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VISION

The vision of the journals is to provide an academic platform to scholars all over the world to publish their novel, original, empirical and high quality research work. It propose to encourage research relating to latest trends and practices in international business, finance, banking, service marketing, human resource management, corporate governance, social responsibility and emerging paradigms in allied areas of management including social sciences , education and information & technology. It intends to reach the researcher's with plethora of knowledge to generate a pool of research content and propose problem solving models to address the current and emerging issues at the national and international level. Further, it aims to share and disseminate the empirical research findings with academia, industry, policy makers, and consultants with an approach to incorporate the research recommendations for the benefit of one and all.

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IMPACT OF CRYPTOCURRENCIES ON INTERNATIONAL MARKETS

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ABSTRACT

Cryptocurrencies, which have gained a lot of popularity owing to their decentralisation ideas, as well as the possibility for large returns, are still very volatile, and their losses are more likely. The price of Bitcoin, for example, climbed from \$1,000 to a peak of almost \$19,000 in 2017, before falling to roughly \$3,000 in 2018. Then, in the summer of 2021, Bitcoin fell to roughly \$30,000 before rising again until the fall of 2020, reaching new highs of over \$60,000. Digital or virtual currency known as "cryptocurrency" is meant to be used as a form of payment. Prefixing "crypto" refers to the fact that cryptocurrencies rely on cryptography to protect transactions and create new currencies (coins). For example, encoding something that can be deciphered with a key but impossible to read without a key implies that coins can be difficult to manufacture but transactions can be easily verifiable.

KEYWORDS: *Cryptocurrencies, Impact Of Cryptocurrencies On International Market*

INTRODUCTION

Unlike conventional currencies, cryptocurrencies are straightforward to use and may be exchanged in real time. Cryptocurrency may be a novelty to Americans and Europeans, but many nations' national currencies are mismanaged. Examples include the totalitarian state in Venezuela, where inflation has soared to such an extreme level that millions of people are unable to pay their bills [1].

The term "blockchain" is for an immutable and pseudo-anonymous database that no one can update (except under extreme circumstances when direct edits are made). As a distributed ledger, the blockchain makes it nearly hard to create a fake coin due to the number of nodes required to verify its authenticity. As a result, it is possible to track each single transaction between two anonymous accounts or wallets.

For Americans, the wild fluctuations in Bitcoin and other cryptocurrencies may seem dangerous, but for Venezuelans, whose national currency has been steadily declining for years with little indications of improvement, the fluctuations may be manageable. To put it another way, because the total quantity of cryptocurrency coins in circulation is finite, many people throughout the world may view them as a form of inflation protection.

