies. Developing students' digital skills as 21st century skills should promote digital collaboration, security, and problem-solving abilities. Digital literacy includes the personal, technical and intellectual digital skills needed to live in a digital world. Thus, the formation of all aspects of the digital competencies of a modern teacher will help him confidently, effectively, safely, critically and creatively choose and use digital technologies in his professional activities. Conclusion Digitalization of education leads to transformation of the educational environment, new models of educational and training activities. With proper management of these processes, they accelerate the development of educational institutions and its employees. All this creates the prerequisites for new horizons for the development of students, increasing their self-realization in educational and future professional activities.

Let us turn to the structure of digital competencies for teachers recommended by UNESCO. The list of competencies consists of three modules:

- Application of ICT – preparing students to use digital technologies for social development.
- Mastering knowledge is the formation of students' abilities for the social and economic development of their country using digital technologies.
- Knowledge production is the development of students' abilities to reproduce acquired knowledge and participate in innovative processes.

Each of these modules includes six aspects of work: understanding the role of digital competencies in education, curriculum and assessment, teaching practices, ICT hardware and software, organization and management of the educational process, professional development.

Note that the classification of digital competencies of teachers contributes to the development of ICT competencies among students in the process of acquiring new knowledge, but does not describe the means, methods and methods of successful teaching activities of teaching staff.

Skillful use of digital competencies allows teachers to use system solutions in the digital environment in their professional activities: collections of educational materials, educational means of communication, means of managing the educational process, creative portfolios of students and skillful maintenance of electronic diaries.

The use of digital competencies also increases the teacher's competitiveness in a professional environment and focuses on developing in students the value of education and general media literacy when working with information on the Internet and global media.

It is worth noting that the capabilities of a digital school are aimed at transforming the educational system into a global digital civilization. It turns out that mastery of digital competencies is the basis for successful teaching activities aimed at improving the qualifications and competitiveness of teaching staff.

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ANNOTATION.

In the article classic methods, different in appearance heat spread equation, functional to spaces circle concepts, a priori evaluation for necessary has been inequalities and theorems studied.

Keywords: : Lebesgue space, Sobolev space, Golder's inequality, Jung's inequality, Poincaré-Friedrichs inequality, A priori estimates

ENTER

AV Bitsadze and AA Samarsky were the first to propose and study these problems for elliptic equations. Later these problems were called Bitsadze-Samarsky problems. In recent decades, nonlocal problems for differential equations have been actively studied by many mathematicians. To date, local boundary and nonlocal problems for classical equations of mathematical physics have been well studied using classical methods. But these issues are not well studied in Sobolev spaces by modern (functional) methods in the theory of generalized functions.

Functional spaces about briefly data .

$L_2(Q)$ - Lebesgue space.

a Lebesgue space $L_1[a, b]$ as a Banach space formed by the complement of a normed space.

Here, $L_1[a, b]$ the elements of the normed space $[a, b]$ are continuous functions defined on the interval, where is $x(t)$ the norm of the function

$$\|x(t)\| = \int_a^b |x(t)| dt \text{ equality through determined will be } [a, b] \text{ in between determined } \{x_n(t)\}$$

and $\{x_n^*(t)\}$ continuously functions sequences given let it be If $\{x_n(t) - x_n^*(t)\}$ succession $L_1[a, b]$ normalized in space infinite small if, that is $n \rightarrow \infty$ at

$$\|x_n(t) - x_n^*(t)\| = \int_a^b |x_n(t) - x_n^*(t)| dt \rightarrow 0$$

if, then $\{x_n(t)\}$ and $\{x_n^*(t)\}$ continuously functions sequences $L_1[a, b]$ normalized in space equivalent or average in a sense is said to be equivalent .

If optional $\varepsilon > 0$ for a positive number so one $N = N(\varepsilon)$ no there is is optional $n \geq N$ for and optional $p \in N$ natural number for

$$\|x_{n+p} - x_n\| = \int_a^b |x_{n+p}(t) - x_n(t)| dt < \varepsilon ,$$

inequality appropriate if , then $[a, b]$ in between determined $\{x_n(t)\}$ and $\{x_n^*(t)\}$ continuously functions sequences are fundamental or average it is said to be fundamental in the meaning .

Filling about to the theorem basically $L[a, b]$ Lebesgue space average in a sense equivalent and average was fundamental in meaning continuously functions of succession from the class consists of has been \hat{x} of the elements Created will be

Average was fundamental in meaning $[a, b]$ in between determined $\{x_n(t)\}$ continuously functions sequences one $\hat{x}(t)$ from class to be for their average in a sense equivalent to be necessary and is enough . If $\{x_n(t)\} \in \hat{x}(t)$ if , then definition according to

$$\|\hat{x}\|_{L[a,b]} = \lim_{n \rightarrow \infty} \int_a^b |x_n(t)| dt = \lim_{n \rightarrow \infty} \|x_n(t)\|_{L[a,b]} \quad (1.3.1)$$

equality with is determined .

From this except (1) expression $|\hat{x}(t)|$ from the function received Lebesgue we call it an integral , in which $\hat{x}(t) \in L[a, b]$ will be To the description according to , expression (1.3.1).

$$\int_a^b |\hat{x}(t)| dt = \lim_{n \rightarrow \infty} \int_a^b |x_n(t)| dt$$

in the form of is , where is the left-hand side Lebesgue integral , right on the side while Riemann is integral .

1.2.2 - $L_p(G)$, $p \geq 1$ Lebesgue space Previous in point considered space one little more general has been become transfer let's look . G collection R^n in space limited field let it be \bar{G} while that's it G of the field cover let it be $L_p(G)$, $p \geq 1$ Lebesgue space $L_p(\bar{G})$, $p \geq 1$ linear normalized of space filler as is determined .

$L_p(G)$, $p \geq 1$ Lebesgue of space elements $L[a, b]$ Lebesgue as in space as some " functions " . to him \bar{G} closed in the field determined continuously functions with average approach in the sense of desired in accuracy zoom in possible will $L_p(\bar{G})$, $p \geq 1$ be linear normalized space $L_p(G)$, $p \geq 1$ Lebesgue in space dense will be

If $n, m \rightarrow \infty$ \bar{G} closed in the collection determined $\{u_n(x)\}$ continuously functions sequence for

$$\|u_n - u_m\|_{L_p(\bar{G})}^p = \int_G |u_n(x) - u_m(x)|^p dx \rightarrow 0$$

if , then \bar{G} closed in the collection determined $\{u_n(x)\}$ continuously functions sequence $L_p(\bar{G})$, $p \geq 1$ linear normalized fundamental in space or P — level average it is said to be fundamental in the meaning .

If $\{u_n(x) - u_n^*(x)\}$ succession $L_p(\bar{G})$, $p \geq 1$ normalized in space infinite small if , that is, in $n \rightarrow \infty$

$$\|u_n(x) - u_n^*(x)\|_{L^p(\bar{G})}^p = \int_G |u_n(x) - u_n^*(x)|^p dx \rightarrow 0$$

if, then $\{u_n(x)\}$ and $\{u_n^*(x)\}$ continuously functions sequences $L^p(\bar{G})$, $p \geq 1$ normalized in space equivalent or p -level average in a sense is said to be equivalent. It's both even \bar{G} without closed collection according to received n -times Riemann integral mean caught

Sobolev space

General definition R^m in space \bar{G} closed limited field given let it be That's it \bar{G} closed limited in the field l times continuously differentiable $u: \bar{G} \rightarrow R^1$ (simplicity for real of value) was $u(x)$ of functions linear space let's look. \bar{G} closed limited in the field differentiability each different in a sense to understand can We are $u(x)$ a function G in the field l times continuously differentiable and each one private derivative G from the field received x point that's it G of the field at the border optional to the point when striving finite to the limit have We think that it will be. As a result his each one private of the derivative \bar{G} to the field continuation that's it \bar{G} closed limited in the field continuously has been from the function consists of will be This is us on the ground G of the field Γ the limit enough we consider smooth. From this except, usually G field one related and another addition conditions satisfaction some cases Demand we will This is under

review linear in space the norm concept $p \geq 1$ for $\|u\| = \left\{ \int_G |u(x)|^p dx + \sum_{1 \leq |a| \leq l} \int_G |D^a u(x)|^p dx \right\}^{1/p}$ we introduce with equality. We denote by the normed space formed by which all axioms of the norm are valid, $W_p^l(\bar{G})$ and it is called the Sobolev space.

$W_2^2(Q)$ - Sobolev in space scalar multiplication and the norm as follows we define:

$$(u, v)_2^2 = \int_Q (uv + u_x v_x + u_t v_t + u_{tt} v_{tt} + u_{xt} v_{xt} + u_{xx} v_{xx}) dx dt$$

$$\|u\|_2^2 = \int_Q (u^2 + u_t^2 + u_x^2 + u_{xx}^2 + u_{xt}^2 + u_{tt}^2) dx dt,$$

In particular $W_2^0(Q) = L_2(Q)$:

$L_p(Q)$, ($1 \leq p < \infty$) through Lebesgue in the sense of integrable functions space banah space let's define

$W_p^m(Q)$ orca elements $L_p(Q)$, in space identified m - according to what order

generalized r sources there is has been functions - Sobolev space we define; $C^0(Q) = C(Q)$, through Q in the field continuously has been functions space let's define and the norm as follows

let's find out $\|u\|_{C(Q)} = \sup_{(x,t) \in Q} |u(x,t)|.$

$C^l(Q)$ ($l = 0, 1, 2, \dots$) through Q in the field l in order derivatives continuously has been functions space let's define and the norm as follows let's find out

$$\|u\|_{C^l(Q)} = \|u\|_{C(Q)} + \sum_{|k| \leq l} \|D^{(k)}u\|_{C(Q)}.$$

A priori grades in getting each different from inequalities we use ;

Jung's inequality :

$$"u, v \in C^1, "s > 0, p, q > 1, \quad |u \Psi| \leq \frac{s^p u^p}{p} + \frac{v^q}{q s^q}, \quad \frac{1}{p} + \frac{1}{q} = 1 \text{ at}$$

Try it s inequality : (Young's inequality private free $p = q = 2$)

$$"u, v \in C^1, "s > 0, \quad |u \Psi| \leq \frac{s u^2}{2} + \frac{v^2}{2s} \quad [120], [121], [171];$$

Poincaré-Friedrichs inequality : [120], [121].

Hypothesis let's do it function $u \in W_2^1(Q)$ and Dirichlet condition $u|_{\partial Q} = 0$ or $gu(x, 0) = u(x, T)$, nonlocal borderline condition satisfy then, this function for Poincaré-Friedrichs inequality appropriate will be

$$"u \in W_2^1(Q), \quad \|u\|_0 \leq c \|u_x\|_0, \quad c = \text{const} > 0;$$

The relations connecting the value of the solution and its derivatives at the boundary and interior points of the field are called nonlocal problems. In the theory of nonlocal boundary value problems for differential equations, there are many open and understudied problems of both theoretical and practical interest that need to be addressed. Among them, for example, we note a wide category of questions related to the uniqueness, existence and stability (stationarity) of solutions.

AV Bitsadze and AA Samarsky were the first to propose and study these problems for elliptic equations. Later these problems were called Bitsadze-Samarsky problems. In recent decades, nonlocal problems for differential equations have been actively studied by many mathematicians. To date, local boundary and nonlocal problems for classical equations of mathematical physics have been well studied using classical methods. But these issues are not well studied in Sobolev spaces by modern (functional) methods in the theory of generalized functions.

This is the article determines relevance.

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Abstract: This article examines the relationship of physics to biology and medicine. In addition, the benefits and harms of rays in medicine are described. Special attention was paid to considerations about the effect of rays and electric current on the human body,

Key words: Physics, biology, light, medicine, human, electric current, blood pressure, blood viscosity.

Ways to make connections between physics and biology courses are roughly as follows:

- studying the phenomena and laws that affect the life of plants, animals and people and explaining these effects ;

- study of electromagnetic radiation with different appearance in the lower layers of the atmosphere and explain their impact on the organic world;

- introducing students to physical phenomena and laws affecting the development of plant, animal and human growth in biology classes;

- study of physical methods and physical tools of research used in biology. It is desirable to include complex experiments and laboratory work in physics and biology. It is useful to carry out laboratory work aimed at determining the density and volumetric mass of different agricultural products, and comparing the thermal conductivity of different soils. The doctor should have an idea about the nature and laws of the physical, physico-chemical processes occurring in the human body. The use of physical knowledge in medicine is multifaceted. For example, a complex physiological process such as blood circulation is actually a physical process, because the flow of liquid is related to the spread of elastic vibrations along the vessel, the mechanical work of the heart, etc. And breathing is gas movement, heat transfer, evaporation. related to such processes. It is necessary to understand the physical basis of such microprocesses , to correctly evaluate the state of the organism, the origin of some diseases, and the effects of medicinal substances. The achievements of modern medicine are largely based on the achievements of science in physics, technology and medical technology. The nature of illness and healing often have a biophysical basis. According to Landau, "there are only two natural sciences, one is physics and the other is all the rest." He was right about that. We all know that many methods of diagnosis and research are based on physical principles and ideas. Most modern medical devices are physical devices by design. It is known that blood pressure is a mechanical quantity and an indicator that characterizes a number of diseases. Hearing the sounds inside the body, i.e. auscultation, allows you to get information about the condition of its organs. The laws of physics underlie devices such as ultrasound stethoscopes used in modern medicine. Diagnostic methods based on the recording of electric potentials generated in a living organism - electroencephalography, electromyography, electrogastrography, electrocardiography - are widespread and physical methods that reflect the activities of the brain, muscles, stomach, and heart. Modern medical devices based on fiber optics make it possible to see the internal spaces of the body. Spectral analysis methods are widely known for the achievements of atomic, nuclear, ie EPR, NMR and ultrasound physics, including x-ray diagnostic and therapeutic methods, radioisotope methods.

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For the purpose of treatment, exposure to the body with various physical factors is widely used in medicine. Including electric and electromagnetic effects, ultraviolet and infrared rays, laser therapy and gamma rays, today constitute modern methods in the physiotherapy clinic. In addition, when analyzing the importance of physical science and its connection with clinical sciences, it is necessary to mention the physical properties of materials and biological systems used in medicine. It is important to have information about their mechanical strength, load resistance, elasticity, electrical conductivity for the preparation of various electrodes and prostheses used in medicine .

Due to the contraction and expansion of the heart, the blood in the body moves in an orderly manner through the vessels, and as a result, a biocurrent is formed. Biotok, in turn, creates a biofield. It appears as a product of biofield-bioelectromagnetic fields. Each person has a biofield that reflects their individual genetic uniqueness. In turn, the electromagnetic activity of the blood molecule, which occurs due to the movement of blood cells in the human body, also controls their biochemical activity. Biofield-a living organism can be called a general management system. This management develops depending on the organ area of the body, its tissues and the cells of each element and holds the four fundamental principles of the life program at the level of the organism: development, service →→ production, →death.

Physiological effects of infrared light are based on its heat generation phenomenon, also called heat rendering effect. The increase in temperature due to the absorption of this light leads to the acceleration of metabolism in the tissues. Short-wave infrared light, as well as red light, penetrate much deeper. When we close our eyes and look at a strong light source, the blood red color that flows through the veins of the eyelids can serve as evidence that red light passes through the skin. This feature of the rays makes it possible to use infrared light to heat the tissues that are somewhat deep. This light makes the skin red like a spot. Exposure of skin receptors to heat leads to expansion of blood vessels in a reflex way and the appearance of arterial hyperemia. For this reason, infrared rays should be used to reduce pain, but not when the inflammatory tissue is filled with blood, but when the process has started to stagnate and return. In physics, there is an inextricable connection between permeability and blood viscosity. Viscosity in liquids is called internal friction. If the coagulation of blood decreases or increases from the norm, this indicates a clinical sign of the disease. For example, blood viscosity increases when a person has the flu or coronavirus. On the contrary, the viscosity decreases from the norm in tuberculosis and sweating diseases. Blood viscosity changes to 4-5 MPa in the heart. In sick people, it varies from 1.7 to 22.9 mpas. So before we know about the viscosity of blood, we need to have a general physical knowledge about viscosity. Improved blood circulation leads to improved tissue nutrition, cell proliferation and tissue regeneration, wound healing, and wound healing. The increase in the elements of the blood form and the increase in the oxidation processes in the place where the light is applied causes an increase in metabolism and a faster absorption of pathological products. After stopping the exposure, the skin redness will disappear.

The apparatus used for infrared light therapy consists of a light source, a reflector and a tripod. A metal spiral serves as a light source. When a current passes through it, it heats up to a maximum 500°C temperature and becomes scorched. Most of the emitted light is infrared light absorbed by the skin. Light is given to limited parts of the body from a distance of 60-70 cm for 20-30 minutes and more. The patient should feel a pleasant warmth. The light treatment is carried out daily. Currently, magnetic fields are widely used for therapeutic purposes. Fixed and variable magnetic fields are divided into low-high and variable magnetic fields, and low-frequency and

ultra-high-frequency fields. The magnetic field has the effect of increasing the absorption and widening of the vessels, which leaves the pain, affects the trophic. The magnetic field has an antiparabolic effect on peripheral nerves, and enhances inhibitory processes in the cerebral cortex. Currently, a fixed magnetic field is often applied to magnetophoric applicators with rubber plates containing barium ferrit cake, for example, attached to painful areas of the arm, leg or spine. The duration of treatment is 10-12 hours. of electric current on the human body : the electric current is directed mainly through the membranes of nerve trunks along the way of blood and lymph vessels towards the cells with the liquid conducting the electric current between the cells. In this regard, the path of the electric current in the body does not always correspond to the shortest path between the electrodes, but can pass through areas far away from the place where the electrodes are located. The current enters the body mainly through the sweat glands, partially through the sebaceous glands. Electric current moves not only ions, but also protein particles and water molecules in tissues. The ions accumulated on the cathode side soften the membrane of cells and increase their permeability. This leads to increased cell excitability. And in the anodic area, the excitability of the cells decreases as the negative ions thicken the cell membrane, allowing the pain to decrease. Under the influence of a constant current, certain physiological changes occur in the tissues located on the path through which this current passes. First of all, the receptors located in the skin are affected, which makes a person feel as if a needle is pricking or a little stinging. This impression quickly reaches the cerebral cortex along the appropriate nerve pathways. Touching the skin with current causes reddening of the part where the electrodes are located, i.e. hyperemia. This hyperemia lasts for 1.5-2 hours. Blood and lymph circulation increases in the skin and other tissues, complex physical-chemical changes occur in them. Hyperemia contributes to the strengthening of regeneration processes and the absorption of products formed from tissue decomposition. The constant current causes morphological changes in the skin, helps to restore nerve conduction in the affected area and increase the regeneration of nerve elements, increases metabolism in tissues.

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POSITIVE AND NEGATIVE DIRECTIONS OF THE SURFACE INTEGRAL OF THE SECOND TYPE

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Abstract : This is article mathematician analysis from science written being , then second get up surface of the integral directions , definition , continuity and the first get up surface integral with mutually dependence , as well as second get up surface of integrals count method and styles about wide illuminated .

In the article second get up surface integrals about deep to knowledge have to be the goal by doing received

Key words: Integral, surface, private derivative , smooth surface , attempt , plane.

R^3 in space $z = z(x, y)$ equation with determined (S) the surface let's see In this $z(x, y)$ function limit lumpy-smooth from the line consists of has been (D) in the field $((D) \subset R^2)$ given , continuous , $z'_x(x, y)$, $z'_y(x, y)$ private to derivatives have and this derivatives are also continuous . Usually such the surface smooth surface is called Smooth surface each one (x_0, y_0, z_0) at the point don't try to the plain have will be

Now (S) surface his limit with non-intersecting K closed the line let's take (x_0, y_0, z_0) point of the surface K closed line with limited to the part belongs to let it be This line Oxy to the plane we project . As a result Oxy even K_{Π} in the plain closed line harvest will be (S) on the surface closed of the line positive and Minus directions second get up curve of the line directions such as is entered . It is as follows included :

Second get up curve line integral curve of the line direction depends will be That's it let's prove it is \overleftrightarrow{AB} known that curve on the line two direction (A from the point B to the point and B from the point A to point). possible (\overleftrightarrow{AB} , \overleftrightarrow{BA} , $A \neq B$).

\overleftrightarrow{AB} curve of the line above P to fragment take this to pieces relatively the following the total let's make :

$$\sigma' = \sum_{k=0}^{n-1} f(\xi_k, \eta_k) \Delta x_k \quad (\Delta x_k = x_{k+1} - x_k).$$

Let's say $\lambda_p \rightarrow 0$ it is total finite to the limit have be :

$$\lim_{\lambda_p \rightarrow 0} \sum_{k=0}^{n-1} f(\xi_k, \eta_k) \Delta x_k = \int_{AB} f(x, y) dx.$$

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Now \bar{AB} of that's it P fragmentation and each one $\bar{A}_k A_{k+1}$ in that's it (ξ_k, η_k) points take \bar{AB} curve of the line direction while B from A to looking at this the total let's make :

$$\bar{\sigma}' = \sum_{k=0}^{n-1} f(\xi_k, \eta_k)(x_k - x_{k+1})$$

$\lambda_p \rightarrow 0$ at this total finite to the limit have if , it is defined according to this

$$\int_{\bar{BA}} f(x, y) dx$$

integral will be :

$$\lim_{\lambda_p \rightarrow 0} \bar{\sigma}' = \lim_{\lambda_p \rightarrow 0} \sum_{k=0}^{n-1} f(\xi_k, \eta_k) \cdot (x_k - x_{k+1}) = \int_{\bar{BA}} f(x, y) dx.$$

If

$$\sigma' = \sum_{k=0}^{n-1} f(\xi_k, \eta_k) \cdot \Delta x_k = - \sum_{k=0}^{n-1} f(\xi_k, \eta_k) \cdot (x_k - x_{k+1}) = -\bar{\sigma}'$$

that attention if we get , then $\lambda_p \rightarrow 0$ at σ_1 get together finite to the limit have from being $\bar{\sigma}_1$ get together too finite to the limit have to be and $\lim_{\lambda_p \rightarrow 0} \bar{\sigma}_1 = - \lim_{\lambda_p \rightarrow 0} \sigma_1$ of equality fulfillment

we will find So ,

$$\int_{\bar{BA}} f(x, y) dx = - \int_{\bar{AB}} f(x, y) dx.$$

Same that's it similar

$$\int_{\bar{BA}} f(x, y) dy = - \int_{\bar{AB}} f(x, y) dy$$

will be

\bar{AB} curve line Ox to the (Oy o ' qiga) perpendicular was correct line from the cross section consists of become $f(x, y)$ function that's it on the line given let it be

In that case

$$\int_{\bar{AB}} f(x, y) dx \quad \left(\int_{\bar{AB}} f(x, y) dy \right)$$

there is and

$$\int_{\bar{AB}} f(x, y) dx = 0 \quad \left(\int_{\bar{AB}} f(x, y) dy = 0 \right)$$

will be

This is equality directly second get up curve from the definition of line integral come comes out

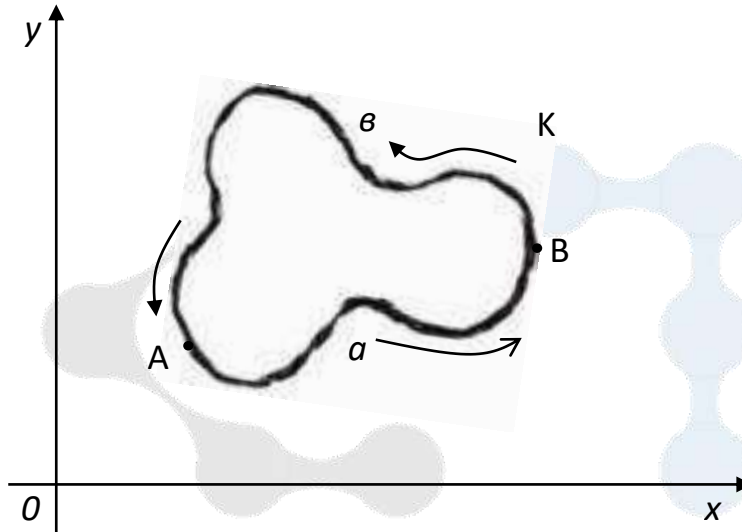
Now \bar{AB} - simple closed curve line be , that is A and B points on top of each other come down It is closed the line K let's define it as It's simple closed two on the line as well direction will be Theirs one positive direction , the second Minus accept as direction let's do it So direction

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accepted as positive we do , observer closed line across movement closed when doing line with limited field to him relatively each always on the left let him sleep

Hypothesis let's do it , simple closed on the line $f(x, y)$ function given let it be This K on the line optional two different points take them A and B with let's define As a result , K closed line two $A\bar{a}B$ and $B\bar{b}A$ to the lines separates (Figure 61).



Drawing 1

This

$$\int_{A\bar{a}B} f(x, y)dx + \int_{B\bar{b}A} f(x, y)dx$$

integral (if it exists if) $f(x, y)$ of the function K closed line according to second get up curve linear integral that is called and

$$\int_K f(x, y)dx \text{ or } \oint_K f(x, y)dx$$

such as is determined . In this K closed of the line positive direction received (From this since closed line according to received in integrals , closed line positive we see that in the direction). So ,

$$\oint_K f(x, y)dx = \int_{A\bar{a}B} f(x, y)dx + \int_{B\bar{b}A} f(x, y)dx .$$

Same that's it similar

$$\oint_K f(x, y)dy$$

and , in general without

$$\oint_K P(x, y)dx + Q(x, y)dy$$

integrals is defined .

$\bar{A}B$ spatial curve line being , this on the line $f(x, y, z)$ function given let it be As above , $f(x, y, z)$ of the function $\bar{A}B$ curve line according to second get up curve linear integrals is described and they are

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$$\int_{\bar{AB}} f(x, y, z)dx, \int_{\bar{AB}} f(x, y, z)dy, \int_{\bar{AB}} f(x, y, z)dz$$

such as is determined . General without , $P(x, y, z), Q(x, y, z), R(x, y, z)$ functions given is this

$$\int_{\bar{AB}} P(x, y, z)dx, \int_{\bar{AB}} Q(x, y, z)dy, \int_{\bar{AB}} R(x, y, z)dz$$

integrals there is if

$$\int_{\bar{AB}} P(x, y, z)dx + \int_{\bar{AB}} Q(x, y, z)dy + \int_{\bar{AB}} R(x, y, z)dz$$

total second get up curve linear of the integral common appearance that is called and he

$$\int_{\bar{AB}} P(x, y, z)dx + Q(x, y, z)dy + R(x, y, z)dz$$

such as is determined . So ,

$$\begin{aligned} &\int_{\bar{AB}} P(x, y, z)dx + Q(x, y, z)dy + R(x, y, z)dz = \\ &= \int_{\bar{AB}} P(x, y, z)dx + \int_{\bar{AB}} Q(x, y, z)dy + \int_{\bar{AB}} R(x, y, z)dz. \end{aligned}$$

That's it too to say should be of direction positive or negativity determination moving to the point where from the side to look at too dependent

of the surface (x_0, y_0, z_0) at the point don't try to the plain that's it at the point perpendicular let 's go . This of the perpendicular positive direction that so direction we can get it by when viewed both $(K$ and $K_{II})$ is closed of lines directions positive will be His Minus direction while so direction from that side when viewed K_{II} of positive direction K of Minus direction suitable will come . of the perpendicular positive direction according to received unity cross section of the surface (x_0, y_0, z_0) at the point normal is called

Normal Ox, Oy and Oz of arrows positive directions with organize did corners suitable respectively α, β, γ through if we define

$$\cos \alpha = -\frac{z'_x}{\sqrt{1+z_x'^2+z_y'^2}}, \cos \gamma = -\frac{z'_y}{\sqrt{1+z_x'^2+z_y'^2}}, \cos \gamma = \frac{1}{\sqrt{1+z_x'^2+z_y'^2}} \quad (1)$$

will be and they are normal referrer cosines is called

Proof maybe smooth (S) of the surface all points of perpendiculars positive directions (normals) are one different will be And , therefore , is negative directions too. That's it according to the surface two side about concept is entered .

of the surface top side that his so side it is obtained that from the side when viewed both $(K$ and $K_{II})$ is closed of lines directions positive will be

of the surface top side when viewed K_{II} with limited flat of the form face positive hint with , bottom side (second side) when viewed Minus hint with is taken .

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Abstract : This The article is voluminous data flow with work technologies and big voluminous information sources cause passed

Key words : big data, data lake , deep teaching , with a car teaching

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Big data (big data) is a very large amount of non-homogeneous and rapidly falling digital data that cannot be processed by conventional methods. In some cases, the concept of big data also includes the processing of this data. Basically, the object of analysis is called big data. The term big data was born in 2008. Clifford Lynch, the editor of Nature magazine, used the term big data in a special issue devoted to the rapid growth of the world's data volume. However, big data has been around before. According to experts, streams with more than 100 GB of data per day are called big data. Big data analysis helps to identify patterns that are beyond human perception. This makes it possible to further improve all areas of our daily life, government management, medicine, telecommunications, finance, transport, production and other areas, to increase their capabilities, to find alternative solutions to problems. The rapid growth of the volume of information (especially video, audio multimedia data) used in modern information systems presents us with new complex issues of storing and managing this information in the database. Below we will analyze the tools for organizing large multimedia data, as well as working with them. Massive multimedia data has four main characteristics: size, variety, speed, price.

1. Volume. The growing amount of data generated by humans and machines puts new demands on information technology infrastructures for data storage, processing and presentation.

2. Diversity. The information presented in different structures will be different. Whether these are credit card transactions, scientific research results, photographic images, video and audio data, they all require specific handling and storage conditions.

3. Speed. Speed refers not only to the speed at which data enters the database, but also the speed at which data is retrieved from the database.

4. Price. Big data is an expensive resource. The value of information is determined by its relevance, usefulness and content. Examples of big data

The active introduction of Big Data technologies to the market and modern life began after the well-known companies of the world began to use those that have their customers in almost every corner of the world.

It's Facebook and Google, IBM. Social giants such as Master Card, VISA and Bank of America are also financial institutions. For example, IBM applies big data techniques to its ongoing cash operations. With their help, 15% more fraudulent transactions were detected, which made it possible to increase the amount of protected funds by 60%. Also, problems with false alarms of the system were solved - their number was reduced by more than half. VISA used Big Data to track the frauds committed to carry out similar or other operations. This allows them to save more than 2 billion dollars every year. The German Ministry of Labor was able to reduce costs by 10 billion euros by implementing a big data system for unemployment benefits. At the same time, it was found that one fifth of citizens receive these benefits without any reason. Big

Data has not missed the gaming industry. Thus, the developers of World of Tanks studied information about all players and compared the current indicators of their activity. It helped predict the departure of players in the future - based on the predictions made, representatives of the organization communicated more effectively with users. Notable big data organizations include HSBC, Nasdaq, Coca-Cola, Starbucks, and AT&T. The biggest problem with big data is the cost of processing it. This can include expensive equipment and the cost of skilled professionals to handle large amounts of data. Undoubtedly, the equipment must be constantly updated so that it does not lose its minimum performance with the increase of data. The second problem is again related to the large amount of data that needs to be processed. If, for example, the study gives not 2-3, but a large number of results, it is very difficult to remain objective and select from the general flow of information only those that have a real impact on the state of the phenomenon. Big Data Privacy Challenge. As more and more customer services move to using online data, it's easy for cybercriminals to become another target. Even simple storage of personal data without any online transaction can have undesirable consequences for cloud storage customers.

The problem of information loss. Precautions are not limited to a simple single data backup, but require at least 2-3 backups. However, with the increase in volume, the difficulties associated with backup are increasing - and IT professionals are trying to find an optimal solution to this problem. What is Big Data? In fact, the definition of the term emerges: "big data" refers to the management and analysis of very large amounts of data. If you look more broadly, this is data that cannot be processed by classical methods due to its huge volume. The term Big Data itself appeared relatively recently. According to Google Trends, the active growth of this popularity coincides with the end of 2011: in 2010, the first products and solutions directly related to big data processing appeared. By 2011, the largest IT companies, including IBM, Oracle, Microsoft and Hewlett-Packard, are actively using the term Big Data in their business strategies. Gradually, information technology market analysts begin active research on this concept. Currently, this term has gained great popularity and is actively used in various fields.

But it cannot be clearly said that Big Data is a completely new phenomenon, on the contrary, sources of big data have been around for many years. In marketing, they can be called databases of customer purchases, credit histories, lifestyles, etc.

Over the years, analysts have used this information to help companies predict future customer needs, assess risks, form consumer preferences, etc. Currently, the situation has changed in two ways: - analysis of various data sets

and more sophisticated tools and methods for comparison appeared; - Analytical tools have been supplemented by a variety of new data sources associated with the widespread transition to digital technologies, as well as new methods of data collection and measurement. Researchers predict that Big Data technologies will be most actively used in manufacturing, healthcare, commerce, public administration, and various other industries and sectors. Big Data is not a specific collection of data a set of ways to process them.

Data lake (*data lake*) is a large unprocessed data warehouse.

"Lake" stores data from different sources, in different formats. This is cheaper than storing data in a fixed structure in a typical relational database. A data lake allows you to analyze data in its raw state. In addition, "lakes" can be used by several workers at the same time.

Data science (*data science*) is a science that studies problems of analysis, data processing and their presentation in digital form.

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This term was born in 1974. In the same year, a Danish computer scientist, Peter Naur, published a book entitled "A Basic Principle of Data Science".

As a result of the proliferation of big data in the early 2010s, this direction has become a very profitable and promising business. And at that time, the demand for specialists working with big data has greatly increased.

The concept of data science includes all methods of data warehouse design and digital data processing. Many experts in his opinion, it is data science that is the modern successor of big data from the point of view of business.

Data mining is the intellectual analysis of data in order to find some pattern . Israeli mathematician Grigory Pyatetsky-Shapiro introduced this term to science in 1989.

Technologies, the process of finding previously unknown and useful unprocessed (raw) data is called data mining. Data mining techniques sit at the intersection of data warehousing, statistics, and artificial intelligence.

Machine learning is the practice and theory of creating self-learning programs, a large part of artificial intelligence .

Programmers teach their algorithms to identify general patterns in specific cases. As a result, the computer makes decisions based on its own personal competence, rather than on the instructions given by a human. Many such training methods can be applied to data mining.

The first definition of machine learning was given by the American computer scientist Arthur Samuel in 1959. He created the world's first self-learning chess game with elements of artificial intelligence.

Deep learning is a type of machine learning that creates more complex and self-taught programs. In typical machine learning cases, the computer determines the knowledge with the help of guided competence: the programmer shows certain examples to the algorithm, manually correcting the errors. In deep learning, the system itself designs its own functions, performs multilevel calculations, and makes inferences about the environment.

Deep learning is usually applied to neural networks. This technology is mainly used in image processing, speech recognition, neural machine translation, computing in pharmaceuticals and other modern technologies. Projects are mainly hosted by Google, Facebook and Baidu.

An artificial neural network is an integrated system of simple processors (artificial neurons) that imitates the human nervous system. In return for such a structure, neural networks are not programmed, they are trained. Like real neurons, processors simply receive signals and pass them on to other processors. At the same time, a whole other system performs complex tasks that algorithms cannot perform.

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WORKING PRINCIPLE OF A HEAT PUMP

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Abstract. The article provides information about the operating principle of a heat pump. The heat pump stands as a remarkable technology for heating and cooling spaces efficiently, offering a sustainable alternative to traditional heating systems. This abstract delves into the intricate working principle of heat pumps, elucidating the mechanisms underlying their operation and their pivotal role in energy conservation. At its core, a heat pump operates on the principle of transferring thermal energy from a low-temperature source to a higher-temperature reservoir. This process is orchestrated through a cyclic sequence of phases, encompassing compression, condensation, expansion, and evaporation of a refrigerant fluid.

Keywords. Heat pump, Carnot cycle, evaporation, refrigerant, compression, expansion, condensation

Аннотация. В статье представлена информация о принципе работы теплового насоса. Тепловой насос представляет собой замечательную технологию эффективного обогрева и охлаждения помещений, предлагая устойчивую альтернативу традиционным системам отопления. В этом реферате рассматривается сложный принцип работы тепловых насосов, объясняются механизмы, лежащие в основе их работы, и их ключевая роль в энергосбережении. По своей сути тепловой насос работает по принципу передачи тепловой энергии от источника с низкой температурой к резервуару с более высокой температурой. Этот процесс осуществляется посредством циклической последовательности фаз, включающих сжатие, конденсацию, расширение и испарение хладагента.

Ключевые слова. Тепловой насос, цикла Карно, испарение, хладагент, сжатие, расширение, конденсация

Introduction:

It has long been known that heat is transferred spontaneously from a hotter object to something colder. This was enshrined in one of the formulations of the second law of thermodynamics. In order to transfer heat in the opposite direction, work is required. A heat pump is used for these purposes. It requires energy to operate. The greater the temperature difference between the media that participate in this process, the greater the amount of energy expended.

Heat pumps - heat engines that are designed to produce heat using a reverse thermodynamic cycle. Heat pump transfer thermal energy from a low temperature source to a higher temperature heating system. During the operation of a heat pump, energy costs occur that do not exceed the amount of energy produced.

The operation of a heat pump is based on a reverse thermodynamic cycle (reverse Carnot cycle), consisting of two isotherms and two adiabats, but unlike the direct thermodynamic cycle (direct Carnot cycle), the process proceeds in the opposite direction: counterclockwise.

A heat pump can also be called a "refrigerator in reverse", since a heat pump is the same refrigeration machine, only unlike a refrigerator, a heat pump takes heat from outside and transfers it into the room, that is, it heats the room (a refrigerator cools by taking heat from the refrigeration chamber and throws it out through the capacitor).

1. **Evaporation (heat gain):** A heat pump draws heat from a heat source (such as air, water or soil) by evaporating a working fluid (usually freon or a similar refrigerant) in an evaporator. During the process of evaporation, thermal energy from the environment is transferred to the refrigerant, which turns from a liquid to a gaseous state.
2. **Compression (increase in pressure and temperature):** The refrigerant gas is then compressed by the compressor, causing its pressure and temperature to increase. In this case, the thermal energy received from the heat source is concentrated in the refrigerant.
3. **Condensation (heat loss):** The compressed refrigerant gas transfers its thermal energy to the heating system or hot water in the condenser. In this case, the refrigerant condenses back into a liquid state, releasing its heat to the environment.
4. **Expansion (pressure and temperature reduction):** Liquid refrigerant passes through an expansion valve where its pressure is reduced, causing its temperature to decrease. The refrigerant prepared in this way is again sent to the evaporator to begin a new cycle.

The design of the simplest heat pump

The design of the simplest heat pump includes 2 heat exchangers. One of them is called an evaporator, and the second is a condenser. The evaporator maintains a temperature below the medium from which heat is removed. Such a medium can be water, soil, air, etc. As a result, heat transfers to the refrigerant, which has a lower temperature. The capacitor has a temperature higher than the temperature of the medium to which heat must be transferred. This medium, or rather the body, is the heating system. The temperature difference between the evaporator and the condenser is ensured by the refrigerant that circulates between them. It can change its phase state, pass from a liquid to a gaseous state, depending on the pressure level.

Low-boiling chemicals are used as refrigerants, which at a certain pressure in the compressor change from liquid to gaseous state and vice versa. The compressor as part of a heat pump is the main consumer of electrical energy. If we delve a little deeper into the theory, we can say the following. The movement of molecules in any substance stops only at absolute zero. But if the temperature is different from this value, then the molecules move and heat can be taken from this medium and moved to another body or medium.

Most heat pumps used today are vapor compression.

There are also varieties such as

- Electrochemical.
- Thermoelectric;
- Absorption;

The operation of heat pumps is usually characterized by the energy transformation coefficient (Ktr), which is determined by the formula:

$K_{tr} = \frac{Q_{out}}{Q_{in}}$, where

Q_{out} – temperature at the pump outlet; T_{in} – temperature at the pump inlet.

That is, Ktr is the ratio of the heat that goes into the heating system to the energy that is spent to ensure the functioning of the heat pump. In reality, the Ktr coefficient differs from what is calculated using this formula. The difference is equal to the value of the coefficient h, which takes into account energy losses and the degree of thermodynamic perfection. Energy is also spent to ensure the operation of shut-off valves, pumps, control circuits, etc.

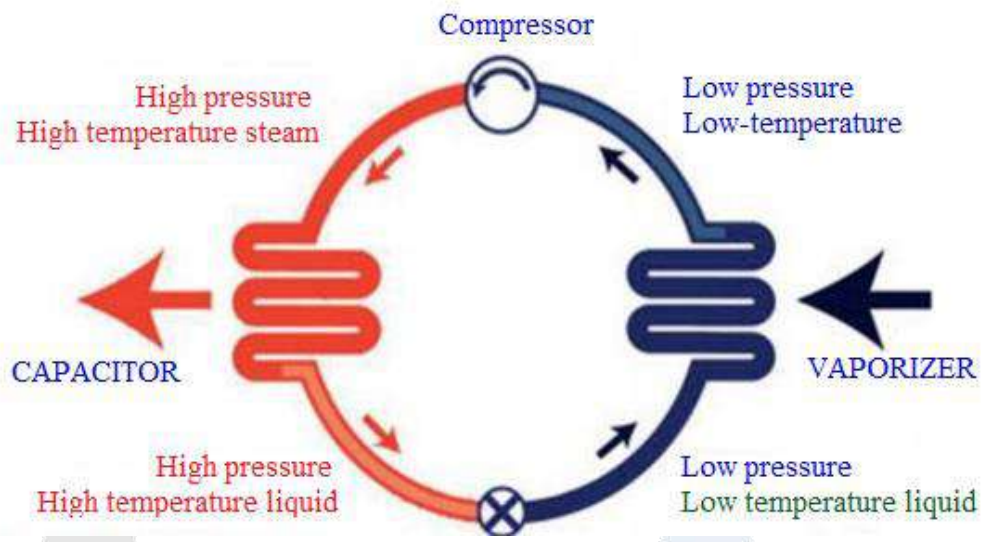


Figure 1 - Operating principle of a heat pump

The principle of operation of the HP is shown in Figure 1. After boiling, the refrigerant, moving through the pipeline, enters the compressor, which operates using 30 electric power. This device compresses the gaseous refrigerant to high pressure, causing its temperature to rise. The hot gas enters the condenser, in which the heat of the refrigerant is transferred to the coolant circulating through the internal circuit of the heating system. As it cools, the refrigerant turns into a liquid state, after which it passes through the capillary pressure reducing valve, losing pressure, and then again ends up in the evaporator. Thus, the cycle is completed and the process is ready to repeat.

A little later, the principle of the reverse Carnot cycle was discovered. When a substance evaporates, it absorbs heat, and after condensing on the surface, it releases it. It is this law that underlies refrigerators and air conditioners. A low-temperature air heat pump works like these household appliances, only in the opposite direction.

The basic principle of a heat pump is to accumulate low-temperature heat during evaporation and further release energy during subsequent condensation. This process occurs without a change in temperature, unless the working fluid is mechanically compressed, which will lead to an increase in temperature.

Conclusion:

A heat pump functions like a refrigerator, only in reverse: a refrigerator transfers heat from inside to outside, while a heat pump transfers heat from the environment to inside. The natural heat of the coolant (which is water or brine) is transferred to the evaporator. The internal circuit of the heat pump is filled with refrigerant (working substance: freon, ammonia, methane, propane, etc.), which, passing through the evaporator, turns from liquid to gaseous. From the evaporator, the refrigerant gas enters the compressor, where it is compressed to high pressure and high temperature. Next, the hot gas enters the condenser, where heat exchange occurs between the hot gas and the coolant from the return pipeline of the home heating system. The refrigerant transfers its heat to the heating system, cools and turns into a liquid again, and the heated condenser transfers heat to the heating system.

The primary circuit of a heat pump consists of elements involved in obtaining heat from an external source - for example a heat exchanger, brine circulation pump or air fan, and in a water-

to-water heat pump also an intermediate heat exchanger. The secondary circuit includes the components necessary to convert energy and transfer it to the consumer.

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Development of an automated system for controlling temperature and humidity in production rooms.

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***Annotation:** The article discusses automated temperature and humidity control systems in production rooms. First, general information about cooling systems, their types and properties is provided, and typical and various designs of temperature and humidity control systems for production rooms are analyzed, and then the implementation of these technologies in such systems is considered.*

***Keywords:** temperature, humidity, production room, automatic control system.*

***Аннотация:** В статье рассматриваются автоматизированные системы управления температуры и влажности в производственных комнатах. Вначале выдана общая информация про систем охлаждения их виды и свойства а также проанализировано типовое и различные построения систем управления температурой и влажностью производственных комнат, а далее рассматривается внедрение данных технологий в подобные системы.*

***Ключевые слова:** температура, влажность, производственная комната, система автоматического управления.*

In the modern world, namely in the age of high technology, there remains a need for workers and employees to create comfortable working conditions. The main goals of the ventilation system are to provide the premises with a microclimate, as well as purify the air from harmful substances. By supplying a manufacturing plant with clean air at a comfortable temperature for the working personnel, work efficiency increases. As part of this trend, there is a need to automate the ventilation system. Current developments help provide better working conditions.

There are several types of ventilation systems, which are classified as follows:

- Method of air pressure and movement;
- Purpose – supply and exhaust;
- Service area – general and local;
- Design – channel and without channel.

Natural ventilation is the simplest type of ventilation, since ventilation occurs naturally and does not require special equipment.

There are situations when the power of natural ventilation is not enough and then there is a need to install artificial ventilation. The peculiarity of its work is that, the use additional equipment that facilitates the forced movement of used air, replacing it with clean air, as well as maintaining the specified air parameters. The distinctive quality of such systems is air treatment, namely air purification, heating, cooling and humidification.

The purpose of controlling the ventilation system is to ensure and maintain the required air quality standards in the working area of the premises. Local automation is usually used to control the ventilation system. One and the most important disadvantage of such regulation is that it does not take into account the real air and heat balance of the building, as well as weather conditions. Thus, we can say that the ventilation system is not operating optimally.

By implementing optimal control of the ventilation system, you can not only increase operating efficiency, but also reduce the cost of energy resources. But for this it is necessary to use a complex of software and hardware.

Using a computer, you can find the optimal operating mode and determine the appropriate control action. As a result, the computer and the complex, consisting of software and hardware, form an automated ventilation control system. The role of a computer can be either a control panel for the supply ventilation system or a computer with a modeling program, which, based on the data obtained, establishes the optimal operating mode of the ventilation system.

Automatic control system – a set of devices designed to obtain a finished product from initial raw materials by automatically changing one or more parameters of the control object. In the case of a supply ventilation system, the finished product is air with specified parameters (temperature, humidity, etc.) in the production room.

The basis of the automatic control system for supply ventilation, as in any control system, must include feedback. Control actions are generated based on information obtained using sensors located at the facility. Each automatic ventilation control system is developed based on air treatment technology. The supply ventilation system can include both a heater (air heating) and an air conditioning system, which must be reflected when designing the automation.

Picture 1



In accordance with the standards, the mandatory control parameters are:

- Temperature and pressure in the common pipelines and at the outlet of each heat exchanger;
- Temperature of the outside air supplied after the heat exchanger, as well as the temperature in the room;

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- Standards for harmful substances in the exhaust air (gases, combustion products, non-toxic dust).

When designing an automatic system, remote control is often provided; this is necessary to change the basic parameters of the system. This control is carried out using converters or sensors, the values of which can be displayed on the control panel or computer monitor.

One of the main functions that needs to be implemented is the “start sequence”. To ensure normal start-up of the supply ventilation system, it is necessary to take into account:

- Preheating of the heater. If you do not start warming up the air heater in advance, cold air can trigger the antifreeze protection. Thus, when starting the system, you should open the supply air dampers, open the water heater valve and warm up the heater. Typically, this function should be activated when the outside temperature is below 12 °C.

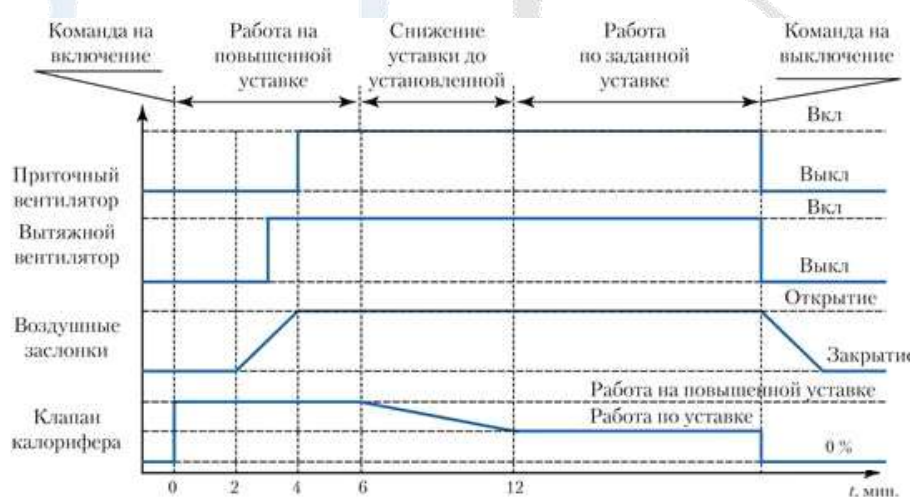
- Preliminary opening of air dampers. This is due to the fact that not all dampers, when closed, can withstand the pressure drop caused by the operation of the fan.

- Distribution of electric motor starting moments. This function is necessary in an automated ventilation system since asynchronous electric motors often have high starting currents. If you start the fans and air damper drives at the same time, then due to the heavy load on the electrical network, the voltage will drop significantly and the engines will not start

Many important functions that need to be provided for when designing an automatic control system for supply ventilation are the “stop sequence”. When shutting down the system, the following must be considered:

- Delay for stopping the supply air fan in systems with an electric heater. After removing the voltage from the heater, it should be cooled for some time using a supply air fan.

Based on the above options, you can create a cyclogram of the operation of the automatic control system (Figure 2.):



CONCLUSION

The presence of a ventilation system is necessary to ensure air exchange inside the building by removing excess moisture, heat, and harmful substances. Its presence is one of the main conditions for ensuring life. If there are no types of ventilation systems in the room, this is harmful

to the human body, harmful substances are not removed, and leads to the formation of fungi, since condensation forms in the absence of air exchange.

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FUNDAMENTALS OF ALGORITHM AND PROGRAMMING IN MATHCAD SOFTWARE.

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INTRODUCTION.

In order to calculate a set of problems of a complex type and to achieve the result faster, an algorithm is designed for this type of problems, and programs are created based on this algorithm. Programming is central to Mathcad. Although Mathcad can solve many problems without the program, there are some class problems that cannot be solved without the program. That's why the mathcad program gives us such an opportunity. Mathcad allows you to enter any complex program. Mathcadda programming is very clear and easy to understand, in which the program expresses several consecutive formulas. The main programming operators are located in the Programming panel. We can activate this panel from the toolbars section of the view menu.

FUNDAMENTALS OF ALGORITHM AND PROGRAMMING IN MATHCAD SOFTWARE.

Before creating a program for a problem in Mathcad, it is necessary to create an algorithm for this problem. When creating an algorithm for an arbitrary problem, we have to choose one of 3 different algorithmic approaches. These are:

1. Linear algorithm
2. A branching algorithm
3. Iterative algorithm

to work on the basis of the same three approaches when creating a program . To build a program in Mathcad, you need to enter its lines. This is done in the following procedure:

1. Enter the name of the program expression.
2. Enter the assignment operator (:=).
3. Clicking the Add Program Line button from the programming panel.
4. Enter the necessary operators in the input field that appears, remove the redundant input field.

dastur := | ■
 | ■

Picture 1 .

Quyida oddiy ifodani hisoblash dasturini ko'rib o'tamiz.

$$y = a \cdot x^3 + e^b \cdot \cos(x)$$

$$x := 3$$

$$y(x) := \begin{cases} a \leftarrow 3 \\ b \leftarrow 4 \\ a \cdot x^3 + e^b \cdot \cos(x) \end{cases} +$$

$$y(x) = 26.948$$

Figure 2.

To open the desired input line, move the blue corner cursor to the end of the line and press the Add Program Line button while holding down the space bar. If it is necessary to open the input line before the line, it is necessary to bring the blue corner cursor to the beginning of the line and press the Add Program Line button while pressing the space key. In some cases, for example, when adding a line between two nested cycles, this method becomes unavailable.

necessary to use another method. This method is done as follows:

1. The inside of the cycle is divided into black.
2. Click the Cut button from the standard toolbar.
3. Add Program Line (add a line to the program) programming panel button is clicked.
4. The cursor is placed at the place where the line is entered, and the Paste button is clicked from the standard toolbar.
5. The input field that appears is filled. This method provides convenience in entering a line in all cases.