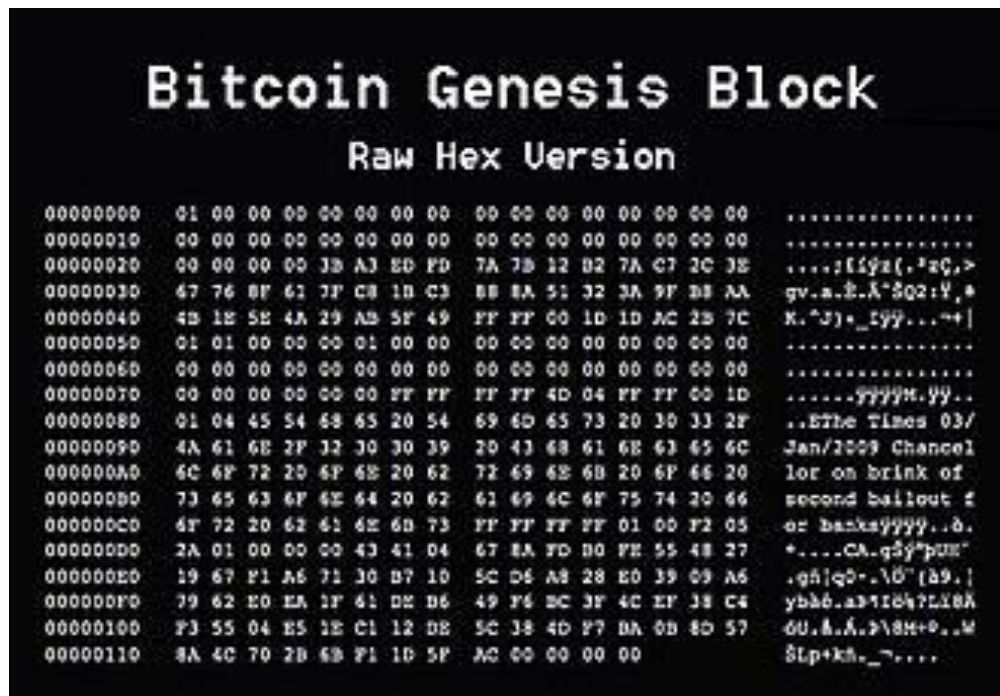


Figure 1 : Bitcoin Block

Other governments use capital restrictions and/or hefty taxes to keep a tight rein on the flow of money. As a result of these capital limits and taxes—legal or not—cryptocurrencies have become increasingly popular with both consumers and companies. As a result, several nations have begun to crack down on the illicit use of cryptocurrencies for tax avoidance or illegal purchases or transactions in other jurisdictions.

Responses by the Government

There has been a lack of enthusiasm from central banks and financial institutions when it comes to cryptocurrencies. Many central banks, despite the fact that certain organisations have supported them, are wary in light of the market's extraordinary volatility. Concerns about tax evasion and capital controls have also been raised.

Technical difficulties like governance and risk management will be critical before cryptocurrencies become mainstream, according to Jerome Powell, the chairman of the US Federal Reserve.

Bitcoin has been compared by some to the Dutch "tulip" boom of the 17th century, and the European Central Bank's former vice president Vitor Constancio has made the same comparison, as have other governors.

There are "ripe circumstances" for cryptocurrencies in China, but the People's Bank of China wants complete control and is cracking down on the country's cryptocurrency industry.