Sending values locally in a program

Assigning values to constants and variables in the program is done using the assignment operator (`:`). This operator is combined with the Local Definition button in the programming panel tool (Local Definition). During program creation, in most cases, this symbol can also be executed by pressing the `{` symbol from the keyboard.

The value of a local variable cannot be used outside the program. If it is necessary to use it outside, it is necessary to place the cursor in a space after the last statement of the program, and then write the variable.

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If you need to output a single value of a variable, you should write the name of this variable. If you want to output a vector or array, you need to enter its name.

The if conditional operator.

The if conditional statement takes effect in two steps. The condition written to the right of the first if operator is checked. If it is true, the expression to the left of it is executed, otherwise, it goes to the next line of the program.

procedures below .

1. In the program to be compiled, the cursor is placed at the place where the conditional operator is entered.

2. The if operator button is pressed from the programming panel. An operator template with two inputs appears in the program.

3. A condition is entered in the right input field. Logical operators can be used for this. For this, using the (Boolean) logical operator panel provides some convenience.

4. If statement is entered on the left hand side of the expression to be executed when the condition is true.

If multiple expressions are executed in the execution of the condition, then it is necessary to have multiple input fields. To do this, place the cursor in the input field to the left of the if statement, and then press the Add Program Line button on the programming panel as many lines as needed. It should be noted that the appearance of the conditional operator changes . A vertical newline appears below the insertion point, not to the left, and to the right of the if operator. If the condition is false , the transition is to the next line of the program.

There are three ways to write a condition in Mathcad:

- using the if conditional operator of programming ;
- using boolean operators;
- using the if function.

Figure 3 below shows three ways to write a condition.

Ushbu funktsiyani hisoblang:

$$y = \begin{cases} \ln(\sqrt{a}), & a < 3 \\ 2, & 3 \leq a \leq 5 \\ (a+1)^2 - a, & a > 5 \end{cases}$$

1 – Dasturlash bo'yicha

```

a := 8
y := if a < 3
    | b ← √a
    | ln(b)
2 if 3 ≤ a ≤ 5
otherwise
    | c ← a + 1
    | c2 - a
    
```

Javobi
y = 73

2. Bul operatori bo'yicha

$$y1 := [\ln(\sqrt{a})(a < 3) + 2.(3 \leq a \leq 5) + [(a + 1)^2 - a](a > 5)]$$

$$y1 = 73$$

3. if funktsiyasi bo'yicha

$$y2 := \text{if}[a < 3, \ln(\sqrt{a}), \text{if}[3 \leq a \leq 5, 2, (a + 1)^2 - a]]$$

$$y2 = 73$$

+

Figure 3. Calculation of the conditional function in three ways .

Loop operator.

Mathcad has two loop operators: FOR and WHILE.

- If the number of repetitions in the loop is known in advance, then the FOR operator is used.
- If the loop is to be repeated within the fulfillment of a certain condition, then the WHILE statement is used.

WHILE statement

The **while** loop statement executes the iteration if a condition is true in cases where the number of iterations is not specified in advance. The given condition is first checked, and then the operators contained in it are executed depending on the fulfillment of the condition.

While loop operator, the following sequence should be performed :

1. The cursor is placed in the space where the program should be entered.
2. Click the While Loop button from the programming panel.
3. A condition (logical expression) is entered from the right side of the While operator.
4. Expressions that need to be cycled are entered below the While operator. If you need to calculate several expressions in a loop, first place the cursor at the input point, then Add Program Line (Insert a line into the program) or "]" (closing middle bracket) key should be pressed as many times as the number of lines included in the loop. Then the input fields are filled with the required expressions and the excess input field is removed. Figure 4 below shows an example of determining the first large value of a vector from a given value.

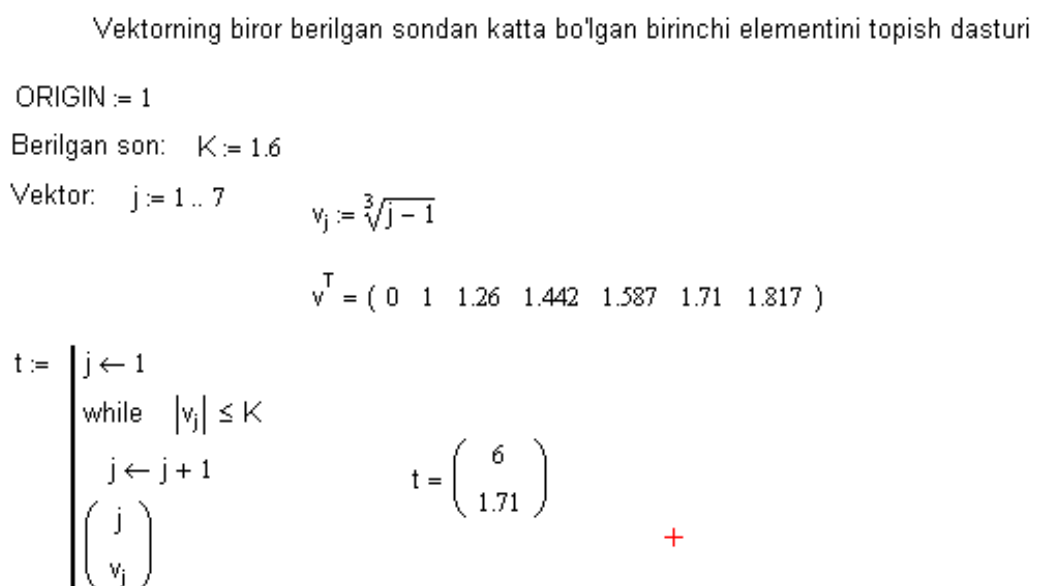


Figure 4. Using the While loop operator in programming .

The FOR operator

the for loop operator when the number of iterations is known in advance . It determines the repetition of the for statement, the variable that precedes it. To write a **for** loop statement, you need to perform the following sequence:

1. The cursor is placed in the space where the program should be entered.

2. Click the For Loop button from the programming panel.

3. The name of the variable is entered from the right side of the for operator, followed by the range of the variable. A loop variable can be an array of numbers or a vector.

For example, in the figure, the variable values are represented as a comma-separated vector.

4. Below the for statement, the expressions that should be cycled are entered. If you need to evaluate several expressions in the loop, first place the cursor at the input point, then press Add Program Line or "]" (closing middle bracket) as many times as the loop contains. will need to be pressed. Then the input fields are filled with the required expressions and the excess input field is removed. The example given in Figure 5 below shows how to determine the first large value of a vector from a given value.

5.

Sikl o'zgaruvchisi diskret o'zgaruvchili

$$Z := \begin{cases} m \leftarrow 1 \\ \text{for } s \in 1, 1.2.. 2 \\ \quad X_m \leftarrow \sqrt{s+1} \\ \quad m \leftarrow m+1 \end{cases}$$

X

$$Z = \begin{pmatrix} 0 \\ 1.414 \\ 1.483 \\ 1.549 \\ 1.612 \\ 1.673 \\ 1.732 \end{pmatrix}$$

Sikl o'zgaruvchisi ikkita vektor

$$A := \begin{pmatrix} 13 \\ 15 \\ 17 \end{pmatrix} \quad B := \begin{pmatrix} 1 \\ 3 \end{pmatrix}$$

$$Z1 := \begin{cases} m \leftarrow 1 \\ \text{for } s \in A, B \\ \quad X_m \leftarrow s \\ \quad m \leftarrow m+1 \end{cases}$$

X

$$Z1 = \begin{pmatrix} 0 \\ 1 \\ 3 \\ 13 \\ 15 \\ 17 \end{pmatrix}$$

+

Figure 5. Using the For loop operator in programming.

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REPRODUCTIVE HEALTHY KNING PSYCHOLOGICAL-PEDAGOGICAL
PROBLEMS OF FUTURE TEACHERS

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Abstract: Students and students become one of the most vulnerable groups of the population in the conditions of social tension and stratification of society, and a sharp decrease in the standard of living of the population. But exactly students of society reproductive , intellectual , economic , social , political and cultural is a reserve . It's theirs of health huge social importance determines

Key words : student , reproductive health , danger factors , sex education , teenagers .

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ПСИХОЛОГО-ПЕДАГОГИЧЕСКИЕ ПРОБЛЕМЫ РЕПРОДУКТИВНОГО
ЗДОРОВЬЯ У БУДУЩИХ ПЕДАГОГОВ

Аннотация: в условиях социальной напряженности и стратификации общества, резкого снижения уровня жизни населения именно студенты и школьники становятся одной из самых уязвимых групп населения. Но именно студенты являются репродуктивным, интеллектуальным, экономическим, социальным, политическим и культурным резервом общества. Это обуславливает огромную социальную значимость их здоровья.

Ключевые слова: студент, репродуктивное здоровье, факторы риска, половое воспитание, подростки.

Introduction: Against the background of changes in the socio-economic and political system in our country, there is a steady trend towards the deterioration of the health indicators of children and adolescents. Thus, statistics show that 50-75% of girls have health disorders that may negatively affect their reproductive functions in the future. We must not forget that the leading factors determining the process of forming the reproductive health of children and students are their living conditions and style. Unfortunately, the socio-economic changes that took place had a negative impact on the change of behavioral stereotypes in the environment of young people - the interest in sports decreased, the necessary knowledge to maintain and strengthen one's health and there are no social motives, while bad habits are widespread, the frequency of premarital sex has increased.

Main part: Many studies have noted disastrous trends in the reproductive health of students, which may be one of the most important causes of low birth rates, high infant mortality rates, pregnancy pathology, and stillbirths in the future. From the point of view of the modern priorities in the field of healthcare implemented in Uzbekistan, the reproductive health of adolescent girls and the problems of preserving their reproductive potential are of particular importance. At present, the activity of the reproductive system of women is undoubtedly determined mainly by its timely and harmonious development in adulthood. However, in the first decade of the 21st century, the reproductive potential of teenage girls in Uzbekistan had stable and mostly negative characteristics, among which the following should be noted:

— reproductive important have has been bad of habits high spread

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- physical , sexual and psychosexual in development of deviations big percentage ;
- somatic and gynecological of diseases high level
- enough didn't happen reproductive relationships formation ;
- sexual education and contraceptive low level of activity ;
- abortion main result with a teenager of pregnancy high level Teenagers reproductive to

health effect doer the most important factors Dangerous sexual behavior , reproductive system of diseases reproductive , sexual road with contagious diseases , adolescence during pregnancy and abortions , contraception methods according to of knowledge low Sex behavior reproductive health with closely depends in fact his main structural from the parts is one Reproductive health protection to do reproductive health supportive and reproductive function with depends problems prevention get and solution to do through family or of the person well-being which provides factors , methods , procedures and services is a set . of the population illness level and common of death high level of birth decline and children of health deterioration with separate standing modern in the circumstances of the population reproductive health protection to do problems separately importance occupation is doing Family planning family and social aspects have has been health save prevention measures one is the optimal humanitarian to development help will give . Family planning in the program primary medical of help wider to the context attention focus , education bodies , legal and the law issuer organs and public information tools with closely cooperation to do need Family planning services wide comprehensive and cheap information present reach , har one to the person sexual education and the family planning services guaranteed to use provide need Only knowledgeable people responsibility feeling with and own needs , as well as family and of society needs account received without movement to do possible and movement they do. Past in the century sexual of life start of age decline trend observed .

A review of modern foreign and domestic research on this topic shows that the percentage of sexually active young people is increasing, and the average age of first sex is constantly decreasing. Thus, in recent decades, there has been a tendency to lower the age of sexual debut, which reached 14.5 years according to anonymous surveys. In Uzbekistan, the pregnancy rate among teenagers is 70-90 per 1000 people. Abortion accounts for 75 percent of teenage pregnancies, leading to a high rate of pregnancy — about 40 per 1,000 teens aged 15-19. A number of factors influence the sexual activity of adolescents, among which the socio-economic situation, the nature of family relationships, the influence of peers and mass media can be highlighted. However, increased sexual activity is associated with several adolescent risk factors, including unplanned pregnancy, abortion, out-of-wedlock births, sexual exploitation, and maternal mortality. The formation of the foundations for maintaining and strengthening reproductive health, as a rule, begins in adolescence, when the student already has experience in sexual relations and bad habits, which significantly reduces the effectiveness of preventive measures for the formation of sexual culture. At the same time, early initiation of sex education can lead to wrong perception of sexual relations. Research results teens reproductive health said the meaning means the following the results showed . of respondents most of them reproductive health of a person healthy the child pregnant to do and giving birth they believe that it is their ability ; of the body health and of the disease lack of and only one how many answer to give it was hard . Most important social and medical from problems one this sexual road with contagious of diseases increase .

Adolescents' increased risk of developing these diseases is associated with a variety of behavioral, biological, and psychosocial factors, among which sexual activity is considered the

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most important risk factor. It should also be noted that today's school graduates are careless about their health and the health of others, they have a low level of personal importance of health problems, a healthy lifestyle, it was noted that there is insufficient knowledge about the methods of maintaining and strengthening health. Adolescents are anxious and afraid of the changes in puberty and psychological processes that are happening to them. But in addition to complex, sometimes unpredictable characteristics, during adolescence, the desire to know oneself and others, the search for identity, the desire for self-affirmation, the formation and reflection of moral beliefs are important. virtues are formed [3]. With that together, general education of schools modern study plans, for example, reproductive health issues enough attention not given Education of the process all to the fronts effect showed long continue reached organizational and legal changes period, quality education get process more and more difficult being is going on [2]. So so the state education standard according to structured "life safety basics" of the course in programs main at school reproductive health issues from 3 hours, higher in classes 6 hours per year does not exceed That's why for education health storage function only health storage not only teachable, perhaps him study of the process all of participants main the need and marriage style rotate will receive just in case done increases. In children own to health care make it storage and strengthening according to skill and qualifications formation formalized. In practice practice at school this work to lectures reduces their main content clinical appearance, diseases diagnosis and treatment about is information. The rule as, them medicine specialists they read, but they each always healthy behavior teaching and bring up to the methodology of students health storage for positive motivation formation methods have they are not

The structure of interpersonal social support, including the number of relationships and the quality of the person's system of relationships with the immediate environment, in which the family plays an important role, can contribute to or hinder the development of an adolescent's personal preventive resource [1]. From the point of view of modern pedagogy, educational activity is a system of actions (mental and practical), the implementation of which ensures the acquisition of knowledge, acquisition of skills and abilities, and their application in solving various problems. The low level of reproductive health and medical culture of modern students, in turn, determines the need to introduce new programs of sexual education of students into the local school education system, because the current curricula of school courses do not allow students to understand the issues of maintaining and strengthening reproductive health. does not match age characteristics and educational needs. Unfortunately, at present, the level of theoretical knowledge of secondary school students about reproductive health is very low and cannot ensure the maintenance of adolescent reproductive health in practical life and requires qualitative improvement.

Conclusion: Undoubtedly, the strategic priority of state policy in the social sphere should be the formation and development of healthy lifestyle values. The above cases show that the development and implementation of the methodology for the formation of students' knowledge on the maintenance and strengthening of reproductive health as a component of a healthy lifestyle is an urgent pedagogical problem. Accordingly, a new set of tasks will appear in front of educational institutions that require urgent decisions. The most important of them was the development of specific methodological approaches aimed at forming the knowledge of reproductive health among schoolchildren of different ages. At the same time, the modern methodology should help to form a comprehensive system of theoretical knowledge and practical skills of students of secondary educational institutions on maintenance and strengthening of reproductive health. It is based on

the personal interest of students, taking into account the individual and age needs of schoolchildren, wide use of interdisciplinary communication, interactive forms of teaching and modern information technologies, as well as the specific practical direction of knowledge gained about reproductive health. should be.

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THE IMPORTANCE OF USING THE PEDAGOGICAL METHOD OF THE "INSERT"
STRATEGY IN INFORMATION TECHNOLOGY PRACTICAL EXERCISES

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Abstract

is analyzed pedagogically . Based on the method of the "INSERT" strategy in scientific research, students can be taught to analyze texts, express their opinions, assimilate information by comparison, draw clear conclusions, and also form independent creative thinking skills . quality and efficiency significant showed that it has increased .

Key words : *innovative methods , information technologies , "INSERT" strategy method .*

to improve the pedagogical approaches used in the teaching of various subjects in higher education institutions, in order to interest students in subjects, to determine their possession of certain concepts and to form the skills of an analytical approach to textual information obtained from various sources. confirming the results [1]. Currently, one of such interactive pedagogical methods of teaching subjects is the "INSERT" strategy method, which is widely used in the educational process of educational institutions of most developed countries.

The "INSERT" strategy method was proposed by American psychologists D. Still, K. Meredith and Ch. Temple in the second half of the 90s of the 20th century. This method is used in critical thinking technology. The abbreviation INSERT, translated from English, means "***Interactive educational effective reading and thinking system***". The strategy serves to determine the students' possession of certain concepts related to the new topic to be mastered and to support their activity when working with the text. [2] .

Interactive English word is "interact": "inter" - mutually and "act" - action do), them when summarizing and " Interactive " - mutual movement to do the meaning means "Interaction" - cooperation (etc with) means . That is , teaching interactive methods - knowledge and communicative activity organize of reaching special shape being , then education receivers to know to the process attraction done they will be who knows and thinking things to understand and thinking opportunity have will be [3] .

Strategy apply the following in order done is increased :

- ❖ small groups are formed and is called
- ❖ each one from the group appropriation intended to the topic from 2 about thought notice is asked ;
- ❖ students queue with own comments statement they reach
- ❖ statement done thoughts writing will go ;
- ❖ then teacher new topic essence illuminant the text to groups distributes ;
- ❖ groups text with getting to know out , themselves stated of thoughts in the text information where level compatibility identify (similarity and differences special characters using note will be done);
- ❖ group members own personal their views statement enough and special characters the number can be summarized ;

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- ❖ group members from among leaders is determined ;
- ❖ each one leader own groups result with everything introduces ;
- ❖ of groups approaches generalization based on final conclusion is issued .

Strategy in application students the following to the scheme according to activities organize will :

Table 1.

Groups by reported thoughts with text comparative compared to :

| Special characters | Special of characters meaning |
|--------------------|--|
| Z | In the text groups by reported thoughts own on the contrary found if |
| S | In the text groups by reported thoughts own on the contrary did not find if |
| D | In the text to each other opposite thoughts there is if |
| ? | Text with get to know in the process questions if born (misunderstandings surface if it comes) |

Table 2.

Leaders from the report after of groups the results in learning this from the table used :

| Special of characters order number | Groups names | | | |
|------------------------------------|--------------|--------|-------------|--------------|
| | Al Khorezmi | Beruni | G i p ocrat | Ali- Kushchi |
| 1 | | | | |
| 2 | | | | |
| 3 | | | | |
| 4 | | | | |

Strategy in students makes sense thinking , personal errors on work skills to form help will give . Method "Understanding information. Types of information." Texts given to groups in the application of the subject in teaching .

Understanding of information. Types of information.

At the end of the 19th century and the beginning of the 20th century, new directions of science and the emergence of new disciplines led to a sharp increase in the amount of information required for processing. Automatic information processing devices created in the middle of the 20th century - electronic computing machines (ECMs) made it possible to store and classify large amounts of information and process them at high speed.

Informatics and information technology is a science that studies the methods of information representation, storage, transmission and processing with the help of EHM.

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Information common to the definition have non imp e ric understanding Information what " d e gan to the question philosophy science " us wrapping category of being expression "d e b explains , from the information in practice users " information-storage" , form change and transmission possible has been it is an object " d e b explains .

of information the world in knowledge , society , work in release and in science place

Human creative or work activity , science and technology development , live of creatures himself to finish , har how automatic way working devices activity information exchange with depend

Information types

Text . *The text is this information to express shape is , it is content single , whole and selected from the diversity of language features consists of Text document is the basis*

Image . *Image is it something event , event or processes in itself expressed picture pieces and of colors consists of is information . Photo , landscape , math e matic functions graph and that's it similar data is considered*

Animation . *Animation at a certain time images replacement is good . In this known time between , is known in the thigh one different to size have has been images are effective will be replaced .*

Informatics Science is also different sciences in line the world to know for service does In the world each one live and lifeless creature in space and at the time changed category substance and power in the form of manifestation will be

Substance and power of the world two important content , its two important structural is part of L e kin of existence there is to be and him to know again one important and necessary content there is even if it is is information .

Information collection , storage and processing new technology

of exposure appear to be society in development revolutionary to changes reason it happened to a person information collection , storage and processing with depends has been mental work automation made it possible . This kind of processes automation economic and organizational systems , technology processes to manage projects make up , scientific research , study and another to areas come in went

Information 3 ways to code there is they are are as follows :

- 1) Information graph in the form kodlsah*** - *in this different photo and from the forms used ;*
- 2) Information digital in the form coding*** - *numbers , algebraic expressions by means of ;*
- 3) Information symbolic coding*** - *of information initial appearance expressed alphabet signs using coding .*

Ancient Roman emperor Julius Caesar is also of information confidentiality provide for the text coding method thinking found " Caesar cipher " in the text letter in the alphabet from himself after came the third to the letter replaced . In this alphabet circular in the form written , password prepared Coding this method " Alphabet push it is called " method " .

Remember let's go byte information measure being

1 byte = 8 bits,

1 K bytes = 1024 bytes ,

1 M bytes = 1024 K bytes ,

1 G byte = 1024 M bytes .

Above given in the example coding binary count in the system done So , count system of exposures arithmetical , logical and physicist basis organize is enough

The student monitors the activity of the groups during the training, gives advice to the group members in the necessary places, gives guidance and after making sure that the opinions given by the groups are in the right direction. ng asks the group leaders to summarize the ideas. Also, after each group leader finishes his opinion, the teacher helps the students to solve and understand the contradictions and misunderstandings that have arisen. Similar points identified by all subgroups are summarized [4] .

In Figure 3, on the basis of the concept of this method, pedagogical experiment - tests were conducted among the students of the parallel groups of the Asian International University of Treatment and Stomatology , and interactive methods, including the "INSERT" strategy method, were used in the experimental groups compared to the traditional lesson in the control groups. When used, the quality indicator of students' completion of lessons increased from 62.5% to 84.5% (Figure 3).

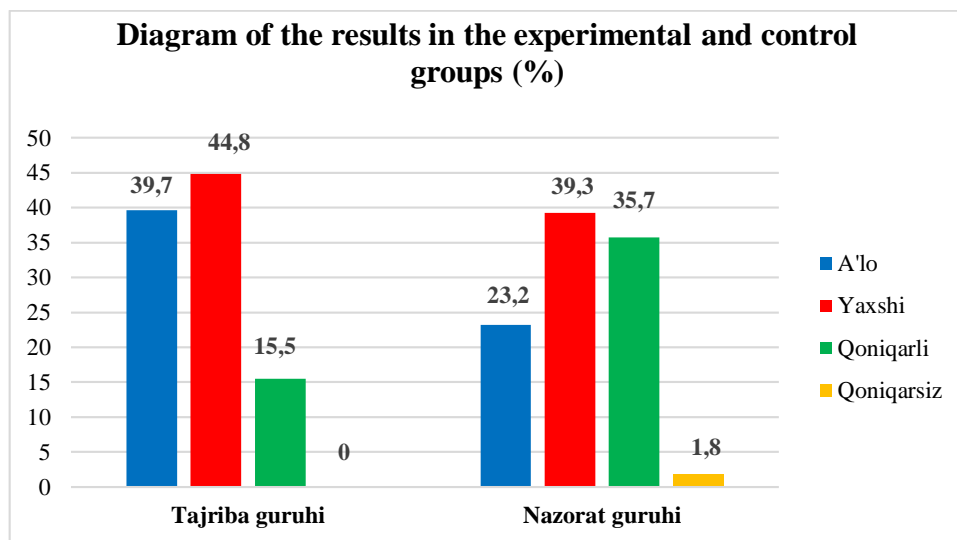


Figure 3.

In short, the "INSERT" strategy method teaches students to be able to analyze texts, express their opinions, assimilate information through comparison , draw clear conclusions, and also gave an opportunity to form independent creative thinking skills . The use of this method improves the quality and efficiency of the educational process by 21.9 % The results of the analysis showed that it is high .

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The Cauchy problem for a system of moment e- elasticity theory
existence sign of solution y

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Abstract : In this work, the problem of continuation of the solution of the system of equations of the theory of elasticity in the bounded special area in the part of the boundary according to its given values and values of its tension, that is, the Cauchy problem for the system of equations of the theory of elasticity, is studied, and the criterion of the existence of a solution of such problems is presented.

In this work, the ways of constructing suitable Karleman matrix in special flat fields are studied. In contrast to the previously considered construction of the Karleman matrix, the Karleman matrix was constructed independently, and the difference between the regularized solution and the exact solution was evaluated.

Keywords: *The Karleman matrix* has a regular solution

Enter. D elastic medium E^2 bounded at is a single link, the boundary $y_1 = 0$ of the real axis l piece and $y_2 > 0$ smooth lying in a half-plane S consist of a curve, i.e D cap-shaped area.

Let's test the following function

$$U_\sigma(x) = \int_S [\Pi(y, x, \sigma)\{T(\partial_y, n)U(y)\} - \{T(\partial_y, n)\Pi(y, x, \sigma)\}^* U(y)] ds_y. \quad (1)$$

As we know, in paragraph 2.2, the theorem in house q was valid .

Theorem 1 . $U(x) - (18)$ of the system $D -$ let the regular solution in the field satisfy the following condition

$$|U(y)| + |T(\partial_y, n)U(y)| \leq M, \quad y \in \partial D \setminus S \quad (2)$$

In this case $\sigma \geq 1$ too

$$|U(y) - U_\sigma(y)| \leq MC_2(x)\sigma \exp(-\sigma x_2),$$

inequality is relevant.

The result . *Theorem 1 -a two formulas in house q are equally strong when the conditions are met*

$$U(x) = \lim_{\sigma \rightarrow \infty} \int_S [\Pi(x, y, \sigma)\{T(\partial_y, n)U(y)\} - \{T(\partial_y, n)\Pi(x, y, \sigma)\}^* U(y)] ds_y$$

$$U(x) = \int_S [\Pi(y, x)\{T(\partial_y, n)U(y)\} - \{T(\partial_y, n)\Pi(y, x)\}U(y)] ds_y + \int_0^\infty \mathcal{R}(\sigma, x) d\sigma \quad (3)$$

This on the ground

$$\mathcal{R}(\sigma, x) = \int_S [\Omega(y, x, \sigma)\{T(\partial_y, n)U(y)\} - \{T(\partial_y, n)\Omega(y, x, \sigma)\}U(y)] ds_y$$

$\Omega(y, x, \sigma) = \frac{\partial}{\partial \sigma} \Pi(y, x, \sigma) = \left| \frac{\partial}{\partial \sigma} \Pi_{kj}(y, x, \sigma) \right|$, $\Pi(y, x)$ – using $\Phi(y, x) = -\frac{i}{4}H_0^{(1)}(k|x|)$ – the formula The Hankel function is a Karleman matrix constructed by $\Pi(y, x) = \Gamma(y, x) + G(y, x)$

Proof. $\lim_{\sigma \rightarrow \infty} U_\sigma(x) = \int_0^\infty \frac{dU_\sigma(x)}{d\sigma} d\sigma + U_0(x)$.

Now $U_\sigma(x)$ if we use the above expression of

$$u_0(x) = u_\sigma(x)|_{\sigma=0} = \int_S [P(y, x, 0)\{T(\partial_y, n)u(y)\} - u(y)\{T(\partial_y, n)P(y, x, 0)\}] ds_y .$$

$$\begin{aligned} \frac{dU_\sigma(x)}{d\sigma} &= \frac{d}{d\sigma} \int_S [P(y, x, \sigma)\{T(\partial_y, n)u(y)\} - \\ &\quad - u(y)\{T(\partial_y, n)P(y, x, \sigma)\}] ds_y = \\ &= \int_S \left[\frac{d}{d\sigma} P(y, x, \sigma)\{T(\partial_y, n)u(y)\} - \right. \\ &\quad \left. - u(y)\{T(\partial_y, n)\frac{d}{d\sigma} P(y, x, \sigma)\} \right] ds_y . \end{aligned}$$

Let's define now $\Omega(y, x, \sigma) = \frac{\partial}{\partial \sigma} \Pi(y, x, \sigma)$

$$\begin{aligned} U(x) &= \lim_{\sigma \rightarrow \infty} U_\sigma(x) = \int_0^\infty \frac{dU_\sigma(x)}{d\sigma} d\sigma + U_0(x) = \\ &= \int_0^\infty \left\{ \int_S \left[\frac{d}{d\sigma} P(y, x, \sigma)\{T(\partial_y, n)u(y)\} - \right. \right. \\ &\quad \left. \left. - u(y)\{T(\partial_y, n)\frac{d}{d\sigma} P(y, x, \sigma)\} \right] ds_y \right\} d\sigma + \\ &+ \int_S [P(y, x, 0)\{T(\partial_y, n)u(y)\} - u(y)\{T(\partial_y, n)P(y, x, 0)\}] ds_y = \\ &= \int_0^\infty \left\{ \int_S [\Omega(y, x, \sigma)\{T(\partial_y, n)U(y)\} - \right. \\ &\quad \left. - \{T(\partial_y, n)\Omega(y, x, \sigma)\}U(y)] ds_y \right\} d\sigma + \\ &+ \int_S [P(y, x, 0)\{T(\partial_y, n)u(y)\} - u(y)\{T(\partial_y, n)P(y, x, 0)\}] ds_y = \end{aligned}$$

$$= \int_S [\Pi(y, x)\{T(\partial_y, n)U(y)\} - \{T(\partial_y, n)\Pi(y, x)\}U(y)] ds_y + \int_0^\infty \mathcal{R}(\sigma, x) d\sigma.$$

So the result proved.

Theorem $S \in C^2, f \in C^1(S), g \in C(S)$ I. (1) in area D of the system

$$U(y) = f(y), \quad T(\partial_y, n(y))U(y) = g(y), \quad y \in S_0,$$

satisfying the conditions $U(x)$ to have a regular solution

$$\left| \int_0^\infty \partial_x^p \mathcal{R}(\sigma, x) d\sigma \right| < \infty, \quad |p| \leq 2, \quad (4)$$

where p – multiindex, $S_0 = S \setminus \{a, b\}$, is necessary and sufficient for the condition D to be flat in an arbitrary compact. If these conditions are met, the solution is determined using equivalent formulas.

Proof. Necessity . in the field of the system D

$$U(y) = f(y), \quad T(\partial_y, n(y))U(y) = g(y), \quad y \in S_0,$$

satisfying the conditions $U(x)$ let there be a regular solution in which $f \in C^1(S), g \in C(S)$ $\varepsilon > 0$. we count $S_\varepsilon = S \setminus \{y \in R^3: y_3 < \varepsilon\}$,

$D_\varepsilon = D \setminus \{y \in R^3: y_3 \leq \varepsilon\}$ we will criticize the designations. D_ε the boundary of the field is S_ε a smooth line and ox lies on the axis l_ε consists of cross section. D_ε function in the field

$$\begin{aligned} \frac{\partial}{\partial \sigma} F_\sigma(y, x, k) &= \frac{1}{-2\pi} \frac{\partial}{\partial \sigma} \int_0^\infty \operatorname{Im} \frac{\exp(\sigma(w - x_2)) u J_0(ku) du}{w - x_2 \sqrt{u^2 + \alpha^2}} = \\ &= \frac{1}{-2\pi} \int_0^\infty \operatorname{Im} \frac{\exp(\sigma(w - x_2))}{\sqrt{u^2 + \alpha^2}} u J_0(ku) du = \\ &= \frac{1}{-2\pi} \int_0^\infty \operatorname{Im} \frac{\exp(\sigma(w - x_2))}{\sqrt{u^2 + \alpha^2}} u J_0(ku) du = \\ &= \frac{\exp(-\sigma x_2)}{2\pi} \int_0^\infty \frac{u}{\sqrt{u^2 + \alpha^2}} \sin(\sigma \sqrt{u^2 + \alpha^2}) J_0(ku) du . \end{aligned}$$

in this $w = i\sqrt{u^2 + \alpha^2} + y_2, \alpha = |y_1 - x_1|, \alpha > 0, y$ is regular in the entire plane, which means that $\frac{\partial}{\partial \sigma} \Pi(y, x, \sigma)$ all elements of the matrix are regular. If we evaluate the expressions formed by differentiation according to the definition of the Karleman matrix, we get the following

$$\begin{aligned} |\partial_x^p \mathcal{R}_\varepsilon(\sigma, x)| &\leq \int_{S_\varepsilon} \left[|\Omega(y, x, \sigma)| + \left| \{T(\partial_y, n)\Omega(y, x, \sigma)\} \right| \right] \cdot \\ &\quad \cdot [|f(y)| + |g(y)|] ds_y \leq \end{aligned}$$

$$\leq C(x)\sigma \exp(-\sigma x_2), \quad |p| \leq 2, \quad x_2 > 0,$$

In this

$$C(x) = C(\lambda, \mu) \int_0^\infty \frac{\sin \sqrt{u^2 + \alpha^2}}{\sqrt{u^2 + \alpha^2}} du .$$

Thus, $\varepsilon \rightarrow 0$ we pass from the last inequality to the limit

$$|\partial_x^p \mathcal{R}(\sigma, x)| \leq C(x)\sigma \exp(-\sigma x_2), \quad |p| \leq 2, \quad x_2 > 0,$$

we will have . From this we get (3.4). The necessity has been proven.

Sufficiency . $S \in C^2$, $f \in C^1(S)$, $g \in C(S)$ let the inequality be appropriate. We show that the system $U(x)$ has a regular solution such that

$$U(y) = f(y), T(\partial_y, n(y))U(y) = g(y), y \in S_0 .$$

$$U(x) = \lim_{\sigma \rightarrow \infty} \int_S [\Pi(x, y, \sigma)\{T(\partial_y, n)U(y)\} - \{T(\partial_y, n)\Pi(x, y, \sigma)\}^*U(y)] ds_y \quad (5)$$

$$U(x) = \int_S [\Pi(y, x)\{T(\partial_y, n)U(y)\} - \{T(\partial_y, n)\Pi(y, x)\}U(y)] ds_y + \int_0^\infty \mathcal{R}(\sigma, x) d\sigma \quad (3.2)$$

$$\mathcal{R}(\sigma, x) = \int_S [\Omega(y, x, \sigma)\{T(\partial_y, n)U(y)\} - \{T(\partial_y, n)\Omega(y, x, \sigma)\}U(y)] ds_y \quad (3.3)$$

$$\left| \int_0^\infty \partial_x^p \mathcal{R}(\sigma, x) d\sigma \right| < \infty, \quad |p| \leq 2, \quad (3.4)$$

Satisfies the condition. We consider the function defined by equivalent formulas (5) and (3.2) $U(x)$. ($R_+^3 \setminus \bar{D}$ 3.2) D represents the two regular solutions of the system (1) on the right-hand side of the equation and $y \in S_0$ the two symmetric points on the y normal to the point $(x^{(1)}, x^{(2)})$ both internally and

also by externally symmetric points $y \in S_0$ and the difference of their voltages $g(y)$ is equal $f(y)$ to . Moreover, if one of these functions S_0 is continuous in its domain, then the other one will have the same property. According to (3.4), the second addendum of equality (3.2) R_+^2 is a regular solution of system (1). Thus, the right-hand side of the equation (3.2) $U_1(x)$ consists of two regular solutions in the fields and , respectively, for which $y \in S_0$ the $U_2(x)$ following $R_+^3 \setminus \bar{D}$ relation D holds at the point

$$\begin{cases} U_1^+(y) - U_2^-(y) = f(y) \\ T(\partial_y, n)U_1^+(y) - T(\partial_y, n)U_2^-(y) = g(y), \end{cases} \quad (3.5)$$

moreover, if one of these functions S_0 is continuous in its domain, then the other will have the same property. It can also be seen from formula (3.1). $U_2(x) = 0$, $x \in \{x \in R^2: x_2 > \sup\{y_2: y \in \bar{D}\}\}$.In this case, according to the uniqueness theorem (because the regular solutions

of elliptic systems are analytic) $U_2(x) \equiv 0, x \in R_+^3 \setminus \bar{D}$. Now it is seen from (3.5) that the proof of the theorem is fulfilled. The theorem was proved.

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**DEVELOPMENT OF PROMISING SOLUTIONS FOR SERVICE PROCESSES
OF PUBLIC TRANSPORT INFRASTRUCTURE.
(IN THE CASE OF THE CITY OF URGANCH).**

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Abstract: The decisive factor in the development of modern cities is the development of their road transport infrastructure. The UN predicts that by 2050, the population of the earth will be 9.1 billion. 70% of them live in cities, as predicted. This article talks about the development of promising solutions for public transport infrastructure service processes on the example of the city of Urganch.

Key words: Urban infrastructure, driverless transport, transport, industry, living environment, sensor systems,

In view of rapid population growth and ever-increasing fleet growth rates, scientists, engineers, technologists and manufacturers around the world are looking for effective innovative ways to eliminate traffic error and end congestion in major cities. are looking for new ways to form transport infrastructure. Among the numerous conceptual proposals of scientists and engineers, I began to forecast several important directions of future transport development, which, in my opinion, are capable of overloading the entire modern transport infrastructure:

1. Changes in the city and types of public transport- Engineering systems, engines, constructions, materials, types of automobile fuel are revolutionizing. There will be cars that move not only on the road, but also on water (river taxis) and in the air. The period of transition from internal combustion engines to ecological types of electromotive and hydrogen engines that do not emit harmful emissions has begun. In addition to the public transport that runs across the planet, there will also be surface string transport, high-speed tape recorders and hypersonic vacuum transport.

2. The method of owning a motor vehicle and the principles of its use will change. The number of private cars begins to decrease, urban dwellers begin to switch to rental transport and on-demand transport, their number continues to grow at a high rate over time. A serious modernization of public transport is expected. This type of transport is given priority and comfort for moving on city roads.

3. Transition to intelligent control systems and automation of cars. Experts say that by 2040, 75% of cars will move without a driver. Self-driving cars interact with each other, avoiding collisions and optimizing routes. The use of vehicle automation technologies can increase the efficiency of transportation. According to estimates, 120,000 cars can pass on one lane at 120 km/h in one hour when using autopilots, and 2-3 thousand cars when driven by people. According to scientists, the number of driverless cars will increase compared to regular cars, and traffic lights and road signs created for people will begin to disappear. Because robotic sensors do not need them.

4. Emergence of new types of roads.

We are on the verge of the evolution of not only cars, but also roads. Today, technological developments have appeared to transition from traditional asphalt pavement to new types of pavements and new engineering-constructive road solutions.

For example, in the Dutch city of Rotterdam, the construction of roads assembled from factory-made polyethylene tiles has begun. This project has its own advantages: it is more convenient to lay engineering communications together with slabs, the construction process is several times faster, the load on the load-bearing structures of roads and overpasses is reduced, the road surface is +40 to +80 °C it withstands the effects of temperatures, the durability and environmental friendliness of roads increases. In connection with the transition to renewable energy sources, interesting projects of roads and parking lots have appeared, which use solar cells in their coating. The road itself generates energy with the help of photovoltaic elements, the pavement is undulating and has anti-slip priority, and it can easily lift a 12-ton truck.

5. Car and road symbiosis.

The idea of using the technological possibilities of the car and the road together is also very interesting. For example, a vehicle receives the energy it needs to run from the road, where the road receives energy from renewable energy sources such as the sea, wind, and sun.

Russian scientists are working on the development of a new generation of intelligent road marking and the practical application of the glow-in-the-dark system. In this case, the road is used as a highway sign. This sign helps the driver to quickly aim and direct his car more accurately. However, in my opinion, it would be much more effective to create a "smart road network" equipped with sensors and radars. With the help of such sensors and radars, the road itself automatically controls the traffic - overtaking, stopping and redirecting, while transmitting information to driverless cars, optimizing their traffic flow along the traffic lanes. It will be possible. If there is an accident on the road, road works are carried out, if the weather conditions or visibility deteriorates, then the automatic systems of the road can transmit information and instructions to the on-board system of autopilots in advance.

6. New architectural - urban planning solutions.

Due to the technological changes taking place, architectural and urban planning solutions are also developing. Multi-level roads are promising roads that have different speed regimes and different types of vehicles. A single twelve-lane identical type, divided into six lanes by an oncoming traffic barrier, with chaotic traffic, constant and endless reconstruction and accidents due to traffic jams instead of wide highways, I proposed a compact (compact), four-lane, three-story road with two lanes in opposite directions. This allows to reduce the urban space occupied by traditional roads up to three times and to ensure safe traffic: if the first floor of the road is intended for public transport and special service vehicles moving at a speed of up to 60 km/h, its on the second floor, cargo transport moves at a speed of 60-100 km/h, and on the third floor, private light vehicles travel at a speed of 80-150 km/h. Greening, beautification of the empty city area and creation of lanes for individual transport - bicycles.

The quality management system in the field of transport imposes requirements on suppliers of parts, components and materials not only for manufacturers of automotive equipment, but also for companies providing transport services. These requirements are determined by ISO 16949 and ISO/TS 16949 standards compiled by "International Organization of Automobile Industry", "Association of Vehicle Manufacturers" and "International Organization for Standardization".

Based on ISO 16949, the requirements of the ISO 9001 standard include all additional requirements. They allow to ensure the high quality of details needed for the production of automobile transport, aggregates and components. Organizations that provide services for transport

manufacturers in thermal processing, welding, painting and other operations and are an integral part of the automobile industry can also undergo certification of compliance with the requirements of this standard. Currently, the number of enterprises working in the field of transport services and having a certified quality management system is increasing. The quality management system is developed and implemented in order to ensure stable high indicators of the organization's activity and as a management tool. With the help of the management tool, it is possible to formulate important issues and tasks in the sphere of quality for the company and achieve them with minimal material and manpower resources.

In conclusion, it should be noted that there are many problems facing the industry to improve the quality indicators of urban transport infrastructure. Coming to an optimal solution in this regard will serve the development of our country's economy in the future, and the improvement of our people's well-being. After all, it is no coincidence that the reforms of our country in this field are also aimed at developing the industry based on the requirements of the times.

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THE INTERPRETATION AND COMPOSITION OF THE IMAGES IN NORMUROD
NORQOBILOV'S THE STORY "THE DOG OF THE JUNGLE"

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Abstract. This article discusses the characters in the short story "The Dog of the jungle" by the writer Normurod Norqabilov, their ideological and artistic characteristics, and to what extent they serve to reveal the writer's artistic goal. Characteristic features of the character of Karavoy in the story "The Dog of the jungle" are highlighted. The image of the dog was analyzed side by side with the image of Tolmas.

Keywords: *Normurod Norqabilov, story, image, composition, character, "The Dog of the jungle", dog, Karavoy, Olapar, Tolmas.*

Introduction.

It is known that any artist expresses his artistic and creative concept with the help of an artistic image. Through the image, the process of understanding the writer's existence emerges the emotional-philosophical, artistic-aesthetic attitude of the creator to the created artistic existence. "The artistic image is one of the main categories of aesthetics and literary studies. It is a special field of human activity, the artistic creative process and its product, and it is distinguished by its not related to the existence of the art and its specific attitude to the art²⁵. Thus, the artistic image, that is being created, is both the content of the event that is understood and the individual fabric that is being created as a means of deep penetration into the artist's personality, and expresses the common law of life in the event.

Discussion and results.

It is known that the artistic truth that the author wants to tell lies in the image of organized adventures in some works, which events that attract the reader, and the image of the characters. In this sense, it can be seen that there is an individual aspect of each creature behind the antics of Karavoy in the story "The Dog of the jungle" and the cat in the story as well. But one truth based on the intrigues related to Karavoy is that living creatures, especially dogs belonging to the wolf family by their genesis, have pride and a kind of freedom. In relation to them, the age-old wisdom of not deviating from the order of harmony of nature and man is emphasized. The author tried to bring the image to the level of character in the work. First of all, during the artistic perception of the character of Karavoy and the cat, it reflects the spirit and nature of the images. Secondly, at the heart of these images there is also a reference to social problems, human and human relations, which can be said to be expressed ironically.

While narrating the adventures of the character in the story, the writer tries to ensure the attractiveness of the plot. This can be observed in the way the dog is placed in various situations and relationships. In particular, the mouse, which was taken from the kitten and as a result of the mother cat's beating, felt a "strange shiver" in its blood: "From that day on, he began to look

²⁵ Коллектив. Образ художественный. Поэтика: слов, актуал. терминов и нятий / [гл. науч. ред. Н.Д. Тмарченко]. – М.: Издательство Кулагиной; Intrada, 2008. – С.149-151 (358 с)

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at all the animals around him as food. Even the wild cats that occupied the meadow were no exception. But let there be a way for him to catch them. That day he was thrown into a fistfight. When the woodpecker hit the nest, he put his mouth on the unsuspecting turtle. The embers, capable of crushing bones, were powerless in front of his metal-like cup. While he was surprised that the turtle was not as gentle as a mouse, his eyes suddenly fell on a hedgehog that was scurrying. He jumped up and hit him in the mouth, his beak was injured and he screamed. When he came back, he became irresistible to this animal. In this place, the process of Karavoy's understanding of the world, not for the sake of interest as before, but with the desire to eat, and his attempts in this direction are presented. His instincts and experiences gathered after his relationship with animals such as a squirrel, a hedgehog, and a turtle added interest to the story. It seems that there has been a change in the perception of Karavoy as a character. Now food is the priority for him. This is a terrible rule of nature, but it is the only way to survive. This is first seen in Karavoy's life when Olapar brought a bone and bit him when it was thrown to him, or later took possession of the bone without giving it to his mother. But later, after tasting blood, this aspect of Karavoy will become stronger. In fact, the fact that Karavoy buried the bones brought by his mother and did not bring his mother closer to him, and her mother did not look at him, caused further distance between the two, and later alienation. Olapar dies from the bullet of the farm guard. The writer mentions this as a message that Karavoy will start living independently. There are two reasons for this. First of all, Olapar Karavoy realized that he was ready to find food independently. Secondly, the sooner it is proven that Karavoy is ready for life, the more attractive it will be in the development of the plot. Therefore, there was no place for Olapar in the composition of the plot. This is called the logical solution of image dynamics.

Now in the composition of the plot, Karavoy begins to act in a different way: "The days when Karavoy was waiting for his mother in vain, he learned the hadith of hunting in addition to bone grinding. A family of yumronkozis lived in an area with sparse bushes about a hundred steps away from the clearing. He had a big guard under his eyes. But it wasn't easy to catch him... Although he couldn't deploy the Yumronkozig, he learned that no living soul in this world is easy prey." [2, 242 p] This conclusion was another philosophy of Qaravoy as a result of life experiences. It can be said that he came to a human conclusion on the basis of correct conditioning. But if we take into account that the greatest experience is the ability to draw the right conclusions from every event, event or process, Karavoy was on the right path as a character.

It is said that when summer comes and Karavoy becomes stronger, even though his arrived spacewas in the jungle, it's becauseof this is his homeland, it is descrobed that he wandered in the upper riverbed of Toshlisoi and bathed in the water. Another interesting incident happened here: "I saw all the fish in the water, but I couldn't catch any of them and eat them. But it is true that he tried several times. However, the fish is not as fishy as he thought, so he left it in vain" [2, 246 p] The important aspect here is Karavoy's self-awareness (he is not as fishy as he thought), and the second is the author's position and the events of the character. differences also appeared in the place of development. True, the writer is telling the story using

the character of the narrator. But while he speaks impartially in most places, here he has a higher, human position compared to the dog.

The short story also belongs to the epic type, and the breadth of epic thoughts in it, the presence of dramatic tension in some images, served for the development and improvement of the plot and image. All these are highly evidenced in the narrative. The speech of the narrator, who describes the general essence of the story, and the speech of people in some places serve to reveal the artistic and aesthetic essence of the image of Karavoy. The intensity of the experiences at the core of the events, and the fact that the events sometimes take on a volatile, sometimes dramatic tone, also show the spirit of the time in some villages. Images reflecting the inner world of Karavoy's image give the image a realistic tone. This logically justifies Karavoy's actions related to concrete struggle and foraging.

As a result of treating all living creatures as food, living in a wild manner, in Karavoy, it brought out fearlessness and violence. But after moving away from his home, traveling, and the forest, he developed a feeling of being afraid of the unknown and being careful about what he does not know. While sitting in the upper valley of Karavoy Toshlioi, the smell of chickens comes to his nose from the village, and even when he is going to the village of Yakkatut, he goes out into the wilderness for a while behind unfamiliar hills. Because not knowing the space in front of him well, he has not yet managed to understand it according to his own concept, makes Karavoy a little confused. But despite this, Karavoy is driven forward by an inner desire. It was a desire for wildness, a desire to taste blood and raw meat.

In fact, desire is a natural wish that exists in both humans and animals. Man realized that animals such as tigers, lions, leopards, wolves, horses, and dogs lived together, and some of their characteristics were absent in humans. Because the tenacity of the tiger, the courage of the wolf, the justice of the lion, the friendship of the horse, and the loyalty of the dog have always helped people to develop, gain wealth, and achieve a certain position in the society. As a result, these animals began to gain special importance to people. In the process of living together with this animal, man strived to communicate with them. "Really, since the most primitive times, mankind has been living happily with nature and animals. He expresses his impressions from them in artistic words or expressions. Reflecting nature and human problems in this way often serves to educate and perfect people's worldview, morals²⁶. There is soul in this idea, but some animals also improve in the process of communication with people and nature. For example, Karavoy as a character feels sadness and cries deeply. We thought that Tolmas understood this when he cried. But after the dog's whining, howling from its heart to the sky in a mournful voice, the dog also expresses its pain, and with the help of some kind of inner awareness, it is given to understand other mungs and gatherings. The dog feels connected to nature and loves it with affection. Therefore, he can distinguish between dogs and people. Khanaki does not like dogs, he is disgusted by their lack of courage and subordination. They fight against them. For example, "Dogs are very smart in emergency situations. The animals, who understood what Karavoy was talking about, halted their steps and stopped far away. Now the battle will be endless. The salt of the dog that first attacked Karavoy dries up. This condition was felt in his whole body. As a result, the dogs didn't have the courage to attack, and they went mad." [2, 252-253 p] In this passage, Karavoy fought alone with

²⁶ Файзуллаев Х. "Бўталок" ҳикоясида инсон ва табиат фалсафаси // Sharq Yulduzi. 2021, № 1. – Б. 154 (153-157)

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village dogs nicknamed Ola it, Four-eyed, and Kashka. It shows Karavoy's courage, his ability to defend his rights and honor. In the course of this passage, the opinion about Kashka is given: "His understanding of the house was limited to the lick, if he didn't touch the lick, he had no business with the rest. "He was a powerful guard in the yard, but he was far from sharp feelings." [2, 253 p]

This is where the difference between a domestic dog and a dog that grew up in the wild and free like Karavoy is revealed. In a metaphorical sense, the issue of patriotism was revealed in this episode. My stomach is full, my ears are calm, I have a picture of patriots who live in their clans, who know what else to do, who rob the country, people's property, or sell their homeland in exchange for a comfortable life. So, Karavoy is depicted as a true hero as the owner of a free, free life.

True, the story describes Karavoy's acquaintance with Tolmas, his gradual approach to him and his fall into chains, as well as his life in captivity. In it, it is said that Tolmas saw Karavoy's real bravery, qualities unseen in other dogs, and wanted to adopt him as his own dog. But when he takes him home, his uncle wants to sell Karavoy to people who are looking for purebred dogs, and wants to limit his freedom. Life in captivity uses all methods and means aimed at breaking Karavoy's spirit. In captivity, Karavoy does not look at anything that is given to him, but once he catches and eats a chicken that comes within reach of the chain. Uncle beats him to death. In the end, the uncle, who could not overcome the stubborn spirit of the dog, scolds his nephew Tolmas about his orphanhood and calls him a dog. The boy, who was shocked by this, cried in front of Karavoy. Here, Karavoy realizes that there is something in his heart in her moaning, just like in his hunting. He licks the child's hand and comforts him. Here he realizes that the boy's intention is to protect the dog.

From the beginning of the story, the content of the pictures, where every movement of the dog is covered in detail, the inner dynamic experience is given to the reader when they are reading the work, is the idea that freedom, personal freedom is the essence of the story. People's writer O'tkir Hoshimov said the following about the inner content of the artistic word and the use of the word in the work in an interview with Professor U. Normatov: "Each truly artistic work has its own inner music. This melody begins even before the writer sits down at the writing table... so, without this melody, the work will be devoid of true artistry." No matter what Karavoy does, this inner life force turns into music, it becomes clear that he is familiar with the world, even these images are for the way of life given to him by nature²⁷. Karavoy seems like a symbol of freedom for a person with an awake soul, a deeply emotional heart and a healthy mind.

"The essence, the basis of a work of art, which is a true example of art, is the field of thought of a literary critic-critic²⁸." Based on this principle, at the beginning of the season we emphasized the wildness of Karavoy. Here we emphasize that it has become a symbol of freedom. In fact, under the concept of wildness, naturalness, how the Creator created, what skills he gave, living and making a living on this basis was the true will of the dog. In the story, the writer paid great attention to this aspect of Karavoy.

Tolmas has a special role in revealing the essence of Karavoy's character. The boy saw the dog for the first time while he was jogging, coming from the village and chasing Karavoy, and

²⁷ Норматов Умарали. Бадий сўз кудрати (Ёзувчи Ўткир Ҳошимов билан суҳбат) // Норматов У. Қодирий мўъжизаси: Тадқиқот. Қайд, суҳбат ва мулоҳазалар. – Тошкент: O'zbekiston, 2010. – Б. 240 (272 б.)

²⁸ Баҳодир Карим. Абдулла Қодирий: танқид, таҳлил ва талқин. – Тошкент: Фан, 2006. – Б.82 (232)

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when the dogs were hiding on the hill. Then Karavoy, who was bravely fighting against three dogs, noticed something that is not found in other dogs in nature. Tolmas does not let domestic dogs feel that he is watching them. Because if they found out that there was a person, they could be thrown into Karavoy. Here, too, the timidity of domestic dogs is revealed, when there is a person behind them, they fight with encouragement, and they do not fight towards a specific goal. Karavoy had no choice in this matter. Behind him was his place of residence, his homeland, so he was ready for an open battle. This situation fully reveals the essence of the image.

After some time, Karavoy sees Tolmas, who has been hungry for four days and has been shot by a smith. At first he wants to throw himself at the boy. But madori is not enough. "He groaned blindly in helplessness as he stopped to squirm. His eyes were burning like embers even though he was squirming.

Tolmas immediately recognized that he had encountered a wild dog. Noticing that the dog was in pain from his barking, he slowly crawled through the branches of the bush and went out for a walk only after making sure that the dog was not going to bite. Naturally, he loved animals. ... he especially loved dogs. Of course, Karavoy didn't know this, he was staring at the boy in front of him with sad eyes and was constantly crying" [2, 263 p]

In this passage, Karavoy met Tolmas for the first time, when they met, they met him on a trip, in a nest that he considered his homeland and did not allow strangers to come near. Moreover, Karavoy was in a helpless situation, and Tolmas knew no fear. However, the dog still did not understand the love in Tolmas's character, the love for dogs. That's why he looks at him with hostility. But the boy brings him bread and the soul of the dying dog is restored. Thus began Karavoy's dependence on bread and people. The desire to survive and a piece of hard bread, which was still unfamiliar to him, made him look at the boy with interest. But he still had an enmity towards the boy, the same fear he had before. But until the dog gets better, he finally allows the boy, who has been missing him and feeding him with bread, to touch his never-ending wound. Then he brings him bones. He covers it with a plastic cover so that it does not stay in the rain. In this way, the dog will not growl at him. After these statements, the writer reveals the evolution of the character of Karavoy, as the wildness of the dog's character melts and slowly gets used to the person. Karavoy notices the smell of bread, bones, and even smoke from a child, among other things. Here, the writer mentions that some differences between the signs of cultural life and the wild life of Karavoy can be felt even through smell. This has a different effect on a dog used to wildness. But hunger and the child's love for the dog prevail. On the one hand, this means the idea that wildness can be overcome through love, and on the other hand, it means that a wild dog, which has accepted the elements of social life when it is helpless, will return to its wild life after recovery. Because when he wrote about Karavoy, one of the descriptions given to him was as follows: "As if a weak-natured soul has always been disgusted by the weak, Karavoy was disgusted by the creature who took the world on his head with a "dod" before he had lost his teeth... The food before what made Karavoy so angry rather, it was a betrayal of the age-old custom that exists among wild creatures. He not only sprinkled dirt on the corpse, but also stamped his mark according to the custom. But the foolish domestic dogs did not understand this sign" [2, 267 p].

While the writer explains the difference between domestic and wild dogs, he emphasizes that dogs that are used to humans are mute and lose their basic characteristics. This ensures that aspects of Karavoy's character will emerge more clearly. But Karavoy was captured by Tolmas a day after this incident. After eating the chicken bones brought by the boy, he closed his eyes and

rested his head on the boy's feet. And the boy starts stroking it with his hand. This kindness of the boy reminded Karavoy of his mother's licking. It seems as if a peaceful shiver entered his body. But Tolmas' other hand had already been put the muzzle on his snout. It was here that Tolmas, despite being young, had faced many difficulties in life, was mature, cunning, and hard at work.

Karavoy lives in captivity for some time. But it includes freedom, freedom, and the fruits of the wild nature that it wants. Pait finds him and runs away, and later it is briefly reported that the man walks proudly on the hill, that he is the leader of a pack of wolves. This proves once again that in the general plan, the image of Karavoy is free and thirsty for freedom.

At the end of the analysis of the image in the story, this work is similar to the character of the dog named Beck, the main character in the story "The Call of the Wild" by the American writer Jack London²⁹. In particular, in both works, there is a similarity in the images that the main characters are dogs, the intelligence of Karavoy and Bek, and the fact that both of them join the pack of wolves at the end of the work. But in other respects, it is considered a work of closeness. Since the work of the American writer is not included in our research, we haven't mentioned here in detail.

Conclusions.

So, through the short story "The Dog of the jungle", the author artistically expresses the image of a dog that lived according to the laws of nature, still thirsts for freedom and freedom, and lives according to the laws of nature. Such a dog is actually the dream of many people, but it is noted that captivity, living in privation and dependence on people are alien to Karavoy. In a metaphorical sense, Karavoy also means that what is will of the person.

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LINGUOCULTURAL ASPECTS RELATED TO FAMILY ROLES AND
RESPONSIBILITIES

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Abstract: This article gives a clear concept of familial dynamics in folklore, aiding readers in developing a deeper comprehension of the cultural identities and shared values of societies spanning various time periods and geographical regions.

Аннотация: В этой статье дается четкое представление о семейной динамике в фольклоре, помогая читателям глубже понять культурную идентичность и общие ценности обществ, охватывающих различные периоды времени и географические регионы.

Key words: honorifics, selflessness, sacrifice, cultural expectation, impulsive, timeless reservoir, ethnic groups, cultural values

INTRODUCTION

Folklore serves as a timeless reservoir of cultural wisdom, presenting a diverse range of fictional tales that explore cultural traditions and moral values. Throughout history, folklore has been instrumental in shaping societies by passing down cultural norms and values from one generation to the next, providing a glimpse into the beliefs and customs of various ethnic groups. Linguistic and cultural elements related to family roles and responsibilities are integral to both English and Uzbek fairy tales. The language used to address family members reflects cultural values of respect and duty, highlighting the importance of family harmony.

Considering linguocultural aspects related to family roles and responsibilities in both English and Uzbek cumulative motives in fairy tales involves understanding how language and culture intersect to shape familial honorifics dynamics and values. In Uzbek culture, linguistic markers of respect, such as and polite forms of address, are commonly used when speaking to elders or addressing family members. In Uzbek culture, filial piety and respect for elderly are highly emphasized, leading children to obediently follow their parents' advice and demonstrate affection towards siblings. Example: In an Uzbek fairy tale, children may address their parents and grandparents using respectful terms like "ota" (father), "ona" (mother), 'volidam' or "ota-onam" (parents). In the Uzbek fairy tale "Zumrad and Qimmat," Zumrad's treatment of her father reflects cultural values related to filial piety, respect for elders, and the importance of family bonds. Here's how Zumrad's treatment of her father is portrayed in the story:

Respect and Obedience: Zumrad demonstrates respect and obedience towards her father throughout the tale. Despite facing challenges and hardships, she listens to her father's advice and follows his instructions, reflecting the cultural expectation of honoring parental authority.

Caring and Supportive: Zumrad shows care and support for her father, especially when he falls ill or encounters difficulties. She takes on responsibilities to help him, such as undertaking the journey to find Qimmat, the magical bird whose song can heal her father. This demonstrates Zumrad's devotion to her father's well-being.

Selflessness: Zumrad's actions are characterized by selflessness and sacrifice. She embarks on a perilous quest to find Qimmat, risking her own safety to save her father. This

willingness to sacrifice for her father's sake highlights the depth of Zumrad's love and commitment to her family.

Emotional Connection: Zumrad's relationship with her father is marked by emotional closeness and connection. She expresses concern for his health and happiness, showing empathy and understanding towards his struggles. This emotional bond strengthens their relationship and underscores the importance of family ties in Uzbek culture.

Overall, Zumrad's treatment of her father in the fairy tale exemplifies traditional values of respect, care, and selflessness within the context of familial relationships in Uzbek culture. Through her actions, Zumrad embodies the ideal of a devoted and dutiful daughter, illustrating the enduring significance of family bonds in Uzbek society. While in English fairy tales, the portrayal of parent-child relationships can vary widely depending on the specific story and its themes. Here are some common ways parents are treated by their children in English fairy tales, along with examples of such tales:

Rebellion and Independence: Some fairy tales feature protagonists who rebel against parental authority or seek independence. For instance, in "Jack and the Beanstalk," Jack defies his mother's orders not to sell their cow for magic beans, ultimately leading to both peril and triumph.

Parental Abandonment: In certain tales, children are left orphaned or abandoned by their parents, setting them on a journey of self-discovery and growth. "Snow White" is abandoned by her stepmother, the Evil Queen, and must navigate the dangers of the enchanted forest until she finds safety with the dwarfs.

Expressions of Affection and Endearment:

Expressions of affection and endearment play a significant role in both English and Uzbek fairy tales, adding depth to familial relationships and character interactions. Here are some examples from each:

English Fairy Tales: "My dear child": Parents or elder family members may address their children with expressions like "my dear child," conveying warmth and affection. For example, in "Cinderella," Cinderella's fairy godmother might use this term when helping her.

"Sweetheart" or "Darling": Characters in English fairy tales often use terms like "sweetheart" or "darling" to express fondness and love for one another. These endearments can be used between parents and children or between romantic partners.

Uzbek Fairy Tales: "Jonim" (My dear): In Uzbek fairy tales, parents and elders often use the term "jonim" to express affection towards their children or younger family members. This term conveys deep love and endearment, highlighting the close bond between family members.

"Sarguzashtim" (My treasure): Elders may refer to their children or grandchildren as "sarguzashtim," meaning "my treasure" or "my precious one." This expression reflects the cherished status of the child within the family and underscores their importance.

These examples illustrate how expressions of affection and endearment are portrayed in both English and Uzbek fairy tales, enriching the narrative with sentiments of love, care, and familial bonds.

Cultural Proverbs and Sayings: Proverbs and sayings are often woven into the fabric of fairy tales, offering wisdom, moral lessons, and cultural insights. Here are some examples from both English and Uzbek fairy tales:

English Fairy Tales: "All's well that ends well": This proverb implies that as long as a situation concludes positively, the preceding difficulties or challenges are deemed insignificant. It

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often appears at the resolution of English fairy tales to emphasize the happy ending despite previous hardships.

"Actions speak louder than words": This saying suggests that people's actions reveal their true intentions and character more clearly than their words. It can be used to underscore the importance of deeds and behavior in English fairy tales, highlighting moral lessons about honesty and integrity. "A bird in the hand is worth two in the bush": This proverb advises against risking what one already has in pursuit of something potentially greater. It can be found in English fairy tales cautioning characters against greed or impulsive decision-making.

Uzbek Fairy Tales: "Yaxshi yigit yolg'iz, yaxshi it yolg'iz": This Uzbek proverb translates to "A good son is alone, a good dog is alone," implying that quality is more important than quantity. It emphasizes the value of true companionship and loyalty over superficial relationships. "Odamlar osmon balandligida yashaydi, otam o'ylaydi": This saying means "People live in the vastness of the sky, but my father thinks," highlighting the importance of parental wisdom and guidance. It reflects the reverence for elders and their role as sources of knowledge and advice in Uzbek culture.

"Yaxshi gap boshlanishi yaxshi tugaydi": This proverb translates to "A good word starts well and ends well," emphasizing the significance of communication and diplomacy. It is often used in Uzbek fairy tales to underscore the power of kind words and thoughtful speech in resolving conflicts and building relationships. These examples demonstrate how proverbs and sayings are integrated into both English and Uzbek fairy tales, enriching the narratives with cultural wisdom and moral teachings.

English Fairy Tales:

Trials and Tests: English fairy tales often feature protagonists who must undergo trials or tests to achieve their goals. These trials reflect values such as perseverance, courage, and resourcefulness. For example, in "Jack and the Beanstalk," Jack faces challenges as he climbs the beanstalk and confronts the giant, showcasing the importance of bravery and cleverness in overcoming obstacles.

Reward for Virtue: Many English fairy tales follow a narrative structure where virtuous characters are ultimately rewarded, while those who are deceitful or greedy face consequences. This reflects the cultural value of honesty, integrity, and fairness. For instance, in "Cinderella," Cinderella's kindness and perseverance are rewarded when she is granted a happily-ever-after ending.

Uzbek Fairy Tales:

Trials of Fate: Uzbek fairy tales often incorporate elements of fate and destiny, where characters must navigate challenges predetermined by fate. This narrative structure reflects the cultural belief in predestination and the importance of accepting one's fate with patience and resilience. In tales like "Alpamysh," the protagonist faces trials and tribulations determined by destiny, highlighting the Uzbek value of submitting to the will of fate.

Importance of Hospitality: Uzbek fairy tales frequently emphasize the value of hospitality and generosity towards guests. Stories often feature protagonists who offer hospitality to strangers and are rewarded for their kindness. This narrative structure reflects the cultural norm of hospitality as a sacred duty. For example, in the tale "Bolalar qalasi" (The Castle of Children), the main characters demonstrate hospitality towards a disguised prince, leading to a positive outcome.

Hierarchy of Respect: Uzbek fairy tales often depict a hierarchical structure of respect, where elders, parents, and authority figures are revered and obeyed. This narrative structure

reflects the cultural value of filial piety and respect for authority. In tales like "Qani kushlar" (Blood Birds), characters demonstrate deference to their parents and elders, reinforcing the importance of familial relationships and traditional values. These examples illustrate how narrative structures in both English and Uzbek fairy tales reflect cultural values, providing insights into the beliefs, norms, and traditions of each culture.

Cultural Significance of Family Rituals and Traditions:

Family rituals and traditions play a significant role in both English and Uzbek fairy tales, reflecting cultural values and societal norms. Here are examples of how family rituals and traditions are depicted in fairy tales from both cultures:

English Fairy Tales

Holiday Celebrations: English fairy tales often feature scenes where families gather to celebrate holidays such as Christmas, Easter, or Harvest Festival. These celebrations emphasize the importance of family unity, togetherness, and tradition. For example, in "A Christmas Carol" by Charles Dickens, the Cratchit family gathers for a festive Christmas dinner, highlighting the joy and warmth of family traditions during the holiday season.

Inheritance and Succession: In English fairy tales, family rituals related to inheritance and succession are common themes. These rituals often involve the passing down of ancestral estates, titles, or magical artifacts from one generation to the next. The resolution of conflicts surrounding inheritance reflects societal values related to justice, fairness, and family legacy. For instance, in the legend of "King Arthur," the sword Excalibur symbolizes the rightful heir to the throne, highlighting the importance of lineage and destiny in determining leadership.

Uzbek Fairy Tales

Wedding Customs: Uzbek fairy tales frequently depict elaborate wedding customs and traditions, reflecting the cultural significance of marriage and family bonds. These rituals often involve matchmaking, engagement ceremonies, and lavish wedding celebrations that bring families together. For example, in the tale "Oydin va Norsunda" (Oydin and Norsunda), the wedding of the protagonist Oydin is a central event, showcasing traditional Uzbek wedding customs and festivities.

Festive Celebrations: Uzbek fairy tales feature various festive celebrations and rituals that mark important milestones in family life, such as births, birthdays, and religious holidays like Navruz (New Year). These celebrations are characterized by feasting, music, dance, and communal gatherings, strengthening family ties and cultural identity. In stories like "Qoshiqlar" (Singers), festive celebrations serve as occasions for storytelling, music, and dance, fostering a sense of community and belonging among family members.

Ancestral Traditions: Uzbek fairy tales often highlight the importance of ancestral traditions and customs passed down through generations. These traditions include rituals honoring ancestors, observing religious festivals, and preserving cultural heritage. Characters in these tales often seek guidance from ancestral spirits or adhere to ancient customs to overcome challenges or seek blessings. For instance, in the story "Tilak," the protagonist seeks the help of ancestral spirits to protect his family and village from harm, underscoring the enduring legacy of ancestral traditions in Uzbek culture.

By considering these linguocultural aspects, storytellers can create fairy tales that authentically reflect the complexities of family roles and responsibilities in both English and Uzbek cultures, enriching the narrative experience for readers while honoring cultural heritage.

Conclusion

Folklore stands as a timeless repository of humanity's cultural heritage, offering a vast array of fictional narratives that delve into the essence of culture, traditions, and moral principles. From ancient times, folklore has played a pivotal role in shaping societies, transmitting cultural and traditional values from one generation to the next, and providing insight into the ethos of different ethnic groups and communities.

Linguistic and cultural aspects related to family roles and responsibilities play a crucial role in both English and Uzbek fairy tales. The language used to address family members reflected deep-seated cultural values of respect, obedience, and familial duty. Through linguistic nuances and customary terms of address, fairy tales convey the intricacies of familial relationships and underscore the importance of maintaining harmony within the family units.

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ХОРАЗМ ВОҲАСИ МЕЪМОРИЙ ОБИДАЛАР ҚУРИЛИШИДА
ЗИЛЗИЛАБАРДОШЛИК МАСАЛАЛАРИ

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Мақолада Хива “Ичон-қалъа” заповедниги тизимидаги меъморий обидалар мисолида воҳа меъморий обидалари қурилишида қўлланилган антисейсмик тадбирлар ҳақида маълумот келтирилган ва муҳандисона таҳлил этилган. Бино ва иншоотлар ҳажмий-режавий ечимлари қурилиш материаллари ҳамда конструктив тизимларига сейсмик мустаҳкамлик нуқтаи назаридан баҳо берилган.

Калит сўзлар: меъморий обида, сейсмик таъсир, zilzila, устиворлик, коришма, пойдевор, тебранма ҳаракат.

В статье на примере архитектурных памятников, расположенных в заповеднике “Ичан-кальа” г.Хивы, приведены антисейсмические мероприятия, примененные при строительстве архитектурных памятников региона. Объемно-планировочные решения, строительные материалы, а также конструктивные системы зданий и сооружений оценены с точки зрения сейсмостойкости.

Ключевые слова: архитектурный памятник, сейсмическое воздействие, землетрясение, устойчивость, раствор, фундамент, колебательное движение.

Using the example of architectural monuments located in the Ichan-Kala Nature Reserve in Khiva, the article presents anti-seismic measures used during the construction of architectural monuments in the region. Space-planning solutions, building materials, as well as structural systems of buildings and structures are assessed from the point of view of seismic resistance.

Key words: architectural monument, seismic impact, earthquake, stability, mortar, foundation, oscillatory movement.

Маълумки, диёримиз ўзининг юкори даражада ривожланган цивилизацияси билан инсоният тарихида беқиёс ўрин тутган.

Бугунгача олимларимиз томонидан ўтмишдаги ота-боболаримизнинг илмий меросини ҳар томонлама ўрганишлари, ўтмишдаги меъмор ва усталар амалда фойдаланган усулларни, манбаларни ўрганиш архитектура - тектоник тизимларини таҳлил қилиш диёримизда ўрта асрларда архитектуравий лойиҳалаш фанининг тўлиқ шаклланганлигини кўрсатади.

Тарихдан маълумки, ўлкамизда ота-боболаримизнинг математик фикрлаши ўта даражада юкори бўлган. Математика фанининг кўп қонуниятлари шу ерда яратилган ёки ривожлантирилган. Аста-секин математик фикрлашдан архитектура, қурилиш маданияти, амалий санъатга ўтиш жараёни кузатила бориб, билимларнинг математикалашуви жараёнида математика қонун-қоидаларидан бадий ижодга ва ундан кейинроқ қурилиш санъатига кўчириш жараёни кузатилган. Ўша даврда математика фанининг ўта

ривожланганлик даражаси меъморлар ғояларини қурилишга татбиқ қилишда катта имкониятлар очиб берган[1,2].

Меъморлар қўлида сирти парабалоид айланасидан иборат мураккаб фазовий тизимлар, эллипсоид ва геодезик гумбазлар каби шакллар пайдо бўлдики, бу албатта математика фани ютуқларининг қурилиш амалиётига татбиғи эди.

Қурилиш жараёнига фазовий юпқа деворли гумбаз, кубба, қобиқлар, тўрсимон конструкцияларнинг кириб келиши нафақат илмий-техник ривожланиш маҳсули, балки давр эстетик дидидан ҳам далолат бўлди.

Бино ва иншоотларга бўладиган сейсмик таъсир қатор хусусиятлар билан характерланади, булар биринчидан грунт тебраниш хусусиятлари, иккинчидан бино ёки иншоот ўзининг тебраниш хусусиятлари ва албатта, уларнинг ўзаро биргаликда ҳаракатларидир. Агарда бино ёки иншоот режада иккала ўқ бўйлаб носимметрик жойлашса, сейсмик таъсир пайтида буровчи момент ҳосил бўлади ва бино (ёки иншоот) сейсмик зўриққан ҳолати янада мураккаблашади, натижада иморатларда бузилиш ёки кулаш содир бўлиши мумкин.

Хива меъморий обидалари - бинолар лойиҳаларини таҳлил қилсак маълум бўладики, ўтмишда меъморлар энг аввало иморатларни режада квадрат шаклида ёки унга яқин қилиб олганлар(2,а,б,в-расмлар).

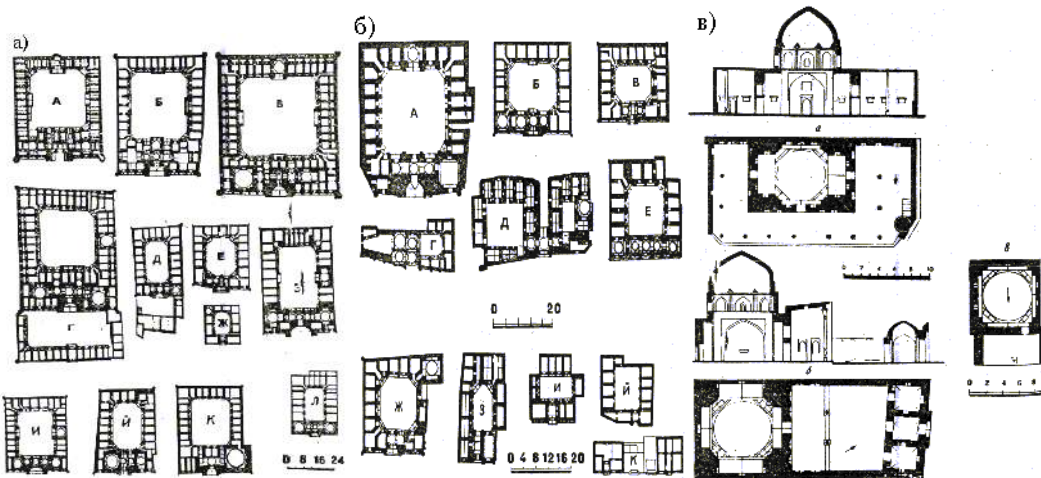
Лойиҳалашда қирқимни тасвирлашда меъморлар биноларни баландликларини бир хил белгилаганлар, яъни баландликлари кескин фарқ қилишига йўл қўймаганлар. Агарда буюртмачи талабига кўра, баландликда кескин фарқ бўлиши зарур бўлиб қолса, у ҳолда баландликлар фарқ қилган жойлари қўшимча мустаҳкамланган (ёки ўша жойларда мустаҳкамлиги юқори бўлган қурилиш материалларидан фойдаланилган).

Ўтмишда ота-боболаримизнинг мустаҳкамликни ҳисоблаш усуллари ва уларнинг назарий билим чўққилари бизга аниқ эмас. Лекин уларнинг ўта даражада оқилона қурилиш маданияти уларнинг юқори назарий билим даражасининг белгисидир. Ўтмишда қурилиш жараёнида асос ва пойдеворнинг ўзаро таъсир жараёнига алоҳида эътибор билан қаралган (зилзила содир бўлганда бинога сейсмик таъсир айнан шу ҳолат билан белгиланади). Пойдеворни қуришдан олдин, қурувчилар асос грунтини мустаҳкамлаш мақсадида котлованни кўп марталаб намлаганлар, бу билан асос грунтининг максимал чўкишига ва зичлашишга эришганлар. Шундай усулда бино ва иншоот асосларидаги нотекис чўкишнинг олдини олишга ҳамда зилзила пайтида пойдевор узунлиги бўйлаб сейсмик кучларнинг текис тақсимланишга эришишга ҳаракат қилганлар.

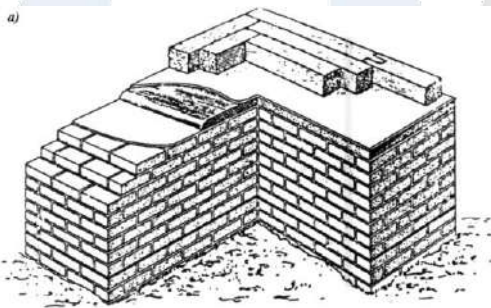
Маълумки, иморат (иншоот)ларда энг муҳим конструктив элементлардан бири пойдевор ҳисобланади. Шунинг учун, ўтмишда меъмор ва қурувчилар иморат (иншоот) пойдевори қурилишига алоҳида эътибор билан қараганлар. Хива иморатларида пойдеворлар деярли девор қалинлигидан ўзгармаган қалинликда, уларнинг жойлашиш чуқурликлари геологик ва гидрогеологик шароитларга боғлиқ ҳолда 0,5 метрдан 2,0 метргача қабул қилинган. Биноларнинг ерости қисмларида ғишт теримлари фақат горизонтал қатор кўринишда қилинмасдан, "арча" кўринишида бир-бири билан учрашувчи қаторлар шаклида ҳам қилинган.

Иморат ер устки қисмида тахминан 0,5м баландликда деворга сейсмик изоляция мақсадида ёғочдан қатлам, махсус раствор (лой)да терилган тош блоклар, кўпчилик ҳолларда қамиш ёки еқандан* тайёрланган қатлам тўшалган. Бу тўшамалар илмий нуқтаи

назардан ниҳоятда оқилона тадбир бўлиб, асрлар давомида табиат синовларидан муваффақият билан ўтган. Антисейсмик тадбир сифатида ишлатиладиган ушбу махсус қатламлар zilzila пайтида девор бўйлаб вертикал тарқалувчи тўлқинларни сўндириш ҳамда деворга пойдевор орқали таъсир қилувчи горизонтал сейсмик кучларни кескин камайтириш хусусиятига эга. (3 а, б-расмлар)



2 а, б, в-расм. Хива баъзи меъморий обидаларининг режадаги ва қирқимдаги кўринишлари: а-расмда: А-Шерозихон; Б-Қутлуғ Мурод Иноқ; В-Муҳаммад Аминхон; Г-Муҳаммад Раҳимхон; Д-Юсуф Ясаулбоши; Е-Абдуллахон; Ж-Ёққубой Хўжа; З-Амир Тўра; И-Матниёз Девонбеги; Ў-Мусо Тўра; К-Ислоҳ Хўжа; Л-Қози Калон номли мадраса
б-расмда: А-Араб Муҳаммадхон; Б-Муҳаммад Амин Иноқ; В-Дўст Аълам; Г-Абдуракулбой; Д-Хўжамбердибий (Хуржум); Е-Матпанабой; Ж-Хўжам Муҳаррам; З-Мозори Шариф; И-Отажонбой; Ў-Толиб Мақсум; К-Қорихона мадарасалари.
в-расмда: Юқорида Оқ масжид, пастда Богбонли масжиди, ўнгда Саид ота (Ёр Муҳаммад Девон) масжиди.



3-расм. Бино, доколь (пойпеш) қисмига жойлаштириладиган камиш қатлам схемаси(а), девор остига брус қатлами қўйиш намунасининг асл ҳолида кўриниши.

Ўтмишда ота-боболаримиз сейсмик нуқтаи назардан энг мустаҳкам конструкция каркас(синч) иморатлар эканини яхши билганлар. Шунинг учун ҳам ҳудудимизда ёғоч камёб қурилиш материали бўлишига қарамасдан у қурилиш материали сифатида кенг тарқалган. Чунки улар солиштирма мустаҳкамлиги юқори бўлишидан, хусусий оғирлигининг кичкиналиги бошқа қатор афзалликлари ёғоч материалининг сейсмик

мустаҳкам иморат қуришда энг қулай қурилиш материали эканини яхши билишган. Тарихда содир бўлган зилзилалар оқибатларини ўрганиш натижалари иморатлардан сейсмик мустаҳкамлиги энг юқорилари каркас (синч) уйлар эканини кўрсатди.

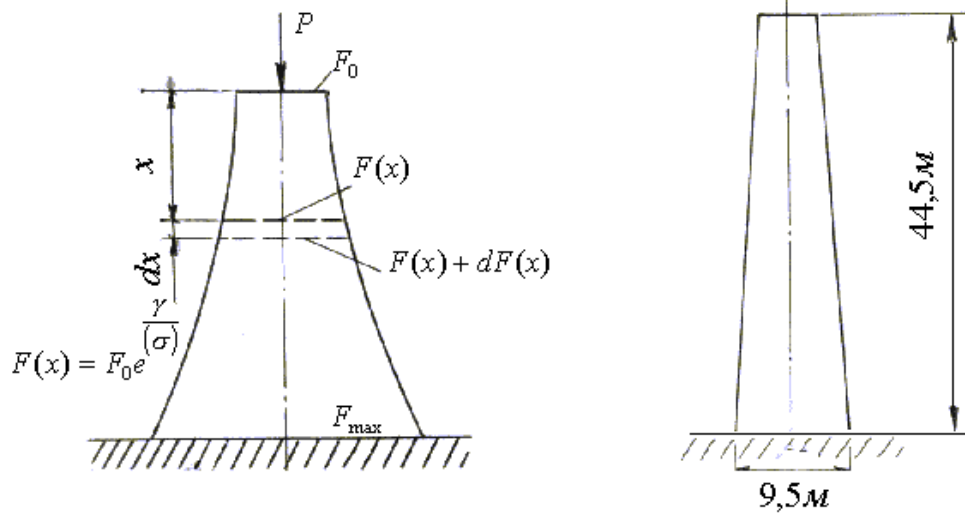
Хоразм меъморчилигида миноралар алоҳида ўрин тутди. Ўрта Осиё шаҳарсозлигида аниқ меъморчилик тизимини яратишда миноралар лойиҳалаш ва қуришга алоҳида эътибор билан қаралган.

Минораларни лойиҳалаш ва қуриш, айниқса у сейсмик актив ва ноқулай геологик ҳамда гидрогеологик шароитда жойлашадиган бўлса, меъмор ва қурувчилардан ҳисоблаш математикаси, геометрия, меъморчилик пропорция муносабалик ва ғоялари гармонияси борасида ўта юқори даражадаги билим савиясини талаб қилган. Минора баландлигининг ортиши ўз навбатида унинг вазни, ҳам ортишига, табиийки зилзила пайтидаги сейсмик кучларнинг ортишига олиб келади.

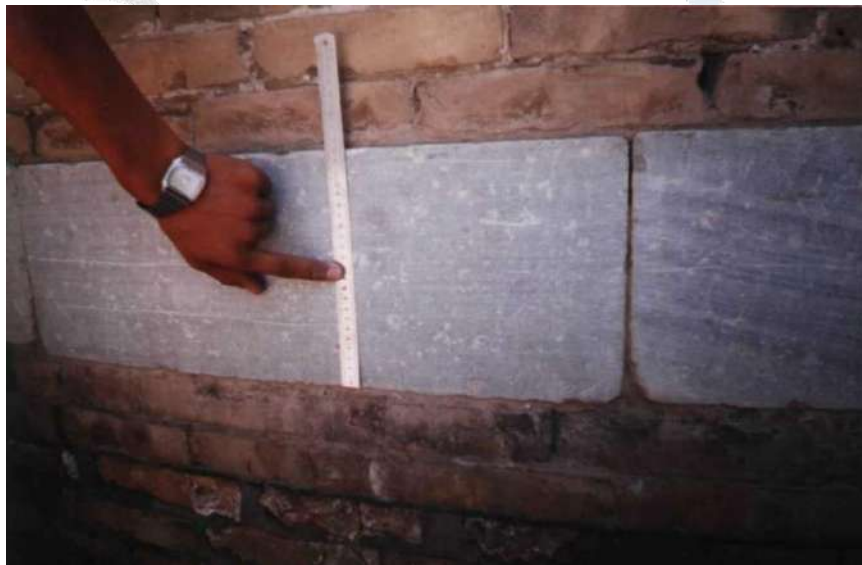
Миноралар баландлиги ортиши билан кўндаланг кесим юзаси камайиб боради. Бу билан меъмор ва қурувчилар авваламбор статик юкланиши ҳолатида устиворликка эришганлар. Бундан ташқари минораларда ташқи ва ички кучлар таъсиридан вужудга келадиган нормал кучланиш кескин ортмайди, яъни минора кучларга худди тенг қаршилиқ кўрсатувчи бруслардек қаршилиқ кўрсатади. Материаллар қаршилиги курсидан маълумки, минорасимон иншоотларни ўзгарувчи юзали қилиб қуриш, яъни унинг кучларга қаршилиқ кўрсатиш шароитини тенг қаршилиқ кўрсатувчи брус шароитига яқинлаштириш жисм (минора) танасидаги нормал кучланишнинг кескин ортиб кетишидан сақлайдиган энг оқилона усулдир. Ўйлаймизки, ўтмишда меъмор ва қурувчилар назарий билимлар асосида ушбу усулни танлаганлар. Минораларни ерга маҳкамланган (консоль) стержень деб қараш мумкин. Зилзила пайтида бундай иншоотларда унинг баландлигига боғлиқ ҳолда горизонтал сейсмик кучлардан эгилиши ёки силжиш деформациялари вужудга келиши мумкин. Миноранинг баландлигига қараб кўндаланг кесимининг ўлчамларини камайтириб бориш ушбу деформациялар қийматининг кескин ортиб кетмаслигини, ҳамда ушбу иншоотларни етарли даражада устиворлик билан таъминлайди. Меъмор ва қурувчиларнинг худди шундай оқилона ечимини Ислом хўжа минораси қурилишида ҳам кўриш мумкин. (4,а расм)

Ушбу минорада ер сатҳидан тахминан 1, 2 м баландликда қалинлиги 18-19 см бўлган мрамор блоклардан гидроизоляция қатлам қўйилиб, қатлам тагида толь тўшалган. Мрамортоль қатлами пастдан намликни тепа деворга ўтказмаслик учун хизмат қилишдан ташқари, зилзила пайтида сейсмик изоляция сирпанувчи қатлам ролини ўтайди(4б, расм)[3,4].

а)



б)



4--расм. Исломхўжа минорасининг схематик кўриниши.

Ота-боболаримиз қурилиш материалларининг эластиклик хусусиятларини бино ва иншоотлар сейсмик мустаҳкамлигини оширишнинг гарови деб билганлар. Бунинг натижаси ўлароқ бинокорликда қурилиш қоришмаси сифатида ганч ва лойдан фойдаланиш кенг тус олди ҳамда лой "ёстик"қа жойлаштирилган пойдеворлар, бино цокол қисмида екан¹ ва қамишдан тайёрланган антисейсмик тадбирлар, алоҳида хусусиятли конструкциялар вужудга келди (буларга батафсил тўхталиб ўтамиз).

Ҳозирги алебастрлар пайдо бўлмасдан анча илгари Ўрта Осиёда ғиштларни (пишик ғиштларни) теришда боғловчи материал-ганчдан фойдаланиш ўлка қурилишида алоҳида даврни очиб берди. Бино ва иншоотларнинг масъуллиги юқори бўлган қисмларида (гумбаз ва шу кабилар) ганч, қолган қисмларида ғишт теришда махсус ишлов берилган лой қоришмалар ишлатилган.

¹ кўлларда ўсадиган намликни ўтказмайдиган, намликдан чиримайдиган ўсимлик.

Бундай оқилона ечимлар яна бир бор ўтмишдаги қурувчилар ақл идрокидан далолатдир. Айниқса, юқори намликда ишлатиладиган иншоотларда барпо этилган сув иншоотлари конструкцияларида сувга ва муҳитнинг бошқа агрессив таъсирларига турғун бўлган қирлар (ўрта махсус қоришма)дан фойдаланилган.

Қир қоришмаси ғишт теришда камроқ ишлатилган. Улар турли агрессив таъсирларга турғунлиги туфайли кўпроқ ўта ноқулай шароитларда сувоқ ишларида ишлатилган.

Табиийки, ганчнинг қурилиш хусусиятлари унга қўйилган барча талаблар айниқса, антисеймик талабларни тўлиқ бажармай қолган. Баъзида уларнинг яъни қоришмаларнинг эластик ёки бошқа хоссаларини оширганлар.

Масалан, миноралар қурилишида ишлатиладиган қоришмаларга сут, баъзи ҳолларда туя қаймоғи "сузма" аралаштириб қоришма мустаҳкамлигини оширганлар.

Бундан ташқари ганч қоришмасига сирач қўшиш орқали, унинг мустаҳкамлиги ва эластиклик хоссаларини пасайтирмаган ҳолда унинг сув ва муҳитнинг бошқа агрессив таъсирига турғунлигини оширишга ҳамда қоришма қотиш муддатининг узайишига эришганлар. (Сирач сарғимтир рангли кукун бўлиб, тоғ ва адирларда ўсадиган шу номли, пиёзгуллилар гуруҳига кирувчи ўсимлик илдизидан тайёрланади).

Ўтмишда бинокорлар қурилиш қоришмалари эластик ва қайишқоқлик хоссаларининг ғишт терими конструкцияси сеймик мустаҳкамлигини таъминлашдаги ўрнини тўғри баҳолай билганлар. Ғишт деворнинг тепасидан пастга қараб хусусий оғирликлардан вужудга келадиган вертикал кучнинг ортиб боришини ҳамда зилзила пайтида сеймик куч конструкция вазнига пропорционаллигини ҳисобга олиб, горизонтал чокларда қоришма қалинлиги ҳам девор баландлиги бўйлаб бирдай белгиланмаган. Одатда бино деворининг пастки қисмида қоришма қалинлиги каттароқ (тахминан 5 см қалинликда) белгиланиб, девор баландлиги ортган сайин, қоришма қалинлигини камайтириб борганлар. Бу билан ғишт-қоришма системасининг эластик хусусиятини оширишга эришганлар. Шунинг учун ҳам кўпгина ҳолларда ганч қоришмасининг бутун ғишт девор хажмига нисбатан улуши 30% ни ташкил қилган.

Ўтмишда меъмор ва қурувчилар бино ва иншоотлар пойдевори лойиҳаси ва қурилишига алоҳида эътибор билан қараганлар. Сеймик актив ҳудудларда бино ёки иншоот пойдевори асосининг мустаҳкамлигини таъминлаш қурилажак бино ёки иншоот сеймик мустаҳкамлигини белгиловчи омиллардан бири деб ҳисобланган. Қурувчилар кўпинча лойнинг ўта пластик хусусиятларидан фойдаланишга ҳаракат қилганлар. Бунинг учун бино ёки иншоот пойдевори остига маълум қалинликда олдиндан яхшилаб ишлов берилиб пишитилиб етилган соф лой қатлами тўшалган.

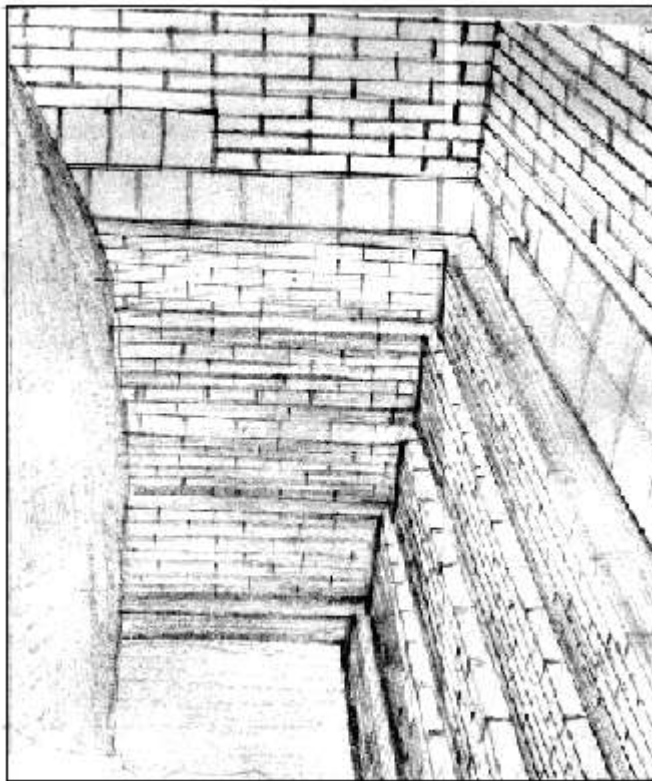
Бино ёки иншоот пойдевори учун қазилган қатлован ёки зовур (траншея)ларга 60-80 сантиметр қалинликда қуюқ ҳолатдаги лой ётқизилган. Ушбу қатлам - ёстикнинг эни пойдевор энига кўра кенгрок ўлчамда тайёрланган ва унинг устига ғишт (баъзи ҳолларда тош) терилган. Пойдевор ғишт теришда бир хилда қоришма ишлатилмаган. Пойдеворнинг пастки қаторлари қоришма сифатида соф лой ишлатилган бўлса, унинг юқориги қаторларида ганч қоришмаси ишлатилган, яъни пастки қаторида соф лой ундан баландроқ қаторлардаги қоришмаларга ганч аралаштириб борилган ва юқори қаторларда фақат ганч қоришмаси ишлатилган. Пойдевор ғишт (тош) териш пастки қаторларидан юқориги қаторларига кўтарилган сайин қоришма мустаҳкамлигининг ортиб бориши замонавий бинолар зилзилабардошлик фани қоидалари бўйича нихоятда оқилона тадбир бўлган.

Маълумки, zilzila пайтида грунт тебранма ҳаракат интенсивлиги грунт чуқурлиги ортан сайин камая боради ва аксинча. Шунинг учун бино пойдеворининг пастки нукталарига таъсир қилувчи сейсмик куч қиймати ҳам нисбатан кичик бўлиб, юқори қатламга кутарила борган сайин унинг интенсивлиги орта боради. Шу нуктаи назардан пойдеворнинг турли қатламларида мустаҳкамлиги турлича бўлган қоришмаларнинг ишлатилиши оқилона иш бўлган.

Ўтмишда қурилиб бугунгача етиб келган биноларнинг конструктив ечимларини муҳандислик қоидалари бўйича таҳлил қилинганида, бинолардаги пойдеворлар икки хил усулда қурилгани маълум бўлган: - энининг ўлчамлари бино цоколи ўлчамларига тенг бўлиб, бутун баландлик бўйича ушбу ўлчамлар ўзгармас ҳолда қурилган пойдеворлар; - энининг ўлчами пастга томон кенгайиб борувчи пойдеворлар(5-расм).

Пойдеворлар баландлиги ер сиртига етганда, пойдевор ва бино цоколи орасига унча қалин бўлмаган лой қоришмасида ёки тоза тупроқнинг ўзидан бинонинг бутун периметри бўйлаб, бир қатор ғишт терилган. Бу ҳам қадимий меъмор ва қурувчиларнинг антисейсмик тадбирлардан бири бўлган.

Маълумки, zilzila содир бўлганда вужудга келадиган сейсмик кучларининг горизонтал ташкил этувчилари пойдеворни бино тагидан суриб чиқаришга интилади. Бинонинг остки қисми (пойдевор) ва устки қисми цокол девори билан маҳкам боғланмаган ғишт қатлами



6-расм. Бинолар пойдеворининг кўриниши

пойдевор ва цоколнинг zilzila пайтида бир-бирига нисбатан силжиш имконини беради. Натихада пойдеворда вужудга келган сейсмик зўриқишлар бинонинг юқори қисмларига узатилмайди. Бу эса, ўз навбатида, бино юқори қисмлари сейсмик зўриққан ҳолатининг ортиб кетмаслигига сабаб бўлади.

Ўтмишда ота-боболаримизнинг бино ва иншоотлардаги қўллаган антисейсмик тадбирлари мажмуининг мантиқан энг ривожланган усул- бино ва иншоотлар сейсмик мустаҳкамлигини оширишда қамиш ва екан қатламларидан фойдаланишдир.

Қамиш ва екан қатлами биноларнинг цоколь қисмига етказилган. Цоколнинг ер сиртидаги қисмида ердан маълум бир баландликда текис қилиб қоришма ёйилгандан кейин, унинг устига тахминан 5-10см қалинликда, девор текислигига перпендикуляр йўналашда қамиш (ва екан) бостирилган. Қамиш ва екан узунлиги девор энига нисбатан тахминан 2-5 см узунроқ қилиб, тайёрланган. Қамиш қатлами устидан қоришма тўшалиб, унинг устидан гишт терилган (7-расм).



7-расм. Бинонинг цокол қисмида қамиш қатлампидан сейсмик ва гидро ҳимоя қаталми сифатида фойдаланиш.

Баъзи адабиётларда бундай қамиш қатламлари вақт ўтиши билан эзилиб қолиши ва улар самара бермаслиги хақида ёзилган.

Маълумки, zilzila чоғида гипоцентрдан ҳамма томонга сейсмик тўлқинлар тарқалади. Бино ва иншоотлар сейсмик тўлқинлари таъсиридан фазовий тебранма ҳаракат, яъни у вертикал текисликда вертикал ўқ бўйлаб, горизонтал текисликда иккита ўқ бўйлаб тебранма ҳаракат қилади.

Сейсмик кучдан вертикал ташкил этувчиси таъсирида ёки иншоот барча конструкциялари пастдан юқорига қараб йўналган ўқ бўйлаб тебранма ҳаракат қилади. Бундан вертикал сейсмик таъсирдан сейсмик тўлқин грунтдан дастлаб пластик лой қатламига урилади. Пластик лой сейсмик тўлқинларининг анча қисмини ютуш хусусиятига эга бўлганлиги туфайли у сейсмик тўлқинлар интенсивлигини сусайтиради. Бу ҳол иккинчидан пойдевор сейсмик таъсирдан тош асосларида кузатиладиган кучланиш конструкция тўпланишидан асрайди. Учинчидан грунт тебранишининг юқори частотали қисмини сўндиради. Маълумки, юқори частотали тебранишлар қаттиқ бино ва иншоотлар

учун хавфлидир. Пойдевордаги пастки қоришмалар ҳам худди шундай хусусиятга эга бўлганлиги туфайли, улардан ўтишда вертикал сейсмик тўлқин интенсивлиги янада пасаяди. Бинонинг цокол қисмида жойлаштирилган қамиш қатлами амортизатор вазифасини бажаради. Маълумки, амортизатор тўлқин таъсирини юқорига тўлалигича ўтказмайди. Эластиклиги ғиштдан юқори бўлгани туфайли тўлқин қамишдан ўтганда унинг таъсири анча қирқилади. Сейсмик тўлқин бутун девор бўйлаб эластик ганч қоришмасидан ўтгани сайин анча сўнади. Кўриниб турибдики, ушбу қурилиш материалларининг барча сейсмик таъсири вертикал ташкил этувчисининг кескин пасайишига олиб келар экан.

Биламизки, бино ва иншоотлар учун зилзила пайтида сейсмик таъсирнинг горизонтал ташкил этувчиси анча хавфли ҳисобланади. Сейсмик кучнинг бундай ташкил этувчиси бино ёки иншоот пойдеворига грунт орқали горизонтал йўналишда таъсир қилиб, пойдеворни бино остидан суриб чиқаришга интилади.

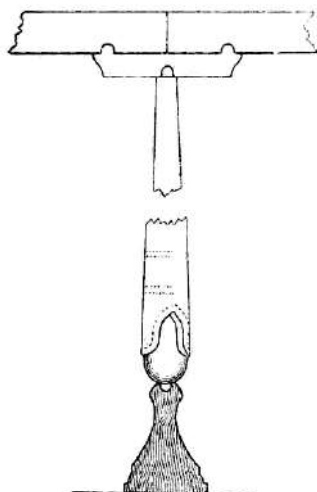
Бинонинг пойдевор ва цокол қисмлари туташув жойига қум билан тупроқдан териладиган қоришма қатлами тўшалган. Ундан тепада қамиш қатлами бор. Бу иккала қатлам туфайли грунт орқали пойдеворга таъсир қилувчи горизонтал кучга бино кам қаршилиқ кўрсатади. Қамиш қатлами эса бинонинг пастки ва юқори қисмларининг бири-бирига нисбатан силжиш имконини беради. Бу ҳол бинога таъсир қилувчи горизонтал сейсмик куч қийматини кескин камайтиради.

Бундан ташқари юқоридаги антисейсмик тадбирларнинг қўлланилиши бино ёки иншоотни горизонтал йўналишда резонансга олиб келувчи хавфли ҳолатдан қутқариб қолади. Қамиш қатламининг яна бир афзаллиги горизонтал йўналишдаги тебранма ҳаракат энергиясининг катта миқдорда тарқалишига олиб келишидир. Горизонтал сейсмик куч камайиши силжиш ва эгилиш кучланишлари қийматининг пасайишига олиб келади.

Маълумки, ўтмишда меъмор ва қурувчилар томёпма ва ораёпма конструкциялари сифатида юпқа деворли архитектуравий шакллардан самарали фойдаланганлар. Бу билан улар конструкциялар хусусий оғирликлари ва албатта, зилзила пайтидаги сейсмик (инерцион) кучларни камайтиришга эришганлар.

Ўтмишда меъмор ва қурувчилар зилзила пайтида сейсмик кучларни камайтириш мақсадида, бино ва иншоотлар қурилишида хусусий вазни енгил материаллардан фойдаланишга ҳаракат қилганлар. Шунинг учун ҳам танқислигига қарамасдан кўп қурилиш афзалликларига эга бўлган ёғоч бино ва иншоотлар қурилишида улар кенг қўламда ишлатилган. Айниқса устун ва шу каби алоҳида турувчи конструкцияларда тош материалининг қўлланмаганлигини алоҳида қайд қилиш лозим.

Тош ва ғишт устунларининг сейсмик устиворлиги етарли эмаслиги сабабли, бу ўринда фақат ёғоч устунлар ишлатилган. Чунки ёғоч материалининг хусусий оғирлиги камлиги ва бошқа қатор афзалликлари туфайли ораёпма ва томёпма конструкцияларида устун ва каркас тизимига содда шарнирли боғланиш имконияти мавжуд. Устунларнинг остки (пастки) қисми эса энсизроқ қилиб тош ёки ёғоч асосга ўрнатилган (8-расм).



8-расм. Ёғоч устунларнинг балка остки элементиға махкамланиши схемаси.

Шундай қилиб, ўтмишдаги меъмор ва қурувчиларнинг асосий мақсади, бино ва иншоотларга етарли даражадаги мустаҳкамлик ва устуворлик таъминлашдан иборат бўлган. Улар яратган қурилиш усуллари аниқ фан ютуқларига асосланган бўлиб, даврининг эстетик талаблари даражасида амалиётда қўлланилган. Ҳар бир меъморнинг такрорланмас архитектуравий асари унинг ўзига хос хусниҳати (дастҳати), архитектуравий-бадий маданияти, эстетик дунёқараши ва чуқур билим даражасининг интиқосидир.

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ПРОЦЕСС ЭМПАТИИ В ЧЕЛОВЕКЕ И ЕГО СОЦИАЛЬНО-
ПСИХОЛОГИЧЕСКАЯ ПРИРОДА

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Аннотация: В статье представлен теоретический обзор о вопросе онтогенеза чувства эмпатии. Проанализированы факторы, влияющие на развитие способности человека к эмпатийности. Раскрыты особенности формирования эмпатии на разных возрастных этапах.

Ключевые слова: эмпатия, социализация, дошкольный возраст, младший школьный возраст, подростковый возраст, старший школьный возраст.

THE PROCESS OF EMPATHY IN A PERSON AND ITS SOCIO-PSYCHOLOGICAL
NATURE

Annotation. The article presents a theoretical review of the ontogenesis of empathy. The factors influencing the development of a person's ability to empathy are analyzed. The features of empathy formation at different age stages are revealed.

Keywords: empathy, socialization, preschool age, junior school age, adolescence, high school age.

Изложение основного материала статьи. **Эмпатия** — это осознанное понимание внутреннего мира и состояния другого человека, способность сочувствовать и сопереживать. Эмпатия принципиально отличается от симпатии/антипатии или жалости, поскольку в ее основе лежит попытка представить, в какой ситуации находится человек, понять его чувства без осуждения и критики, поспешных советов и действий. Быть эмпатичным актуально не только для людей помогающих профессий, медиков, сотрудников НКО или волонтеров. Сегодня это один из важных и богатых инструментов для улучшения и повышения эффективности коммуникации во всех сферах.

Все виды эмпатии присутствуют в каждом человеке, но один из них всегда развит сильнее других. М.А.Пономарева предлагает учитывать краткосрочную и долгосрочную эмпатию.

Кратковременная эмпатия рассчитана на ограниченный контакт с другими людьми в общении.

Долговременная эмпатия возникает в течение длительного периода времени и требует тесного взаимодействия с другим человеком.

Когнитивный компонент включает понимание эмоционального состояния другого человека, эмоциональный компонент проявляется как сопереживание или сочувствие, которое человек испытывает к другому человеку, волевой компонент выражается в активной помощи объекту эмпатии. Таким образом, полностью эмпатический процесс предполагает сочувствие и сотрудничество.

«Эмоциональный и когнитивный компоненты эмпатического понимания дополняют друг друга. Добавление одного к другому происходит тогда, когда информации об эмпатируемом объекте недостаточно, чтобы «войти» в скрытый мир другого человека.

В психологии выделяют три уровня эмпатии:

Помимо видов эмпатии, в психологии выделяют три уровня эмпатии:

- Высокий;
- Средний (нормальный);
- Низкий.

Высокий уровень эмпатии характеризуется выраженной эмпатией, при которой человек не может отделить свои проблемы и чувства от проблем родственников или друзей, а иногда и незнакомых людей. Основными характеристиками людей с высоким уровнем эмпатии являются сильная эмоциональная ранимость, чувствительность, чувство вины, стыд и нервозность.

Для большинства людей характерен средний уровень эмпатии. Они обычно держат свои эмоции под контролем и не склонны показывать их посторонним.

Низкий уровень эмпатии характерен для людей, которые не умеют сопереживать и принимать другие точки зрения и критику. Действия людей, основанные на их чувствах, считаются бессмысленными.

Автор клиент-ориентированной психотерапии К. Роджерс подчеркивает необходимые условия успешного психотерапевтического процесса: психотерапевт (психолог) совместим в отношениях с клиентом; психотерапевт испытывает безусловное положительное отношение к клиенту; Терапевт сопереживает клиенту. Чем четче будут эти условия, тем успешнее будет психотерапевтический процесс и тем выше будет уровень интеграции личности в этом процессе.

К. Роджерс определяет эмпатию как «способ бытия с другим человеком, способность войти во внутренний мир другого человека и находиться в нем». Обладать эмпатией, по мнению К. Роджерса, означает чувствовать боль или удовольствие другого как самого себя и относиться к причинам, их вызвавшим. Эмпатически приобретенные знания о субъективном мире пациента приводят к пониманию основы его поведения и процесса изменения личности.

Методика диагностики уровня эмпатических способностей В. В. Бойко

(Тест Бойко на эмпатию) предназначен для оценки способности сопереживать и понимать мысли и чувства других людей.

Сочувствие – от греч. *empathēia* – «сопереживание». Эмпатия предполагает осмысленное выражение внутреннего мира партнера по общению.

Эмпатия возникает быстрее и легче, когда поведение и эмоциональные реакции схожи. В качестве особых форм эмпатии выделяют: - эмпатия - собеседник переживает эмоции, испытываемые другим человеком, ставит себя на его место; — Эмпатия — это переживание, вызванное чувствами другого человека. Эмпатические способности человека возрастают с ростом жизненного опыта.

Существует три типа эмпатии:

эмоциональная эмпатия, основанная на механизмах имитации поведения другого человека;

когнитивная эмпатия, основанная на интеллектуальных процессах (сравнение, аналогия и т. д.);

На основании вышеизложенного можно сделать вывод, что предиктивная эмпатия – это способность человека предугадывать реакцию другого человека в определенных ситуациях.

Эмпатия – важный положительный компонент личности. Существуют разные формы и уровни эмпатии. Все виды эмпатии присутствуют в каждом человеке, но один из них всегда развит сильнее других. Соответственно, мы можем видеть превосходство эмпатии у людей. Даже продолжительность этой психологической особенности у каждого человека различна, и эти аспекты необходимо учитывать при развитии или формировании эмпатических свойств у человека.

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THE ROLE OF INFORMATION IN THE IMPLEMENTATION OF FOREIGN
ECONOMIC ACTIVITY

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Abstract: In the field of foreign economic activity, information plays a decisive role in the formation of strategies, decision-making processes and overall success. The effective implementation of foreign economic activity largely depends on the availability, accuracy and use of information of various sizes. In this article, we consider the main aspects in which information plays a decisive role in the development and development of foreign economic activity.

Annotation: In the field of foreign economic activity, information plays a decisive role in the formation of strategies, decision-making processes and overall success. The effective implementation of foreign economic activity largely depends on the availability, accuracy and use of information of various sizes. In this article, we consider the main aspects in which information plays a decisive role in the development and development of foreign economic activity.

Keywords: Regulatory environment, market trends, competitive landscape, risk assessment, diversification, insurance, hedging, debt management, commercial audit, political environment, economic indicators, social factors, structural assessment, free trade agreements, global sourcing, logistics and transport, technology integration.

1. Market research and analysis

When it comes to market research and analysis in the regulation of foreign economic activity, there are several key aspects to consider. Conducting thorough research is essential for businesses looking to enter international markets. Understanding the regulatory environment, market trends, consumer behavior, and competitive environment is essential to making informed decisions. Here are some important points to keep in mind:

Regulatory environment: Before entering a new market, businesses must understand the regulatory framework that governs foreign economic activity in that country. This includes trade policies, tariffs, import/export regulations, intellectual property laws and other legal requirements that may affect business operations.

Market trends and analysis: Analyzing market trends is essential to identify opportunities and potential challenges in foreign markets. Businesses must evaluate factors such as market size, growth potential, consumer preferences, and industry dynamics to determine whether it is appropriate to enter a particular market.

Consumer Behavior : Understanding consumer behavior is key to developing products or services that are relevant to your target audience. Market research helps businesses gain insight into consumer preferences, buying habits, cultural nuances, and other factors that influence purchasing decisions.

Competitive landscape: Conducting a competitive analysis is essential to identify key competitors, their strengths and weaknesses, market share, pricing strategies, and unique selling propositions. This information helps businesses differentiate themselves and develop effective marketing strategies.

Risk assessment: Market research also plays a crucial role in assessing the risks associated with foreign economic activity. Businesses must assess political stability, exchange rate fluctuations, economic conditions, and other external factors that may affect their operations in a new market.

By conducting comprehensive market research and analysis in foreign trade regulation, businesses can make informed decisions about international expansion while minimizing risks and maximizing opportunities.

2. Risk assessment and management information

In the context of foreign economic activity, risk assessment and management play a crucial role in ensuring the success and stability of international business operations. The implementation of foreign economic activities involves various risks that can affect the financial stability and operational efficiency of organizations engaged in global trade. Understanding these risks, assessing their potential impact and implementing effective risk management strategies are important to mitigate negative consequences and maximize opportunities in the international market.

Types of Risks in International Business International business operations are exposed to a wide range of risks, including economic, political, social and commercial risks. Economic risks arise from factors such as exchange rate fluctuations, economic instability and domestic debt management problems. Political risks arise from government instability, regulatory changes and geopolitical events that may affect business operations. Social risks include cultural differences, social unrest, and labor force issues that can affect international trade. Commercial risks include issues related to laws, languages, customs policies and the behavior of trading partners, which may affect business relationships.

Risk assessment factors

When assessing risks for foreign economic activity, several key factors should be taken into account:

Economic indicators: Analysis of indicators such as GDP growth rates, debt levels, unemployment rates and currency stability.

Political environment: assessing government stability, levels of corruption, regulatory frameworks, and policy changes.

Social factors: Understanding cultural norms, social unrest trends, workforce characteristics and demographic profiles.

Structural assessment: assessment of infrastructure quality, labor force availability, competitive landscape, export-import regulations.

Risk management strategies

Effective risk management strategies include identifying potential risks early in the process and taking steps to mitigate their impact. Some common risk management techniques include:

Diversification : spread investments across different markets to reduce exposure to certain risks.

Insurance: buying insurance policies to protect against financial losses due to unforeseen events.

Hedging: Use of financial instruments to cover exchange rate fluctuations.

Debt Management: control and manage debt levels to prevent inflation or currency destabilization.

Commercial inspection: A thorough assessment of the reputation and capabilities of trading partners.

State risk ratings

Country risk ratings provide valuable insights into the overall level of risk associated with doing business in a particular country. These ratings are often based on factors such as economic stability, political environment, social conditions and commercial risks prevalent in the country. Investors can use country risk ratings to make informed decisions about entering new markets or expanding existing operations.

3. Compliance and Regulatory Requirements

When engaging in foreign economic activity, compliance and regulatory compliance are essential to ensure business continuity and avoid legal issues. Compliance management plays an important role in managing the complex landscape of international trade laws and regulations. Understanding and complying with these requirements is critical for businesses looking to expand globally.

The main aspects of compliance in foreign economic activity:

Export regulations: Businesses that trade internationally must comply with export regulations set by both their home country and the country of destination. Export licenses may be required for certain products, and compliance with these regulations is necessary to avoid fines or restrictions on shipping.

Product standards: Different countries have specific product standards that must be met for goods imported or sold within their borders. Ensuring compliance with these standards is important to avoid delays or rejection of products at customs.

Prohibited countries: There are restrictions on trade with certain countries due to political reasons, sanctions or other factors. It is important for business entities to be aware of these prohibitions to avoid engaging in illegal trading activities.

Free Trade Agreements (FTA): FTAs offer benefits such as duty-free access to markets, but they also come with certain compliance requirements. Understanding and leveraging FTAs can help businesses reduce costs and expand market opportunities.

In-Country Compliance Management:

Local regulations: When operating in foreign countries, businesses must comply with local regulations that may differ from those in their home country. In-country compliance management involves understanding and following these regulations to ensure legal operations.

Global Professional Employer Organizations (PEOs): Partnering with PEOs helps businesses effectively manage international compliance. PEOs have expertise in global regulations and can help ensure compliance of employees and operations in different jurisdictions.

Reducing risks: Compliance management is also about mitigating the risks associated with non-compliance. By staying abreast of regulatory changes, implementing rigorous compliance programs, and working with experienced partners, businesses can reduce the likelihood of legal issues.

4. Supply chain management

In the context of foreign economic activity, supply chain management plays a crucial role in ensuring the seamless flow of goods and services across borders. In this context, effective supply chain management involves the coordination of various activities such as sourcing, production, transportation and distribution to meet the demands of international markets. Companies involved

in foreign economic activities must consider factors such as customs regulations, trade barriers, logistics infrastructure and cultural differences to optimize their supply chains for global operations.

Key aspects of supply chain management in foreign economic activity

Global source: Companies engaged in foreign economic activities often purchase raw materials or components from different countries to take advantage of cost advantages or to use specialized resources. Effectively managing these global sourcing relationships is critical to maintaining a competitive advantage.

Logistics and transport: International supply chains require robust logistics and transportation networks to ensure timely delivery of products to customers around the world. The efficiency of supply chain operations is affected by factors such as the type of transport, delivery time, customs clearance procedures and warehouse facilities.

Risk management: Engaging in foreign economic activities exposes companies to various risks such as currency fluctuations, political instability, natural disasters and regulatory changes. Effective risk management strategies are critical to mitigating these uncertainties and ensuring supply chain continuity.

Eligibility and Rules: Compliance with international trade regulations and compliance standards is critical for companies operating in foreign markets. Supply chain managers must be aware of import/export laws, tariffs, sanctions, and quality control requirements to avoid legal problems and disruptions.

Technology integration: The use of technological solutions such as supply chain management software, IoT devices, blockchain technology and data analytics can increase visibility, transparency and efficiency in the management of global supply chains. Integrating digital tools enables real-time monitoring and optimization of supply chain processes.

Cooperation with partners: Building strong relationships with suppliers, distributors, freight forwarders and other stakeholders is essential to successful foreign trade. Collaborative relationships foster trust, communication, and coordination among all parties involved in the supply chain network.

Summary

The article discusses how information plays a decisive role in the implementation of foreign economic activity. It emphasizes that access to information is critical for businesses engaged in global trade and investment. Information enables companies to make informed decisions, understand market trends, assess risks, and identify opportunities in foreign markets. In today's interconnected world where globalization has greatly increased the integration of economies, access to accurate and timely information is critical to success in international business activities.

The article notes that advances in technology have made it easier for businesses to access data across borders. The rapid growth of global markets has facilitated the exchange of information and knowledge, allowing companies to expand their operations internationally. Information sharing not only increases efficiency, but also encourages cooperation between countries on various economic issues with cross-border implications.

In conclusion, the article states that information is a powerful tool that drives foreign economic activity. Businesses that use information effectively can navigate the complexities of

global markets, take advantage of growth opportunities, and contribute to stronger economies around the world.

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Abstract: In today's rapidly evolving world driven by technological progress, the human role in supporting innovation and stimulating economic growth is more important than ever. As artificial intelligence (AI) and automation are transforming industries and reshaping traditional business models, recognizing and activating the human factor is essential to ensure sustainable progress and inclusive development in the innovation economy.

Keywords: Human creativity and innovation, human factor in innovation, cooperation and communication, diversity of perspectives, optimization of resources, alignment of goals, Agile adaptation, cultural change, ethical leadership, balancing automation.

Embracing human creativity and ingenuity

In order to go deeper into the concept of embracing human creativity and ingenuity in the activation of the human factor in the innovative economy, it is necessary to understand the interdependence of human creativity, ingenuity and innovation in economic circles. This theme explores how harnessing human creativity and ingenuity drives innovation, shapes economies and moves societies forward. By focusing on how the creative potential of individuals can be harnessed to drive economic growth and change, we can uncover strategies for maximizing human capital in the context of an innovation-driven economy.

Human creativity and innovation

Human creativity is a key aspect of innovation and serves as a catalyst for new ideas, solutions and products that drive economic development. Understanding how creativity manifests itself in people and how it can be nurtured and harnessed is essential for developing a culture of innovation in organizations and societies. The study of the relationship between human creativity and innovation sheds light on how the application of different perspectives, experiences and talents can lead to breakthroughs in different fields.

As a driver of economic growth, ingenuity includes ingenuity, originality, and practical intelligence in problem solving and generating ideas. In the context of the innovative economy, ingenuity plays an important role in ensuring entrepreneurship, technological progress and sustainable development. Learning how to develop and apply the ingenuity of individuals to solve complex problems can provide insights into the development of a dynamic ecosystem that supports economic growth and competitiveness.

Activating the human factor in innovation

Activating the human factor in innovation includes expanding the possibilities of bringing out the creative potential of individuals, effective cooperation and adaptation to changing market dynamics. By prioritizing human-centered approaches to innovation management, organizations can leverage the diverse skills and perspectives of their workforce to drive continuous improvement and disruptive change. Learning strategies to enable the human factor in innovation can lead to increased productivity, engagement and sustainability in today's fast-paced business landscape.

Development of cooperation and communication

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In the conditions of innovative economy, the development of cooperation and relations plays a decisive role in the activation of the human factor. Collaboration and communication are critical components that drive innovation, efficiency and overall success in a rapidly evolving economic landscape. Here is more information on how collaboration and communication can contribute to the use of the human factor in the innovation economy:

The importance of cooperation in innovative development:

Collaborative Innovation: collaboration between individuals, communities, organizations, and even nations fosters collaborative innovation. By working together, sharing knowledge, resources and expertise, stakeholders can create synergies that lead to breakthrough ideas and solutions.

Diversity of prospects: Collaboration brings together diverse perspectives and skill sets, fostering creativity and problem-solving skills. When people from different backgrounds collaborate, they can approach challenges from different angles, leading to more reliable results.

Resource Optimization: resources can be optimized more effectively through cooperation. Pooling resources such as funding, technology and talent allows for greater efficiency in the development and implementation of innovative projects.

The role of communication in the activation of human capital:

Knowledge sharing: Effective communication channels facilitate the sharing of knowledge and information between individuals and teams. Open communication increases learning opportunities and enables continuous improvement.

Coordination of goals: Clear communication helps align individual goals with organizational goals. When everyone understands the vision and mission of an innovation project, they can work more cohesively toward common goals.

Feedback Mechanisms: Communication provides the feedback loops needed to assess progress, identify problems, and make necessary adjustments to improve performance.

Synergy between collaboration and communication:

Innovation Ecosystems: the synergy between collaboration and communication creates a fertile ground for the development of innovation ecosystems. These ecosystems bring together stakeholders from different fields to collaborate, communicate effectively and achieve collective progress.

Agile Adaptation: Through continuous collaboration supported by open communication channels, organizations can quickly adapt to changes in the market or technological landscape. This agility is essential to remain competitive in the innovation economy.

Cultural changes: a collaborative culture and transparent communication can change organizational dynamics, fostering trust, creativity and a sense of common purpose among employees.

Investments in human capital development

Investments in human capital play a crucial role in activating the human factor in the innovative economy. Human capital refers to the knowledge, skills and abilities people possess that can be enhanced through education, training and development initiatives. In an innovation economy where creativity, flexibility and continuous learning are important, investing in human capital becomes even more important. By developing workforce capabilities and fostering a culture of lifelong learning, organizations can harness the full potential of their employees to drive innovation and sustainable growth.

The impact of human capital development on innovation

Investing in the development of human capital directly affects the development of innovation in the economy. When people are equipped with the right skills and knowledge, they are better placed to generate new ideas, solve complex problems, and contribute to the development of advanced technologies. In a highly competitive and rapidly evolving innovation economy, organizations that prioritize human capital development gain a competitive advantage by constantly adapting to change and fostering innovation in a variety of industries.

Strategies for activating human capital in the innovative economy

To effectively activate the human factor in the innovative economy, organizations can implement several strategies:

Continuing Education Initiatives: Encouraging employees to engage in continuing education opportunities such as seminars, workshops, online courses, and mentoring programs can improve their skills and keep them abreast of industry trends.

Promoting a culture of innovation: Creating a work environment that values creativity, experimentation and risk-taking can encourage employees to think innovatively and contribute new ideas to the growth of the organization.

Balancing automation with the human touch

In today's innovation economy, finding the right balance between automation and the human touch is critical to harnessing the full potential of technology and human capabilities. As businesses strive to optimize efficiency, productivity and customer satisfaction, integrating automation with a human-centric approach is critical. This synergy allows organizations to leverage the strengths of technology while retaining the unique value that human interaction brings to the table.

The role of automation in the innovation economy

Automation plays an important role in increasing efficiency, streamlining processes and improving decision-making through data-driven insights. By automating repetitive tasks and leveraging technologies like artificial intelligence and machine learning, businesses can achieve operational excellence and agility. However, while automation offers undeniable advantages in terms of speed and accuracy, it lacks the emotional intelligence and creativity inherent in human interaction.

The importance of the human touch in innovation

On the other hand, the human touch is indispensable in building trust, developing relationships and providing personalized experiences. Empathy, creativity, and critical thinking are uniquely human qualities that cannot be replicated by machines. In an innovation economy where differentiation is key, businesses must recognize the importance of human connections to engagement, loyalty and long-term success.

Strategies for balancing automation and human touch

Understanding customer needs: conduct in-depth research to understand customer preferences and pain points, allowing you to tailor automation solutions while maintaining human interaction opportunities where emotional connection is important.

Automation of repetitive tasks: identify simple tasks that can be automated to free up human resources for more complex and value-added activities that require emotional intelligence or creativity.

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Provide personalized human interaction: when emotional engagement is critical, make sure human agents are available to handle sensitive issues, make personalized recommendations, and build customer relationships.

Performance monitoring: Continuously monitor the effectiveness of automation and human touch strategies, making informed adjustments using relevant metrics such as customer satisfaction scores and feedback loops.

Embracing a collaborative future

By taking a collaborative approach that combines automation with the human touch, businesses can create a workplace where technology and humanity thrive. This harmonious integration not only increases operational efficiency, but also fosters a culture of empathy, innovation and sustainable growth in the innovation economy.

Summary:

In the innovative economy, human activation, new innovations and implementation of the new economy factor are considered simple. This is an important part of the process, the development of the human factor and the growth of the economy through new technology. Innovation, renewal and quality help business. Closer contact by enabling the human factor, improving profits and supply. Man, the development of production, makes production methods simpler and more efficient.

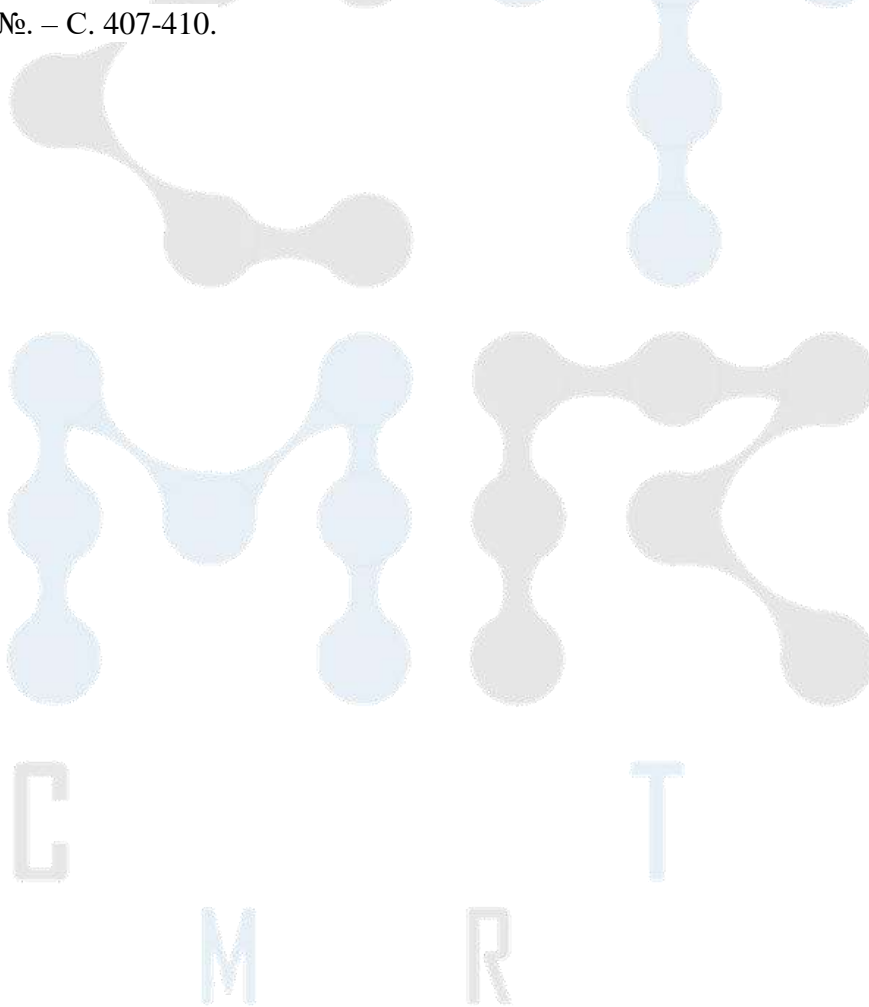
The importance of activating the human factor in the innovative economy is currently gaining momentum. States and its investment in innovation, financial support for research and development programs and implementation of new support programs are necessary. This process will enable the further development of the economy, the determination of the quality of production and production in new areas.

Activation of the human factor in the innovation economy is for several areas. Industry is and continues to be driven by automation and robotics. With this, the market is also expanding as a result of innovation and service delivery.

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Tayanch so'zlar: jismoniy tarbiya, sport, sog'lom avlod, chempion, futbol, kurash, sambo, og'ir atletika, suzish.

Rezyume: Ushbu maqolada mustaqillik yillarida jismoniy tarbiya va sport sohasini rivojlantirish uchun yetarlicha shart-sharoitlar yaratilganligi, jumladan, Qashqadaryo viloyatida ham sport sohasining futbol, kurash, sambo, karate-do, og'ir atletika, suzish turlari bo'yicha salmoqli natijalarga erishilganligi, sport ustalaridan Ro'ziqul Berdiyev, Botir Qorayev, Zafar Xolmurodov, Bahrom Avazov, Mavlonberdi Axmanov, Normamat Yo'ldoshev, Alisher Muxtorov, Sofiya Kaspo'latova, Tursunoy Jabborova, Shohsanam Toshpo'latova, Fotima Amilovalarning soha rivojidadagi o'rni va hayot yo'llari bayon etilgan.

Ключевые слова: физическая культура, спорт, здоровое поколение, чемпион, футбол, борьба, самбо, тяжёлая атлетика, плавание.

Резюме: В данной статье в годы независимости созданы достаточные условия для развития физической культуры и спорта, в том числе и то, что в Кашкадарьинской области достигнуты значительные результаты в спорте по футболу, борьбе, самбо, каратэ-до, тяжёлая атлетике, плавание, заявляли о роли и жизненном пути Розикюла Бердыева, Ботира Караева, Зафара Холмуродова, Бахрома Авазова, Мавлонберди Ахманова, Нормамата Ёлдашева, Алишера Мухторова, Софьи Касполатовой, Турсунной Джабборовой, Шохсанам Тошполатовой, Фатимы Амиловой.

Keywords: physical education, sports, healthy generation, champion, football, wrestling, sambo, weightlifting, swimming.

Summary: In this article, in the years of independence, sufficient conditions were created for the development of physical education and sports, including the fact that in Kashkadarya region, significant results were achieved in sports in football, wrestling, sambo, karate-do, weightlifting and swimming. Role and life paths of Rozikul Berdiyev, Botir Karayev, Zafar Kholmurodov, Bahrom Avazov, Mavlonberdi Akhmanov, Normamat Yoldashev, Alisher Mukhtorov, Sofia Kaspolatova, Tursunoy Jabborova, Shohsanam Toshpolatova, Fatima Amilova stated.

After gaining independence, Uzbekistan began to find its place in the field of physical education and sports. Realizing the importance of physical education and sports in ensuring public health, the government of our country started reforms in this field from the first years of independence.

There is not enough to say about the further development of physical education and sports in Kashkadarya, the transformation of sports into a mass movement, the restoration and modernization of national and traditional sports, the achievements of our athletes at the Olympic Games and international sports competitions.

If we talk about football, which is a game of millions, a number of world-famous players have come from Kashkadarya region. One of them, Rozikul Berdiyev, was born on October 22, 1971 in Kitab district. He played in "Yangier" club in 1992-1996, and in "Nasaf" football team in

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1997-2008. He started coaching in 2008 and worked as an assistant head coach of "Nasaf" until 2011. After the resignation of Anatoly Demyanenko in January 2012, he became the head coach of the football team "Nasaf" and worked in this position until May of this year. After that, he managed the youth team of this club. In November 2012, he was again appointed as the head coach of "Nasaf" and has been cooperating with "Nasaf" club to this day.

Botir Karaev, another player who made a great contribution to Kashkadarya football, was born on April 8, 1980 in Koson district. Famous football coach A. He learned football skills under Yumangulov. Later, he started to play in "Mash'al-2" team. Since 1997, he has been playing in the defensive line in the Nasaf club of Karshi and has become one of the club's main midfielders.

One of the real scorers who introduced Kashkadarya football to the world is Zafar Kholmurodov. He was born on October 15, 1976 in Shahrisabz district. In 1996, Zafar, who was admitted to Shahrisabz's "Hisor" team, started participating in games in "Nasaf" a year later. Being one of the most skilled strikers of our province, he manages to score more than 100 goals in official matches. [1-1]

There will be many people who will come and go for sports. However, there are few people who live and work with him for a lifetime. Bahrom Beknazarovich Avazov was born on January 3, 1970 in the village of Siiraq, Guzor district. Absolute winner of international competitions dedicated to the memory of Amir Temur and Pahlavon Mahmud. In 1998, he was awarded the title of international master of sports. In 2003, he was awarded the title of "Pride of Uzbekistan". Between 1991 and 2001, Bahrom Avazov was the champion of Uzbekistan in the 81 kg, 90 kg and absolute weight categories of wrestling. In 2001, he was found unmatched in the Asian Championship held in Tashkent. In 2000 in Antalya and in 2001 in Budapest, he won the first place and presented gold medals for our country. In the absolute weight category, he was also recognized as the winner of the 1996 Shahrisabz, 1998 international competitions in Khiva, and the 1998 Alpomish games in Termiz. Our athlete, who graduated from Karshi Pedagogical Institute (now Karshi DU) in 1991, worked as a senior teacher in this institute in 1991-2003. Since 2003, he has worked as the director of the Kashkadarya regional branch of the Children's Sports Development Fund of Uzbekistan.

From the first years of independence, Mavlonberdi Akhmanov was appointed as the executive director of the Kashkadarya Region National Wrestling Federation. In 1992, in the city of Shahrisabz, Kashkadarya region, he contributed to the organization of the "Amir Temur" international tournament, which was held for the first time in national wrestling, and mentored the wrestlers of Kashkadarya. In the tournament, one of the wrestlers from Kashkadarya, Abdugadir Pirmatov, was the absolute winner of the tournament, and Tura Avliyokulov won the first place in their weight category and won the presidential prize. In August 1992, Mavlonberdi Akhmanov was awarded the medal "Independence" on the occasion of the 1st anniversary of our country's independence. Along with educating young people, he has been a worthy example to young people by taking part in all competitions held among veterans, improving their sports skills. For example, in 2004, he won a bronze medal at the 2004 World Sambo Masters Championship held in Tajikistan, taking a proud 3rd place, and in 2007, he won a silver medal at the 2nd place in the World Uzbek Wrestling Masters Championship, held in Termiz. Since 2005, Mavlonberdi Akhmanov has been training young people in wrestling at the Karshi Olympic Reserve College. Most of his students are taking part in republican, international tournaments, and Asian championships and have been taking worthy places. [2-2]

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Athletes like Alisher Mukhtorov, the international master of sports in judo wrestling, a participant of the Olympic Games, also made the name of our region known to the world. He participated in the 1996 Atlanta Olympic Games and the 2000 Sydney Olympic Games. In addition, he became the champion of the republic several times, the winner and prize-winner of prestigious international tournaments.

Sofiya Kaspolatova, the honored athlete of the Republic of Uzbekistan, five-time Asian karate champion, was born on January 4, 1983. The permanent coach of the champion girl is Alisher Sodikov. Sofiya Kaspolatova became the Asian champion in karate-do (individual wrestling) in 1999 and won the silver medal in the World Championship in 2003. In June 2005, the national team of our country successfully participated in the next Asian karate championship held in Macau. Our compatriots won seven medals in competitions with hundreds of athletes from 37 countries. Sofia Kaspolatova, a student of Karshi State University, successfully participated in the team, and at first in her own weight, and then in absolute weight, there was no athlete who could match her on the continent. Even representatives of Japan, considered the homeland of karate, recognized Sofia's skills. According to foreign experts, Sofia's method of performing karate can be used as a lesson for others. Therefore, his exercises were recorded on video tapes by experts. [3-6]. Sofia, who has been working as a coach, was recognized as the best female coach of 2020.

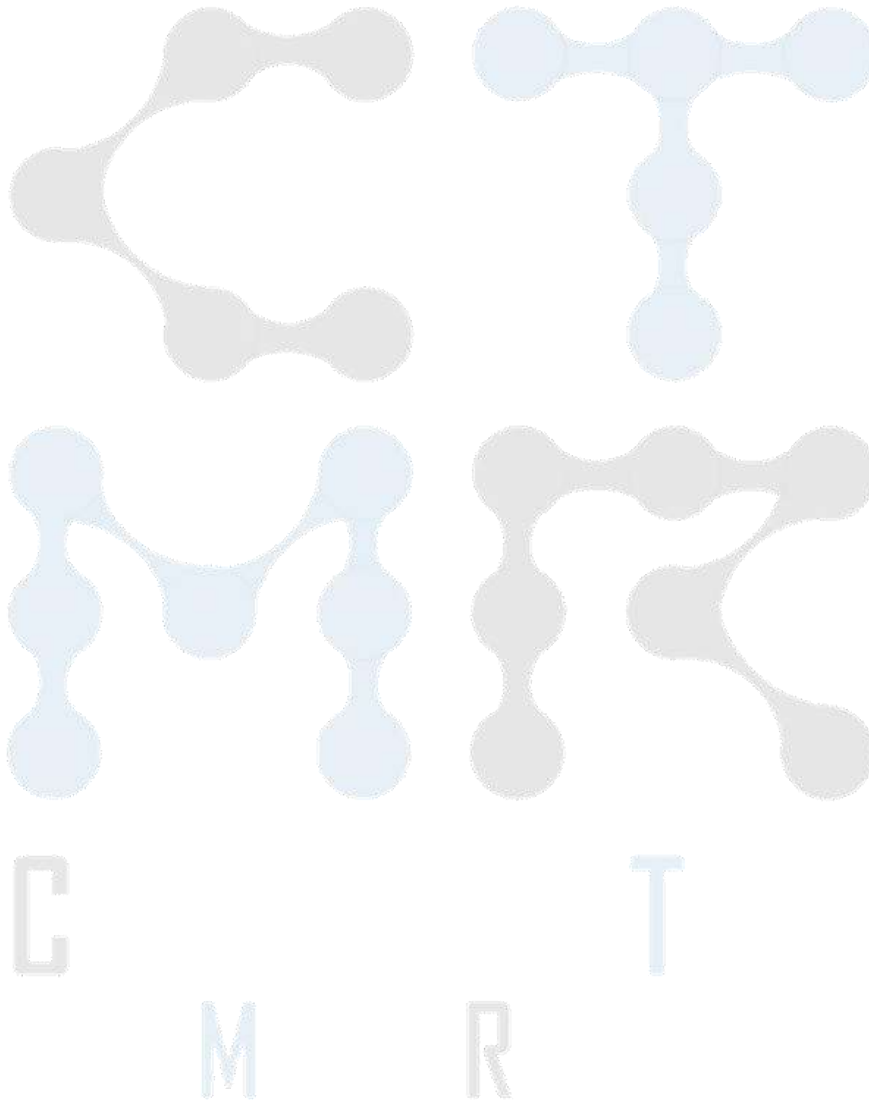
Tursunoy Jabborova was born on March 4, 2002 in Kashkadarya region. He achieved his first success in weightlifting at the 2017 Asian Junior Championship. At that time, our athlete became the owner of a silver medal. After that, Tursunoy became the champion of Asia among teenagers and young people, the winner of world championships in these categories. He was awarded a silver medal at the 2019 World Cup. In 2021, he won the gold medal in the 87 kg weight class held in Konya, Turkey. He won a bronze medal at the 2022 Asian Weightlifting Championships in Manama, Bahrain. Tursunoy Jabborova became the absolute world champion in weight up to 87 kilograms at the weightlifting world championship held in Heraklion, Greece in May 2023. Our athlete lifted a 109 kg stone in the deadlift and 129 kg in the deadlift and won the gold medal in both events. Also, Jabborova was unequal according to the results of two fights.

At the 15th Paralympic Games held in Rio de Janeiro in 2016, student of Karshi State University Fatimakhon Amilova won a gold medal in swimming, and Shohsanamkhan Toshpolatova won 3 bronze medals. In addition, Shohsanamkhan Toshpolatova won the 1st place in the winter open championship of Uzbekistan dedicated to the memory of the First President of the Republic of Uzbekistan I.A. Karimov. In September 2019, the next world para-swimming championship was held in London, the capital of Great Britain, and Shohsanam Toshpolatova was the first to reach the finish line in the women's 100-meter butterfly and won the first gold medal in this world championship at the expense of the national team. Shohsanam Toshpolatova, who set a new Asian record with the result of 1 minute, 3.89 seconds, won the right to participate in the Paralympic Games "Tokyo-2020". [4-4].

In conclusion, we can say that in the years of independence, a number of activities were developed to popularize physical education and sports among all layers of the population. On the basis of these activities, the experience of establishing a healthy lifestyle among the population was accumulated, and the development of physical education and sports was raised to the level of state policy. As a result, the material and technical support of the industry in the republic was significantly strengthened. In such conditions, many sports facilities were built in Kashkadarya. Athletes and coaches from Kashkadarya are raising the country's flag high in the world arenas.

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THE CRYPTOCURRENCY MARKET AS REFLECTED BY INDIVIDUAL US
INDUSTRY STOCK INDICES AS A FACTOR IN THE DEVELOPMENT OF SMALL
AND MEDIUM-SIZED ENTERPRISES

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Abstract: Economic development presupposes a stable connection between various sectors of the economy and individual business entities. Such a connection is possible using stock market instruments. Currently, among the stock market instruments, cryptocurrency and stock indices are distinguished. The dynamics of the corresponding quotes helps to understand the development of the market, the time of favorable entry into the market and much more. Based on this, the work examines the dynamics of individual components of the cryptocurrency market and stock indices. The results obtained are confirmed by graphs and diagrams.

Key words: Cryptocurrency, Stock indices, Stock market, Small and medium enterprises, Comparative analysis, Dynamics

INTRODUCTION

The sustainable and successful development of various economic entities is largely determined by the interconnection of individual sectors of the economy [1], [2]. In modern economic conditions, the stock market with its variety of securities plays a special role. Here we should highlight the cryptocurrency market and industry markets.

The cryptocurrency market makes it possible to attract the necessary resources for the implementation of startups, which are widespread among small and medium-sized enterprises [3]-[5]. This market has its own characteristics and a variety of individual types of instruments. Studying it helps to understand the general dynamics of the stock market and make appropriate investment decisions. Industry segments of the stock market contribute to the detailing of possible connections between business entities and the formation of packages of proposals for investment. For these purposes, various stock indices are used [6]-[8]. The dynamics of stock index quotes allows us to analyze individual market segments, understand the relationship between such components in order to enter the securities market and make appropriate investment decisions.

Mutual analysis of the dynamics of cryptocurrency quotes and stock indices is one of the tools for formulating strategies for the development of small and medium-sized enterprises. Therefore, the topics of such research are important and relevant in both theoretical and practical aspects. To study the dynamics of cryptocurrency quotes and stock indices, you can use both traditional methods of analyzing economic data [9]-[23] and non-standard approaches [24]-[34], which allow you to obtain additional information or use new directions for studying data. In this

case, an important aspect is the mutual analysis of data dynamics, which requires the use of special methods and approaches.

Thus, the main goal of this work is to study the dynamics of quotes of cryptocurrencies and stock indices. To uncover such a goal, it is necessary to consider a number of related works and identify a data set for their study.

Related work

The subject of this research is constantly in the focus of attention of scientists and practitioners. Let's look at some of these works to help determine further interest.

C. Alexander and M. Dakos conduct a comprehensive and critical analysis of data on the cryptocurrency market [35]. The study presents an analysis of literary sources and markets where different types of cryptocurrency are circulated. The mutual dynamics of various stock indices is also considered. Particular attention is paid to various currency pairs and Bitcoin. This allows us to better understand the impact of cryptocurrency quotes on the sustainability of economic development, including small and medium-sized enterprises.

J. Liang, L. Li, W. Chen and D. Zeng explore the relationship between cryptocurrency, foreign exchange and stocks [36]. First of all, the authors review analytical information that helps to understand cryptocurrency as a financial asset. The paper compares the dynamic characteristics of cryptocurrency with two traditional and widely used financial assets: foreign currency and stocks [36]. For these purposes, the following properties of such data series are studied: volatility, centrality, clustering structure, reliability and risk. As a result, it was shown that the dynamics of cryptocurrency are more similar to the dynamics of stocks [36]. This justifies the topic of our research.

Y. Yue, X. Li, D. Zhang and S. Wang consider the impact of cryptocurrency on the economy [37]. This analysis is carried out on the basis of relevant literature, which examines the economic effects of cryptocurrency. The authors examined 1,850 articles between 2013 and 2020. As a result, it was shown that such studies are focused on: the impact of technology on an economic phenomenon, technological progress in overcoming the negative economic consequences of cryptocurrency, the creation of a new payment system using basic technologies, and assessment of the economic results of cryptocurrency. Based on this, the authors conclude that the macroeconomic effects of cryptocurrency, the mechanism of influence of cryptocurrency and legal digital currency are the basis for future research.

W. Yiyang and Z. Yeze conduct cryptocurrency price dynamics [38]. Artificial intelligence algorithms are used for these purposes.

At the same time, S. Buyrukoğlu uses deep learning methods to study the dynamics of cryptocurrency quotes [39].

The study [40] carried out a general analysis of the cryptocurrency market and identified trends in its development. Particular attention is also paid to the socio-economic issues of misconduct and the sustainability of cryptocurrency.

In [41], the Hurst method is used to analyze cryptocurrencies. This allows us to obtain new estimates of the dynamics of such quotes.

Thus, the cryptocurrency market plays an important role both in the development of the stock market and in the functioning of various business entities. Bitcoin is usually used as the underlying asset of cryptocurrencies. At the same time, comparison of Bitcoin quotes is possible

with various stock indices. It should also be noted that various methods and approaches are used for appropriate analysis.

Dynamics of quotes for the data under study

Based on the logic of this work, we will consider the dynamics of Bitcoin and some industry stock indices for the US stock market. In Fig. 1 shows the dynamics of quotes for Bitcoin and Dow Jones Transportation (DJT).

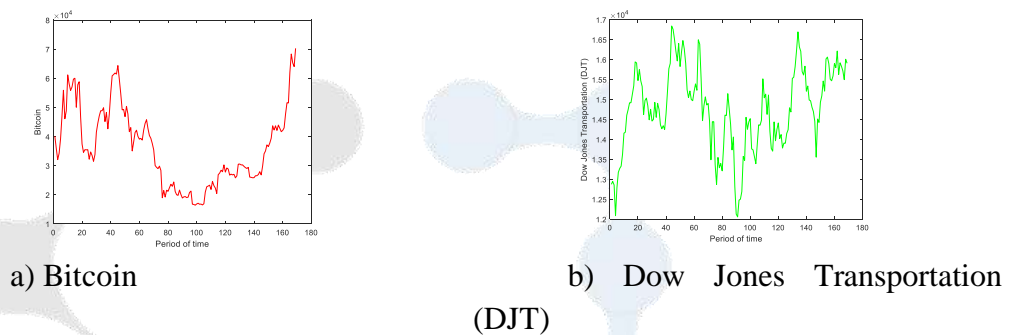


Figure 1: Bitcoin and Dow Jones Transportation (DJT) quotes

In Fig. 2 shows the dynamics of quotes for Dow Jones Consumer Goods (DJUSNC) and Dow Jones Technology (DJUSTC).



Figure 2: Dow Jones Consumer Goods (DJUSNC) and Dow Jones Technology (DJUSTC) quotes

In Fig. 1 and Fig. 2 presents data for the period 01.03.2021-03.24.2024 in their weekly averaging. All data from investing.com. At the same time, it displays the dynamics of quotes for a number of industry stock indices, where small and medium-sized enterprises may be concentrated.

The dynamics of Bitcoin quotes over the time interval under study has a protracted period of price decline. After this, there was a sharp increase in quotes. This is understandable and typical for the cryptocurrency market. Before the period of declining Bitcoin prices, there is also instability in price dynamics. Here it should be noted both periods of growth of such quotations and periods of their decline. In general, we can talk about significant volatility in Bitcoin quotes in certain periods of time. This makes it difficult to assess their changes in order to predict and develop appropriate strategies over long time intervals.

The presented dynamics of quotes for industry stock indices, as can be seen from the data, differ from each other.

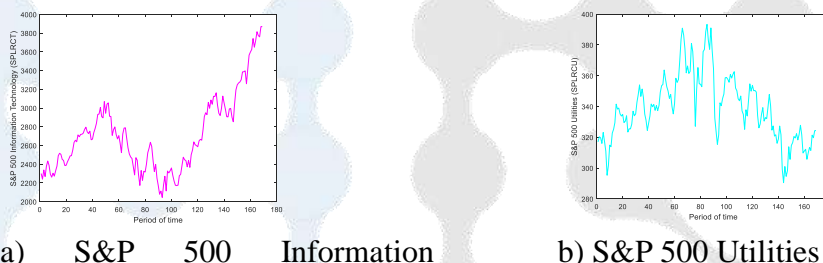
Quotes for Dow Jones Transportation (DJT) (Fig. 1b) have alternating periods of growth and decline. A significant decline in prices for Dow Jones Transportation (DJT) occurs during a period of declining Bitcoin prices. Then we can assume that there is an outflow of resources from this sector, which leads to a corresponding decrease in quotations. For a more detailed analysis of

this effect, it is advisable to evaluate the mutual dynamics of such data. However, in any case, it is necessary to take into account such dependence when forecasting and planning.

Quotes for Dow Jones Consumer Goods have a general downward trend over the studied time interval (Fig. 2a). Although here we can also note both periods of growth in such quotations and periods of their decline. We also emphasize the significant volatility of the dynamics of quotes under study. It should be noted that the significant decline in Dow Jones Consumer Goods prices somewhat coincides with a period of declining Bitcoin prices. This fact should be taken into account when planning entry into the relevant market segments and forming investment strategies for the development of small and medium-sized enterprises.

The dynamics of the Dow Jones Technology index over the studied interval is generally increasing (Fig. 2b). This is especially evident in the last third of the period under study. The volatility of such dynamics is less than for previous data. But, as with the other data discussed earlier, we note that the lowest values of the Dow Jones Technology Index are observed during a period of declining Bitcoin prices. Thus, this fact in some way unites the considered quotes for industry indices. Also important is the mutual analysis of price dynamics for Bitcoin and individual quotes for indices. This will help to better understand market developments, develop strategies, and predict developments. This is especially important for small and medium-sized enterprises.

In Fig. 3 shows the dynamics of quotes for the S&P 500 Information Technology (SPLRCT) and S&P 500 Utilities (SPLRCU).



a) S&P 500 Information
Technology

b) S&P 500 Utilities

Figure 3: S&P 500 Information Technology (SPLRCT) and S&P 500 Utilities (SPLRCU) quotes

It should be noted the characteristic dynamics of quotes for each type of industry indices. This is also observed for the data in Fig. 3.

At the same time, we see that the dynamics of quotes for the S&P 500 Information Technology and Dow Jones Technology indices are identical. This is explained by the fact that these indices reflect the development of identical companies. A distinctive feature is the size of such quotes. Based on the data presented, we can say that the quotes for Dow Jones Technology in their absolute value are higher than for the S&P 500 Information Technology. This is because the Dow Jones Technology Industry Index covers more companies than the S&P 500 Information Technology Index. In other words, the companies included in the S&P 500 Information Technology are part of the companies included in Dow Jones Technology. This fact should also be taken into account when forecasting and developing investment strategies. However, the noted fact reflects the relationship of stock indices in the context of individual segments for the same sectors.

The dynamics of quotes for the S&P 500 Utilities differs from the previously discussed changes. Here, as for quotes for Dow Jones Transportation (DJT), there is also an alternation of

growth and decline in quotes for this index. An interesting fact is that the maximum values of quotes for the S&P 500 Utilities are observed during the period of minimum prices for Bitcoin. Then we can talk about the lack of connection between Bitcoin and the S&P 500 Utilities index. But such dynamics must be taken into account when forming investment strategies and determining entry into certain segments of the stock market. At the same time, in the first half of the period under study, the values of quotations for the S&P 500 Utilities are growing, then a constant decrease in such values is observed.

Thus, the next stage of the corresponding analysis is to assess the mutual dynamics of the considered data, where attention will be paid to the relationship between Bitcoin prices and individual stock indices.

Comparative assessment of the mutual dynamics of the studied data

To conduct a comparative analysis of the dynamics of Bitcoin prices and quotes in the context of individual stock indices based on the sectoral principle, it is advisable to use methods and approaches of wavelet theory. This is due to the fact that such analysis tools have found wide application for studying the dynamics of economic data, data presented in the form of time series [42]-[46]. Among such methods and approaches, one can highlight wavelet coherence estimates [47]-[49].

These estimates make it possible to compare the mutual dynamics of data over the entire studied interval, as well as in the context of individual periods in the interval of this comparison. We can also consider the depth of connections between two data dynamics. In particular, the depth of the studied connections allows us to talk about the possibility of developing investment strategies and planning to enter the stock market.

In Fig. 4 presents estimates of wavelet coherence between Bitcoin and Dow Jones Transportation (DJT), Dow Jones Consumer Goods (DJUSNC) respectively.

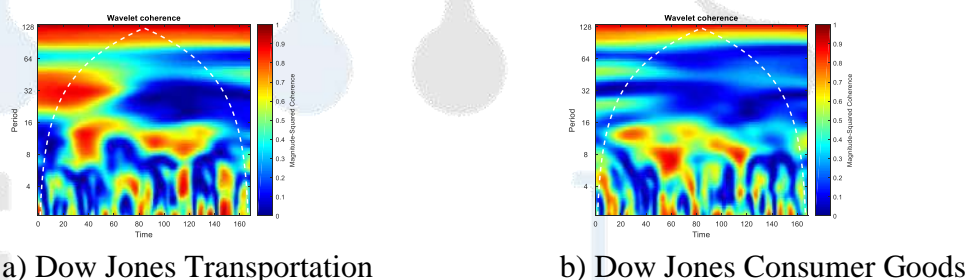


Figure 4: Assessing the relationship between Bitcoin and Dow Jones Transportation (DJT), Dow Jones Consumer Goods (DJUSNC) respectively

In Fig. 5 presents estimates of wavelet coherence between Bitcoin and Dow Jones Technology (DJUSTC), S&P 500 Utilities (SPLRCU) respectively.

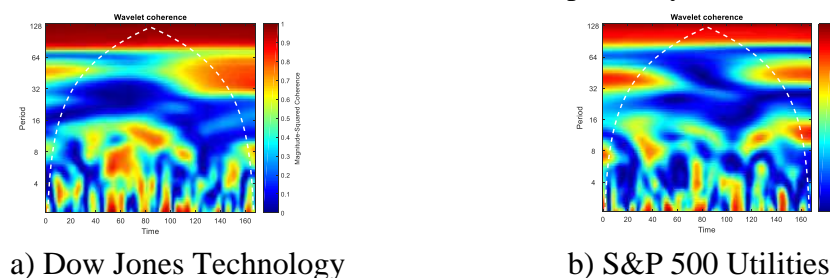


Figure 5: Assessing the relationship between Bitcoin and Dow Jones Technology (DJUSTC), S&P 500 Utilities (SPLRCU) respectively

Data Fig. 4 and Fig. 5 display the presence of fragmentary estimates of the relationship between the data under study. Nevertheless, such assessments still differ from each other. Thus, for the connections between Bitcoin and Dow Jones Transportation (DJT), Dow Jones Consumer Goods (DJUSNC), Dow Jones Technology, the depth of fragmentation is greatest during the period of lower Bitcoin prices. This confirms previous findings and allows for better planning and development of investment strategies, especially for small and medium-sized enterprises.

The fragmented relationship between Bitcoin and the S&P 500 Utilities has less depth, which is also consistent with previous conclusions. Here we can also note the more sparse fragmentation of the connection of such data.

Nevertheless, the presented results suggest the advisability of comparing the cryptocurrency market and industry stock indices as a factor in the development of enterprises.

CONCLUSION

The paper examines the issues of analyzing price dynamics for cryptocurrencies and various stock indices. For this purpose, a brief analysis of relevant studies has been carried out. In the course of this analysis, we determined that for our study we would look at the dynamics of Bitcoin prices and quotes for individual industry stock indices that are most interconnected with small and medium-sized enterprises.

To study the mutual dynamics of the data under study, we use wavelet coherence estimates. This allows one to understand the future planning methodology when developing investment strategies and market timing.

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МАИШИЙ НУТҚИЙ ЖАНРЛАРНИ СОЦИОЛИНГВИСТИК АСПЕКТДА ТАДҚИҚ
ЭТИШНИНГ ДОЛЗАРБ МАСАЛАЛАРИ

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Аннотация

Ушбу мақолада маиший нутқий жанрларни социолингвистик аспектда тадқиқ этишнинг долзарб масалаларида, асосан, социолингвистика ва маиший нутқий жанрлар алоқадорлигини белгилаш, маиший нутқий жанрлар тизимини шакллантириш, маиший нутқий жанрлар социолингвистик таснифини яратиш, маиший нутқий жанрларнинг алоҳида турларини тадқиқ қилишга асосий эътибор қаратилиш зарурияти ҳақида гап боради. Маиший нутқий жанрларнинг алоҳида турларини тадқиқ қилиш масаласида фидеик нутқий жанрларнинг ўзига хос ўрни мавжуд. Фидеик нутқий жанрлар моҳиятида диний-магик тасаввурлар ётар экан, бир тарафдан масалага социология ва тилшунослик, иккинчи тарафдан диншунослик нуқтаи назардан ҳам ёндошиш талаб қилинади.

Калит сўзлар: маиший нутқий жанрлар, фидеик нутқий жанрлар, ижтимоий ва диний индикаторлар, ижтимоий омиллар, кексалик, дуо адресантлари.

АКТУАЛЬНЫЕ ВОПРОСЫ ИССЛЕДОВАНИЯ ЖАНРОВ БЫТОВОЙ РЕЧИ В
СОЦИОЛИНГВИСТИЧЕСКОМ АСПЕКТЕ

Аннотация

В данной статье рассматриваются актуальные вопросы исследования бытовых речевых жанров в социолингвистическом аспекте, в основном определяющие соотношение между социолингвистикой и бытовыми речевыми жанрами, формирование системы бытовых речевых жанров, создание социолингвистической классификации бытовых речевых жанров, необходимость сосредоточения по изучению отдельных видов бытовых речевых жанров. Особое место в исследовании конкретных видов бытовых речевых жанров занимают фидеистические речевые жанры.

Ключевые слова: бытовые речевые жанры, фидеические речевые жанры, социальные и религиозные индикаторы, социальные факторы, старость, адресаты молитвы.

CURRENT ISSUES IN THE STUDY OF GENRES OF EVERYDAY SPEECH IN THE
SOCIOLINGUISTIC ASPECT

Annotation

This article discusses important issues in the study of everyday speech genres in the sociolinguistic aspect, mainly determining the relationship between sociolinguistics and everyday speech genres, the formation of a system of everyday speech genres, the creation of a sociolinguistic classification of everyday speech genres, the need to focus on the study of certain types of everyday speech genres. A special place in the study of specific types of everyday speech genres is occupied by fideistic speech genres.

Key words: everyday speech genres, fideic speech genres, social and religious indicators, social factors, old age, prayer recipients.

Кириш. Сўнгги йилларда жаҳон тилшунослигида нутқий жанрлар ва уларнинг лингвистик табиатини очиб беришда социолингвистик хусусиятларни инобатга олиб ўрганишга бўлган қизиқиш кучайди. Бу эса, бир тарафдан, тилнинг функционал хусусиятларини аниқлашга бўлган интилишни англатса, иккинчи тарафдан, нутқий жанрлар назариясида тил тизимидаги нутқий жанрларнинг турли типларини аниқлаш, типологик гуруҳлаштириш каби масалалар ечимини топишни назарда тутди. Нутқий жанрлар социолингвистикаси нутқий жанрларнинг тил тизимидаги вербал, новербал воситалари ва ижтимоий лингвистик атрибутларда мавжуд ўзига хос ижтимоий хабар, яъни муайян тилдаги ижтимоий идеология, ижтимоий қарашлар, ижтимоий дунёқараш, ижтимоий мезонлар, ижтимоий муносабатлар, ижтимоий муҳит ва шароитлар, ижтимоий маънавий дунё, ижтимоий қонун-қоидалар, ижтимоий урф-одатлар, ижтимоий қадриятлар, ижтимоий анъаналар, ижтимоий жамиятдаги турли ходисалар ва воқеаларга турли муносабатлар, ижтимоий феъл – атвор, ижтимоий яшаш ва фикрлаш тарзи, ижтимоий образлар, стереотиплар, ижтимоий катта ва кичик жамоалар (оила, мактаб, маҳалла каби), ижтимоий жамоатчилик фикрлари, ижтимоий тажриба, ижтимоий ёш, ижтимоий қатлам (этник, ирқий каби), ижтимоий жамият тузуми, ижтимоий замон талаби, ижтимоий макон, ижтимоий тафаккур каби бир қатор ижтимоий маълумотларни ўзига хос тарзда ёритиб беради.

Дунё тилшунослигида олиб борилаётган нутқий жанрларнинг социолингвистик тадқиқи бир тарафдан, тилшуносликда тилнинг функционал хусусиятларини ёритишга хизмат қилса³⁰, иккинчи тарафдан, маданиятлараро коммуникацияда турли маданиятли халқлар ўртасидаги ижтимоий иқтисодий муносабатларда юзага келувчи тилга оид муаммолар ечимида социолингвистик индикаторларнинг миллий-маданий хусусиятларини аниқлашга ёрдам беради, тил таълимида эса турли тилларни ўрганишда нутқий жанрларнинг турли хил шакллари турли коммуникатив вазиятларда тўғри қўллаш компетенцияларини ривожлантиришни кўзда тутди.

Тадқиқот усуллари. Маиший нутқий жанрларни социолингвистик аспектда тадқиқ этишнинг долзарб масалаларини, хусусан, тил тизимидаги маиший нутқий жанрларнинг вербал, новербал воситалари ва лингвистик атрибутларнинг социолингвистик хусусиятларни ёритишда, аввало, маиший нутқий жанрларни тавсифлаш ва таснифлаш, нутқий жанрлар таркибида нутқий актлар таҳлили кабилар муҳимдир.

Натижа ва мулоҳазалар. Нутқий жанрларнинг сўзлашув нутқида хосланган, маиший ҳаётда кўп қўлланилувчи, кишиларнинг кундалик сўзлашув хусусиятлари, мавзулари, қизиқишлари, анъаналарини ўзида намоён этувчи маиший нутқий жанрлар тил тизимида муайян ўрин эгаллайди. Кишилиқ жамиятидан кундалиқ маиший мулоқотлари жараёнида амалда бўлган маиший нутқий жанрларнинг замонавий шакллари асрлар оша халқнинг тарихий ва фалсафий қарашларни ўзида акс эттиради. Шундай экан, ҳар бир маиший нутқий жанрнинг замонавий шакли ва унинг келиб чиқиш тарихини ўрганиш тарихий ва замонавий қарашларни қиёслаш имконини беради. Шу нуқтаи-назардан маиший нутқий жанрлар ўзида халқнинг маиший ҳаёти билан боғлиқ тарихий ва замонавий қарашларини, анъаналарини акс эттирувчи нутқий жанрлар туркуми саналади. Маиший

³⁰ Дементьев. В.В. О типологии речевых жанров в связи со сферами речевой коммуникации и без такой связи // Коммуникативные исследования. 2019. Т.6. №3. С. 633; Дементьев. В.В. Теории речевых жанров. М.: Знак, 2010, 594

нутқий жанрлар маиший мулоқот давомида ҳосил бўлганлиги сабабли маиший мулоқотга оид барча тил қонуниятлари ва хусусиятларини ўзида жамлайди.

Изоҳли луғатларда маиший ҳаёт сўзи бу маиший тирикчилик, кундалик яшашга оид каби маъноларни англатади. Маиший³¹ сўзи арабчадан олинган бўлиб, ҳаёт, турмушга оид маъносини англатади. Шуни айтиш керакки, маиший ҳаёт тушунчаси инсонлар ўртасидаги ўзаро муносабатларнинг расмий, қонуний ва ҳуқуқий жиҳатларини ўзида ифодаламайди. Бунда маиший ҳаётнинг ижтимоий, яъни жамоавий хусусиятлари асосий ўрин эгаллайди. Маиший ҳаётда инсонлар ўртасидаги ўзаро алоқани юзага келтиришда иштирок этувчи нутқий жанрлар тил тизимида муайян ўринни эгаллайди. Маиший нутқий жанрларнинг вербал/новербал воситалари ва лингвистик атрибутлари ижтимоий жиҳатдан кодлашади. Маиший нутқий жанрлар вербал воситаларининг ижтимоий кодлашуви матний композицион кодлашувни, новербал воситалари кодлашуви паралингвистик, кинетик каби новербал воситалар кодлашувини, лингвистик атрибутлар кодлашуви эса предмет, нарса буюм, воқеа ҳодисаларнинг ижтимоий кодлашувини назарда тутаяди. Масалан, *Мен тугилган кунингиз билан табриклайман* гапи инглиз лингвомаданиятида ижтимоий жиҳатдан матний композицион кодлашган, совғанинг мавжудлиги лингвистик атрибут кодлашувини, қадах кўтариш эса новербал воситалар кодлашувини англатади. *Мен тугилган кунингиз билан табриклайман* гапи эса ўзбек лингвомаданиятида матний композицион жиҳатдан дуо нутқий жанрларининг қўшилиши билан ижтимоий кодлашади ва *Мен тугилган кунингиз билан табриклайман, илоҳим умрингиз узоқ, ризқингиз улуг бўлсин* шаклида тузилади. Демак, икки лингвомаданиятда ушбу жанрларнинг матний кодлашуви ижтимоий маданиятларга хос лингвистик шаклда тузилади.

Маиший нутқий жанрларнинг вербал/новербал ва лингвистик атрибутлари ҳалқнинг тафаккур тарзю миллий яшаш тарзини, минг йиллик анъаналарини, бир сўз билан айтганда, ҳалқнинг тафаккурини акс эттиради. Қисқа қилиб айтганда, ҳар бир одам ўз тилига хос бўлган структура, иборалар ва бошқа тил бирликлари моделларини ўз жамиятига хос бўлган шаклда ифода қилади. Маиший нутқий жанрлар матни ва новербал воситаларининг риторик қурилиши асосида турган мантиқий кетма кет жойлашган қисмлар миллий тафаккур жараёнида ҳосил бўлганлиги сабабли миллатлараро фарқларга эга. Масалан, хатнинг охири қисмида *Your Cincerely* иборасининг ишлатилиши инглиз ҳалқида кенг тарқалганлиги, ўзбек ҳалқида эса бу қисмнинг мавжуд эмаслиги хат нутқий жанрининг ўзига хос миллий хусусиятларини кўрсатади. Демак, маиший нутқий жанрлар қайси тилда ифодаланишидан қатъий назар умумжамиат қабул қилган шаклда тузилади. Маиший нутқий жанрлар муайян миллат тўплаган тажриба, билим ва маданияти, ушбу миллатнинг миллий менталитетига оид этномаданий ахборот тўпланиши натижасида ҳосил бўлади. Маиший нутқий жанрларнинг ижтимоийлиги шундаки, уларнинг маиший турмушда кишилар ўртасида коммуникатив ўзаро таъсир асосида шаклланишидир. Айниқса, маиший нутқий жанрларнинг ижтимоийлиги маиший нутқий жанрлардаги сўзловчи ва тингловчиларнинг ижтимоий мақоми мавжудлиги ва шу ижтимоий жамиятда муайян вақт ва маконда нутқий ўзаро таъсир асосида амалга оширилишидир. Кузатишлар шуни

³¹Ўзбек тилининг изоҳли луғати. 2 жилд. “Ўзбекистон миллий энциклопедияси” давлат илмий нашриёти, Тошкент, 2000 йил, 526- бет

кўрсатадики, тил тизимида маиший нутқий жанрларнинг социолингвистик тадқиқи қуйидаги масалаларни ўз ичига олади:

- 1) Социолингвистика ва маиший нутқий жанрлар алоқадорлигини белгилаш;
- 2) Маиший нутқий жанрлар тизимини шакллантириш;
- 3) Маиший нутқий жанрлар социолингвистик таснифини яратиш;
- 4) Маиший нутқий жанрларнинг алоҳида турларини тадқиқ қилиш ва ҳок.

Ушбу масалаларнинг ечими маиший нутқий жанрлар социолингвистикасининг ўзига хослигини аниқлашда муҳимдир.

1) Социолингвистика ва маиший нутқий жанрлар алоқадорлигини белгилаш.

Социолингвистика ва маиший нутқий жанрлар алоқадорлигини аниқлашда тил тизимидаги маиший нутқий жанрларнинг ижтимоий омилларини белгилаш, уларнинг социомаданий хусусиятларини аниқлаш асосий масалалардандир. Маиший нутқий жанрларнинг ижтимоийлиги ушбу жанрлар инсонларда туғма ирсий бўлмай, муайян жамиятда муайян қоидалар асосида шаклланишидан дарак беради. Унинг шаклланиши ва амалда бўлиши ўша жамият қонунларига бўйсунди.

2) Маиший нутқий жанрлар тизимини шакллантириш. Маиший нутқий жанрлар тизимини шакллантириш масаласи эса бевосита маиший нутқий жанрларнинг алоҳида турларини тадқиқ этиш асосида бўлади. Ушбу масалада тил тизимида маиший нутқий жанрларнинг ҳар бир тури ўзига хос мустақил нутқий жанр сифатида ташкилий шаклий композицион ва матний композицион тузилишга эгаллигини инобатга олиш мақсадга мувофиқдир. Маиший нутқий жанрларнинг ташкилий шаклий композицион тузилишида вербал/новербал воситалар ва лисоний атрибутлар муҳим аҳамият касб этади ва булар ёрдамида ушбу нутқий жанрда фаол иштирок этувчи нутқий актларни аниқлаш имконияти туғилади. Масалан, тўй маросимида оид маиший нутқий жанрларда маросимни очиб бериш, сўзга таклиф қилиш, табриклаш, никоҳ маросими, табриклаш, қадах кўтариш ва ҳоказолар кетма-кетлиги маиший нутқий жанрларнинг ташкилий шаклий композицион тузилишини ташкил қилади ва бунда турли хил нутқий актлар кетма-кетлиги кузатилади. Кўринадик, тўй маросими билан боғлиқ маиший нутқий жанрларда табрик, қадах, қасамёд каби кичик маиший нутқий жанрлар семантик жиҳатдан бир бири билан боғланиб, жамиятнинг бутун бир анъанаси мазмунини тўлдиради.

3) Маиший нутқий жанрлар социолингвистик таснифини яратиш. Маиший нутқий жанрлар туркуми ўзида бир қатор ижтимоий омилларни ўзида акс эттиради. Шу сабабли маиший нутқий жанрлар таснифида ушбу ижтимоий омилларни ҳисобга олиб тасниф гуруҳларини шакллантириш ўзига хос тасниф гуруҳларини келтириб чиқаради. Маиший нутқий жанрларнинг социолингвистик кўрсаткичлари тил тизимида ижтимоий кўрсаткичли маиший нутқий жанрлар тизимини шакллантиради. Бунда маиший нутқий жанрларнинг социолингвистик омиллар иштирокига кўра қуйидаги гуруҳларга ажратиш мукин:

- 1) Этник кўрсаткичли маиший нутқий жанрлар: “келин тушди”, “юз очди”, “қаъда”, “ис чиқариш”, “эхсон” нутқий жанрлари;
- 2) Миллат кўрсаткичларига эга маиший нутқий жанрлар: инглиз миллатидаги “дозенс” нутқий жанри, ўзбек миллатидаги “аския” нутқий жанри каби;

- 3) Муайян кичик ёки катта жамиятга хос маиший нутқий жанрлар: маҳалла: “ҳашар” нутқий жанри, оила: алла, тез айтиш, мақол, насиҳат, маслаҳат-кенгаш, ибратли нақллар каби;
- 4) Ижтимоий ҳудудий маиший нутқий жанрлар: қишлоқ, шаҳар, овул қабилардаги лапарлар, фольклор жанрлари қабилар, “келин тушди”, келин салом, юз очди каби;
- 5) Эътиқодий кўрсаткичли маиший нутқий жанрлар: фидеик нутқий жанрлар: дуо, қарғиш, қасамёд каби;
- 6) Ижтимоий жинс (гендер)га оид маиший нутқий жанрлар: аёллар нутқида хос алла, аёллар учун ўтириш, эркакларда аския, ош ўтириши каби;
- 7) Ижтимоий гуруҳ кўрсаткичли нутқий жанрлар: гул базми каби;
- 8) Ижтимоий давр кўрсаткичли маиший нутқий жанрлар: қадах сўзи, гул базми каби;
- 9) Ижтимоий ёшга оид маиший нутқий жанрлар: қариялар нутқида маслаҳат, панд-насиҳат, мақол, матал, нақл, ҳикматли сўзлар, болаларга хос эртак, шеър, оқ терак ва кўк терак каби;
- 10) Кўчага оид маиший нутқий жанрлар: сўқиниш, жанжал нутқий жанрлари, Уйга оид маиший нутқий жанрлар: дастурхон жанрлари, дуо, қадах каби;
- 11) Ижтимоий мавқе кўрсаткичли маиший нутқий жанрлар: президент қасамёди, тиббий қасамёд, талаба қасамёди;
- 12) Ижтимоий вазият кўрсаткичли маиший нутқий жанрлар: масалан, турли тадбирларда: байрам, таъзия каби;
- 13) Ижтимоий давр кўрсаткичли маиший нутқий жанрлар: қадах сўзи нутқий жанри;
- 14) Маросим кўрсаткичли маиший нутқий жанрлар: А) тўй маросими билан боғлиқ маиший нутқий жанрлар; Б) аъза маросими билан боғлиқ маиший нутқий жанрлар; С) туғилган кун билан боғлиқ маиший нутқий жанрлар каби ва ҳоказо.

Ушбу тасниф гуруҳини яна давом эттириш мумкин. Чунки бундан ташқари, тил тизимида ирқларга хос бўлган маиший нутқий жанрлар, аралаш нутқий жанрлар ҳамда нейтрал нутқий жанрлар ҳам мавжуд. Бу эса келажақда макро ва микросоциоллингвистик тадқиқотларга асос бўлади ва янги тасниф гуруҳларининг яратилишига ҳисса қўшади.

4) Маиший нутқий жанрларнинг алоҳида турларини тадқиқ қилиш ва ҳок. Ушбу масаланинг қамрови кенг. Маиший нутқий жанрларнинг алоҳида турларини турли кўрсаткичларига қараб таснифлаш имконияти чегараланмайди ва ушбу кўрсаткичларнинг хусусияти маиший нутқий жанрларни ўрганишни бошқа фанлар билан боғлайди. Масалан, диний кўрсаткичларига кўра маиший нутқий жанрлар туркумининг ўзига хос ички турлари мавжуд. Шунини айтиш керакки, диний кўрсаткичли маиший нутқий жанрларни социоллингвистик жиҳатдан тадқиқ қилиш ушбу туркумни ҳам социал, ҳам лингвистик, ҳам диний жиҳатларини очиб беришни талаб қилади. Демак, бу ўринда диний кўрсаткичли маиший нутқий жанрлар тадқиқи социология, лингвистика, диншунослик фанлари билан боғланади. Диний нутқий жанрлар ва унинг услуби масалалари тадқиқи бевосита рус лингвистик жанршунослари етарлича эътибор қаратганларини алоҳида таъкидлаш лозим.

Улар ўз тиллари ва бошқа хорижий тиллар мисолида диний нутқий жанрларнинг ўзига хос лингвистик хусусиятларини қиёсий планда кўриб чиқдилар³².

Маиший нутқий жанрларнинг алоҳида турлари тадқиқида диний кўрсаткичли маиший нутқий жанрлар тизими ўзига хос ўлиб, диний кўрсаткичли маиший нутқий жанрлар туркумини ўрганишда хорижда фидеик нутқий жанрлар атамаси қўлланилади. Фидеизм сўзи ўзбек тили изоҳли луғатларида француз тилидаги *ишонч*, *эътиқод* маъноларини англатиб, фалсафада имон-эътиқод ақл идрокдан устун туради, деб ҳисобловчи, фан ва илмий билишни чекловчи диний дунёқараш, сифатида таърифланади³³. Шунини айтиш керакки, жамиятда диний дунёқарашни рад қилувчилар ҳам мавжуд бўлиб, улар, асосан, атеистлар ёки динсизлардир. Уларнинг тафаккурида ишонч-эътиқодга бўлган муносабат дунёнинг физик қонунлар асосида яратилганлиги, унда ҳеч қандай магик мантик кўрмаслиги билан характерланади. Диний эътиқод вакиллари эса ўз динлари нуқтаи назаридан ҳар бир нарсанинг моҳиятидан илоҳиёт нуқтаи назарида мантиқ қидиради. Айниқса, уларнинг тафаккурида дунёнинг илоҳий қонунлар асосида яратилганлиги, дунёда бўлиб ўтадиган ҳар бир нарсани ўзининг илоҳий мантиғига эгаллиги билан характерланади.

Шундай қилиб, фидеик нутқий жанрлар моҳиятида халқнинг тарихи, урф одатлари, турмуш тарзи ўзига хос диний ифодаланади ва бунда халқнинг миллий хусусиятлари равшан кўринади. Фидеик нутқий жанрлар ўзида ахлоқий тарбия воситаси сифатида ижмимойи ҳаётда муҳим ўрин тутади. Фидеик нутқий жанрлар муайян халқнинг диний одоб ахлоқ, ишонч-эътиқод, урф одатнинг ўзига хос тарихини акс эттиради. Шу жиҳатдан фидеик нутқий жанрлар халқнинг диний-мифологик тафаккурини ўзида акс

³² Бобырева Е. В. Коммуникативный компонент жанров молитвы и исповеди в пространстве религиозного дискурса / Е. В. Бобырева // Жанры и типы текста в научном и медийном дискурсе: Межвузовский сборник научных трудов / Отв. ред. А. Г. Пастухов. — Орел, 2013. — С. 100–106; Бондарко Н. А. Взаимодействие устной и письменной традиций в немецких медитативных молитвах XIII–XIV веков [Электронный ресурс] / Н. А. Бондарко // Acta Linguistica Petropolitana. Труды института лингвистических исследований. — 2011. — №1. — URL: <https://cyberleninka.ru/article/n/vzaimodeystvie-ustnoy-ipismennoy-traditsiy-v-nemetskih-meditativnyh-molitvah-xiii-xiv-vekov> (дата обращения: 02.07.2021); Бугаева И. В. Молитва как особый жанр современной православной публицистики / И. В. Бугаева // Жанры и типы текста в научном и медийном дискурсе: межвузовский сборник научных трудов. — Орел: Орловский государственный институт культуры, 2006. — С. 157–164; Бугаева И. В. Теолингвистика: теология+лингвистика? / И. В. Бугаева // Язык и метод: Русский язык в лингвистических исследованиях XXI века. — Т. 2: Лингвистический анализ на грани методологического срыва / ред. Д. Шумска, К. Озга. — Краков: W ydawnictwo Uniwersytetu Jagiellońskiego, 2015. — С. 293–300; Войтак М. Проявление стандартизации в высказываниях религиозного стиля (на материале литургической молитвы) / М. Войтак // Текст: стереотип и творчество. — Пермь: Пермский государственный университет, 1998. — С. 214–230; Гадомский А. К. О жанрах религиозного языка в русской и польской теолингвистике / А. К. Гадомский // Стил. — 2009. — № 8. — С. 107–118; Ицкович Т. В. Жанровая система религиозного стиля / Т. В. Ицкович. — Москва: ФЛИНТА, 2021. — 400 с. Карасик В. И. Языковой круг: личность, концепты, дискурс / В. И. Карасик. — Волгоград: Перемена, 2002. — 477 с; Мишланов В. А. Молитва как речевой жанр / В. А. Мишланов // Прямая и непрямая коммуникация. Сб. научных статей. — Саратов: Издательство «Колледж», 2003. — С. 290–302; Плисов Е. В. Композиционные и лексико-грамматические особенности священнической молитвы на часах (на примере немецких католических молитв) / Е. В. Плисов // Известия Волгоградского государственного педагогического университета. — 2012. — № 6. С. 87–91; Постовалова В. И. Адресация в православно-христианском дискурсе: проповедь, исповедь, молитва / В. И. Постовалова // Логический анализ языка. Адресация дискурса. — М.: Индрик, 2012. — С. 177–191; Прохвятилова О. А. Православная молитва как один из ядерных жанров религиозного стиля / О. А. Прохвятилова // Stil. — Beograd. — 2007. — № 6. — С. 153–166; Прохвятилова О. А. Православная проповедь и молитва как феномен современной звучащей речи / О. А. Прохвятилова. — Волгоград: Изд-во Волгоградского гос. унта, 1999. — 364 с; Уразаева Н. Р. Структурно-семантическая характеристика немецко-язычного молитвенного текста: автореф. дис. ... канд. филол. наук / Н. Р. Уразаева. — М., 2003. — 24 с.

³³ Ўзбек тилининг изоҳли луғати. 4 жилд. Т., “Ўзбекистон миллий энциклопедияси” нашри, 2020, 343 бет

эттирувчи нутқий жанрлар бўлиб, уларда миллатнинг эътиқоди акс этади. Ушбу жанрлар орқали Худо билан нутқий мулоқоти амалга ошади. Оддий одамлар дунёси ва Худонинг кудратли кучи билан яқин алоқалари ушбу жанрлар орқали ҳам кечади.

Фидеик маиший нутқий жанрларга *қасамёд, дуо, қадаҳ сўзлари, ҳамдардлик билдириши* кабиларни киритиш мумкин. Фидеик маиший нутқий жанрларни халқнинг ижтимоий-маиший ҳаётида ижобийлик ва салбийлик хусусиятларига кўра шартли равишда ижобий фидеик маиший нутқий жанрлар ва салбий фидеик маиший нутқий жанрларга ажратиш мумкин. Фидеик нутқий жанрлар таснифи масаласида ижобий ва салбий фидеик нутқий жанрларни фарқлаш мумкин. Ижобий фидеик маиший нутқий жанрларга *оилавий маиший нутқий жанрларга алла, қасамёд, дуо, қадаҳ сўзлари, ҳамдардлик билдириши*, кабилар, салбий фидеик маиший нутқий жанрларга эса *қарғиш, қарганиш, сўкиниш* каби маиший нутқий жанрларни киритиш мумкин.

Демак, юқорида таъкидланганидек, фидеик маиший нутқий жанрларни социолингвистик ёндошув асосида ўрганиш, бир тарафдан масалага социология ва тилшунослик нуқтаи назардан ёндошишни талаб қилса, иккинчи тарафдан диншунослик нуқтаи назардан ҳам ёндошишни талаб қилади. Негаки фидеик нутқий жанрларнинг моҳиятида диний-магик тасаввурлар ётади. Магик тасаввурлар ҳақида гап борар экан, магик тасаввурлар барча томонидан бирдек қабул қилинмаслигини таъкидлаш лозим. Антропологлар Э.Бюрнет ва Ж. Фрезерлар кишиларнинг магик тасаввурини қадимдан мавжудлигини алоҳида таъкидлайдилар³⁴. Улар ўз ишларида магия амалиётини илмий тадқиқ қиладилар. Уларнинг таъкидича, кўпгина магик системаларнинг систем структур характери мавжуд, аммо магияни ёлгон ассоциацияларга асосланган иррационал ёки примитив дунёқараш сифатида тасвирлайдилар, магияни маданий эволюция босқичи сифатида талқин қилиб, уни дин илми билан боғлайди. Малиновский магияни психологик таскин топиш деб баҳолайди. Жамиятда диний эътиқод, магик тасаввур каби сўзларни рад этувчилар ҳам мавжуд бўлиб, улар Худо сўзини инсон ожизлиги ифодаси ва унинг маҳсулидан бошқа нарса эмас, деб билади.

Кўринадики, дин халқнинг ижтимоий диний тасаввурлари ва ишонч-эътиқодига асосланса-да диний қарашларда шахсий фикр мулоҳазалар хилма – хиллиги кузатилади Шунга қарамай, жамиятнинг аксарият қисми диний эътиқод танловида бир динга эътиқод қилувчи мамлакатлар мавжуд. Мана шундай жамиятларда тил шакллари танловида диний сўзларнинг кўп қўлланилиши кузатилади. Айтиш керакки, тил тизимида диний маиший нутқий жанрлар ва диний кўрсаткичли маиший нутқий жанрларни мавжуд. Масалан, диний маиший нутқий жанрларга диний суҳбат, китоб, зиёрат, тоат-ибодат, ихтилоф (низолар, келишмовчилик), бидъат, диний товба – тазарруъ, сир, диний фатво, диний даъво, ҳадис, ҳаж, эҳром, умра, оят³⁵, диний эслатма, хурофот, ширк, бутпарастлик, диний мулоҳаза, диний ҳукм, башорат, ваҳий, туш, васият, садақа, қарз, сеҳргарлик, закот, тиланчилик, тажовуз, ирим, башорат ваҳий кабиларни киритиш мумкин. Диний кўрсаткичли маиший нутқий жанрларга эса товба, миннатдорчилик, шукрона келтириш ва дуо кабилар киради. Ушбу жанрларнинг ўзига хос лингвистик ва социомаданий хусусиятлари бор. Дуо нутқий жанри диний эътиқодли жамиятнинг ижтимоий кўрсаткичи саналади. Ўзбек тилида дуоғўй

³⁴ С. Calhoun. Dictionary of Social sciences. USA, 2002, p 287

³⁵ Шайх Муҳаммад Содиқ Муҳаммад Юсуф. Ихтилофлар, сабаблар, ечимлар. Т., “Хилол” нашр, 2019, 136-бет

лексемаси ўзбек халқига хос тушунча бўлиб, ёши жиҳатдан катта, маълум турмуш тажрибасига эга бўлган, такводор инсонларга нисбатан ишлатилади ва ушбу сўз шахс характери кўрсатиб, у ҳақида ижобий хулоса беради. У инсоннинг ижобий фазилатларини сифатловчи луғавий бирликдир. Дуогўй сўзи ўзбек халқининг диний эътиқодли халқ эканлигидан дарак берувчи сўз ҳамдир.

Дуо нутқий жанрининг лингвистик хусусиятлари рус лингвистлари томонидан ўрганилган бўлса-да³⁶, ўзбек тилидаги дуо нутқий жанрининг ижтимоий лингвистик хусусиятлари масаласи ҳам тадқиқотталаб масалалардан эканлигини алоҳида қайд этиш лозим. Чунки турли тизимли тилларда дуо нутқий жанрида халқ идеологияси ва феъл-атвор хусусиятлари (мақоллар, маталлар, мифлар, фразалар, жумлалар орқали: Худони танитай қолишлик, яъни босар тусарини билмай қолишлик, урушмасликни ўзига раво кўриш маъносиди: Худо бас келсин, Худога солдим, Худо жазосини берсин, Худо бор каби, бундан ташқари дуогўй ота-оналар, Художўйлик, яъни Худога эътиқод қилиш мақсадида Худони улуғлаш, мадҳ этиш, Худони англаш каби) ифодаланиши ва тарихи, дуонинг амалий жараёнлардаги реал ва нореал мазмуни (Дуо килиб қўяверинг, яъни умидни узмоқ маъносиди), амалий ва илмий жиҳатдан тасдиқланмаган хурофот фикрлар (дуоибад қилиш, оқпадар бўлиш, оқ қилиш, қарғишга қолиш, сеҳр-жоду қилиш, афеун ўқиш, кўнглини огритиш, мазлум дуоси), дуо кучи (садақа радди бало, олтин олма-дуо ол, дуо олтин эмасми) каби масалалар ўз тадқиқини кутмоқда. Айниқса, дуо нутқий жанри этикасида вербал ва новербал (кўз, қош, бурун, гавда, оёқ, қўл, бош каби тана аъзолари ҳаракатларнинг дуога хосланиши (ўтириб ёки туриб дуо қилиш) воситалар, дуо нутқий жанрида лингвистик атрибутлар, дуо адресанти (азиз саналган инсонлар: мулла, қори, ота она, ака, опа, ногиронлар, тиланчи қабилар), дуо адресати (гуноҳкор, иши юришини тиловчи шахс), дуо объекти, (а) муқаддас шахсларга йўналтирилган (Худо (намоз), азиз авлиёлар (Хизр бува), б) инсонларга йўналтирилган: болалар, дўстлар, марҳумлар (ота-она ёки қариндошлар), в) хайрли ишларга йўналтирилган: лавозим, ютуқ, камчилик (ривож дуо), тўй, бирор нарса (уй, машина) сотиш (Хизр бозорини берсин каби) сотиб олиш) қабиларнинг ўзига хосликларини ўрганиш лозим. Шу билан бирга, дуо нутқий жанрида адресант ва адресат муносабатига кўра дуолар таснифи масалалари, масалан, муқаддас шахсларга йўналтирилган (Худо, азиз авлиёлар, Хизр бува каби, инсонларга йўналтирилган: болалар, дўстлар, марҳумлар каби), хайрли ишларга йўналтирилган (лавозим, ютуқ, тўй) дуолар уни социолингвистик тадқиқ қилишга асос бўлади.

Булардан ташқари, дуо нутқий жанрининг диний хусусиятлари тадқиқи ҳам ўзига хос масаладир. Дуо нутқий жанрининг диний асосларида дуонинг илоҳиёт билан алоқаси

³⁶ Бондарько Н.А. Взаимодействие устной и письменной традиций в немецких медитативных молитвах XIII-XIV веков [Электронный ресурс] / Н.А. Бондарько//Acta linguistica Petropolitana. Труды института лингвистической исследований. – 2011. - №1, -URL: <https://cyberleninka.ru/article/n/vzaimodeystviye-ustnoy-i-pismennoy-traditsiy-v-nemetskih-meditativnykh-molitvax-xiii-xiv-vekov> (дата обращения:02.08.2022);

Е.В.Плисов. Композиционные и лексико-грамматические особенности священной молитвы на часах (на примере ремесленных католических молитв) Е.В.Плисов//Известие Волгоградского государственного педагогического университета. – 2012, №6, С 87-91; О.А. Прохвятилова. Православная молитва как один из ядерных жанров религиозного стиля/О.А.Прохвятилова//Логический анализ языка. Адресация дискурса. – М.: Индрик, 2012. – С 177-191; Е.В.Бобырова. Коммуникативный компонент жанров молитвы и исповеди в пространстве религиозного дискурса/ Е.В.Бобырова//Жанры и типы текста в научном и медийном дискурсе: Межвузовский сборник научных трудов/Отв.ред.А.Г.Пастухов. –Орел, 2013. – С 100-106

ва шу орқали юзага келадиган дуо турларини ўрганиш имконияти мавжуд. Шунини айтиш керакки, ҳар қандай жамият диний эътиқотида дуо Худо ва унинг буйруқлари асосида шаклланиши билан характерланади. Дуо бу Худонинг мавжудлиги белгиси бўлиб, Худо билан суҳбатга киришишни англатади. Демак, дуо илоҳий кучларга ишониш, сизиниш замида ўз ифодасини топади. Айниқса, дуонинг араб тилида айтилиши, адресантларнинг пайғамбар ва унинг авлодлари ёхуд диний кўрсатмаларда танланган кишиларнинг бўлиши, турли предметлар, хусусан, тасбеҳ, муқаддас китоб кабилар дуонинг илоҳийлик даражасини оширади.

Дуо нутқий жанри диний фалсафий моҳиятига кўра тил эгаси мансуб жамият тафаккурида Худо билан нутқий мулоқот қилиш имконини берувчи нутқий жанрлардан саналади. Оддий одамлар дунёси ва Худонинг қудратли кучи билан яқин алоқалари ушбу жанрлар орқали кечади. Диний матнлар шунини тасдиқлайдики, сўзловчи ва тингловчи ўртасидаги коммуникатив муносабатларда бу матнларга мазмун берувчи ва ҳаётийлигини таъминлаш имконини берувчи, нутқни қабул қилувчи бу Худо саналади. Кўпгина матнлар Худога алоқа ўрнатиш вазифасини бажариш мақсадида Худони шарафлаш орқали бошланади. Дуоларнинг инсон психологиясига таъсири инсон қувончи, зерикаш, хаяжонлашиш, ҳадиксираш, севиш, ғам-андуҳ каби туйғуларда хотиржамликни таъминловчи, руҳий таскин олиш, мотивация бериш воситаси эканлигида кўринади. Бу эса дуони кишига руҳий медитация воситаси эканлигидан дарак беради. Инсонлар тафаккурида бурч ва мажбуриятни енгиллатиш учун ҳам *Мендан қайтмаса, Худодан қайтсин* каби дуо айтишлари ҳам дуо, ҳам миннатдорчилик, ҳам қарздорлик мазмунини келтириб чиқаради ва ушбу восита кишининг ўз-ўзига психологик тасалли бериш усули саналади.

Дуо нутқий жанрида социолингвистик хусусиятлар ўзига хосдир. Масалан, коллективизмга амал қиладиган мамлакатларда дуо маҳаллани, жамоани бошқариш қуроли, воситаси ҳамдир. Бунда эл юрт дуоси, эл-юрт дуосига сазовор бўлишга эришиш биринчи ўринга қўйилади. Айниқса, эркаклар дуоси юксакланади. Шу сабабли ҳам маҳалла оқсоқоллари маслаҳатини олиш, дуосига эришиш кишилар орасида кенг тарқалган. Аёлларнинг дуосида оналар, кекса онахонлар дуоси, хожионалар дуоси ўзига хосдир.

Дуо нутқий жанрида кексалар дуосининг ўзига хослигини алоҳида таъкидлаш ўринлидир. Шунини айтиш керакки, ўзбек халқи тарихида кексалар ҳар доим, ҳамма жойда тирик тарих, аждодларни кўрган, ҳикматли улуғлар деб эъзозланган. Уларни ҳурматлаш масаласи муҳокама қилинмаган. Унга амал қилинган³⁷. Ўзбек социал жамиятида кексаларнинг социал қиёфаси унинг дуосида кўринади. Аммо олиб борилган тадқиқотлар шунини кўрсатадики, кексаликнинг дуо билан ўлчаниши барча халқлар учун ижтимоий меъёр бўла олмайди. Масалан, хитойликлар цивилизацияси тарихида 70 ёшдан ошган бир кекса қариянинг болаларнинг курама қўйлагини, калта иштонини кийиб юрганлиги, ўзини боладек тутишини, буларнинг барини у ота-онасига уларнинг қариб қолганини эслатмаслик, ранжитиб қўймаслик мақсадида қилганлиги хитой халқи хос ижтимоий меъёр саналади³⁸. Лекин бу ижтимоий меъёр ўзбек маданиятида кузатилмайди. Чунки ислом дини кексаларни ўзини тутиш қоидаларини диний нуқтаи назаридан ўз қоидаларини ўзига хос тарзда белгилаб берган. Бунда кексаларга бўлган ижтимоий муносабатларда

³⁷ М. Қуроноф. Оталар китоби. Т., Ўзбекистон, 2007, 44 бет

³⁸ И. Кородовец. Китайцы и их цивилизации. СПб 1898, с 485.

кексалар дуоси, кексаларни кадрлаш каби ижтимоий кадриятлар устунлик қилади ва кексалар дуоси бизни бало қазолардан асрайди³⁹, мўсафидларни эъозлаш, аллоҳни эъозлашдир⁴⁰, кимки чиқса остонасидан, дуо олсин ўз онасидан⁴¹, кексаларни асранг-уларнинг дуолари сизни асрайди⁴² каби метафорик иборалар асосида ёш авлод тарбия топади ва кичик ёшдагиларга тегишли ҳатти ҳаракатларни қилиш мумкин эмас. Ҳатто, ўзбек социумида кексаларни кадрлаш давлат сиёсати даражасига кўтарилган. Жумладан, президент ташаббуси билан 2015 йил “кексаларни эъозлаш йили” деб эълон қилинди. Бу эса кексаларни кадрлаш ва муҳим ижтимоий масала сифатида қаралишининг яққол далилидир⁴³. Ўзбек миллий кадриятларида кексаларга ўз фарзандларини оқ ювиб, оқ тараган, уларнинг қувонч ва ташвишини умр бўйи елкасида кўтариб келган мўътабар шахс сифатида қаралиб, уларни рози қилиб, дуоларини олишликка даъват қилинади. Кексаларни эъозлаш уларга чуқур ҳурмат, меҳр, илтифот ва эҳтиром кўрсатишдир⁴⁴, деб уқтирилади. Айниқса, кексаларга ҳар томонлама ҳурмат, эъоз ва эҳтиром кўрсатиш барча учун ҳам қарз, ҳам фарз эканлиги, мўътабар ота-оналарни рози қилиш, уларнинг дуосини олиш дунёдаги энг улуғ, энг савобли иш⁴⁵га тенглаширилади. Айниқса, кексаларни ҳурматлаш борасида оилада кекса бўлса, бу оилада албатта файзу барака, фаровонлик, аҳиллик бўлиши⁴⁶га ишонилади, эришаётган ютуқларда ота-оналарнинг, мўътабар кексаларнинг улкан ва унутилмас хизмати бор⁴⁷лиги, қариялар кадр топган юртда меҳр-оқибат, қут-барака, тинчлик-хотиржамлик бўлиши⁴⁸, кексаларни кадрлаган кадр топаверишига ишонилади. Шунинг учун ҳам ўзбек жамияти тафаккурида кексаларни кадрлаш борасида қуйидаги ҳикматлар, мақоллар, ҳадислар юзага келган:

Ўзбек жамиятида нафақат кекса, балки ота-онанинг дуосини олиш ҳам улуғланади, бу эса ота-она хизматини қилишни англади.

*Кишининг бор эрса ото ва оноси,
Фаниматдур анга аларнинг ризоси.
Худонинг қошида қабули яқиндур,*

³⁹Кексаларни эъозлаб, дуосини олайлик. Ўзбекистон Республикаси “Тасвирий ойна” ижодий уюшмаси. Extremum-Press. Тошкент-2015, 20 бет

⁴⁰ Кексаларни эъозлаб, дуосини олайлик. Ўзбекистон Республикаси “Тасвирий ойна” ижодий уюшмаси. Extremum-Press. Тошкент-2015, 45 бет

⁴¹Кексаларни эъозлаб, дуосини олайлик. Ўзбекистон Республикаси “Тасвирий ойна” ижодий уюшмаси. Extremum-Press. Тошкент-2015, 15 бет

⁴²Кексаларни эъозлаб, дуосини олайлик. Ўзбекистон Республикаси “Тасвирий ойна” ижодий уюшмаси. Extremum-Press. Тошкент-2015, 18 бет

⁴³Кексаларни эъозлаб, дуосини олайлик. Ўзбекистон Республикаси “Тасвирий ойна” ижодий уюшмаси. Extremum-Press. Тошкент-2015, 7 бет

⁴⁴Кексаларни эъозлаб, дуосини олайлик. Ўзбекистон Республикаси “Тасвирий ойна” ижодий уюшмаси. Extremum-Press. Тошкент-2015, 11 бет

⁴⁵Кексаларни эъозлаб, дуосини олайлик. Ўзбекистон Республикаси “Тасвирий ойна” ижодий уюшмаси. Extremum-Press. Тошкент-2015, 12 бет

⁴⁶Кексаларни эъозлаб, дуосини олайлик. Ўзбекистон Республикаси “Тасвирий ойна” ижодий уюшмаси. Extremum-Press. Тошкент-2015, 12 бет

⁴⁷Кексаларни эъозлаб, дуосини олайлик. Ўзбекистон Республикаси “Тасвирий ойна” ижодий уюшмаси. Extremum-Press. Тошкент-2015, 12 бет

⁴⁸Кексаларни эъозлаб, дуосини олайлик. Ўзбекистон Республикаси “Тасвирий ойна” ижодий уюшмаси. Extremum-Press. Тошкент-2015, 18 бет

*Ота ва онанинг болага дуоси*⁴⁹.

Демак, ота-онанинг дуоси ижобати тез юзага чиқиши билан характерланади. Ота-онани ҳурмат қилиш фарзандлар учун мажбурият ҳисобланиб, ҳамма хизматни одоб билан бажаришга даъват қилинади. Отага итоат қилиш Тангрига итоат қилиш билан тенглаштирилади⁵⁰. Ушбу ижтимоий идеологияга кўра кимки ота-онасининг розилигини олган бўлса, Тангри унинг умрини узайтиришига ишонилади⁵¹.

Дуо нуткий жанрининг лингвистик хусусиятлари масаласи ҳам ўзига хос бўлиб, бунда дуо матнларининг композицион тузилиши, уларнинг грамматик, лексик-семантик, структур каби хусусиятлари тадқиқи кабиларни ўрганиш муҳимдир. Ижтимоий ҳаётда кўп қўлланилувчи дуолар семантикасини ўрганиш шуни кўрсатадики, уларни шартли равишда 2 га: ижобий (барақа, ривож, яхши, эзгу тилак билдириш) ва салбий (қарғиш, афсун, сеҳр-жоду каби) дуоларга ажратиш мумкин.

Ижобий дуолар умуман кишилар бир-бирларига тилайдиган яхшиликлар, яхши ниятлардир. Ижобий дуолар олиш мазмунида ўзбек социумида кўплаб метафорик мақоллар юзага келган. Масалан, *олтин олма дуо ол - дуо олтин эмасми. Меҳнат билан ер кўқарар, дуо билан эл, юртнинг дуосини олган кам бўлмайди*⁵².

Салбий дуолар кимсага ёмонлик тилаб қилинган дуо, яъни қарғиш, афсун, сеҳр-жоду кабиларни назарда тутаяди. Масалан, қарғиш: *Оқсой: Бермасанг, дуоибад қилиб, ишингни хуржунлаштираман. (К. Яшин, Ҳамза)*. Изоҳли луғатларда афсун, сеҳр-жоду кишининг соғлиғи, ўлими, бахтсизлигига сабабчи деб ҳисобланувчи ёвуз кучлар, инс-жинсларни қайтариш, кимсани кимсага иситиш ва шу кабилар учун азайимхонлар, дуохонлар томонидан қиладиган тумор ва шу кабиларга ёзиб бериладиган матн, хат, дея изоҳланади. Масалан, *Ўзбек ойимнинг мияси айнидими ёки ... сеҳрчи ҳиндунинг дуоси асар қилдими, ҳар нечук, уч йиллик адоватлар ва гина қудуратлар барчаси ҳам аллақажққа қараб учиб кетдилар. (А.Қодирий. Ўтган кунлар). Сиз туғмас экансиз, бахтингиз боғланган, фарзандталаблар менинг дуоим билан тўққизой деганда фарзанд кўрадилар. (К. Яшин, Ҳамза)*.

Ўзбек тилида дуо сўзи билан боғлиқ ибораларнинг ҳам ўзига хос ўрни бор. Масалан, дуо демоқ-салом демоқ, салом айтиб қўймоқ. *Худога шукур, тинчлик, азаматлар зўр бериб ишлаб ётибди, дуо дейишди – деди Алим бува. (М. Исмоилий, Фарғона тонг отгунча)*. *Нормат аканга дуо деб қўй, қизим. (И.Рахим. Чин муҳаббат)*. *Қудрат акам дуо деб юбордилар. Дуода бўлмоқ – кимсага доимо яхши тилаклар тилаб ўтирмоқ. Шоду ҳуррам бўлиб, ўйнаб кул энди, хафа бўлмай сен дуода бўл энди. (Маликай айёр)*. Дуои салом. Салом ва яхши тилаклар ёзилган хат, мактуб. *Ўзлингиз сизга бир дуоисаломлар юборган эди. (Ойдин, ҳикоялар)*. *Холмат акаларга кўпдан кўп дуоисаломимизни етказинг. (О. Ёқубов. Эр бошига иш тушса)*.

Дуо нуткий жанрининг тил тизимида, асосан, қуйидаги функционал мазмунлари учрайди:

⁴⁹ Кексаларни эъозлаб, дуосини олайлик. Ўзбекистон Республикаси “Тасвирий ойна” ижодий уюшмаси. Extremum-Press. Тошкент-2015, 24 бет

⁵⁰ Хадиси шарифдан. Кексаларни эъозлаб, дуосини олайлик. Ўзбекистон Республикаси “Тасвирий ойна” ижодий уюшмаси. Extremum-Press. Тошкент-2015, 45 бет

⁵¹ Кексаларни эъозлаб, дуосини олайлик. Ўзбекистон Республикаси “Тасвирий ойна” ижодий уюшмаси. Extremum-Press. Тошкент-2015, 12 бет

⁵² Ўзбек тилининг изоҳли луғати. 665 бет

1. тиланчи нутқида дуо мазмуни:

А) пул бергандан сунг айтилса, дуо миннатдорчиликни англатади. *Тутган рўзаларингиз қабул бўлсин. Фарзандларингизни роҳатини кўринг (Сўзлашувдан)*

Б) пул берилмай туриб айтилса, пул сураш мазмуни англашилади. *Худойим хайру-эҳсонингизни қабул қилсин:*

2. таъзияда ҳурмат ва ҳамдардлик мазмунида: *Аллоҳ ажрингни улуг қилсин, сабрингни гўзал қилсин ва вафот этганни мағфират қилсин.*

3. ўзаро меҳмондорчиликда: *Илоҳим, Қадам етди, бало етмасин. Янаги шу кунларга эсон омон етайлик.*

4. тингловчини ундаш: *Барака топгур, юрмайсанми?*

5. мақтов, миннатдорчилик маъносида: *Барака топинг, раҳмат маъносида,*

6. овқатланганда: *Ош бўлсин!, “Баняид шифо” (шифо бўлсин маъносида)*

7. аксирганда “Алҳамдиллиллаҳ” иборасини айтиш ва ҳоказо. Хуллас, дуо нутқий жанри тил тизимида турли нутқий актлар таркибида келиб, уларнинг маъносини тўлдиради ва диний ижтимоий кўрсаткичга эга бўлади. Дуо нутқий жанри *табриклаш, тилак, дастхат, қадаҳ сўзлари, мақтов, комплимент* каби турли нутқий жанрлар таркибида ҳам келади. *Ассалому алайкум, Бобуржон! Таваллуд айёмингиз муборак бўлсин! Аллоҳимдан сизга узоқ умр, мустаҳкам соғлиқ, бахт, омад, ишларингизда улкан зафарлар тилайман!* Ушбу гапда *Аллоҳимдан тилайман* гапи дуо нутқий жанрининг индикатори ҳисобланади. Бу эса дуо нутқий жанрининг мустақил вазифасидан ташқари ёрдамчи вазифа бажаришини англатади.

Шуни айтиш керакки, жамиятнинг турли ижтимоий диний тадбирларида дуо нутқий жанри тадбирни бошлаб бериш ва яқунлаш жараёнларида қўлланилади. Бунда унинг суҳбатни бошлаш ва тугатиш функцияси юзага келади. Ҳатто дуонинг бошлаш ва тугатиш функцияси диний китобларда муқаддима ва кириш сўз, хулоса кабиларда ҳам ўз аксини топади. Масалан,

“Ҳадиси шарифнинг ўрни” китоби муқаддимаси бошланиши:

Аллоҳ Таолога беадад ҳамду санолар бўлсин!

Аллоҳнинг набийси Муҳаммад мустафога саловот ва саломлар бўлсин!

Бу китобнинг ёзилишига сабаб бўлган турли омиллар бўлганидек, унинг таржима қилинишига ҳам китоб ва унинг муаллифи билан боғлиқ бирор ҳодиса туртки бўлади. Сиз муҳтарам ўқувчиларимизга тақдим қилинаётган ушбу тардиманинг ҳам ўзига хос тарихи бор⁵³.

Муқаддиманинг тугатилиши:

Роббимиз бу асарни устозимиз учун садақаи жория ҳамда манфаати илм ўлароқ ҳусни қабул қилиб, у зотни раҳмату мағфиратига буркасин, охиратларини обод айласин!⁵⁴

Аллоҳим, бизни, ота-онамизни, устозларимизни, аҳлимиз ва фарзанду зурриётларимизни ҳамда барча мусулмонларни мағфират қил. Саййидимиз ва мавломиз Муҳаммадга, у кишининг аҳли байтларига, саҳобаларига ва уларга яхшилик ила эргашганларга қиёмат кунига қадар салоту саломлар бўлсин!⁵⁵

⁵³ Шайх Муҳаммад Аввома. Факих имомлар ихтилофида. Ҳадиси шарифнинг ўрни. Т., хилол, 2018, 3-бет.

⁵⁴ Шайх Муҳаммад Аввома. Факих имомлар ихтилофида. Ҳадиси шарифнинг ўрни. Т., хилол, 2018, 5-бет.

⁵⁵ Шайх Муҳаммад Аввома. Факих имомлар ихтилофида. Ҳадиси шарифнинг ўрни. Т., хилол, 2018, 13-бет.

Дуо нутқий жанрида дуонинг ўзининг тугалланишини англатувчи сўз “Омин” сўзидир. Ушбу сўзнинг келиб чиқишининг диний асослари бор. Илмий диний адабиётларда “Омин” сўзи билан қуйидаги ривоятлар келтирилади:

1) Абу Ҳурайра соллолоху анхудан ривоят қилинади: Расулуллоҳ (сав) Имом “Ғойрил маҳдуби алайҳим валаддолийн”, деса “омийн” денглар, кимнинг айтгани фаришталарнинг айтганига тўғри келиб қолса, унинг ўтган гуноҳлари маҳфират қилинади., дедилар⁵⁶.

2) Абу Мусо Ашъарий розияллоху анху айтди: “Расулуллоҳ соллаллоху алайҳи васалам хутба қилдилар, суннатимизни баён этдилар, намозимизни ўргатдилар ва: “намоз ўқисангиз, сафга турунглар, бирингиз имом бўлсин, у такбир айтса, сиз ҳам ықбир айтинг, у “Ғойрил маҳдуби алайҳим валаддолийн” деса, омийн, денг, Аллоҳ ижобат қилади. Демак, дуонинг ижобати белгиси Омийн сўзидир. Омийн лафзи дуодир⁵⁷. Унинг маъноси “ижобат қил”, яъни дуони қабул қил, демакдир⁵⁸.

3) Омийн лафзи Қуръондан эмас, боз устига, ушбу лафз арабча ҳам эмас. “Азуз биллаҳир минаш шайтони ррожийм” эса Қуръондандур, яъни Аллоҳ Таоло Қуръон ўқиганда уни айтишни вожиб қилган.

4) Ҳабиб ибн Маслама Фехрийдан ривоят қилинади: “Расулуллоҳ соллаллоху алайҳи васаламнинг “Бир қавм жамланса ва баъзиси дуо қилса, қолганлар омийн деса, Аллоҳ уларни албатта ижобат қилади, деганларини эшитдим⁵⁹”

Демак, *омин* сўзи жамоавийликка йўналтирилган сўз ҳамдир. Дуо нутқий жанрининг жамоавийлик хусусиятлари ҳам бевосита диний қарашлар билан боғланади. Бунда дуонинг коллектив жамоадаги қадрлари ва ижобати юксакланади. Масалан, Савбон розияллоху анхудан ривоят қилинади: “Расуллоҳ соллаллоху алайҳи васалам: “Бир киши қавмга имомлик қилса, уларни қўйиб, фақат ўзига дуо қилмасин. Агар шундай қилса, уларга хиёнат қилган бўлади.⁶⁰”. Жамоавий дуо масжидлардан ташқари умумийроқ жойларда ҳам шаръийдир⁶¹. Қачон қори омийн деса, сиз ҳам омийн денг, чунки фаришталар ҳам омийн дейди⁶².

Жамоавий дуо ўзбек халқида диний фалсафий асосли ривоятларга таянади: “У киши дуоси қабул бўладиган одамлардан эди. Бир гуруҳ аскарга амир бўлиб борди. Душманга йўлиққанларида: “Набий соллаллоху алайҳи васаламнинг “Бир қавм жамланса, баъзиси дуо қилса ва қолганлари “Омийн” деса, Аллоҳ уларни албатта ижобат қилади”, деганларини эшитдим” деди. Кейин Аллоҳга ҳамду сано айтиб туриб: “Аллоҳим! Қонларимизни сақлагин. Ажрларимизни шаҳидларнинг ажрларидек қилгин”, дея дуо қилиб турган эди, душманнинг амри таслим бўлиб, Ҳабибнинг чодирига кириб келди⁶³. Баҳутий “Кашфул киноъда” қуйидагиларни айтади: “Имом бомдод ва асрдан кейин ўша пайтда фаришталар ҳозир бўлиши эътиборидан дуо қилади. Қавм “Омийн”, деб туради. Шунда ижобатга яқин бўлади. Шунингдек, мазкур иккисидан бошқа намозларда ҳам дуо қилади. Чунки фарз

⁵⁶ Шайх Муҳаммад Содиқ Муҳаммад Юсуф. Ихтилофлар, сабаблар, ечимлар. Т., “Хилол” нашр, 2019, 40-бет

⁵⁷ Шайх Муҳаммад Содиқ Муҳаммад Юсуф. Ихтилофлар, сабаблар, ечимлар. Т., “Хилол” нашр, 2019, 46-бет

⁵⁸ Шайх Муҳаммад Содиқ Муҳаммад Юсуф. Ихтилофлар, сабаблар, ечимлар. Т., “Хилол” нашр, 2019, 46-бет

⁵⁹ Шайх Муҳаммад Содиқ Муҳаммад Юсуф. Ихтилофлар, сабаблар, ечимлар. Т., “Хилол” нашр, 2019, 123-бет

⁶⁰ Шайх Муҳаммад Содиқ Муҳаммад Юсуф. Ихтилофлар, сабаблар, ечимлар. Т., “Хилол” нашр, 2019, 124-бет

⁶¹ Шайх Муҳаммад Содиқ Муҳаммад Юсуф. Ихтилофлар, сабаблар, ечимлар. Т., “Хилол” нашр, 2019, 124-бет

⁶² Шайх Муҳаммад Содиқ Муҳаммад Юсуф. Ихтилофлар, сабаблар, ечимлар. Т., “Хилол” нашр, 2019, 124-бет

⁶³ Шайх Муҳаммад Содиқ Муҳаммад Юсуф. Ихтилофлар, сабаблар, ечимлар. Т., “Хилол” нашр, 2019, 125-бет

намоздан кейинги пайт дуо қабул бўладиган вақтлардандир. Шундай экан, жамоа бўлиб дуо қилиш мустаҳабдир. Аммо у суннат эмас⁶⁴.

Шундай қилиб, дуо нутқий жанрининг диний фалсафий асосларини ўрганиш, унинг жамоавийлик хусусиятларини очиб беради. Диний илмий китобларда ҳар бир ҳодиса дуо билан амалга ошиши, Худонинг инояти билан бўлишига ишонилади. Шунинг учун ҳам ижтимоий ҳаётнинг барча жабҳаларида дуо кўринишидаги нутқий актларнинг учраши табиийдир. Масалан, овқатланиш вақтида ҳам бошлаш, тугатиш каби қисмларда дуо билан боғлиқ махсус иборалар ва диний кўрсатмалар мавжуд. Еб ичишдан олдин “*Бисмиллаҳир роҳманир роҳийм*”, деб айтиш диний одатдир.

Ҳадис. Ойша розияллоху анҳо онамиздан ривоят қилинади, Расуллуллоҳ алайҳи ва салом: “Сизлардан қайси бирингиз таом еса, Аллоҳнинг исмини зикр қилсин. Агар аввалида Аллоҳнинг исмини зикр қилишни унутиб қўйган бўлса, Бисмиллаҳи аввалаҳу ва охираҳу” десин, дедилар. (Абу Довуд ва Термизий ривояти)⁶⁵. Бир жойда баҳам бўлиб, бисмиллоҳ деб еб ичинглар, шунда овқатингиз баракали бўлади⁶⁶. Аллоҳ бир нарсани еб ичганидан кейин, унга ҳамд келтирган кишидан рози бўлади. (Муслим, ибн Можа)⁶⁷. Одоб китобларида сув ичишнинг ўзида 7та суннат бор. 1) Сув ичишдан олдин Бисмиллоҳ дейиш, 7) ичиб бўлиб, алҳамдиллиллоҳ, дейиш⁶⁸. Диний асарларда овқатланиш билан боғлиқ жараёнларда ушбу қоидалар амалда бўлади:

1) Бисмиллоҳни айтиш шарт. Агар овқатланишни бошлаганда эсидан чиқиб қолган бўлса овқатнинг орасида ҳам Бисмиллоҳи аввалан ва охиран, дейиш керак; Б) бошқа бировнинг молини ноҳақ тарзда олиб, уни ейишда “Бисмиллоҳ” дейиш⁶⁹ керак.

2) Ҳадис. Таомингиз атрофига ҳаммангиз йиғилинг ва овқатланишни бошлашда Аллоҳнинг исмини (Бисмиллаҳир роҳманир роҳиймни)ни эсланг, агар шундай қилсангиз Аллоҳ Таоло у таомни сиз учун муборак қилади⁷⁰.

3) Овқатланиб бўлгандан сўнг уй эгасига баракот, раҳмат ва маҳфират тилаб дуо қилинади⁷¹. Дастурхон бошида ўзингизни Аллоҳнинг ҳузурида деб билингу унинг берган неъматларини еб турганингизни унутманг⁷².

Дуо нутқий жанрида барокот тушунчаси кўп қўлланилади. Қуръони Каримдан ўрин олган энг ажойиб ифодалардан бири бу барокот ҳисобланади. Барокот эса дуо ва ибодат билан қўлга киритиладиган тўкин-сочинлик, хайр ва хурсандчиликни англатади⁷³. Дуо умрининг баракасини кўпайтиради⁷⁴, деган диний ғоя халқ орасида кенг тарқалган бўлиб, шу сабабли ҳам умрингизга, ризқингизга Худойим барокот берсин, жумласи оммалашган.

Кимки йўлчиликка чиқиб, биродари билан видолашгач, уларнинг дуоси билан баракага эришади. (Дайлабий)⁷⁵. Демак, дуо кут-барака рамзи сифатида инсон руҳий

⁶⁴ Шайх Муҳаммад Содиқ Муҳаммад Юсуф. Ихтилофлар, сабаблар, ечимлар. Т., “Хилол” нашр, 2019, 125-бет

⁶⁵ Улуғбек Султон. Ризқ ҳақида рисола. Т., Сано стандарт нашриёти, 2017, 168-бет

⁶⁶ Улуғбек Султон. Ризқ ҳақида рисола. Т., Сано стандарт нашриёти, 2017, 169-бет

⁶⁷ Улуғбек Султон. Ризқ ҳақида рисола. Т., Сано стандарт нашриёти, 2017, 170-бет

⁶⁸ Улуғбек Султон. Ризқ ҳақида рисола. Т., Сано стандарт нашриёти, 2017, 176-бет

⁶⁹ Улуғбек Султон. Ризқ ҳақида рисола. Т., Сано стандарт нашриёти, 2017, 180-бет

⁷⁰ Улуғбек Султон. Ризқ ҳақида рисола. Т., Сано стандарт нашриёти, 2017, 182-бет

⁷¹ Улуғбек Султон. Ризқ ҳақида рисола. Т., Сано стандарт нашриёти, 2017, 188-бет

⁷² Улуғбек Султон. Ризқ ҳақида рисола. Т., Сано стандарт нашриёти, 2017, 195-бет

⁷³ Улуғбек Султон. Ризқ ҳақида рисола. Т., Сано стандарт нашриёти, 2017, 196-бет

⁷⁴ Улуғбек Султон. Ризқ ҳақида рисола. Т., Сано стандарт нашриёти, 2017, 198-бет

⁷⁵ Улуғбек Султон. Ризқ ҳақида рисола. Т., Сано стандарт нашриёти, 2017, 199-бет

маънавий оламида, тафаккурида образлашади. Диний кўрсатмалар шуни тасдиқлайдики, ҳар қандай ишни дуо билан, хусусан, “*Бисмиллоҳ*” демасдан бошлаш мумкин эмас. Бисмиллоҳсиз бошланган ҳар қандай ишга шайтон ва жинлар шерик бўлади⁷⁶, метафорик ибораси ўша ишни муваффақиятсизлик ва хосиятсиз тугашига ишорадир. Касал кишилар ҳаётида ҳам дуоларнинг ўрни ва аҳамияти катта. Диний қарашларда шифо берувчи Оллоҳдир. Бу эса Оллоҳнинг сифатларида кўрсатилган. Шу сабабли ҳам Аллоҳдан нажот излаб муножот қилиш зарур. *Агар Аллоҳ менга шифо беради, бироқ шу дори орқали, шу шифокор орқали*, деб тафаккур қилиб⁷⁷, “*банад шифо*” калимаси айтилиб дорилар ичилса, касалнинг тузалиши худодан сўралган бўлади.

Ўзбек диний анъаналарига кўра, дуо адресантлари танланган шахслардир, бунга кўра уларнинг дуоси ижобати шубҳасиз амалга ошади. Буларга ота-онанинг фарзанди номига қилган дуоси, хожиона/отанинг дуоси, умрачининг қилган дуоси, беморнинг дуоси, мусофирнинг дуоси, мазлумнинг дуоси, арафа кунисидаги дуо, азон билан иқомат орасида қилинган дуо, намоздаги сажда пайтида қилинадиган дуо, фарз намозларидан кейин қилинган дуо, жума кунисидаги маълум бир пайтда қилинган дуо, рўздорнинг оғиз очаётган пайтда қилган дуоси, қадр кечасидаги дуо, мусулмоннинг мусулмон биродари ҳаққига қилган махфий дуоси кабиларни киритиш мумкин. Демак, дуо ижобатида дуо адресантларининг ота-она, хожи ота/она, умрачи, бемор, мусофир, мазлум, рўздор, мусулмон каби ижтимоий мақоми ва арафа, азон, намоз, сажда, иқомат, жума кабилар вақт асосий элементлардир.

Юқоридаги муаммоларнинг чуқур ўрганилиши дуо нутқий жанрининг социолингвистик хусусиятларини очиб беради ва унинг турларидаги миллий маданий хусусиятларни аниқлашга хизмат қилади.

Хулоса. Социолингвистик тадқиқотларда тилга ёндошув ўзига хосдир. Бунда тил жамият томонидан яратилган бўлиб, унинг тақдири ҳам жамият тақдири билан чамбарчас боғлиқ, деб ҳисобланилади. Тилдаги ижтимоий маданий фарқларни топишнинг пировард мақсади тил тизимидаги ижтимоий маданий шаклларнинг ўзига хосликларини очиб беришдир. Муайян нутқий жанрда мавжуд қолипланган ижтимоий лингвистик шакллар муайян ижтимоий қонуниятлар асосида бошқарилади. Маиший нутқий жанрларнинг социолингвистик хусусиятлари таҳлили тил тизимида мустақил равишда ўзида нутқий мақсад, композиция, услубий хусусиятларни акс эттирувчи нутқий бутунликлардан ташкил топган маиший нутқий жанрлардаги лингвистик воситалар (вербал ва новербал воситалар, лингвистик атрибутлар)нинг муайян жанрий система ҳосил қилиш, яъни бутун-бўлак ҳосил қилишдаги социал (ижтимоий) ахборотлар тизимининг ўзига хослигини аниқлайди. Қисқа қилиб айтганда, бу усул орқали маиший нутқий жанрларнинг лингвистик қатламида мавжуд социал ахборотлар мажмуининг миллий-маданий хусусиятларини ўрганиш мумкин. Маиший нутқий жанрларнинг вербал воситаларини ўрганиш жараёнида юзага келувчи лингвистик муаммолардан бири бўлган новербал (хатти-ҳаракатлар, имо-ишоралар каби) ва семиотик (предмет, нарса-буюм) воситаларнинг ҳам лингвистик мазмунни тўлдирувчи, бутунловчи функциясини ёритиб бериш нутқий жанрлар назариясида аҳамиятли муаммолардандир. Маиший нутқий жанрларни социолингвистик тадқиқ этиш

⁷⁶ Улуғбек Султон. Ризқ ҳақида рисола. Т., Сано стандарт нашриёти, 2017, 204-бет

⁷⁷ Шайх Умар форук сайдо ал-Жазарий-Нақшбандий. Ўзбекистон авлиёлар ватани. “Сано-стандарт” нашриёти. Т., 2019, 174-бет

жамият тафаккурини аниқлайди, миллий-маънавий қадриятлар, символларни ўзида мужассам этувчи тил бирликларини социал хусусиятларини очиб беради.

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"BANDI BURGUT" BY SHUKUR KOLMIRZAEV THE WORLD OF IMAGES IN THE STORY

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ANNOTATION:

Shukur Kholmirzayev is one of the most mature poets of Uzbek literature. The role of the writer in the development of prose is incomparable, besides, his ability to create a character made it possible to reveal the poetic style of the creator. Based on the writer's "bandi burguit" story, the skill of character creation was analytically approached. Based on one story, the writer's artistic skills and forms of expression in the process of character creation were analyzed.

Key words: analysis, image, symbolism, character, psyche, artistic skill.

АННОТАЦИЯ:

Шукур Холмирзаев – один из наиболее зрелых поэтов узбекской литературы. Роль писателя в развитии прозы бесподобна, кроме того, его умение создать образ позволило раскрыть поэтический стиль создателя. На основе рассказа писателя «Банди бургит» аналитически подошёл к мастерству создания персонажей. На основе одного рассказа проанализированы художественные способности и формы выразительности писателя в процессе создания персонажа.

Ключевые слова: анализ, образ, символика, персонаж, психика, художественное мастерство.

Shukur Kholmirzayev is one of the mature representatives of Uzbek literature, a talented writer. It can be observed that the writer tried to create works of various genres in the creative process of more than half a century. The main part of the most characteristic works of the writer are works in the narrative genre. It is very difficult to imagine Uzbek storytelling without these stories. Shukur Kholmirzayev is naturally one of the most talented writers after Abdulla Kakhor in the development of the genre: "As a story writer, no matter what subject he wrote, he always tried to express some important, weighty social thought. This characteristic of his is especially evident in the stories created in the following years. In the stories of Shukur Kholmirzayev, the color of the Surkhan oasis is clearly felt" [1, p. 651].

In fact, it should be noted that along with the unique interpretations of the writer, his artistic style has been elevated to a high level by the same feature. In the writer's stories, views, aspirations, struggles, struggles in the spiritual and spiritual world of a person are very skillfully interpreted. It also has its own place in the development of independent storytelling: "A specific direction in artistic creation does not arise by itself. It will have its own basis, history. Its basis is the change of time and era. The renewal and emergence of principles in the narrative of the independence period depend on the same factors. That is, the restoration of forgotten ancient values, increasing attention to religion, which is the basis of enlightenment, spirituality, the emergence of a democratic direction in state administration, the formation of a market economy, and so on" [2, p. 128].

As noted, it is possible to observe the specific interpretations of each era, its reasons, and the circumstances that are the basis for the change of poetic expression forms. However, talented

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people are not affected by the hot conflicts of the time and the negative aspects of the environment. True, in some sense, the influence of ideological influences on literature should not be forgotten. The intensity of the times prepared the ground for the creative work of the talented writer Shukur Kholmirezayev to rise to higher levels. The artistic interpretations of his story "Bandi Burut" showed the artist's poetic skills.

In Uzbek literary studies, a lot of scientific studies and researches related to Shukur Kholmiraev's work have been conducted. The language, style, unique internal construction, integrity based on folk melody and harmony with nature of the writer's stories have always attracted the attention of researchers. Such researches and observations serve to further study the works of the writer, especially his stories, to understand more deeply the meanings and signs hidden in the background of the events.

It is impossible to imagine the work of a writer without vivid images of nature, childhood and its hopeful memories, bitter truths of life, symbols in which truths are hidden. This can be seen only in the example of the story "Bandi Burut". The knot of events described in the story appears to be a natural process at first glance - the young eagle, which looks like a hen in the hail, lands helplessly on the branch of an apricot tree, its wings hang down from its wetness, but its eyes are open. This appearance itself points to the fact that not only man, but also any powerful creature becomes weak and alien in front of nature: "On top of that, the sky crackles like thunder and lightning flashes. Oh, how often a person feels his weakness at such a time. You feel as if these heavenly powers will disappear. But we were there, stuck in each other's paws, completely forgetting about humor and sitting looking outside. At one point, a black object came down from the back of the shed and landed on a lonely apricot branch in front of us. It's an eagle with wet wings and eyes. Hail must have hit" [page 3, 5]. And despite all these sufferings, as the writer noted: "look at the one that didn't land on the ground, the eagle did" [page 3, 6].

While reading the work, the reader joins the children who want to catch the eagle and comes to the village through the mud from the steppe. But they can't find the eagle, but a shout is heard from nearby, which makes them realize that it is coming from the yard of the Torakuls, from the yard next to it. In the courtyard of the Torakuls (note the symbol in the name!) now sees an eagle with its leg tied. If there is a net that terrifies the student, if there is a slave again?! His family is described as one of those families who live a very poor life, working tirelessly and barely making ends meet. It should be noted that through these symbols, in addition to the complex aspects of the era, he also brings to the pen the difficult aspects of human life.

The bird, which is a symbol of freedom, is now bound, weakened, folded its wings and lies on the ground. It can be seen that he is trying to escape with his claws stuck in the ground. But instead of giving the eagle to the children, Torakul's mother gives it to Yoldoshboy, the son of the head of the collective farm, who is riding a horse and does not want to join the villagers. A person immerses me in the psyche and character of Yoldoshvov, the hero of the work, so that I can feel how complex a process it is to understand a person.

It is true that the work reflects the artistic vision of the 80s and infuses the characteristics of this period, the way of thinking typical of children into the development of events: "Yoldoshboy was a young man of our age. He studied in the next class. But he dressed very well. He was dressed in such a way that a couple of jealous children tore off his head a couple of times. I liked that boy, in general. He read well and was full of information. However, the chairman's father did not want

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his son to join us, just like the mother of Torakul Juldur, look, the rich are careful too, right?" [3, page 8].

As a matter of fact, while drawing various characteristics of the period in the story, the creator very skillfully reveals the portrait and character of Yoldoshboy based on the narrator's speech, so that even Torakul's mother, while taking the eagle to the stream, suddenly catches the eye of the chairman's son. There is also sarcasm in addressing them as, "Assalamu alaykum, Mr. Chairman." This situation can be understood not in Onakhan's speech, but in the author's interpretation. Onakhan made such a sincere and humane appeal, but the reader focuses on their dialogue: "What are you doing, aunt? Yoldosh asked. "I'll shoot Kultepa and kill him, man." Then Yoldoshboy entered our lives: - Give it to me, aunt. I will make a cage for me. "I will take care of him without taking him out," he said. Then he added: - We have one such eagle in our house. But he is lifeless, a statue. I love the eagle" [page 3,9].

In the course of events, the author introduces the reader to the family of Grandfather Rais and emphasizes that this family is an international family. Rais grandfather's wife is Tatar, Bashkir, not Uzbek! His son Yoldoshboy (follows his father's worldview, attitude and goals!) is ambitious and differs from others in his lifestyle. For example, when the hero of the story went to Rais grandfather's house, Yoldoshboy watched him with binoculars in the living room of the house. As the writer himself stated, "... there were two sides of the same stream - two poles, and now that I think about it, it's as if the Russians live in this corner, and Christians live on the other side..." [3, p. 12].

It seems that the writer intends to reveal the symbols of the work to the reader. Because the condition of the eagle in the cage in Grandfather Rais's yard, although the free bird's wings were wet yesterday, its feathers were dry, it was swollen, it was snoring more and making a "fish-fish" sound like a cat, and there was an evil in its eyes. , the presence of foreignness is described. Through the words of master Shodmon (a symbol - a person who can create is happy!), the pain of the writer is also understood: "If you feed the eagle in its nest, it will be a hand," said the master busy with his work. - Kazakhs teach everything, hunting, hand... - Can't you teach it? I asked. - No, he has grown up, my son. It has an air of freedom. He cannot stay in this occupation for long" [3, p. 13].

In the work, symbols show their height again, revealing painful truths. Amir Temur, Jalaluddin Manguberdi, Mirzo Ulughbek, Ibn Sina, Fergani, Beruni, Mirzo Ulughbek, Babur and Mashrab were world-lovers, but Isn't it a symbol of the Uzbeks who remained in the chains of the authoritarian regime for 70 years? As the master understood, "It took the air of freedom. He can't stay in this job for long!" Another painful aspect of the story is that when the bandi eagle saw the eagle statue in Grandfather Rais's hotel - the phosphorus eagle tutu brought from Bulgaria, "...he blushed and winced noticeably, an evil spirit flashed in his eyes" [3, p. 16].

Like a person, an eagle longs for freedom, it has learned this throughout its life, but during the one or two months spent in captivity, its predatory and free birdness is clearly visible, but its weakness and helplessness in the cage evokes a feeling of bitterness. When he hears the trembling screams of other eagles flying in the wide sky (Why the scream? Why can't he see them himself? The symbol is that maybe they are the restless spirit of the ancestral eagles?) he becomes very restless. In pain, the cage flies around, but every time it hits the bars and falls to the ground. It was not for nothing, the same concept was embodied in the basis of captivity.

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The writer tells a bitter truth, a symbol, from the language of the hero, saying "Grandfather Rais - although he is considered the "father of the people", he was somehow alien to the people, my friend." Rais Baba says with pain that there are fox, wolf, leopard skins, deer and wild sheep's horns in Rais Baba's house. The story's hero's proposal pleases Grandfather Rais, tries to teach his household (not to catch!) but fails, he lengthens the rope tied to the leg of his disobedient reindeer and opens the door of the cage. His complete release depends on the will of Grandfather Rais.

What is this sign? Now the eagle flies to the sky saying that it is free, but suddenly it notices the thread on its leg and later feels that it is a limited freedom, freedom in name only. If the chairman realizes that he cannot fly beyond the specified distance according to his will, he again submits to fate, slows down and hangs down from the porch. That's when the eagle rebelled. Now, Yoldosh, who is used to flying with a kapron chain on his leg, disobeys the will of Rais grandfather and flies into Grandfather's hotel and breaks the phosphorus eagle's suit and dies. Affectionate children now bury him as a martyr on the garden side of the cemetery. They buried them like martyrs who died fighting for freedom and independence.

As you can see, it is possible to observe that in the story, almost every image is represented by its own symbols. A captive eagle is a free person who has been deprived of freedom, even an Uzbek oppressed in the authoritarian system! Torakul is a person whose name matches his body, a poor person, even his mother is a dumb person. This can be understood more deeply than the fact that they gave the eagle in their hands to the son of Grandfather Rais. And Toraqul's mother is the image of a strong Uzbek woman who is passing her life under the yoke of oppression. Yoldoshboy - Rais grandfather's worldview, although he is young, manly and a young man who has learned to achieve what he wants, he has his own world, he is different from "cats", even if he has friends. walk away. Although Rais Baba is considered the "father of the people", he creates the impression of a stranger to the people, that he has nothing to do with the people, everything comes from his own interests. Master Shodmon is a person who is happy because of his creative ability, but he is also a person who is sad, depressed, and does not complain about his life, even though he lives only on the tip of his hand due to poverty. It can be considered that the burial of the eagle in the cemetery among the martyrs is a sign that he is a free man in the form of an eagle.

Shukur Kholmirzayev, in the story "Bandi Eagle", based on the facts of history, the writer showed his views and creative skills on the example of a bandi eagle. The symbolic meaning in it inculcates the fact that a person has the right to realize his identity, to take a deeper look at the world and the environment, to the transience of this world, to the existence of the people and the nation, and to live as a free, free individual.

Speaking about his creative process, the writer says that "my whole conscious life - my research in the field of creativity - is to achieve as much simplicity as possible, to make the events of the work as similar as possible to life and its natural processes, moreover, the idea of the work is the basis of the artistic intention. he is passing by on his way out of that event-process system involuntarily. Although it's a boast, I'll say it bluntly: you can evaluate these researches as reaching the Synthesis," he said.

So, in all of Shukur Kholmirzayev's works, he tries to interpret the human spirit, the complex aspects of the era, human will, pride, and courage on the basis of unique symbolism and metaphor. Because when you look at the world of images in the works of the writer, it gives you a wider opportunity to understand their spiritual and spiritual world, to feel the characteristics of

their characters. On the basis of generalization, he interprets the human form and his spiritual aspirations truthfully.

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CHARACTERISTICS AND ANALYSIS OF INTELLECTUAL NOVELS IN LITERATURE

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Abstract:

Background. It is well known that literature is a genre that is relative in terms of its purpose, related to their art. Fiction, as a complex synthesis of art forms, is constantly updated and perfected throughout its development; just artistic Word fans have come up with unexpected ideas, themes, forms, and contents that have caught the attention of many fields.

Methods. Word fans have come up with unexpected ideas, themes, forms, and contents that have caught the attention of many fields, not just philosophy, politics, sociology, psychology, and even the exact sciences, such as medicine. Albert Einstein, the founder of the universal theory of relativity, acknowledges the great importance that the works of Fyodor Dostoevsky played in the realization of his discovery. Homer's Iliad, Firdavsi's Shahnameh, Dante's Divine Comedy, Zahriddin Bobur's Boburnoma, Goethe's Faust, Tolstoy's War and Peace, Dostoevsky's Crime and Punishment, Chingiz Aitmatov's The Signs of the End Times There are still differences, sometimes even contradictions.

Results. At the modern stage of the development of fiction, the intellectual novel genre emerged. The term "intellectual novel" was first coined by the German writer Thomas Mann in the early twentieth century. "The historical and global devastation of 1914-1923 exacerbated the need to understand the period in the minds of contemporary people with unprecedented intensity and overthrew this literature. This process blurred the boundaries between science and art; the thought-provoking idea gave life to a living, heart-pounding idea, gave life to plastic images, and created a type of book that could be called an "intellectual novel.

Conclusion. ." What we call an intellectual novel, in its course, T. Mann and G. Gesse, R. Muzil and G. Brox, M. Bulgakov and K. Chapek, U. Faulkner and T. Wolf, P. Koelo and Ch. Yes, the synthesis of philosophy and art, science and fiction is the main feature of an intellectual novel .This synthesis was manifested in the growth of mythological thinking in the artistic reincarnation of the historical period, in the perception of myths as a universal model of human life and a recurring law, going beyond the mere symbolic framework.

Keywords: Fiction, philosophy, politics, sociology, psychology, mythological thinking, magical realism, mythological scientific achievements, intellectual novel, national literature.

Introduction. A complex synthesis of art forms, is constantly updated and perfected throughout its development; just artistic works have come up with unexpected ideas, themes, forms, and contents that have caught the attention of many fields, not just philosophy, politics, sociology, psychology, and even the exact sciences, such as medicine. The vast expanse of the artistic chronotope, the change of the text of the historical period, the merciless bright scenes of the existing reality through innumerable analogies and parallels and its deep perception as a whole, the abundance of philosophical ideas make the examples of intellectual the highest artistic and philosophical thinking. This type of genre began to appear in our national literature as well. Writers such as Khurshid Dostmammad, Nazar Eshanqul, Ulugbek Hamdam, Isajon Sultan boldly, used the experience of intellectual. event. just artistic unexpected ideas, themes, forms, and contents that have caught the attention of many fields, not just philosophy, politics, sociology, psychology, and even the exact sciences, such as medicine. Albert Einstein, the founder of the universal theory of relativity, acknowledges the great importance that the works of Fyodor Dostoevsky played in the realization of his discovery.

Materials and methods. This is a national intellectual

- Artistic reflection of the Eastern-philosophical worldview:
- The artistic "rebirth" of the primitive religious-mythological imagination, which is radically different from the West

The level of artistic and philosophical thinking, the attitude of writers to humanity and existence, the period, formed in different historical, socio-political environments, except in the West;

- the centuries

long psychological pressure, the manifestation of the people's thinking in the form of a, in the

person of a certain writer, who is trying to get rid of the complications of the spiritual invasion

Therefore, as an independent nation and country, we can say that the intellectual is the brightest example of national identity. According to the above, the fundamental scientific study of the national intellectual in comparison with world literature plays an important role not only in the field of art and fiction, but also in defining our place as a nation in the world. The relevance and necessity of the study of the subject arises, in addition to the interests of pure art and literature, primarily from the historical social need characterized by the above. So far, this topic has not been studied fundamentally scientifically in our literature. The life and work of the world-famous Irish writer Oscar Wilde (1854 -1900) was a tragic full of

contradictions.

The of Oscar Wilde, a brilliant speaker and great writer, has always been in the spotlight of world literary critics, and many different monographs, dissertations and articles have been created

on the life and work of the writer, including biographical works from the JZL series. The life and work of O. Wilde B. Show, A. Jid, A. Morua, A. Kamyu, Ya. Parandovsky, T. Mann, H.L. Borges did not escape the attention of world-famous writers.

At the same time, he did not

leave indifferent Russian writers such as L. Tolstoy, A. Gorky, K. Pustovsky. Although it has attracted the attention of hundreds of researchers at various levels, from the world's most

famous scientists, it is probably his complex life and controversial work. The problem of novelism has been consistently studied in Uzbek literature, including the work of Isajon Sultan,

which has been scientifically evaluated by literary critics at various. Word fans have come up with unexpected ideas, themes, forms, and contents that have caught the attention of many fields, not just philosophy, politics, sociology, psychology, and even the exact sciences, such as medicine. Albert Einstein, the founder of the universal theory of relativity, acknowledges the great importance that the works of Fyodor Dostoevsky played in the realization of his discovery. Homer's Iliad, Firdavsi's Shahnameh, Dante's Divine Comedy, Zahriddin Bobur's Boburnoma, Goethe's Faust, Tolstoy's War and Peace, Dostoevsky's Crime and Punishment, Chingiz Aitmatov's The Signs of the End Times There are still differences, sometimes even contradictions.

levels of research.

Oscar Wilde's Dorian Gray is a highly artistic synthesis of realism, magical realism, the achievements of mythological science, and other forms of art. Anyone who has read the over and over again will come to the conclusion that the protagonist, Dorian Gray, faces himself mercilessly at the mysterious portrait painted by his

friend Basil at his request. It is as if a coup is taking place in his inner world. However, Gray cannot overcome the satanic feeling within himself. He doesn't want her to do that. He is a tragic victim of his own mismanagement. Gray sums up his past sins by looking at his portrait .D. Gray, who is adorned with the world,

falls in love at this moment and meets the beautiful Sibyl, and the love ends in tragedy. That is; realizing that the girl was pregnant with a child, he drowned her and

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committed a brutal murder. Gray also has an affection for the environment. So Dorian Gray begins to take matters into his own hands, and eventually takes a dagger

with a picture of his beloved and tries to bribe him. But at that moment, a creature

appears in the portrait (magical realism) and eats Gray. This is a sign of the evil of the devil's lust, which has always saved Jesus. The portrait of Dorian Gray is one of the most sensational works in the literary world.

Incorporating elements

of miraculous realism, this work sheds light on the spiritual crisis of Dorian Gray, a beautiful

20-year old beauty. Although the plot is unusual for the nineteenth century, it is ideologically similar

to many works. In the last century, readers have confessed that he was a justly punished, tempted sinner. Today's reader, on the other hand, recognized

Dorian Gray as an arrogant, helpless, and weak hero who sacrificed his entire being, heart, and

soul for eternal youth. Born into a family of cyborgs, Dorian, who possessed the beauty of onameros, was faced with the cruel judgment of fate when he had ample opportunity to live

happily ever after

“There is always some tragedy hidden behind something beautiful. In order for the smallest and most insignificant flower to bloom, the worlds must suffer the pain of childbirth, ”

said one of the protagonists. Indeed, behind the beautiful image of Dorian Gray

lies a great tragedy: the soul dies, the soul disappears forever. Dirty brothels, continuous living, theft, the ugliness of the chaos in society are now a beauty in his mind, and such vices are a

constant need. Oscar Wilde brought to literature the image of a hero of such a complex nature, and through it he showed with great artistic skill the limits of human desires, the consequences of the disturbance of the balance of life. And the work won the hearts of millions, and the

image of Dorian Gray was written in the reader's notebook. One of the topics Wilde tries to discuss using the plot is whether it is possible to change human nature. Was the book the cause of the changes in Dorian after reading the book sent by Lord Henry, or were there already such

bad

qualities in his nature? Can an ugly person who has completely lost his conscience be

“restored” by good deeds, or are all his actions based on ambition? It is certainly very difficult, if not impossible, to answer these questions. The play also discusses what art is, how it should

be, whether ancestral traditions are appropriate for generations, and a number of other similar

topics. Lord Henry, who pioneered the doctrine of hedonism, believed that the only purpose of human life should be madness, peace. In his opinion, every new day is another opportunity to

enjoy. As Shakespeare's Hamlet said,

"If a man's greatest desires are to eat and sleep, how can

he be different from an animal?" So our heroes are no different from animals either. For the most part, are dedicated to narrating individual experiences of characters, creating a closer,

more complex portrait of these characters and the world they live in. Inner feelings and thoughts, as well as complex, even conflicting ideas or values are typically explored in, more so than

in preceding forms of literature. It's not just the stories themselves that are more personal,

but the experience of reading them as well. Where epic poetry and similar forms of storytelling

were designed to be publicly read or consumed as an audience, are geared more towards an individual reader. The following traits must be present for a work to be considered :

Written in prose, as opposed to verse. Narrators may have different degrees of knowledge or

different points of view (first person versus third person and so on). While stylized such as

epistolary do exist, the key distinction here is between prose and verse.

Results and discussion. At the modern stage of the development of fiction, the novel genre

emerged. The term "novel" was first coined by the German writer Thomas Mann in the early

twentieth century. "The historical and global devastation of 1914-1923 exacerbated the need to

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understand the period in the minds of contemporary people with unprecedented intensity and

overthrew this literature. This process blurred the boundaries between science and art; the thought-provoking idea gave life to a living, heart-pounding idea, gave life to plastic images, and

created a type of book that could be called an "novel." What we call an novel, in its course,

T. Mann and G. Gesse, R. Muzil and G. Brox, M. Bulgakov and K. Chapek, U. Faulkner and T. Wolf, P. Koelo and Ch. Yes, the synthesis of philosophy and art, science and fiction is the main feature of an novel. Remember, for example, the famous German writer Goethe's tragedy Faust. Faust, like Gray, who "sold his heart to the devil

(Mephistopheles) in order to acquire unimaginable knowledge, to taste endless worldly pleasures, and to be alone with Margarita, suffers a spiritual decline. Or the American writer T.

mentioned above. Take Clyde Griffiths, the protagonist of Dreyzer's the American Tragedy.

Clyde, who sold his conscience to gain wealth, a career, and a beautiful girl, also suffers a conscience like Gray at the end of the play.

Although the plot of the work is unusual for the

nineteenth century, it is ideologically similar to many works. Remember, for example, the famous German writer Goethe's tragedy Faust. Faust, like Gray, who "sold his heart to the devil

(Mephistopheles) in order to acquire unimaginable knowledge, to taste endless worldly

pleasures, and to be alone with Margarita, suffers a spiritual decline." Or the American

writer T. mentioned above. Take Clyde Griffiths, the protagonist of Dreyzer's The American Tragedy. Dorian, Basil, Lord Henry are the three central protagonists of the work. Dorian – easel

painted gray (canvas). The cloth is white, and Lord Henry is black. If you want to paint

using white and black, the result will be a gray quality colored artwork. If the same amount of black paint is added to a drop of white paint, the white color will definitely be contaminated.

The protagonist of our story was shaped in the same way as a person: Bezil's "white" advice could not overcome Lord Henry's "black" teachings. The American academic Peter H. Smith describes the of Latin

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America as people from an identifiable social class, who have been conditioned by that common experience and thus are inclined to share a set of common

assumptions (values and ethics); that ninety-four per cent of come either from the middle class or from the upper class and that

only six per cent come from the working class. Philosopher

Steven Fuller said that because cultural capital confers power and social status as a status

group they must be autonomous in order to be credible as : (Basil about Dorian)"He has stood

as Paris in dainty armour, and as Adonis with huntsman's cloak and polished boar-spear.

Crowned with heavy lotus blossoms, he has sat on the prow of Adrian's barge, looking into

the green, turbid Nile. He has leaned over the still pool of some Greek woodland, and seen in

the water's silent silver the wonder of his own beauty." (Lord Henry describes "fidelity")

"It has nothing to do with our own will. It is either an unfortunate accident, or an unpleasant result of temperament." "You don't mean to say that Basil has got any passion or any romance in

him?"

"I don't know whether he has any passion, but he certainly has romance," said Lord

Henry, with an amused look in his eyes. "Has he never let you know that?" "Never.

I must ask him about it. I am rather surprised to hear it." (Basil Hallward described)

"Rugged and straightforward as he was, there was something in his nature that was purely feminine in its tenderness." (Basil to Dorian)

"It is quite true that I have worshipped you with far

more romance of feeling than a man usually gives to a friend. Somehow, I had never loved a

woman. I suppose I never had time. Perhaps, as Harry says, a really grande passion is the privilege of those who have nothing to do, and that is the use of the idle classes in a country." (Basil confronts Dorian)"Dorian, Dorian, your reputation is infamous. I know you and Harry are great

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friends. I say nothing about that now, but surely you need not have made his sister's name a by-word."

(The first part of this passage was deleted from the 1890 magazine text; the second part of the passage was inserted to the 1891 novel text.) Anti-

intellectualism is hostility to and

mistrust of intellect, , and intellectualism, commonly expressed as deprecation of education

and philosophy and the dismissal of art, literature, and science as impractical, politically

motivated, and even contemptible human pursuits. Anti-intellectuals present themselves and are

perceived as champions of common folk—populists against political and academic elitism—

and tend to see educated people as a status class that dominates political discourse and higher

education while being detached from the concerns of ordinary people. In the U.S., the American conservative economist Thomas Sowell argued for distinctions between unreasonable and reasonable wariness of in their influence upon the institutions of a society. In defining as "people whose occupations deal primarily with ideas", they are different from people whose work

is the practical application of ideas. That cause for layman mistrust lies in the incompetence

outside their fields of expertise. Although possessed of great working knowledge in their specialist fields, when compared to other professions and occupations, the of society face little

discouragement against speaking authoritatively beyond their field of formal expertise, and thus are unlikely to face responsibility for the social and practical consequences of their errors.

Hence, a physician is judged competent by the effective treatment of the sickness of a patient, yet might face a medical malpractice lawsuit should the treatment harm the patient. In contrast, a tenured university professor is unlikely to be judged competent or incompetent by the

effectiveness of his or her intellectualism (ideas), and thus not face responsibility for the

social and practical consequences of the implementation of the ideas, e.g. the Chicago Boys and the Military dictatorship of Chile (1973–90).

Conclusion. The synthesis of philosophy and art, science and fiction is the main feature of the

novel. This synthesis was manifested in the growth of mythological thinking in the artistic reincarnation of the historical period, in the perception of myths as a universal model of human life and a recurring law, going beyond the mere figurative sphere. Fiction, as a complex synthesis of art forms, is constantly updated and perfected throughout its development; not only artistic just collect them.

Another example is Raphael in French author Honoré de Balzac's. The Magic of the Blind Skin. The fulfillment of desires; Dorian decides to live the last months of his life relying on his conscience, just as a young man who has risked his life for infinite wealth and luxury realizes that at the end of the work he is no different from an animal if he

constantly satisfies human desires (or needs). Effectively so, that is precisely the specific function of them: To treat everyone else as if they, too, were. That is to say, to not attempt to

hypnotise them, to intimidate them, or to seduce them, but to awaken in them the mechanism

of intelligence that weighs, evaluates, and comprehends. One must start from the Socratic premise that everyone in the world reveals himself, herself intelligent when treated as if

intelligent. Is that social function compatible with the offices of politicians? Because, more

often than not, they tend to govern themselves by the cynical principle that: "One must not

treat the public as if they were imbeciles, nor forget that they are imbeciles", which was established by the novelist Frédéric Beigbeder (who, not in vain, began his career as an advertising

man); it is plainly obvious that those are opposite approaches. What is bad, is that the first

approach demands effort from the interlocutors—attention, reflection, and dubious sizing

up, while the second approach flatters the primitive emotions of enthusiasm

or revenge, and converts critical thinking to satire or to swearing curses, and social

problems into notorious scandal.

The contemporary understanding of history emerged

in the immediate postwar period of the 1940s, in its earlier incarnation as “the history of ideas” under the leadership of Arthur Lovejoy, the founder of the Journal of the History of Ideas. Since that time, Lovejoy’s formulation of “unit-ideas” was developed in different and divergent directions, such as contextualize, Historically sensitive accounts of activity in the corresponding historical period, which investigative shift is reflected in the replacement of the term “history of ideas” with the term “history”.

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THE ROLE OF VISUAL ARTS IN DEVELOPING STUDENTS' CREATIVE ABILITIES

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Abstract: This article elaborates on the practical role and tasks of visual arts in enhancing students' creative abilities.

Key words: creativity, artist, ability, creative activity, imagination, image, visual art, knowledge, artistic talent, aesthetic education, innovation, imaginative perception.

Visual arts classes play a crucial role in shaping students' spiritual worldview and forming their abstract beliefs. They cultivate thinking skills, creativity, visual memory, imaginative perception, artistic talent, and aesthetic sensibility. Each type of visual arts class taught in schools (such as drawing based on observation, decorative drawing, thematic drawing, and discussions about visual arts) contributes to enhancing students' creative abilities and shaping their worldview, thereby making individuals more well-rounded. Active creative activities during the educational process develop a range of virtues in students, thus positively influencing their character. Practical activities demonstrate that to shape the inner world of students, it is necessary to choose effective techniques and methods to promote active creative activity, which will foster resilience and stimulate creative thinking. Developing students' creative abilities requires fostering their confidence in their capabilities and nurturing their problem-solving skills.

Creativity is the activity of generating new material and spiritual benefits. It involves active participation of an individual's thinking, memory, imagination, attention, and willpower, revealing their entire knowledge, experience, and aspirations. Developing a person's creative ability starts from an early age, when under the guidance of adults, various types of activities, including visual arts, begin to be cultivated. Harnessing creativity through visual arts opens up great opportunities.

Teaching children to appreciate beauty both in life and in art, and teaching them to create it, enriches their inner world with such essential qualities that without them, becoming a complete person is impossible. Developing creative abilities in children is one of the important stages of their upbringing, and visual arts play a vital role in this process. One of the main tasks of visual arts is to provide students with aesthetic, especially artistic, education. Aesthetic education nurtures students' ability to fully understand the beauty in life, nature, art, and society. Beauty influences individuals' minds, hearts, and aspirations, shaping their spiritual worldview. The role of aesthetics in individuals' creative activities is extremely significant. Being aesthetically inclined in life encourages perseverance in work and turns effort into joy and a source of spiritual pleasure. Thus, aesthetic and artistic education go hand

in hand.

"Every child is an artist. The problem is how to remain an artist once we grow up?" - Pablo Picasso.

Picasso's famous quote highlights the importance of the contemporary world's attitude towards visual arts. Unfortunately, our education system often undervalues visual arts. In recent years, this situation has worsened due to the tendency to prioritize quantifiable aspects of education. It is clear that engaging with visual arts is essential for the holistic development of students. Understanding the importance of visual arts is at the forefront of educational reform.

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Undoubtedly, visual arts are a significant field that contributes to the all-round development of students. Visual arts classes help to discover students' hidden potentials and teach necessary skills for life. Visual arts teach us the following:

- Exchange of ideas and opinions;
- Development of imagination, artistic, and creative abilities;
- Development of independent thinking;
- Analysis, evaluation, and criticism skills;
- Cultivation of meditative and mental well-being.

For the visual arts teacher, working with young artists of various ages serves as a creative laboratory that helps in gaining experience through theoretical knowledge and various methods, facilitating discovery, creation, and innovation. In this process, students rise through all stages of artistic creation: understanding, research, collaboration, innovation, experimentation, creation, analysis, and criticism.

Once all these stages are completed, students can create personal, unique, and original works. During this process, visual arts stimulate students' curiosity, communication skills, problem-solving abilities, innovation, and creativity. Such activities enhance their verbal expression, analysis, appreciation, and criticism skills, as well as concentration, patience, and teamwork. Moreover, visual arts must not forget to serve mental well-being! Therefore, it can be seen that visual arts play a useful role in the holistic development and progress of students.

Traditional style visual arts classes involve lecturing in class, drawing on the board, and creating sketches in the form of artistic expression. This method was particularly effective for students who are more inclined towards art and those who excelled in visual arts. It was a one-way communication method that narrowed the scope for students to observe, create ideas, exercise critical thinking, and express themselves.

Nowadays, educators worldwide are realizing the necessity to teach with new methods in the visual era. Guiding towards artistic education in a more systematic manner, facilitating interactive communication in modern visual art classrooms is essential.

The development of students' artistic and creative abilities plays a crucial role in their overall intellectual and personal development. For instance, selecting the right space to actively accept and visually express life events, understanding the color palette, and aesthetic sciences play a significant role. Particularly for "gifted" or exceptionally talented students, the process of developing creative abilities is faster, more qualitative, and easier. Artistic-creative processes are based on students' independent execution of tasks and creating concepts that embody artistic value. It's known that visual arts are a form of artistic creation. These artistic processes contribute significantly to the development of students' creative abilities at all stages.

Visual arts activities enhance imagination, contemplation, visual memory, emotional and aesthetic enjoyment. Enhancing students' artistic-creative abilities in visual arts activities is a testament to various types of artistic education, such as drawing, painting, sculpture, working with textiles, and other forms.

It's evident that no field solely encompasses creativity and artistry. Art emerges everywhere in human societies, with countless different manifestations and is, therefore, the primary point of social and cultural interaction. Therefore, the development of artistic creativity in visual arts is one of the most interesting paths, and it's also an essential topic in psychology because visual arts are often created by individuals themselves over a certain period of their lives. Visual arts serve as a

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mirror reflecting our understanding and contemplation and creating visual artworks is a rare skill. Understanding its importance, understanding the history of art, the array of visual expression methods, and understanding visual representations are necessary to solve the unique problem of understanding art. Since humans have had the ability to create visual images, those with special abilities in this field have always been highly respected. When thinking about creativity, one often recalls the prototypes of great creators – most often, artists.

In general, the use of numerous interrelated abilities - understanding, memory, imagination, language, spatial thinking, aesthetic sense, creativity, expression - transforms visual arts into one of our most complex activities. Naturally, the question arises: How can we see something, form an opinion about it, and understand this concept through physical manipulation by turning it into a unique and convincing visual, symbolic, or even abstract representation and teach it to students?

One of the contemporary educators, Professor R. Hasanov, gives the following definition to a school visual arts teacher, emphasizing: "To be a skilled teacher, one must possess high ethical standards, be able to hold oneself together under any circumstances, be patient, tolerant, polite, creative, hardworking, honest, virtuous, faithful, a learner, and a teacher who embodies high-quality characteristics such as an educator-artist." Indeed, today's school visual arts teacher must have a deep understanding of visual arts, be thoughtful, intelligent, well-informed, an artist, pedagogue, have a deep understanding of psychology, well-armed with visual arts methodology, and well-acquainted with the pedagogical technology of visual arts classes. Another difficult aspect is for the teacher to have a complete understanding of the students. Indeed, every individual has their own world, and, therefore, visual art requires different skills from different individuals. On top of that, it's quite challenging to identify students' unique qualities. It's necessary for teachers to carry out pedagogical and psychological diagnostics among students to understand them comprehensively. This includes factors such as the students' overall ability, their character, their interest in particular subjects, their level of imagination, thinking, and creative thinking, their activity and imagination, memory and observation skills, attention, initiative, independence, and conditions for home activities, and more.

In general, to increase students' interest in visual arts classes and to enhance the effectiveness of visual arts classes, the following series of activities should be carried out:

- firstly, to identify the pedagogical-psychological problem of identifying students' abilities unique to them concerning visual arts in general secondary education schools and to develop its specific methods through theoretical and methodological research.

- secondly, analyze and generalize scientific searches, practical pedagogical experiences in learning students' abilities, and enhance their interest in visual arts.

- thirdly, applying modern didactic principles and using examples from the legacy left by Uzbek national artists, to increase students' interest in visual arts classes.

In conclusion, visual arts classes enhance students' aesthetic perception, knowledge, feelings, and artistic-creative competencies, broaden their creative thinking, and develop their ability to express ideas.

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The role of composition of the educational subject in the process of figurative thinking

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Annotation. Following article deals with the role of the subject of composition in the development of artistic skills. We can include here figurative thinking, creative thinking, teaching on creative approach to the life impressions, enriching memory and depicting these impressions, figurative form, as well as visual memory of learners`.

Key words: Image, absolute, organic, inorganic, principle, object, picture plane, image elements, harmony, rhythm, principle, synthesis, structure, methodology.

As we know, mankind naturally learns everything from nature. However, what about a naturalist? It is not as simple as we know, but complex, multi-faceted, limitless, which a person cannot know everything at an absolute level, indeed only strives to know. The result of this aspiration leads to the creation of innovations in science and art.

When a person sees the vision of nature, he or she supports the principles of the structure of organic and inorganic nature, and through creative thinking, he or she expresses the subject and its manifestations in the most vivid visual state. This chosen situation is "composition", and it arouses people's emotions, directs them to certain ideas and imaginations.

Composition is derived from the Latin word "compositio", which means "to compose", "to place", "to create". It is characteristic of all types of composition art.

For example, painting composition means placing image elements on the plane of the picture in such a way as to allow the optimal and strongest expression of the intended idea. In other words, composition means bringing separate parts into a logical whole. In order to understand composition more fully, let's bring to mind a great "composition" in nature - miraculous naturalness. We can also observe that the individual elements are located in a certain order. They are interconnected and create a complete harmony in the world of plants and animals. Any simple plant is made up of small pieces. Together, they form a certain shape and lead to a vision that is seen as a whole.

Composition belongs to all types of art. Elements of composition are also used in architectural constructions, works of art, sculptures and paintings, film and theater productions. The principles of unity and division, symmetry and rhythm are manifested in different types of art. The mutual adaptation of these principles creates synthetic arts. Dramaturgy, cinema, television, and circus arts are examples of this.

When talking about the aspects of the concept of "composition", it can be said that it is based on the specific characteristics of different arts, and its content and level of use are different in each of them. For example, in the art of music, the issues of composition are quite limited, they are described in a general plan, and only in mixed cases are the details combined with each other. In literature, the elements are used on the basis of a complete content, and the specific location of certain material in the text is required or it is assumed that the content is filled in a row.

As for the position of the concept of composition in visual arts, there are still many uncertainties in this field. The reason is that the theory of composition still needs to be regulated. Although there are different views in this field, composition needs to be created in a deep and special way as a separate theory that does not deal with art theory or aesthetics. This theory should

be created as a "theory of composition" as a part of the theory of art studies, and it should express the composition, problems, and terms of fine art in a very clear way.

We find the first concepts of composition in Brockhaus and Yefron's dictionary. Based on the analysis of the best works of art, only some rules are shown. It pays great attention to integrity as the main aspects of the composition. That is, "integrity serves to express the idea of the artist" – as there is emphasized.

According to V.A.Favorsky opinion: "One of the qualities of composition can be as follows: striving for composition in art means to perceive, see and describe different spatialities and different temporalities as a whole. To bring the image to view as a whole is composition".

K. F. Yuon believes that "a painting should be a structure in a composition, which is divided into planes with its parts, and also divided into a structure arising from plane factors".

Art critics L.F. Yegin and B.A. Uspensky indicated that "... the central issue of composition is the point of view" and "... the issue of the point of view in a painting appears first of all as a matter of perspective".

According to Ye.A.Kibrik opinion: "Integrity is not only a necessary quality of composition, but also one of the main laws of composition, and it is found through the constructive idea".

N.N. Volkov calculates the composition as follows: "The composition of works of fine art is the main artistic form of fine art, it combines other forms as a whole, individual elements combine to form a whole, which cannot be taken away or changed, artistic it is impossible to add to the image without harming it, and this integrity lies in an inseparable unity with the ideological purpose of the work". He believes that "structure is more general, and construction is seen as a type of structure".

The educational subject of composition aims to: provide knowledge on the composition of fine art, educate creativity, develop creative abilities, and increase cognitive activity. In order to successfully implement this goal, it is planned to conduct a number of educational activities with students under the guidance of the teacher.

The tasks of the subject of composition are as follows:

1. Forming students to fight for a broad, universal worldview, the idea of society development.
2. Cultivating artistic taste, artistic aesthetic culture in students.
3. Cultivating students' artistic abilities such as figurative thinking, creative thinking, and visual memory.
4. Studying the history of the creation of the work, the process and stages of its creation along with the analysis of the compositional construction of the works.
5. To acquire knowledge and skills in the analysis of works of art in terms of compositional issues, and to use them in their independent creations.
6. Students study the theoretical foundations of composition as a subject and methods of teaching it.
7. To study with students the theoretical foundations of composition in relation to the historical development and practical creation of the work of art.
8. In order to develop artistic observation in students:
 - a) to teach students to observe the surrounding environment from an artist's point of view with a special purpose;

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b) teaching to approach life impressions creatively, enriching the memory and depicting these impressions in a creative, figurative way;

c) drawing drafts, sketches, sketches based on artistic observation of students, carrying out various exercises and researches from nature, finding situations of imagery from nature, performing composition works.

9. Teaching to create a composition with a figurative conclusion in its content.

10. To acquire compositional skills, to be able to use this knowledge and skills appropriately in educational and independent work.

11. Preparing future artists-pedagogues for independent creative and pedagogical activities in the field of composition.

Practical-auditory works are carried out in the following order:

a) introductory interview and receiving assignments;

b) practical exercise;

c) discussion and conclusion of the completed work.

During the study, students also perform independent homework on composition. There are different forms of homework, including:

a) work on a composition sketch;

b) observing the environment and life depending on the topic of the practical assignment;

c) making sketches, drafts and sketches on the subject;

d) performing exercises for developing compositional thinking (sensing color palette, finding compositional integrity);

e) getting acquainted with new materials related to composition tasks;

f) on the basis of literature and museum materials, it can be, for example, the study of household life and the character of the hero of the time.

Composition is not only a separate subject, but also combines many disciplines. In addition, the subject of composition is closely related to aesthetics, ethics, history of art. The concept of universal beauty forms the methodological basis of the composition.

Through the history of art, they get acquainted with the works of great artists. At the same time, the subject of composition is closely related to the teaching methodology of fine arts. The reason is that it is necessary for creative artists to know the methods of teaching composition.

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WAYS TO PREVENT RECURRENCE OF DYSPHAGIA AFTER
CARDIODILATION IN PATIENTS WITH ACHALASIA OF CARDIA

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Abstract. The aim of the study is to improve the immediate results of pneumatic cardiodilation in patients with cardiospasm and achalasia of the cardia by introducing infrared pulsed laser radiation and an improved model of a cardiodilator. Materials and methods: The Department of Surgery of the esophagus and Stomach of the State Institution "Republican Specialized Scientific and Practical Medical Center for Surgery Named after Academician V.Vakhidov" has experience in treating 813 patients with neuromuscular diseases of the esophagus who were treated from 2010 to 2022. Results and discussion. After the dilation courses, 685 (84.2%) had no complications, and 128 patients, which was 15.7%, had various complications. Conclusions. The use of low-intensity laser radiation in combination with a new model of cardiodilator has significantly reduced the total number of complications from 20% to 10%.

Keywords: neuromuscular diseases of the esophagus, achalasia cardia, cardiospasm, laser therapy, pneumatic cardiodilation, complications of cardiodilation.

Relevance. For the first time, a pneumatic cardiodilator for the treatment of neuromuscular diseases of the esophagus was developed in the 50s of the last century, and in the Soviet Union it became widely used only since 1964, a modification developed in the same year by O.D.Fedorova and G.M. Melnik. Despite the fact that the pneumatic cardiodilator has more than half a century of history in the post-Soviet space, the technique remains relevant to this day. More than half a century later, the device of the pneumatic cardiodilator has not undergone much structural changes. The essence of pneumatic cardiodilation is the forcible expansion of the lower esophageal sphincter, which is associated with traumatization of the mucous membrane, muscle membrane, as well as feeding vessels. Given that the pressure injected into the esophageal-gastric cuff

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increases from session to session, the risk of complications such as bleeding, severe pain syndrome, reflux esophagitis and perforation of the esophagus increases accordingly with each subsequent session. The assessment of the effectiveness of cardiodilation is ambiguous. According to some authors, good immediate results of cardiodilation reach 85% - 90% [3, 5, 6, 7]. According to other researchers, a year after cardiodilation, its effectiveness decreases to 60%, and after 5 years, more than half of the patients have a relapse of the disease [1]. Many patients require repeated courses of cardiodilation [3, 4].

The development of laser medicine is one of the achievements of the late 20th century. The variety and wide possibilities of lasers have led to the fact that they have found their application in almost all fields of medicine [2, 12].

It is known that pulsed laser radiation can have a biological effect associated with the effect on the innervation of smooth muscles, changes in microcirculation, and absorb and prevent the development of connective tissue. These effects have been traced to a large number of studies conducted with pathology of the gastrointestinal tract [2, 8, 9, 10, 11].

When carrying out a cardiodilator, some effort is required to pass the end of the dilator through the spasmodic section of the cardia, as well as excessive force when pumping air, which leads to tears in the muscular wall of the esophagus. These complications contribute to an increase in the scarring of the cardia zone and a decrease in the effectiveness of the treatment sessions with a reduction in the duration of remission of the disease.

Considering that neuromuscular diseases of the esophagus are chronic and recurrent, new solutions are constantly being sought to improve both immediate and long-term results of minimally invasive treatments.

The aim of the study is to improve the immediate results of pneumatic cardiodilation in patients with cardiospasm and achalasia of the cardia by introducing infrared pulsed laser radiation and an improved model of a cardiodilator.

Materials and methods: The Department of Surgery of the esophagus and Stomach of the State Institution «Republican Specialized Scientific and Practical Medical Center for Surgery Named after Academician V.Vakhidov» has experience in treating 813 patients with neuromuscular diseases of the esophagus who were treated from 2010 to 2022. The standard distribution of patients by gender and age according to the WHO classification is shown in Table 1.

Table 1

Distribution of patients by gender and age

| Gender | <19 years old | 19-44 years old | 45-59 years old | 60-75 years old | >75 years old | Total |
|--------|------------------|--------------------|--------------------|--------------------|---------------------|------------|
| Men | 31 | 200 | 84 | 40 | 4 | 359(44,1%) |
| Women | 25 | 247 | 130 | 51 | 1 | 454(55,8%) |
| Total | 56 (6,8%) | 447 (55%) | 214 (26,3%) | 91 (11,2%) | 5 (0,6%) | 813(100%) |

As follows from the table, there were 454 women, which was 55.8%, and 359 men, which was 44.1%. As is known, neuromuscular diseases of the esophagus, to a greater extent, affect young and middle-aged people, i.e. the most able-bodied part of the population. Thus, the number

of young and middle-aged patients amounted to 717 patients and amounted to 88.2%, which indicates the great social significance of the problem under study.

To establish a diagnosis, as well as to determine the stage of the disease according to the classification of Petrovsky B.V., an endoscopic and X-ray contrast examination was sufficient. The distribution of patients depending on the stage of the disease, as well as the endoscopic and X-ray picture are shown in Fig. 1.









| | | | |
|--|--|---|--|
|  |  |  |  |
|  |  |  |  |
| Stage I 39 (4,8%) | Stage II 290 (35,6%) | Stage III 378 (46,5%) | Stage IV 106 (13%) |

Fig. 1. Stages of the disease according to Petrovsky B.V.

In our opinion, regardless of the stage of the disease, treatment of neuromuscular diseases of the esophagus should begin with cardiodilation.

Since 2020, in the department of surgery of the esophagus and stomach, in the treatment of patients with cardiospasm and achalasia of the cardia, when performing cardio-dilation, the latter was supplemented with laser therapy using a semiconductor laser device "Impulse-100". For this method of treatment of neuromuscular diseases of the esophagus, the patent of AIS RUz was obtained, for the utility model FAP 82352 "Method for the treatment of cardiospasm".

In 2015, the Department of Surgery of the esophagus and stomach developed and introduced into clinical practice a useful model of a pneumatic cardiodilator (FAP 01357), as well as an original method of cardiodilation in patients with stages III and IV of the disease (IAP 06163), for which the patent of AIS RUz was obtained.

The clinical material was divided into two groups, taking into account the application of new developments in the minimally invasive treatment of neuromuscular diseases of the esophagus.

The comparison group consisted of 457 patients who received treatment in the period from 2010 to 2016, who received only cardiodilation as treatment.

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The main group consisted of 356 patients who received treatment in the period from 2017 to 2022, in whom cardiodilation was supplemented by the combined use of laser therapy, and at stages III and IV, cardiodilation was performed with an improved model of a pneumatic cardiodilator using a new original method of its management.

The distribution of patients depending on the stage of the disease, taking into account the division into groups, is shown in Table 2.

Table 2

Distribution by disease stage

| | I | II | III | IV | |
|-------------------------|------------------|--------------------|--------------------|------------------|-------------------|
| Comparison Group | 24 (5,2%) | 179 (39,1%) | 204 (44,6%) | 50 (10,9%) | 457 (100%) |
| The main group | 15 (4,2%) | 111 (31,1%) | 174 (48,8%) | 56 (17,7%) | 356 (100%) |
| TOTAL: | 39 (4,8%) | 290 (35,6%) | 378 (46,5%) | 106 (13%) | 813(100%) |

As follows from the table, in the comparison group of patients with stage I there were 24 (5.2%) patients, with stage II 179 (39.1%) patients, with stage III 204(44.6%) patients and with stage IV 50 (10.9%) patients. In the main group, there were 15 (4.2%) patients with stage I, 111 (31.1%) patients with stage II, 174 (48.8%) patients with stage III and 56 patients with stage IV, which was 17.7%.

The laser therapy technique was performed by us before, immediately before cardiodilation and after manipulation. Laser irradiation was carried out through the epigastric region immediately below the xiphoid process with the orientation of the radiator tube towards the anatomical localization of the gastric cardia (Fig.2). Irradiation is carried out with a pulse power of 100W and a frequency of 100 Hz. Through this point, irradiation is carried out for 2 minutes at the beginning of treatment, and subsequently the dose of laser radiation increases to 4 minutes. During the irradiation session, the patient is lying on his back in a relaxed state.

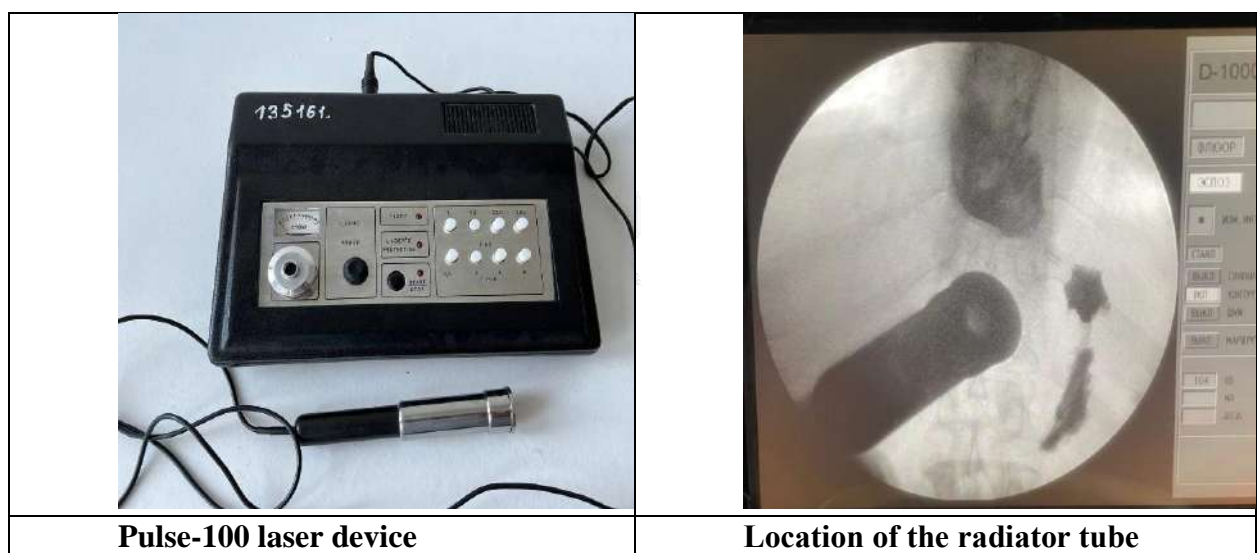


Fig. 2. The laser device and the method of conducting.

The developed utility model of a pneumatic cardiodilator consists of a probe in the form of a silicone tube, the channel of which serves to supply air, and an expanding multilayer dumbbell-shaped balloon connected to it, the inner and outer layers of which are made of silicone, and the middle reinforcing layer is made of dense synthetic fabric, while the end of the probe is closed with a radiopaque mark in It is equipped with a metal string to be placed in the air supply channel, with one end of the string resting against the radiopaque mark, and the other extending beyond the probe (Fig. 3).

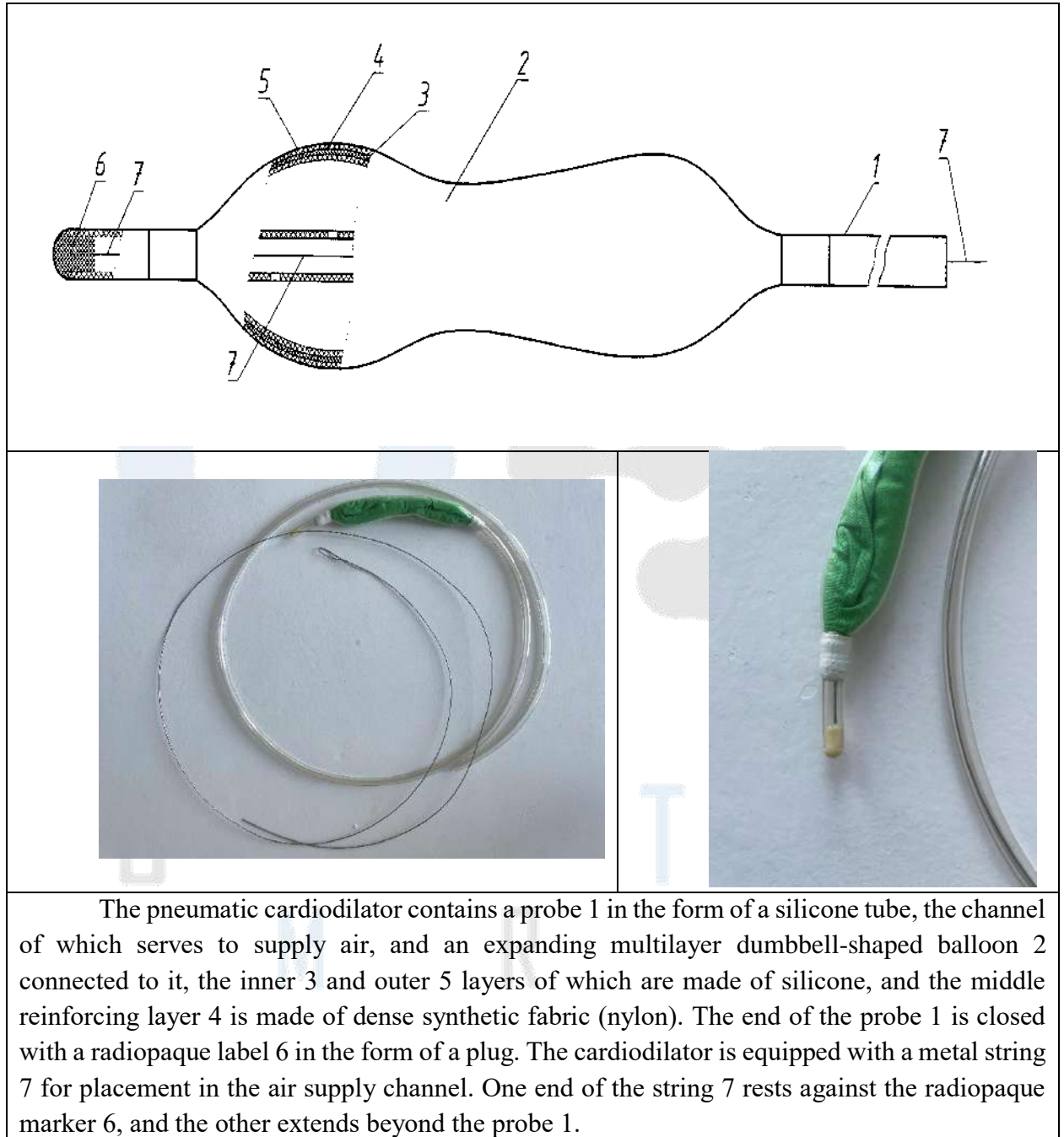


Fig. 3. The utility model is a "Pneumatic cardiodilator".

Pulling outwards and holding the metal string to the end of the cardiodilator is a variable stiffness of the working surface, makes it possible to conduct and correctly install a dumbbell-shaped balloon in the cardioesophageal transition, taking into account the pathological changes in food and water indicated earlier. The patent for the utility model of the Agency for Intellectual

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Property of the Republic of Uzbekistan FAP No. 01357 "Pneumatic cardiodylator" was received for the developed cardiodylator.

Results and discussion. After the dilation courses, 685 (84.2%) had no complications, and 128 patients, which was 15.7%, had various complications. The distribution of patients by the total number of complications is shown in Table 3.

Table 3

Distribution of patients by the total number of complications

| | Comparison Group (n=457) | The main group (n=356) | Total (n=813). |
|------------------------------|---|-----------------------------------|---------------------------|
| Without complications | 365 (80%) | 320(90%) | 685(84,2%) |
| Complications | 92 (20%) | 36 (10%) | 128 (15,7%) |
| | P=0.257 and for no complications and <0.001 for complications | | |

As follows from the table, in the comparison group, the number of patients with no complications was 365 (80%) patients, and various complications were observed in 92 patients, which was 20%.

In the main group, thanks to the implemented technologies and own developments, the number of patients who had no complications increased to 90%, and the number of complications significantly decreased to 10%.

In the structural analysis of complications, we diagnosed the following types: the most common complication was reflux esophagitis, which was observed in 95 (37%) patients, the second in number was bleeding from the cardia zone, which was diagnosed in 66 (25.6%) patients, severe pain syndrome not relieved by non-narcotic analgesics was noted in 64 (25%) patients, non-penetrating esophageal damage was diagnosed in 29 (11.2%) patients and iatrogenic esophageal damage occurred in 3 (1.1%) patients. The discrepancy between the actual number of complications and the number of patients who developed them is due to the fact that several types of complications could occur in one patient. The structural analysis of the complications is presented in Table 4

Table 4

Distribution of patients according to the nature of complications

| The nature of the complications | Comparison Group (n=457) | The main group (n=356) | Reliability | % |
|--|-------------------------------------|-----------------------------------|--------------------|------------------|
| Bleeding | 54(11,8%) | 12(3,3%) | P<0,001 | 66(25,6%) |
| Reflux | 76(16,8%) | 19(5,3%) | P<0,001 | 95(37%) |
| Non-penetrating damage | 25(5,4%) | 4(1,1%) | P=0.002 | 29(11,2%) |
| Iatrogenic damage | - | 3(0,8%) | P=0.051 | 3(1,1%) |
| Severe pain syndrome, not relieved by non-narcotic analgesics | 50(11%) | 14(4%) | P<0,001 | 64(25%) |
| | 205(44,8%) | 52(14,3%) | P<0,001 | 257(100%) |

As shown by the structural analysis of complications in the compared groups, in the main group, thanks to the implemented technologies and own developments, it was possible to significantly reduce the number of almost all complications by two or more times. Thus, in the main group, the number of bleeding was observed in 12 (3.3%) patients, while in the comparison group this Fig. was 54 (11.8%) patients. Reflux esophagitis in the comparison group was observed in 76 (16.8%) patients, and in the main group it decreased to 19 and amounted to 5.3%. Non-penetrating esophageal lesions in the comparison group were noted in 25 (5.4%) patients, while in the main group this indicator decreased to 4 patients and amounted to 1.1%. Iatrogenic damage to the esophagus was observed only in 3 patients of the main group and amounted to 0.8%. Pronounced pain syndrome that is not relieved by non-narcotic analgesics in the comparison group occurred in 50 (11%) patients, in the main group this indicator decreased to 14 patients and amounted to 4%.

After the treatment, the following parameters were evaluated: the dynamics of complaints and the objective status of the patient, data from X-ray contrast examination of the esophagus and endoscopic examination, on the basis of which the results were divided into good, satisfactory and unsatisfactory.

The results of cardiodilation were distributed as follows: Good results were obtained in 520 patients and amounted to 64%, satisfactory in 242 (29.7%) and unsatisfactory results were obtained in 51 patients and amounted to 6.2%. The analysis of the results of cardiodilation is presented in Table 5.

Table 5

Immediate results of dilatations

| | Comparison Group | The main group | Total: | Reliability |
|-----------------------|-------------------------|-----------------------|-------------------|--------------------------|
| Good | 258(56,4%) | 262(73,6%) | 520(64%) | P<0,001 25.505 |
| Satisfactory | 162(35,4%) | 80(22,4%) | 242(29,7%) | P<0,001 16.119 |
| Unsatisfactory | 37(8%) | 14(3,9%) | 51(6,2%) | P=0.016 5.901 |
| TOTAL: | 457(100%) | 356(100%) | 813(100%) | |

As follows from the analysis of the results of dilation, the implemented technologies and in-house developments have significantly increased the number of good and satisfactory results in the main group. The number of good results in the main group was achieved in 262 patients and amounted to 73.6%, and in the comparison group this indicator was achieved in 258 patients and amounted to 56.4%, which is significantly lower than in the main group. Satisfactory results in the main group were obtained in 80 (22.4%) patients, while in the comparison group this indicator was 35.4%. The number of unsatisfactory results decreased from 37 (8%) patients in the comparison group by half and amounted to 14 (3.9%) patients in the main group, although the difference was not significant.

Conclusions.

The use of low-intensity laser radiation in combination with a new model of cardiodylator has significantly reduced the total number of complications from 20% to 10%.

In the structural analysis of complications, thanks to new technologies and in-house developments, a significant reduction in almost all types of complications was also achieved from 44.8% to 14.3%.

Analysis of the results of cardiodilation showed that the combined use of two techniques significantly increased the number of good results from 56.4% to 73.6%, significantly reduced the number of satisfactory from 35.4% to 22.4%, as well as to reduce the number of unsatisfactory results from 8% to 3.9%.

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ANNOTATION

In this article, intertextuality is one of the complex features of the text, it appears in various forms and performs various functions. This category has been widely studied in relation to the functions it serves in literary texts. However, its explicit, direct application can be seen in more scientific texts. In scientific discourse, intertextuality is the most important and universal means of shaping the content of a text. Thus, the quotation and reference form a micrometer within a general macrometer, noting that a scientific work is somehow related to other studies. This ensures the scientific development of science, the commercial development of knowledge, the formation of consistency and heredity in accordance with traditions (Chernyavskaya 2005: 49). Analysis of the cases mentioned in the article encourages us to recognize that intertextuality is not only the main feature of scientific discourse, but also an important tool for its formation.

Key words: information content, segmentation, cohesion, modality, coherence, intentionality, addressee, situationality, intertextuality, allusion, explicit, quotation, communicative.

A scientific text, like any linguistic structure, differs from other speech structures based on a specific set of categorical symbols. Linguists have proposed different classifications of these categories. In particular, I.R. Galperin lists such categories as informativeness, segmentation, coherence, continuity, modality, integrity, completeness (Galperin 1981). German researchers W. Dressler and R.A. Beaugrand notes that this classification is associated with the status of the text, including: 1) coherence, which ensures the mutual connection of parts; 2) logical-semantic connection of text fragments - coherence; 3) the connection of structural and spiritual integrity with the communicative goal - intentionality; 4) targeting – taking into account the position and mental state of the recipient when transmitting information; 5) information content - the level of importance or ease of information; 6) situational – correspondence of the form and content of the text to the conditions of communication; 7) intertextuality includes the reconstruction of a previously known meaning in a text (Bogrand, Dressler 1987; Boymirzaeva 2009: 58-59).

Attempts to create a classification of text categories continue. The results of research in this direction are certainly related to taking into account their structural and semantic differences. Additionally, some scholars prefer to divide text categories into required and elective activities. For example, D. Ashurova and I. Galieva include the signs of informativeness, modality, coherence, connectedness and intentionality to the group of categories that must be mandatory, i.e. must be present in any text, and note that the categories of intertextuality, implicitness, emotionality, and evaluation are not mandatory (Ashurova, Galieva 2016: 81).

Although intertextuality is included by the authors as an optional category, this category is typical for all types of texts. Scientific texts are no exception.

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According to M. Yuldashev, who analyzed the factors that ensure the manifestation of the phenomenon of intertextuality in artistic texts, “the presence in a certain artistic text of elements associated with other texts is the intertextuality of this text” (Yuldashev 2009). Other researchers also note that one text is associated with others using linguistic means of a certain kind. But the bulk of the work done is related to art, and this phenomenon has been little studied in the section of scientific texts (see: Chernyavskaya 2009).

Intertextuality is one of the important features of a scientific text, since scientific thinking is based on certain sources and the concept is activated in them. Any scientific phenomenon is forced to resort to various means of proof to prove the hypotheses and ideas it puts forward. The author, looking for ways to explain his opinion, studies the work of other scientists and hints at their conclusions. As a result of analyzing the opinions expressed by other researchers, confidence in one’s conclusion is created and the need to study the problem under discussion is justified. As a result, the participation in the text of modal units that express attitudes towards the opinions of other authors is activated.

It is difficult to imagine that any text will appear on its own in some space; it will certainly be created in some way and in connection with previous texts. Ideas expressed and written down in advance allow new linguistic structures to form and acquire social status. Vocabulary items, phrases, patterns of syntactic devices, emotional devices that are in motion in a language have all been used at some point by other speakers and authors. However, the degree of their activation and location in each text is different, giving each text individuality and showing its similarities and dissimilarities with others. In general, a text without intertextual connections is difficult to understand.

With a narrow interpretation of intertextual connection, thematic connections are taken into account, that is, the author unites texts around a single theme using certain formal means. Intertextuality is openly and explicitly expressed when quotes, allusions, etc. are used in the text.

In interpreting this phenomenon in a broad sense, it is necessary to rely on the tradition of accepting each text as a universal or global text. The theory of globality was first developed by M.M. It was formed in the work of Bakhtin (Bakhtin 1979), later by Y. Kristeva, Yu.M. Lotman, I.V. Arnold, E.V. Chernyavskaya was also supported by others. The content of the proposal to give the text a global character is to recognize the existence of a field of intersections between different “foreign” texts, reflecting a logical connection that generalizes the experience of individual people.

Thus, intertextuality in its narrow and broad interpretation is equally interpreted as a source of the formation of new content. N.V., who specifically studied the features of the manifestation of this category in a scientific text. Koroleva notes that this phenomenon can be studied in the context of a single discourse or within a series of discourses that are thematically similar (Koroleva 2004: 820).

French scientists (R. Barthes, J. Derrida) advocate a description of intertextuality in relation to the “text-cultural world” chain. R. According to Barth, the effect of linguistic activity is determined not by some “object-information”, but by “retelling” (Barth 1989). The linguocultural description of intertextuality in this regard is distinguished by its semantic description. In the semantic interpretation, intertextuality is considered as the ability to shape the content of a text by referring to the content of others, and in the linguocultural approach this category approaches the concept of cultural tradition (Lotman 1996: 14; Kuzmina 2009: 26).

Experts distinguish two main types of intertext links: citation and link. When using a quotation, which is a means of intertextual communication, a fragment taken from a specific source text takes place in the generated text. The author, citing the works of other scientists, tries to find the most convenient way to express his opinion. Brief quotations often use words and phrases that have evaluative meaning. Compare:

In contrast. EMR must either be limited to "relatively common" elements or be used with a wavelength spectrometer... Even then, the sensitivity of the PMP cannot approach 1 ppm (Legge G. Microprobe Analysis..., 1989:496);

These opinions about a concept or fragments of it cannot imply that the concept itself differs in different situations. A possible answer is that concepts are used only in thought and action; Such differentiated "opinions" or "fragments" in terms of intellectual and social process practically do not exist (Shi Hu. Discourse and Culture, 2013: 227).

One of the most common forms of intertextuality is the term citation, which serves to condense information by citing the authority of a referenced expert in a given field. For example, in the literature on linguistics V. Ergon and Humboldt's energy, the language of F. Saussure, V. "Sema" Skalichka, S. Trubetsky's terms such as "distinctive sign" are used as a quote. Quotes of this type are found in other areas of science.

This is not just a list of properties; it is an integrated scheme supported by elementary figurative schemes such as "container" and "path", power dynamics, etc. (Fauconnier G. Mapping in Thought and Language, 1997: 19);

This is a typical feature of classical "chaotic systems". There are also regular "eigenfunctions" whose amplitude is concentrated along the short or long diagonal of the polygon (International Conference on Dynamical Systems and Chaos, 1994: 234);

In conclusion, the high-quality Ginda data presented here showed that time dependence.... (Astrophysical Journal, 1993. Volume 404. - P. 122);

However, the most common type of citation is the full citation of expert opinion. Compare:

The semantic concept of culture also corresponds to Geert's (1973:5) understanding when he tells us: "The concept of culture that I am expounding [...] is essentially semiotic. Believing with Max Weber that man is an animal suspended in a web of meaning that he himself has woven. I view culture as this network, and therefore its analysis is not an experimental science in search of law, but an interpretive science in search of meaning (Shi Xu. Discourse and Culture, 2013: 17);"

Ford and Fox (1996) note that a speaker's choice between forms such as "he" and "today" does not depend solely on the speaker's assessment of the listener's current cognitive awareness of the referent, but also has to do with "the continuation or shift of perception, e.g. attracting the attention of an uninvolved recipient or acknowledging the attention of a participant" (Laury R. Definiteness, 2014:58).

As noted by N.A. Kuzmina, quoting increases the value of the text by condensing information and "provides multi-layered content" (Kuzmina 2009: 120). This task requires a combination of object and subject planes of expression.

It is clear that the category of intertextuality performs various tasks in a scientific text. The dissertation of E. V. Mikhailova lists the referential, evaluative, etiquette and decorative tasks of this category (Mikhailova 1999: 58).

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A link is a direct function of a quotation because the author refers to another text to convey additional information to the reader. Compare:

The fact that proper names imply that both the speaker and the addressee have some degree of knowledge of the referent (in Downing's terminology, proper names are "cognitive") "makes them particularly useful in contexts where the speaker wishes to demonstrate his authority to express an opinion to a particular respondent, as this often occurs in the context of disagreement" (Downing 1996: 136) (Lanry R. Defineteness, 2014:58).

There are different types of syllogisms, each of which has a name given by the scholastics... There are some conclusions that can be drawn from one premise.

From "some men are mortal" we can infer that "some mortals are men." According to Aristotle, this can also be deduced from "all men are mortal" (B. A. Russell, History of Western Philosophy, 1975:77).

The task of evaluation is manifested in the author's attitude to the given quotation. Commenting on the views of other authors is a special form of scientific dialogue and discussion. This task manifests itself in two contexts: with a negative assessment, it takes a critical form, and with a positive content, the author supports the previously expressed opinion and conclusion.

Other competent observers should repeat the experiments of M. Pasteur, and each result should be subjected to strict criticism. This is not disdain for M. Pasteur, it is only worthy of his genius and his skill (Nature, 1986. No. 33:2);

The idea of quaternion calculus, or that part of which was truly original and due to the genius of Hamilton alone, is undoubtedly beyond what can now be considered elementary mathematics (Priroda, 1986. No. 33: 543);

It is impossible that we should now begin to apply this theory to plant diseases, which were therefore mysterious and incurable (Microbiology. Historical contribution..... 1980: 115);

The Chinese concept of "he" allows for internal differences and even opposition, and is therefore best understood as the value of unity and diversity, and balancing contradictions. So, from this historical and cross-cultural perspective, the modern Chinese "concept should be translated as" "balanced harmony" and "equilibrium" (but see Chen, 2001) (Shi Xu. Discourse and Culture, 2013: 308).

Fulfilling the scientific task of a quotation is a symbol of respect for a particular scientific school, its representatives, and high appreciation of the works they created. Also, quotes and references are aimed at performing the function of decoration (scenery), designed to soften the style of the narrative.

Thus, intertextuality is one of the complex features of the text, which manifests itself in different forms and performs different tasks. The functions of this category in literary texts have been widely studied. But its obvious, direct use is observed more in the example of scientific texts. In scientific discourse, intertextuality is the most important and universal means of shaping the content of a text. Therefore, citation and reference form a microtext within the overall macrotext, indicating that the scientific work is somehow related to other studies. In this regard, the formation of scientific innovations, the economic development of knowledge, consistency and compliance with inherited traditions are ensured (Chernyavskaya 2005: 49).

Analysis of the above-mentioned cases encourages us to recognize that intertextuality is not only a fundamental feature of scientific discourse, but also an important means of shaping it.

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THE SPECIFICITY OF THE INFORMATION ECONOMY AND THE DEVELOPMENT OF ICT IN UZBEKISTAN

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Annotation. At present, the development of new technologies, along with the development of information and communication technologies (ICT), creates opportunities for the rapid delivery and exchange of information, money and other resources, regardless of distance and time. In this article, the process of ICT development in Uzbekistan and its impact on other industries will be discussed.

Key words: information technologies, information economy, industry, ICT, telecommunication, system.

The profound and radical changes taking place in connection with the transition to an informed economy are leading to a number of problems and contradictions. Such problems can be attributed to the variability and instability of economic life, which has arisen due to globalization and informatization of various spheres of society, and which requires a comprehensive study and a comprehensive approach. Of these, the growing impact of education, ICT, scientific and innovative activities on society, the state and the economy, as well as the qualitatively new features of their activities. Therefore, how the theory of modern economics defines the contradictions in the life of society and how its theoretical content is reflected in the modern stage of the world economy and to show the specifics of the information economy is one of the most important issues today.

The development of ICT in Uzbekistan is carried out on the basis of the Comprehensive Development Program of the National Information and Communication System of the Republic of Uzbekistan for 2013-2020. Successful monitoring of the implementation of state programs for the development of ICT is a guarantee of building an effective system of indicators for the formation of an informed economy. The level of formation of an informed economy in Uzbekistan, as in any other country, the introduction and development of modern ICT, indicators of the introduction of research into the economy and the share of services in GDP. Given the lack of in-depth research on the information economy in Uzbekistan, it is important to study and conduct research on this topic.

The analysis of the content of the information economy is reflected in the scientific works of such scientists as M. Porat, D. Bell, U. Dayzard, M. Castels, M. Connorz, U. Martin, A. Norman, and the category of the informed economy itself is

reflected in science in 1976. introduced by the American economist M. Porat [1, p.71]. Thanks to the Spanish-American economist M. Castels' monograph "The Information Age: Economy, Society, and Culture" published in 1996-1998, the term "information economy" became widespread. According to the criteria of time, the formation of the theory of information economy can be divided into three periods: the emergence of an informed economy and the identification of trends in the development of a new phenomenon (1960-1970); rapid development of the information economy in developed countries (1980–1990); to study the theory of information economy in relation to the knowledge economy (since 2000). In general, economic theory does not have a single concept or definition of an informed economy, but there are different approaches to it in the scientific literature. Nevertheless, many studies distinguish three main groups of criteria specific to the information economy [2]. The first group includes economic criteria, which describe the share of society in the gross national product (GNP) created in the field of information. The main problem of this approach is that the country faces certain difficulties in determining the contribution of the information sector in GDP. The second group includes social criteria. They use information products, determining the share of the population engaged in the production of information media and the provision of information services. The third group includes technological criteria that define the information economy, ie in terms of the spread of information technology (IT) in society.

At present, our society is experiencing the emergence of an informed economy. At the same time, it should be noted that it is characterized by uncertainty and high dynamics of development in the future. In a broad sense, the scientific literature considers the information economy as a branch of economics that studies the impact of information on economic decisions [3]. M. Castels points out that the term "information society" is not perfect and does not reflect all the peculiarities of the new system. According to him, the term "informational economy" can have a more accurate definition [4, pp. 42-43]. BV Korneychuk, on the other hand, uses two different concepts to express his views on the term information economy. In the first, he describes the information economy as a stage in the development of a civilization where creative labor and information resources predominate. In the second, the information economy is considered as the economic theory of the informed society or the theory of the informed economy [5].

In addition, in a sense, the following definition explains the object of research: Informed economy is the basis of post-industrial society, where information is the main resource of production and the main role in the structure of employment is occupied by mental labor. is a philosophical-economic term that defines the specific

type of economy occupied by the workers employed. [6, p. 20]. A modern scientific work describes: "The information economy is a stage of development of productive forces, which includes the role of knowledge and information in society, the growing share of information products and services in GDP, information and communication technologies, human interaction. effective information exchange, the creation of a global information space that allows them to access global information resources and meet their social and personal needs "[7, pp. 23–24]. It should be noted that the comparative analysis of the information economy by country is associated with the development of the following new trends [8, p. 268]:

- differentiation of traditional and information economy;
- the formation of certain contradictions between the sectors of the information economy and the economy of the industrial era;
- increasingly penetrating the globalized economy.

Currently, in the world practice, various rating indicators are used to assess the level of development of the information economy, but it should be noted that the relevant concepts and statistics are not yet fully formed. In general, the development of the country's information economy is associated with the following indices [9]: innovation (knowledge economy - Knowledge Economy Index (KEI), innovation - The Global Innovation Index (GII); e-government readiness - United Nations e-Government Readiness Index (UNEGRI); ICT market. The value of the e-government index is calculated based on online participation in government networks, the current state of the country's telecommunications infrastructure and human capital development indicators. An important issue is the development of indicators of informatization and methods of its application in practice. A number of indicators can be cited, the most important of which are:

- ✓ Technological equipment indicator, American scientists F. Rodriguez and E. Dj. Developed by Wilsons (Maryland). This indicator is designed to assess and measure the state of development of ICTs in different countries. Personal computers, mobile phones, Internet hosts, fax machines, televisions, etc. are used to calculate indicators;
- ✓ An indicator of communication transparency, it was developed by experts from the US National Science Foundation to assess the level of use of ICT in the interaction between the population, business and government [4, p. 235]. This indicator is of particular importance for state, regional and local government and serves to show the level of application of modern ICT by the authorities;
- ✓ An indicator of the status of an informed society is developed and used by the World Times and IDC. This indicator, in general, reflects the level of creation,

use of information technologies, their spread and determines their level. The specificity of the development of ICT in Uzbekistan can be characterized by the fact that it consists of several stages:

1. The initial stage of development - (2000-2002). Period of improvement of public administration through the gradual introduction of ICT;
2. The second stage - (2003–2007) the period of adoption of the main legal and regulatory documents for the widespread introduction of ICT;
3. The third stage - (2008-2012) the period of active implementation of internal information systems and software products in government agencies, the beginning of the provision of information and electronic information services;
4. The fourth stage - (from 2012 to the present) is a period of further improvement of the public administration structure.

It should be noted that the National Information and Communication System Development Strategy, which covers all areas of ICT development and is being implemented, shows an active positive growth trend. This means that the share of the informed economy has a significant impact on the economy as a whole. In short, the widespread and active introduction of ICT has led to structural imbalances in the labor market, the transformation of the role of information, the growth of the dependence of one industry on another, the growing role of scientific research in production and services. Analyzing and monitoring its impact with this in mind, it is necessary to conduct research on the formation and development of a large-scale information economy in Uzbekistan.

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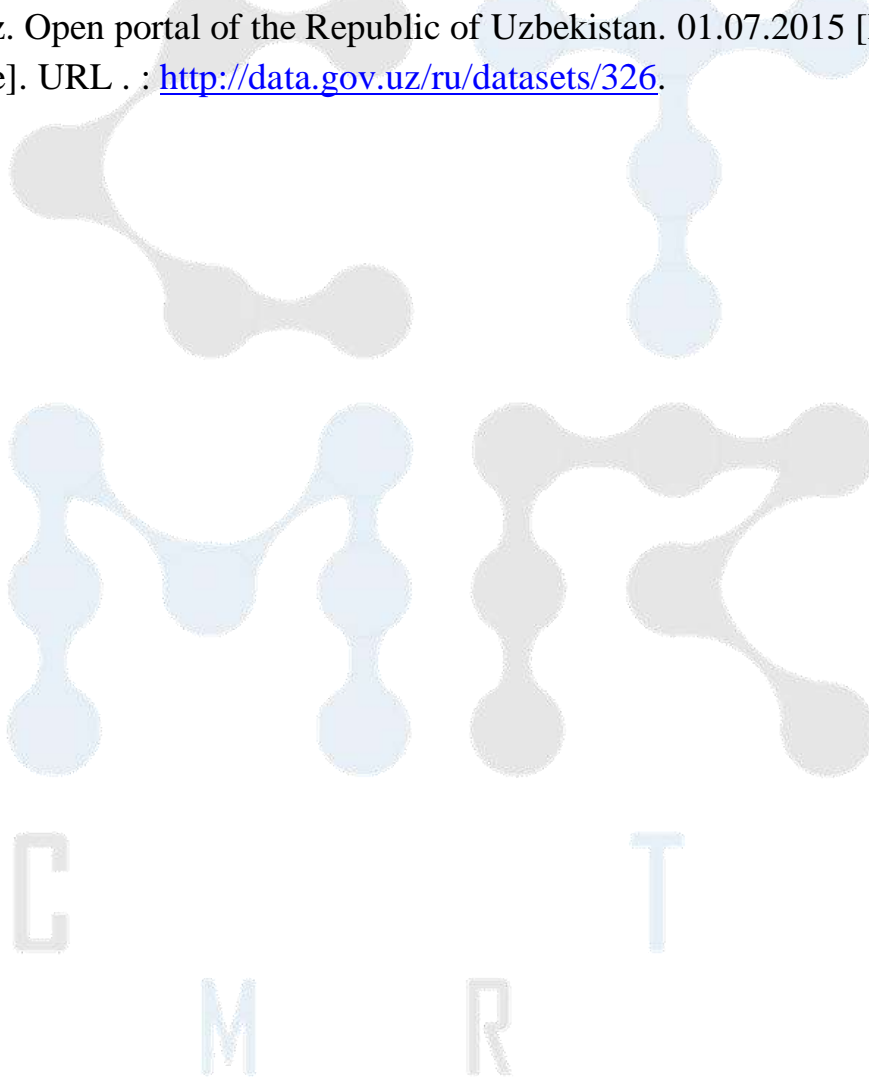
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INCREASE THE INVESTMENT ATTRACTIVENESS OF THE REGION BASED ON
THE DEVELOPMENT OF INVESTMENT MARKETING

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Abstract: An important strategic task of the region's development is to create a favorable investment environment, its implementation depends on socio-economic dynamics, the efficiency of involvement in the international division of labor, and the possibilities of modernizing the regional economy on an innovative basis. In general, investment attractiveness can be defined as a set of objective and subjective conditions that facilitate or hinder the investment process of the national economy at the macro, meso, and micro levels.

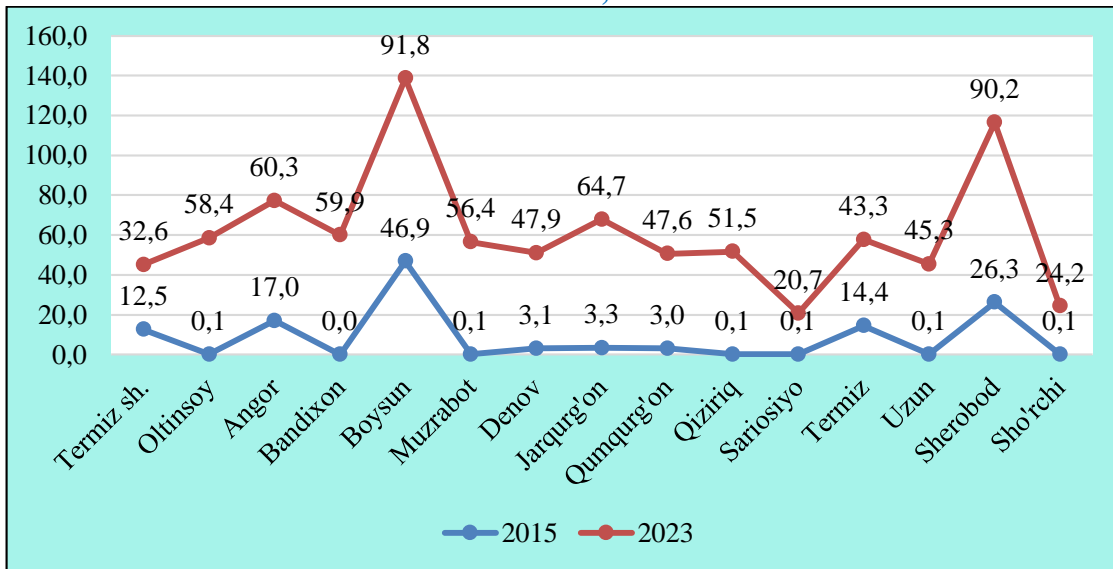
Keywords: product, price, place, promotion, investment attractiveness in Surkhandarya, Statistics Department, numbers of fixed capital investment.

Based on this definition, a number of factors shaping the level of investment attractiveness of the region, including: general economic development (agrarian or industrial area, average wage level in the region), demographic situation (birth rate, death rate, number of scientists with academic degrees, unemployment rate, population number, including those with higher education), investment infrastructure (construction enterprises, energy resources, highways, railways), financial and market infrastructure (non-state enterprises, banks, financial and credit organizations), foreign economic direction (export, import, goods, works, services, capital), we can distinguish man-made, environmental risks (level of pollution, number of harmful productions, economic crimes).

However, as Yu. M. Barsky correctly noted, the main aspect of creating a positive investment environment is the country's image, because the lower its level meets the investor's expectations, the lower the investment environment is evaluated and serves to stabilize the investment environment. In this, of course, every investor will pay attention to the incentives for investments attracted to the country, because the more incentives the state gives, the more investors will be interested. After all, the level of investment attractiveness of the enterprise is determined by the degree of proportionality of the interests of all subjects of the investment process, in particular, the owners of the enterprise, investors, regional authorities and product consumers, and its successful implementation. As part of a socially oriented approach, the concept of regional marketing increases the degree of alignment of interests of institutions participating in the investment process.

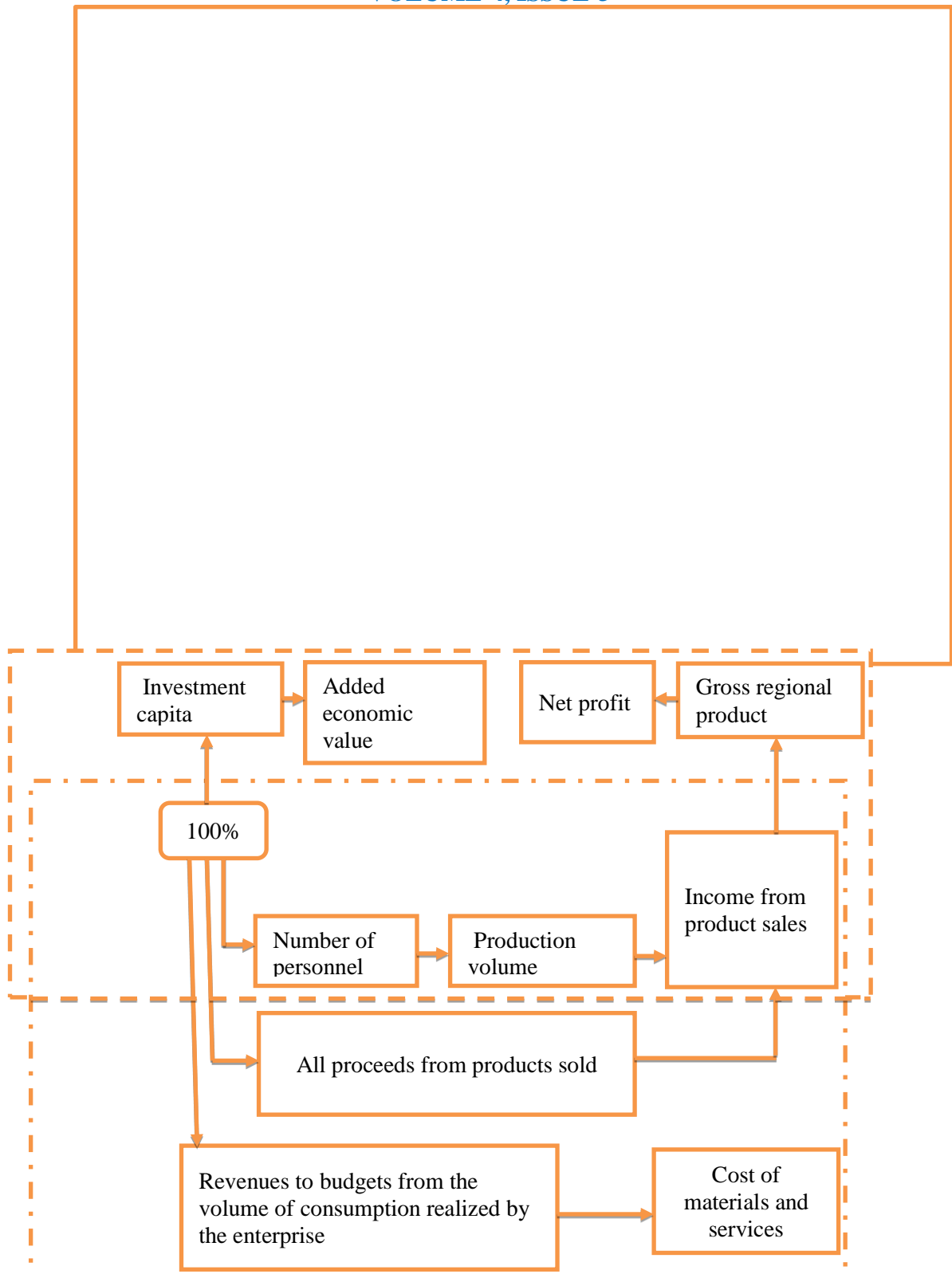
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According to modern approaches, regional marketing can be defined as a method of establishing, creating and maintaining such relationships with various market entities, which provides the region with resources and advantageous positions in terms of target markets, as well as allows the participants of the relationship to reach this market. This, in turn, makes it possible to distinguish the following features of a regional marketing investment project (of a particular region) that characterize it as an investment product using the tools of the "4R" complex:

- 1) investment attractiveness of the region as the ability of this specific "product" to fully satisfy the investor's needs (similarity with the buyer);
- 2) "Place" should be understood as attracting investments for the implementation of regional programs and projects;
- 3) the amount of investment resources needed by the recipient for project implementation should be specified in the "price" section;
- 4) under "promotion" ("promotion") or "communication" - choosing the optimal scheme of "delivering" information about the investment project to potential investors during the investment process, that is, conveying information to consumers (investors) about the advantages of the product (investment project) and A set of different activities to stimulate the desire to "buy" should be understood.



The established means of regional marketing can be effectively used to create new competitive advantages of a given region, influence the target audience, and thus attract economic agents. In addition, the activation of investment activities in the field of marketing of the region includes:

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- based on the specific features of the region's formation and development, developing programs to form and improve its image and in the future to implement branding as a special means of forming a positive image of the region;

- allows management bodies and some enterprises to significantly increase the value of territories and attract investment resources without increasing current consumption, production volumes, use of natural resources;

- communication activities to increase the attractiveness of natural, material-technical, financial, labor, organizational, social and other resources aimed at increasing foreign investors:

- territorial, as well as the development, operation and image of the territory in the implementation and restoration of such resources depends on their successful operation; media and advertising opportunities should be considered. Such activities can be carried out through the regional marketing center in the form of representatives of event agencies, which are called non-profit partnerships consisting of representatives of regional authorities, owners of leading enterprises. In particular:

- it is also important to provide investors with information through the Internet portal, develop and distribute analytical data, participate in international forums and exhibitions, regularly organize investment-related events in the region;

- organizing and ensuring the effective participation of the region and its subjects in the implementation of international national, regional and interregional programs, as well as in the placement of state and other orders in the region;

- development of the "driver" sectors of industry and full use of the industrial potential of the regions;

- production of import-substituting products by large enterprises and expansion of cooperative relations with regional enterprises,

- introduction of a system of active incentives for enterprises that have established industrial cooperation.

- All-round support for exporters who bring national brands to foreign markets based on the idea of "New Uzbekistan - the country of competitive products";

The investment attractiveness of the Surkhandarya region is related to the geographic location of the region (border, transport) as well as the advantages of natural features and labor potential, which are actively used for the implementation of cross-border infrastructure projects to increase the economic potential of the region and the well-being of the population.

In this regard, if we pay attention to the data of the Statistics Department of Surkhandarya Region, in 2023, 17956.0 billion. Sums of fixed capital investment have been utilized, which has increased by 55.2% compared to the previous year 2022. In 2015, the region received only 191.7 billion. sums of direct foreign investment, by 2023 this indicator will reach 11,114.8 billion. amounted to soum. The highest figure is 3179.3 billion in Boysun district. soums and Sherabad district 3260.9 billion. is achieving positive results by attracting soums. In general, values higher than the regional average (53.0%) in attracting foreign investment and loans are Oltinsoy (58.4%), Angor (60.3%), Bandikhon (59.9%), Boysun (91.8 %), Muzrabot(56.4%), Zharkurgan(64.7%) and Sherabad(90.2%) districts, with US direct foreign investments, their amount was 194.0 dollars per person

In general, when analyzing the investment attractiveness of the region, it is necessary to determine the real investment attractiveness using the tools of the "4R" complex, which allows to

distinguish the descriptive features of the investment project (a separate area) as an investment product. Perspectives in this direction consist in changing regional (territorial) marketing tools for use in forming new competitive advantages of the region to influence the target audience and thus increase the activity of economic entities.

Recently, in scientific works and popular scientific publications, one can find an approach in which the investment project (enterprise) is considered as a specific product. Considering the above, it is possible to consider not only the investment project as a product, but also the entire enterprise. Then the investment attractiveness of the enterprise can be evaluated from the point of view of marketing, and the investment activity of the enterprise as an economic activity that increases the quality of the product.

In the modern activity of the company, the definition of the marketing concept, which includes the market approach to entrepreneurship based on the priority of the consumer as the main agent of market relations, plays an important role. whose inquiries should be directed to marketing activities.

The socially oriented concept of marketing is characterized by the harmony of the interests of producers, consumers and society as a whole. If we consider this concept within the framework of the institutional theory, it should be noted that the implementation of investment activities of various institutions helps to form the investment attractiveness of the enterprise, as well as increases the efficiency of socially oriented marketing processes in the enterprise.

Conclusion: It should be noted that the proposed method for assessing the investment attractiveness of regions is universal, as it includes the main traditional indicators of project efficiency, and therefore is suitable for regions and enterprises of any form of ownership and industry. In addition, taking into account the degree of proportionality of the interests of the subjects of the investment process, it will be possible to analyze the attractiveness of projects in a new way, in connection with which the following advantages will arise.

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ANALYSIS OF PRODUCTS OBTAINED BY FERMENTATIVE HYDROLYSIS FROM RICE STEM

Urozov M. K., Aliqulova D. A., Eshnazarov S. T., Xotamov I. X.

Abstract: A technology for extracting valuable monosaccharides from industrially unimportant rice stalks in the medium of dimethylsulfoxide, an ionic liquid, is presented. The products obtained from the breakdown of rice stalks were separated from the ionic liquid by enzymatic hydrolysis.

Key words: *Trifluoroacetic acid, solution, hydrolysis, arabinose, xylose, glucose, mannose, galactose, natural polymer, rice stalk, dimethylsulfoxide.*

Introduction. The use of ultrasound in combination with dimethylsulfoxide made it possible to increase the reactivity of isolated polysaccharide fractions under enzymatic hydrolysis conditions, not to reduce the duration and temperature of heat treatment of rice stalks. The polysaccharide fractions are more efficiently hydrolyzed by enzymes than the original rice stalk and polysaccharide fractions isolated after heat treatment.

Experiment and analysis part: Regardless of processing conditions, GS fractions have high reactivity under enzymatic conditions. Due to the use of ultrasound, the percentage of polysaccharides that can be hydrolyzed by enzymes in the fraction is greater after heat treatment and reaches 83-90% (sqm. 16-23 %) organize did.

Experimental in the circumstances isolated TS fractions fermentative hydrolysis conditions of low reactivity with is described of monosaccharides product each one in the fraction from 56 to 64 % or aqm. up to 27-40% changed stands With that together, high productivity has which is a TS fraction to GS fraction

than original rice stem point of view in terms of carbohydrates high productivity provides.

Heat at 100 °C (15 minutes). With processing to give during ultrasound power from 10 to 50 W up to increase with, polysaccharide from fractions of monosaccharides output increases. Again work temperature increase with monosaccharides of separation increase only the GS fraction for observed. 50 W and of temperature increase together effect from the TS fraction monosaccharide of separation to decrease take will come. It is from 120 °C high at temperatures more it is felt. As a result, polysaccharide fractions of monosaccharides common separation decreases. Ultrasonic at 120 °C (30 W). Processing to give the term change polysaccharide of fractions fermentative hydrolysis efficiency effect does not minutes at 100 °C 50 W during power Rice stem polysaccharides point of view in terms of carbohydrates productivity theoretical in terms of possible 80% of which organize did In IS conditions without ultrasound rice stem heat with processing to give 2 hours in the process of carbohydrates at 140 °C during break up percentage up it has been So and rice stem under dimethylsulfoxide urea conditions ultrasound with work from polysaccharide fermentative of monosaccharides break up 5 times the product increase provides. From the GS faction carbohydrates output maximum yield was obtained at 140 °C (50 W, 15 min) and from TS fraction at 100 °C (50 W, 15 min). Starting 1-butyl-3-methylimidazolium chloride is a colorless liquid. After use, it has an amber color, which darkens with increasing temperature and time of use. The color change, dimethylsulfoxide urea] is due to the presence of fractionation products of rice stem biomass and their thermal transformation reaction products., in addition to liquid extraction with organic solvents (benzene, dioxane, TGF) and supercritical CO₂ extraction method, activated carbon adsorption method was used to recover dimethylsulfoxide urea. Without, low molecular weight in weight products adsorbed and activated carbon layer the rest Rice stem heat with processing 2 hours at 140°C during for IS used adsorption done increased.

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Activated to carbon adsorption from being done then cleaned of dimethylsulfoxide urea ¹³C YMR in the spectrum addition signals no, it is molecular in weight products from IS complete take thrown shows.

Table 1

Activated in carbon from adsorption after hydrogen of atoms relative composition dimethylsulfoxide

| Chemical shift , ppm | Structural group | Ionic liquid | |
|----------------------|--|--------------|---------|
| | | initial | cleaned |
| 0.87(3) | -CH ₂ -CH ₂ -CH ₂ -C H ₃ | 0.201 | 0.200 |
| 1.31(6) | -CH ₂ -CH ₂ -C H ₂ -CH ₃ | 0.134 | 0.133 |
| 1.84(5) | -CH ₂ -C H ₂ -CH ₂ -CH ₃ | 0.133 | 0.133 |
| 3.87(1) | -N ₃ -C H ₃ | 0.201 | 0.200 |
| 4.19(3) | -N ₁ -C H ₂ - | 0.134 | 0.136 |
| 7.42(2) | H (4, 5)- C= | 0.132 | 0.133 |
| 8.71(1) | H (2)- C= | 0.065 | 0.066 |

Adsorption of the method advantages dimethylsulfoxide ni of mixtures cleaning relatively high efficiency, disadvantages of dimethylsulfoxide duration and significant losses own into takes.

Table 2

Fractions output

| IS sample | Output , % aqm . | | |
|-----------|-----------------------|----------------|--------|
| | Technician celluloses | hemicelluloses | lignin |
| Primary | 62.25 | 1 8,13 | 5.91 |
| Cleared : | | | |

| | | | |
|-------------------|-------|-------|------|
| Extraction of TGF | 63.53 | 17.86 | 5.23 |
| activated coal | 62,63 | 18.53 | 5.62 |
| supercritical CO2 | 63.05 | 17.93 | 5.44 |

Methods with cleaned of dimethylsulfoxide urea efficiency evaluation for rice to the stem heat with processing give 1 hour at 100 °C during, then fractionation through done increased. Experience for purified IS three examples used (Table 2).

Received to information according to, cleared dimethylsulfoxide urea rice stem biomass fractionation efficiency according to from the beginning almost difference does not Clean up using dimethylsulfoxide urea rice stem fractionation the way with received polysaccharide factions fermentative from hydrolysis next carbohydrate the product is also original from dimethylsulfoxide urea when used to productivity near will be (Table 3).

Table 3

Fermentative from hydrolysis after of carbohydrate output

(48 hours during)

| IS sample | TS share, % | | Share of GS, % | | General yield, % aqm |
|-------------------|-------------------|----------|-------------------|----------|----------------------|
| | fraction per head | aqm from | fraction per head | aqm from | |
| Primary | 52,59 | 32.74 | 70.35 | 12.75 | 45,49 |
| Extraction of TGF | 51.23 | 32.55 | 68.56 | 12.24 | 44.79 |
| activated coal | 52.01 | 32.57 | 69.51 | 12.88 | 45.45 |
| supercritical CO2 | 51.63 | 32.55 | 69.06 | 12.38 | 44.93 |

Summary: So making the liquid extraction to do critical CO₂ extraction and activated in carbon adsorption methods dimethylsulfoxide urea regeneration for different different efficiency with use can

Tetrahydrofuran, extreme critical carbonate anhydride or activated to carbon adsorption with liquid extraction with cleaned samples of dimethylsulfoxide urea rice stem biomass in the fraction efficiency without losing use possible was shown .

Disruption of intermolecular bonds and separation of submolecular substances was achieved by exposure to ionic liquid at an average temperature of 120 °C on rice stalks.

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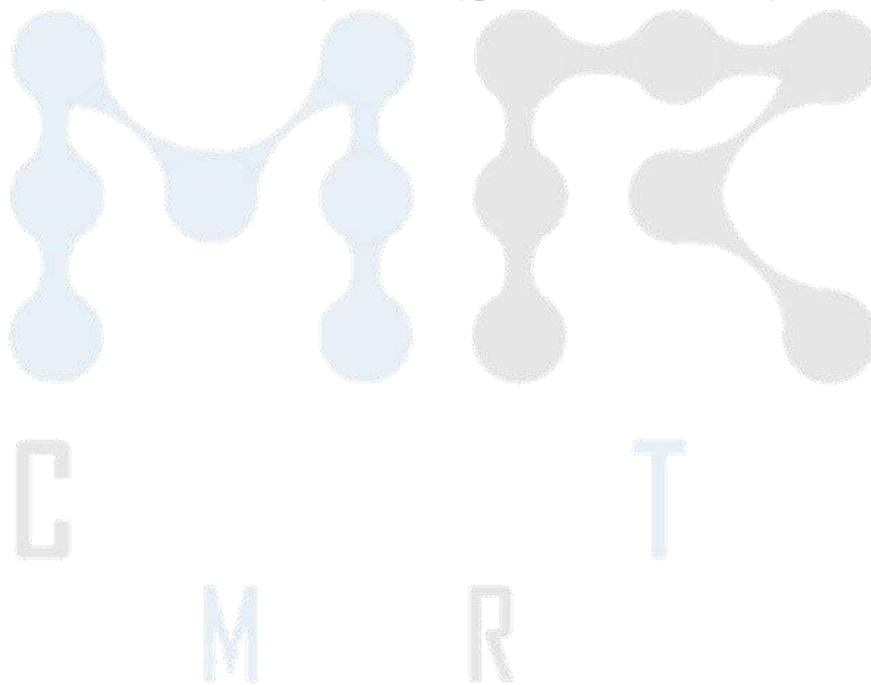
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Понятие об антонимах как основном средстве выражения контраста

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Аннотация:

В статье рассматриваются антонимы, частеречной принадлежности в художественном тексте по оттенкам качества. Особенно такое противопоставление характерно для слов с отрицательной экспрессией. Дано описание семантическое сопоставление антонимов в тексте, придающее особую значительность выразительность речи.

Ключевые слова: текст, экспрессия, семантика, выразительность, речь

Контрастни ифодалашнинг асосий воситаси

сифатида антонимлар тушунчаси

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Аннотация:

Мақолада адабий матндаги антонимлар ва қисман оғзаки боғланишлар сифат кўринишларига кўра кўрилиб чиқилади. Бу қарама-қаршилик айниқса, салбий ифодаланган сўзларда хосдир. Матндаги антонимларнинг семантик қиёслашига тавсиф берилган бўлиб, бу нутқнинг ифодалигига алоҳида ахамият берилади.

.Калит сўзлар: текст, экспрессия, семантика, ифодаланиши, нутқ.

Термин антоним (от греч. anti — «против» и онума — «имя») впервые употребил известный российский филолог А.М. Пешковский в 1927 г. При работе над антонимами следует иметь в виду, что обычно свойством образования антонимов обладают слова с качественным значением (*высокий - низкий*) пространственные и временные отношения (*близко - далеко; зима - лето*), слова с качественным значением (*много - мало*), слова, обозначающие состояние (*жара - холод*).

Сочетаемость антонимов может и различаться: *острый* и *тупой* вступают в связь со словом *нож*, *угол*, *ум*, *боль*, но и со словами: *глаз*, *запах* сочетается *острый*, а со словами *улыбка*, *человек* - *тупой*.

Антонимия (греч. anti – против и онума – имя) – это метод выражения контрастности, противоположное определение одной и той же сущности.

Антонимы могут образовываться при помощи приставок *не-*: вероятность – невероятность, удачный – неудачный, *без-*: опасный – безопасный, *а-*: моральный – аморальный, *анти-*: вирус – антивирус, *де-*: мобилизация – демобилизация, *дез-*: информация – дезинформация, *контр*: аргумент - контраргумент; однако есть исключения (истовый – неистовый).

Возникновение антонимов в языке тесно связано со словообразованием. Производные слова другой части речи, возникшие от антонимических основ, в свою очередь, вступают в антонимические отношения, например: *враг* — *друг*, *вражда* — *дружба*, *вражеский* — *дружеский*, *враждовать* — *дружить*.

Если же на какой-то ступени словообразования нет такой антонимической соотнесенности в результате отсутствия в языке одного из слов с противоположным

значением, то антонимами будут слово и свободное словосочетание. в антонимические отношения в речи могут вступать слово и словосочетание. Это объясняется тем, что в словарном составе русского языка не всегда имеются слова для обозначения противоположных явлений. Так, например, слово *лиса* в переносном значении характеризует человека хитрого. Подобного слова со значением «бесхитростный человек» в русском языке нет, поэтому антонимами будут слово и свободное словосочетание: *лиса* — *бесхитростный человек*. Ср.: медведь — ловкий человек, заяц — храбрый человек (но и заяц — храбрец). Например, в речи встречается немало случаев противопоставления прилагательных *живой* — *мертвый*: Лучше быть мертвым героем, чем живым трусом (пословица); Надо взять к утру «языка». И живого, а не мертвого! (К. Симонов); От Ивана до Фомы, мертвые ль, живые, Все мы вместе — это мы, Тот народ, Россия (А. Твардовский); глаголов *жить* — *умирать*: Лучше умереть стоя, чем жить на коленях; Лучше умереть возле друга, чем жить у врага; Чем со слезами жить, лучше с песней умереть; Долго жил, а умер скоро (пословицы). Однако в кругу существительных представлено только образование *мертвец*, поэтому оно вступает в антонимические отношения не со словом, а со свободным словосочетанием, например: В Чернышевском мы чтим отнюдь не великого мертвеца, а все еще живого соратника в общем для него и для нас деле (А. В. Луначарский).

Особенно такое противопоставление характерно для слов с отрицательной экспрессией. Например, в русском языке антонимичны наречия *подло* — *честно* (*подло поступил* — *честно поступил*), прилагательные *подлый* — *честный*: Объяснять тебе, кто я — честен или подл, здоров или психопат, я не стану (А. П. Чехов), а среди существительных со значением лица имеется только образование *подлец*. В последнем случае антонимами будут слово и словосочетание (*подлец* — *честный человек*).

Стоит обратить внимание и на то, что пустые места среди производных антонимов одного словообразовательного гнезда могут с течением времени быть заполнены. Так, в ряду антонимов, принадлежащих к разным частям речи: *глупый* — *умный*, *глупо* — *умно*, *глупеть* — *умнеть*, нет антонима к существительному *глупость*, хотя его образование вполне возможно — *умность*. Пример такой антонимии находим у А. П. Чехова: *Во мне огонь горит ровно и вяло, без вспышек и треска — не совершаю я поэтому ни выдающихся глупостей, ни заметных умностей*.

Таким образом, антонимы отличаются по оттенкам качества:

- слова, обозначающие размер, цвет, вкус: *большой* — *маленький*, *белый* — *черный*, *горький* — *сладкий*;

- слова, обозначающие эмоциональное состояние и действия: *любовь* — *ненависть*; *печалиться* — *радоваться*.

- слова, обозначающие временные и пространственные отношения: *вчера* — *сейчас*, *там* — *тут*, *восток* — *запад*, *зима* — *лето* и др

По значению можно выделить следующие типы антонимов:

1. Контрарные (противоположные). Такими антонимами следует считать крайние несоразмерные члены упорядоченного множества, между которыми существует средний, промежуточный член: *молодой* — *нестарый*, *немолодой*, *пожилой* — *старый*; *холодный* — *негорячий*, *прохладный*, *теплый* — *горячий*. Антонимы, выражающие противоположные качества, имеющие различные степени какого-либо явления (низшая, средняя, высокая степень). При этом степень может постепенно возрастать или убывать.

2. Комплементарные (контрадикторные). Особенность данного типа антонимов в отличие от предыдущего заключается в том, что между противопоставляемыми словами нет никаких промежуточных членов: *живой – мертвый, истинный – ложный, вместе – врозь*. Эти антонимы, выражают несовместимые, взаимоисключающие, противоречащие друг другу понятия.

3. Векторные. Этот тип антонимов обозначает разнонаправленные действия, движения или признаки: *подниматься – опускаться, входить – выходить, революционный – контрреволюционный*.

4. Непродуктивный тип антонимов – энантиосемия, или внутрисловная антонимия, то есть совмещение противоположных значений в одном слове: *оговориться (намеренно) – «сделать оговорку» – оговориться (нечаянно) «ошибиться»*; *одолжить (кому-нибудь денег) – одолжить (у кого-нибудь денег)*. Существует в русском языке речевая энантиосемия, например: *Ох, и умен! («глуп»); Ну и чистый! (о внешнем виде человека)*.

В истории языка понятие энантиосемии приобретает семантическую эволюцию, так что у слова развиваются противоположные значения. Так, антонимы *начало* и *конец* происходят от одного корня, а у слова *погода* в разных говорах русского языка есть как значение «хорошая погода» (литературная *непогода*), так и значение «плохая погода». Невзирая на антонимы, традиционные и общепринятые, составляющие лингвистические явления, исследователи лексикологии по сей день ведут споры о том, какие пары слов следует относить к антонимам, а какие в них не входят. Существует точка зрения, что пары, относящиеся по мнению других ученых к комплементарным (контрадикторным) антонимам, (типа *прибыть – отбыть, холостой – женатый*), являются не противоположными, а противоречащими друг другу. Данное определение характеризует мысль о том, что антонимичность сомнительна, поскольку содержание антонимов – слова с противоположным смыслом. Не стоит исключать, что и такой тип антонимов, как векторные, так как они обозначают разнонаправленные действия, движения или признаки, опять же противоречат друг другу.

Семантику антонимии раскрывает противоречивая сущность предметов, явлений, качеств, также правильное употребление антонимов в речи. Антонимы в нормативном языке являются важнейшим средством создания антитезы (гр. *antithesis* – противоположение), то есть, составляет стилистическую фигуру контраста, резкого противопоставления понятий, положений, образов, состояний:

*Ты и убогая, ты и обильная,
ты и могучая, ты и бессильная, матушка Русь (Н.)*

Оксюморон в художественном стиле отражает антонимию (гр. *охуморон* – остроумно-глупое). Текст объединяет контрастные лексические единицы, изображая новое, необычное понятие: "Плохой хороший человек" (название кинофильма). Одни оксюмороны строятся на подлинных антонимах (начало конца), другие – на словах с противоположными значениями, объединяемых как определяемое и определяющее: "Живой труп" (Л. Т.); "Оптимистическая трагедия" (Вишн.); ...Пышное природы увяданье (П.)

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ANNOTATION

The article discusses the legal problems of economic legal proceedings for conducting a trial, analyzes issues of conducting simplified proceedings and serving a statement of claim and problems of postponing the trial. It is concluded that the legislation should be amended and supplemented to establish the deadline for consideration of the claim.

Key words: legal proceedings, economic process, competition, claim procedure, economic court.

As we know, the protection of the rights of economic entities can have various methods of protection; they must not be prohibited by law and not violate the rights and legitimate interests of both participants in economic relations and persons indirectly associated with them. Judicial protection is currently one of the main⁷⁸. Therefore, each participant in property relations in the field of entrepreneurial activity - an economic entity, in the event of a violation of his property rights, has the right to apply to a court of appropriate competence provided for by current legislation. To effectively protect violated rights, a clear procedure for consideration must be provided⁷⁹.

At the moment, there are certain problems in the economic legal proceedings of Uzbekistan that need to be considered and resolved.

According to Article 203² of the Economic Procedural Code of the Republic of Uzbekistan, it is stated that cases based on claims are subject to consideration under simplified proceedings if the value of the claim in relation to legal entities does not exceed twenty, and in relation to individual entrepreneurs - five basic calculated values.

Despite the apparent simplicity of simplified proceedings and the reduction in review time, in practice there are still some problems. Let's look at practical situations.

As part of simplified proceedings, the Joint Stock Company filed a statement of claim with the economic court, attaching a postal receipt for sending a copy of the statement to the defendant. The court refused to consider the application, since the shipping receipt is not evidence of delivery of the statement of claim to the defendant (Article 203³ of the Economic Procedural Code of the Republic of Uzbekistan). The court's ruling states that proof of service implies the signature of the defendant in the covering letter, confirming that he received a copy of the statement of claim on

⁷⁸ Отажанов Б. А. ИҚТИСОДИЙ СУД ИШЛАРИНИ ЮРИТИШДА ПРОКУРОР ИШТИРОКИНИНГ ШАКЛЛАРИНИ ТАКОМИЛЛАШТИРИШ МАСАЛАЛАРИ //STUDIES IN ECONOMICS AND EDUCATION IN THE MODERN WORLD. – 2023. – Т. 2. – №. 6.

⁷⁹ Азбергенова М. ОДИЛ СУДЛОВ ТИЗИМИДАГИ ИСЛОҲОТЛАР ИНСОН ҲУҚУҚ ВА ЭРКИНЛИКЛАРИНИ ТАЪМИНЛАШ МЕЗОНИ //Евразийский журнал права, финансов и прикладных наук. – 2023. – Т. 3. – №. 12. – С. 212-215.

purpose. Courts cannot accept a statement of claim without the appropriate document, since this is a violation of the requirements of Article 203³ of the Economic Procedural Code of the Republic of Uzbekistan.

But in this case, it becomes unclear what the plaintiff should do when the actual location of the defendant is unknown or the defendant refuses to receive a copy of the statement of claim or refuses to sign the covering letter stating that the documents have been received⁸⁰.

How to deal with such situations is not provided for in the legislation and solutions. This is legal uncertainty because, without proof of delivery of the statement of claim to the defendant, the economic court will not accept the statement of claim; It is also impossible to consider the claim in the ordinary course of proceedings; the amount is small, as a result, in fact, the plaintiff's claims cannot be fulfilled⁸¹.

Understanding the practical difficulty of resolving this legal uncertainty, the courts still refuse to accept the statement of claim without written proof of delivery of the statement of claim to the defendant⁸².

To solve this problem, it is advisable to supplement them with a postal notification of delivery of a registered letter to the defendant. In addition, it is necessary to provide for a situation where the actual location of the defendant is unknown.

The Economic Procedural Code of the Republic of Uzbekistan, in terms of the grounds and procedure for postponing a trial, states that the court has the right to postpone a trial if it is impossible to consider the case in court in the event of unforeseen and extraordinary circumstances. The grounds for postponing the process, in addition to those already specified in Article 171 of the Economic Procedural Code of the Republic of Uzbekistan, include: at the request of a party, in the event that it seeks assistance from the court for the purpose of a peaceful resolution of the dispute:

- if a person participating in the case, and duly notified of the time and place of the court session, filed a motion to postpone the trial with justification for the reason for failure to appear at the court session, if consideration of the case without the participation of this person is impossible;
- at the request of a person participating in the case due to the failure of his representative to appear at the court hearing for a valid reason;
- in case of failure of any of the participants in the trial to appear, if the court considers it impossible to consider the case without the participation of this person;
- at the request of a party to postpone the trial due to the need to present or request additional evidence from third parties;
- if it is impossible to establish video conferencing during a court hearing via video conferencing;
- in case of failure of any of the participants in the trial to appear and there is no evidence of proper notification of the specified person about the time and place of the trial;

⁸⁰ Babakulovna I. F., Ibratova F. B., Yerkebayeva Z. A. Mediation as an alternative way to resolution of economic disputes. – 2023.

⁸¹ Абдуқаххоров С., Мирзажонов М. ОДИЛ СУДЛОВ ЖАРАЁНИНИ ТАЪМИНЛАШДА СУДЬЯЛАРНИНГ МУСТАҚИЛЛИГИ ПРИНЦИПЛАРИНИНГ ЎРНИ //Евразийский журнал права, финансов и прикладных наук. – 2022. – Т. 2. – №. 12 Special Issue. – С. 178-180.

⁸² Расулев А., Тошев О. Реформы судебно-правовой системы для обеспечения верховенства закона //Общество и инновации. – 2021. – Т. 2. – №. 3. – С. 98-108.

if it is necessary to replace an improper defendant with a proper defendant;

– if it is necessary to replace the withdrawing party in a disputed legal relationship with its legal successor;

– if it is necessary to involve a second defendant or a third party in the case.

In order to prevent the parties to the trial from unreasonably delaying the process, this list of grounds for postponing the trial is exhaustive. But the legislator left such circumstances as an unforeseen event and an emergency circumstance. But the concept and description of which case is unforeseen and which circumstance is an emergency are not defined⁸³. According to the meaning of the law, in each specific case, what circumstance was unforeseen or extraordinary is left to the discretion of the court, thereby allowing the unscrupulous party to expand the scope of the grounds and file petitions at its own discretion in order to delay the process⁸⁴.

Clause 6 of Part 1 of Article 107 of the Economic Procedural Code of the Republic of Uzbekistan specifies the basis for leaving a statement of claim without consideration if the plaintiff did not appear at the first court hearing and did not declare the case to be considered without his participation.

This approach does not meet the interests of the plaintiff, who, having paid the state fee, went to court to protect his violated rights. It is necessary, similar to civil proceedings, to leave the application without consideration only if the plaintiff, for unjustified reasons, did not appear at the second court hearing⁸⁵.

So, according to Article 107 of the Economic Procedural Code of the Republic of Uzbekistan, the court leaves the statement of claim without consideration if: the plaintiff does not comply with the pre-trial (claim) procedure for resolving a dispute with the defendant, when this is provided for by law for this category of disputes or by agreement.

Should the court always leave a claim without consideration if the mandatory pre-trial procedure is not followed? Let's consider the situations in more detail.

Malika JSC filed a lawsuit against Kamalak JSC to collect the debt from the latter under the supply agreement. During the consideration of the dispute, the defendant filed several petitions for various demands, for examinations, and filed a counterclaim. Due to this, the consideration of the case was delayed.

A little more than a month and a half after the claim was accepted for proceedings, during the next court hearing the defendant began to insist on the need to leave the company's claim without consideration. The fact is that Malika JSC ignored the claim procedure for the dispute, which was provided for in the supply agreement, and immediately went to court. And this is indeed grounds for leaving the claim without consideration. The court of first instance granted the application of Kamalak JSC and left the claim without consideration. In this case, is failure to comply with the claim procedure for settling a dispute an unconditional basis for leaving the claim without consideration?

⁸³ Yul'ichibaevich X. D., Boboqulovna I. F., Qobiljon o'g'li A. N. KORPORATIV NIZOLARNI HAL QILISHNING O'ZIGA XOS XUSUSIYATLARI: NAZARIYA VA AMALIYOT //SCIENTIFIC ASPECTS AND TRENDS IN THE FIELD OF SCIENTIFIC RESEARCH. – 2023. – T. 1. – №. 10. – С. 263-271.

⁸⁴ Ибрагимова Ш. СУДЛАР ФАОЛИЯТИДА СУД-ҲУҚУҚ ИСЛОҲОТЛАРИНИНГ ЎРНИ ВА АҲАМИЯТИ //Евразийский журнал права, финансов и прикладных наук. – 2022. – Т. 2. – №. 13. – С. 211-214.

⁸⁵ Ibratova F. Civilinés teisés terminai ir jų taikymas ginant asmens teisés Uzbekistano Respublikoje //Teisė. – 2009. – T. 71. – С. 182-194.

Based on the purpose of the claim procedure, this is a procedure that should be considered as a method that allows you to voluntarily, without additional expenses for paying state fees and with a significant reduction in time, restore violated rights and legitimate interests. This procedure for resolving a dispute is aimed at its prompt resolution and serves as an additional guarantee of the protection of the rights of both parties to the conflict. On the contrary, the defendant's behavior does not show any intention to voluntarily and quickly resolve the dispute out of court. The behavior of the defendant in court is seen as lack of good faith and abuse of law.

Most of his motions in the court of first instance were aimed not at resolving the dispute, but at either suspending the case or postponing the trial on the merits. The court's ruling to leave the claim without consideration led to the infringement of the rights of Malika JSC.

According to the general procedure, statements or petitions must be submitted by the parties in a timely manner, in the event that they were not timely filed by a person participating in the case due to abuse of their procedural rights and are clearly aimed at disrupting the court session, delaying the trial, preventing the consideration of the case and the adoption of legal and justified judicial act, then the court must have the right to refuse to satisfy the application or petition⁸⁶.

An exception should be cases where the applicant was not able to submit such an application or such a petition earlier for objective reasons.

From this example it follows that in Article 169 of the Economic Procedural Code of the Republic of Uzbekistan, the following additions must be made in order for the court to resolve applications and petitions of persons participating in the case; the economic court has the right to refuse to satisfy the application or petition if they were not filed in a timely manner by the person participating in the case, as a result of abuse of their procedural rights and are clearly aimed at disrupting the court session, delaying the trial, preventing the consideration of the case and the adoption of a lawful and justified judicial act, except in the case where the applicant did not have the opportunity to file such an application or such a petition earlier for objective reasons⁸⁷.

To summarize the problems identified above, the current need to improve procedural legislation will contribute to the protection of civil rights, as well as the interests of organizations and citizens. At the same time, it would be possible to develop more civilized behavior of participants in court proceedings and increase procedural risks for parties who abuse their rights.

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⁸⁶ Атажанов А. А. СУД ҲОКИМИЯТИ МУСТАҚИЛЛИГИ КАФОЛАТЛАРИ ТУШУНЧАСИНИНГ НАЗАРИЙ-ҲУҚУҚИЙ ТАВСИФИ //Past and Future of Medicine: International Scientific and Practical Conference. – 2023. – Т. 3. – С. 16-21.

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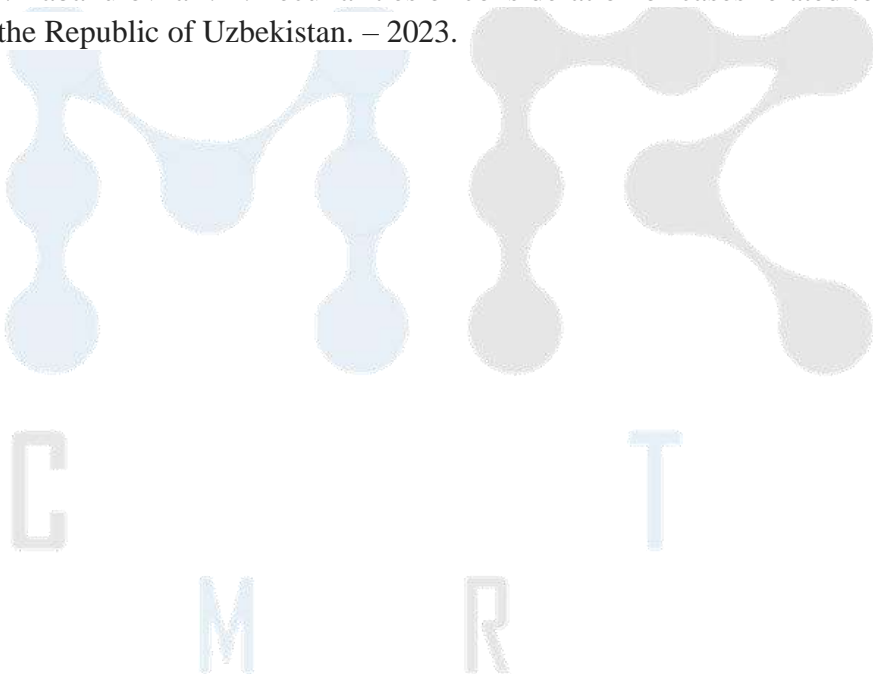
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**ОСОБЕННОСТИ И ПЕРСПЕКТИВЫ ИСПОЛЬЗОВАНИЯ ФОТОННОЕ –
ИНЖЕКЦИОННЫХ ИМПУЛЬСНЫХ ТИРИСТОРОВ ДЛЯ МОДУЛЯЦИИ
УСИЛЕНИЯ ПОЛУПРОВОДНИКОВЫХ ГЕТЕРО ЛАЗЕРОВ**

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Аннотация: Приведены экспериментальные результаты по модуляции усиления полупроводникового гетеро лазера с отдельным ограничением импульсами тока, полученными при помощи фотонно-инжекционного импульсного тиристора (ФИИТ).

Экспериментальные результаты сравниваются с теоретическими расчётами, выполненными путём решения скоростных уравнений. Изучено влияние – параметров электрического сигнала и типа лазерной структуры на генерируемые оптические импульсы.

Ключевые слова: Гетероструктура, жидкофазная эпитаксия, фотонно-инжекционных коммутаторов, оптическая импульс, длительность нарастания амплитуда тока.

**FEATURES AND PROSPECTS OF USING PHOTON-INJECTION PULSED
THYRISTORS FOR GAIN MODULATION OF SEMICONDUCTOR HETEROLASERS**

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Abstract: Experimental results are presented on the modulation of the gain of a semiconductor heterolaser with separate limitation by current pulses obtained using a photon-injection pulsed thyristor (PIIT).

Experimental results are compared with theoretical calculations performed by solving rate equations. The influence of the parameters of the electrical signal and the type of laser structure on the generated optical pulses is studied.

Keywords: heterostructure, liquid-phase epitaxy, photon-injection switches, optical pulse, current amplitude rise time.

**ЎРИМУЎТКАЗГИЧЛИ ХОТИРА ЛАЗЕРЛАРНИНГ КУЧАЙТИРИШНИ
МОДУЛЯЦИЯ ҚИЛИШ УЧУН ФОТОН ИНЪЕКЦИОН ИМПУЛСЛИ
ТИРИСТОРЛАРДАН ФОЙДАЛАНИШ ХУСУСИЯТЛАРИ ВА ИСТИҚБОЛЛАРИ**

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Аннотация: фотон-инъекция импульсов тиристор (ФИИТ) ёрдамида олинган оқим импульслари билан алоҳида чекланган яримўтказгичли хотира лазернинг кучайтиришни модуляция қилиш бўйича экспериментал натижалар келтирилган.

Экспериментал натижалар тезлик тенгламаларини ечиш орқали амалга ошириладиган назарий ҳисоб-китоблар билан таққосланади. Электр сигнали параметрлари ва лазер тузилиши турининг ҳосил бўлган оптик импульсларга таъсири ўрганилди.

Калит сўзлар: Гетероструктура, суяқ фазали епитаксия, фотон қарши калитлари, оптик импульс, оқим амплитудасининг кўтарилиш давомийлиги.

Введения: Фотопроводящие полупроводниковые коммутаторы (PCSS) на основе полу изолирующих материалов широко используются для импульсных систем большой мощности, таких как широкополосные импульсные радиолокаторы, мощные импульсные лазеры, системы микроволнового и миллиметрового диапазона большой мощности. Среди известных PCSS приборов арсенид галлиевые PCSS привлекают значительный интерес благодаря их высокой чувствительности к оптическому воздействию. В отличие от кремния, основного материала для силовой электроники, гетеропереходы $GaAs - AlGaAs$ позволяют преобразовывать оптический сигнал в электрический внутри приборной структуры. Эти принципы открывают новые возможности для конструирования силовых приборов.

Важной особенностью полупроводниковых лазеров является возможность быстрой непосредственной модуляции усиления путём инъекции тока [1,2]. Однако, используемые в настоящее время генераторы модулирующих импульсов на основе лавинных транзисторов и диодов с накоплением заряда вследствие ограниченной электрической мощности (10 ... 50 В на нагрузке 50 Ом) [3,4] не позволяют получать пикосекундные оптические импульсы большой мощности. Характерные значения мощности оптических импульсов лежат в диапазоне 20 ... 200 мВт.

В данной работе рассмотрены перспективы использования в качестве источника модулирующих импульсов фотонное – инъекционных импульсных тиристор. Как было показано в работе [5], при включении ФИИТ модулируется импульс тока амплитудой до 10 А с фронтом нарастания 200 пс. Длительность импульса составляла 0,4 нс и выше при частоте следования до 100 кГц. Тем самым создаются условия для эффективной модуляции оптического усиления в активной области двойных гетероструктур (ДГС).

Метод: В эксперименте использовались лазерные двойные гетероструктуры с раздельным ограничением (ДГС РО), выращенные мета-дом низкотемпературной жидкофазной эпитаксии [6] с активной областью 400 ... 500 А и волноводной областью 0,5 мкм. Пороговая плотность тока была 1 кА/ см². Ширина полоска $W=100$ мкм, длина резонатора $L=300$ мкм. Для накачки лазера использовался ФИИТ, генерирующий импульс с амплитудой 6 А на нагрузке 50 Ом. Форма импульса приведена на рис. 1.,а. Оптический сигнал регистрировался с помощью ЛДФ-2А или р-і-п диода [7], включенного в разрыв полосковой линии, с которых сигнал подавался на стробоскопический осциллограф Сб-2010/5. Временное разрешение измерительной схемы с ЛФД составляло 300 пс, а с р-і-п диодом 100 пс.

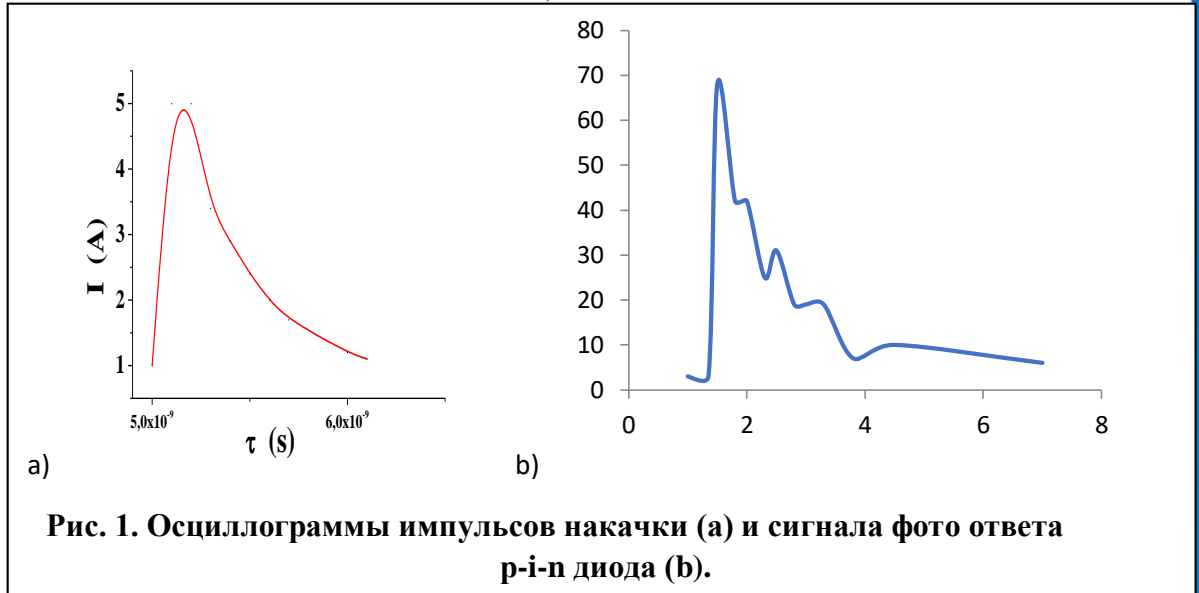


Рис. 1. Осциллограммы импульсов накачки (а) и сигнала фото ответа р-і-п диода (b).

Форма сигнала, регистрируемого с помощью р-і-п диода, приведена на рис. 1.,b. Ширина генерируемых оптических импульсов на полувысоте < 100 пс при частоте повторения > 4 ГГц ограничивалась временным разрешением измерительной схемы. Нижняя оценка значения мощности, выполненная с помощью измерителя мощности R-7200 Energy Radiometer, составляла 200 мВт. Таким образом, уже первые экспериментальные результаты подтвердили возможность повышения пиковой мощности пикосекундных оптических импульсов.

| Параметры | обозначения | Значение |
|---|-------------|--|
| Концентрация электронов | n | |
| Плотность фотонов | S | |
| Максимальная плотность фотонов в первом оптическом импульсе | S_{max} | |
| Плотность тока накачки | j | |
| Толщина активного слоя | d | 0,05мкм (ДГС РО) 0,2мкм (ДГС) |
| Коэффициент оптического усиления | α | $2,5 \cdot 10^{-6} \text{ см}^3 \text{сек}^{-1}$ |
| Пороговая концентрация | n^0 | 10^{18} см^{-3} |
| Коэффициент оптического ограничения | Γ | 0,5 для $d = 2$ мкм 0,13 для $d = 0,05$ мкм |
| Время жизни электронов | τ_n | 4 нс |
| Время жизни фотонов | τ_{ph} | 2 пс |
| Доля спонтанного излучения, попадающего в лазерную моду | β | $5 \cdot 10^{-4}$ |
| Коэффициент отражения | R | |
| Длина резонатора | L | 0,32 |
| Ширина | w | 300 мкм |
| Групповая скорость | v_g | 100 мкм |
| Энергия фотона | $h\nu$ | $8 \cdot 10^9 \text{ см/сек}$ |

Методика: Более детальное исследование особенностей динамики излучения полупроводниковых лазеров на основе ДГС и ДГС РО при токовой модуляции мощными электрическими импульсами выполнено с помощью численного решения скоростных уравнений [1] :

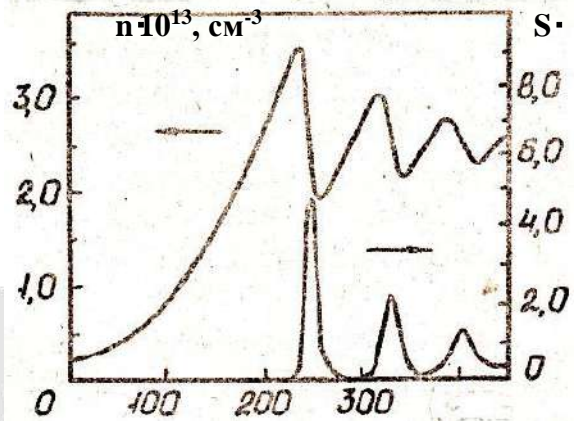
$$\frac{dn}{dt} = \frac{j}{ed} - \frac{n}{\tau_n} - (n - n^0) S \quad (1)$$

$$\frac{dS}{dt} = \Gamma \alpha (n - n^0) S - \frac{S}{\tau_{ph}} - \Gamma \beta \frac{n}{\tau_n} \quad (2)$$

Обозначения физических величин в уравнениях (1), (2) и их значения, использованные для численного моделирования, приведены в таблице.

10¹⁶, см⁻³

Рис. 2. Зависимость от времени концентрации электронов n и плотности фотонов S в активной области ДГС РО лазера с активной областью $d = 0,05$ мкм при накачку импульсом типа $j = 20$ кА/см² с фронтом 200 пс.



t , пс.

Решение системы уравнений (1), (2) методом Рунге – Кутта четвертого порядка для модели ДГС РО лазера, используемого в эксперименте, при плотности тока накачки 20 кА/см² с фронтом нарастания тока 200 пс показана на рис. 2. Ширина на полувысоте первого оптического импульса

составляет 12 пс, частота следования 13 ГГц.

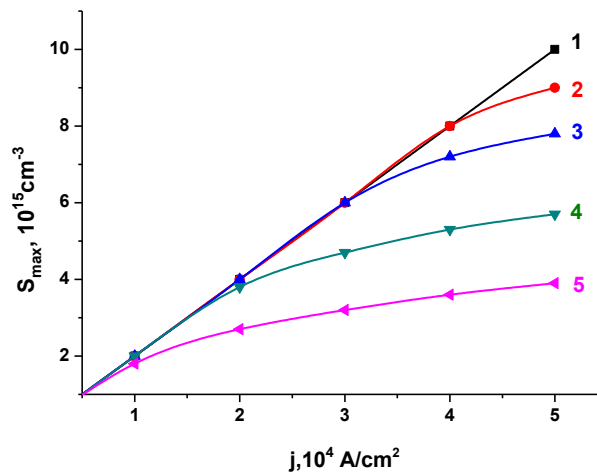


Рис. 3. Зависимость плотности фотонов S_{max} максимуме оптического импульса от плотности тока накачки j для разных фронтов импульсов накачки: 1 – 0 нс; 2 – 0,2 нс; 3 – 0,3 нс; 4 – 0,5 нс; 5 – 1 нс

Значение пиковой мощности первого оптического импульса, вычисленное по формуле:

$$P = 0,5 S_{\text{max}} h\nu v_g(1 - R)wd \quad (3)$$

Для лазерной структуры, использованной в эксперименте, составляет 5 Вт.

Влияние параметров электрического сигнала на генерируемые пикосекундные оптические импульсы, иллюстрируется зависимостями, представленными на рис. 3-5. Как видно из рис. 3., уровень приращения значений максимальной плотности фотонов в первом оптическом импульсе с ростом плотности тока накачки в значительной степени ограничен длительностью фронта нарастания амплитуды тока.

Такой характер зависимостей определяется тем, что при больших длительностях фронта нарастания тока накачки первый оптический импульс наблюдается раньше, чем достигнет максимума амплитуда модулирующего импульса тока, т.е. генерирование оптической мощности происходит в момент времени, не оптимальный с точки зрения подачи в активную область лазера электрической мощности.

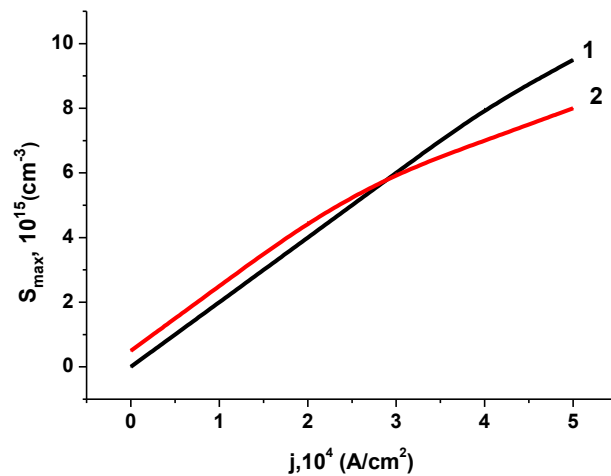


Рис. 4. Зависимость плотности фотонов в максимуме оптического импульса от плотности тока накачки j с фронтом нарастания 0,2 нс:
1 – ДГС лазер с $d=2$ мкм;
2 – ДГС РО лазер с $d=0,05$ мкм.

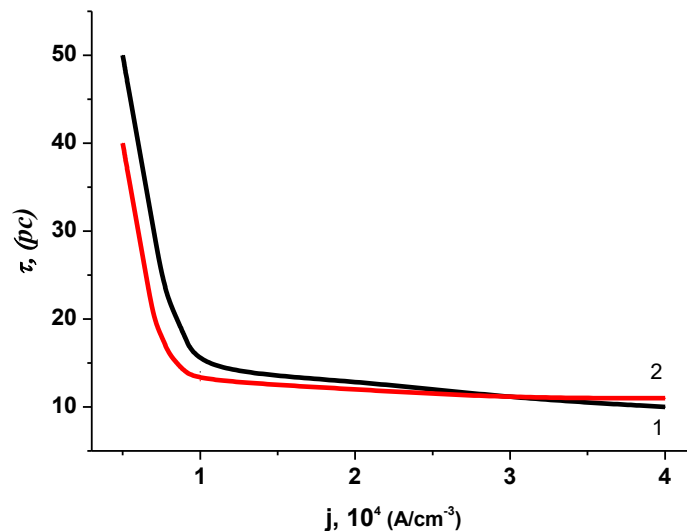


Рис. 5. Зависимость ширины оптического импульса на полувысоте от плотности тока накачки j с фронтом нарастания 0,2 нс: 1 – ДГС лазер с $d=0,2$ мкм; 2 – ДГС РО лазер с $d=0,05$ мкм.

Следует отметить, что оценка перспектив использования лазерных структур на основе ДГС и ДГС РО для модуляции мощных пикосекундных импульсов свидетельствует о сопоставимости их основных параметров (см. рис. 4, 5) при повышенных плотностях тока накачки. Это объясняется низким значением коэффициента оптического ограничения Γ для участвующих в усилении лазерного излучения.

Заключение: На основе полученных результатов [8], найден сравнительно простой путь интеграции источника пикосекундных оптических импульсов и генератора модулирующих импульсов.

Таким образом, использование фотонно-инжекционных импульсных тиристоров в качестве генератора накачки полупроводниковых гетеролазеров делает возможным получение оптических импульсов мощностью в единицы ватт при длительности менее 50 пс.

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