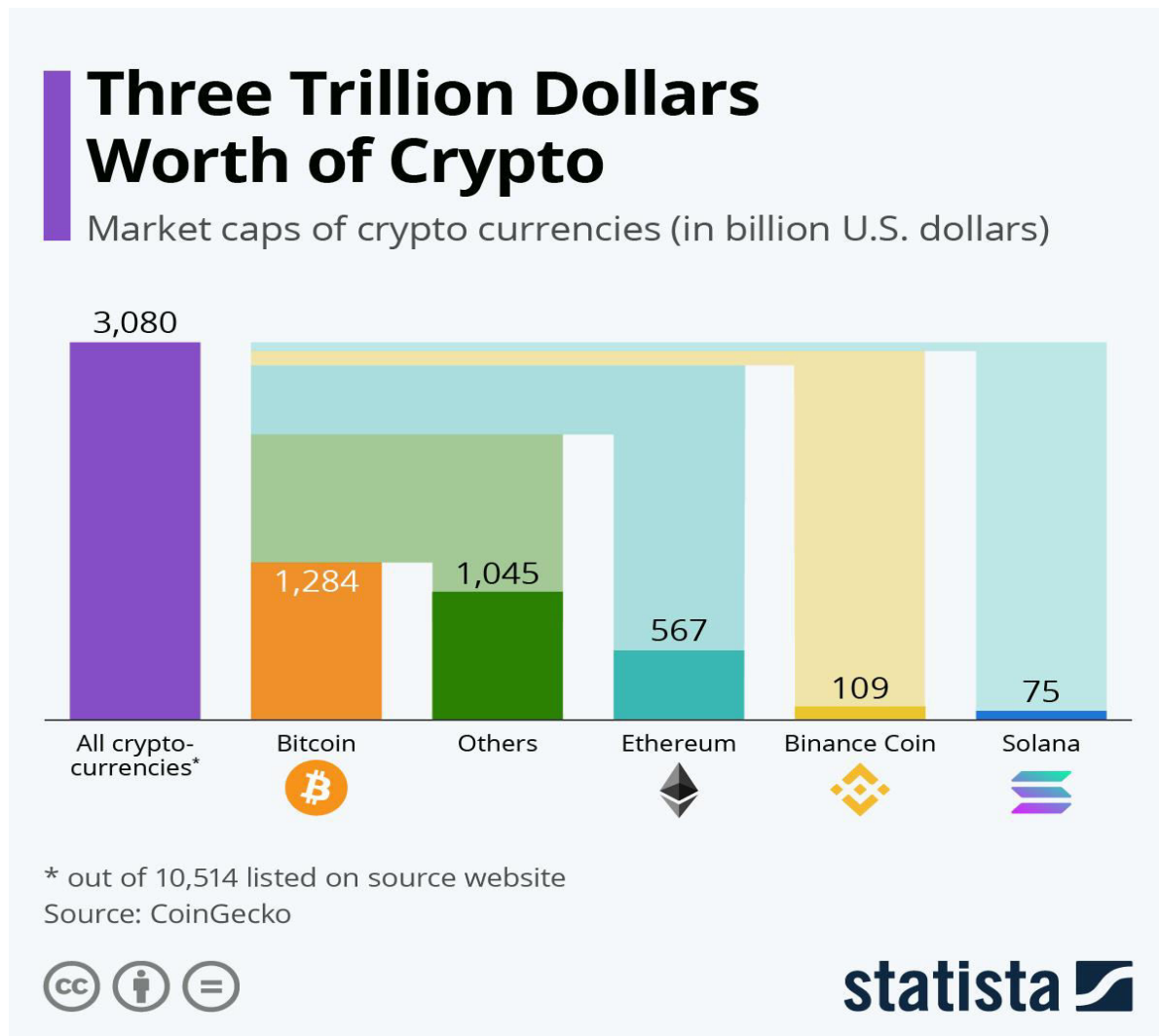


Figure 2 : Statista Research Analytics

Currently, the Bank of Japan does not envision a market for digital currencies.

A few central banks, including the Bank of England under Mark Carney, have come out in favour of cryptocurrencies, calling them a "revolution" in finance.

In 2018, the Venezuelan government announced its own cryptocurrency, the "petro," which is supposedly backed by crude oil barrels. Analysts are suspicious about these estimates, and the United States has banned US people from acquiring cryptocurrencies.

In the year 2020, the petro will have yet to achieve its full potential as a medium of exchange [2].

Global Investments Are Affected

Many investors are adding cryptocurrencies to their diverse portfolios because of its ease of use and ability to manage inflation. Because of the market's lack of correlation, cryptocurrencies can act as a risk hedge, akin to gold. For this precise reason, many bitcoin ETFs and ETNs have been created.

Experts on the other side worry that a cryptocurrency fall might have a negative influence on the broader market, comparable to how mortgage-backed securities precipitated a worldwide economic catastrophe. Some huge public firms, including Meta (previously Facebook) and Amazon, have market capitalizations more than the total market capitalization of all cryptocurrencies, which is now between one and two trillion dollars. The fresh and dynamic nature of cryptocurrency as an asset class means that it has the potential to go in any way. There are a number of reasons why investors are interested in cryptocurrency, but the scale of the sector does not pose a systemic concern until 2021.

The term "cryptocurrency" refers to a type of digital currency that is often decentralised and geared for usage on the internet. In the ten years since its inception, cryptocurrencies have gained in popularity as digital alternatives to government-issued money. On Binance, the world's largest cryptocurrency trading platform, most individuals "buy and sell" their currencies.

It is possible to "extract" an ever-increasing amount of bitcoins from the internet nowadays. Libra, a new virtual currency tied to the American Facebook behemoth led by Mark Zuckerberg, has also recently received great attention and is expected to further alter the cryptocurrency economy [3].

Bitcoin is now the most widely used and well-known virtual money. It was founded in 2009, and since then, it has steadily grown in relevance and prominence in all facets of the Internet world. Since its inception in 2009, Bitcoin's value has steadily risen, hitting a high of \$20,000 in 2017. With this money, you can now purchase anything, invest, trade stocks, and, regrettably, use it to unlawfully obtain items and services of any sort on the Dark web.

Cryptocurrency's Economic Implications

Since cryptocurrencies' use is currently so low, we cannot argue that they have significant influence on monetary policy when discussing their economic effects, despite the fact that transaction volumes and market prices are rising. Bitcoin and other virtual currencies must be accepted as a form of currency in order for its volume to have an impact on the financial markets. One country, though, has already embraced cryptocurrencies as a means of payment. The Republic of El Salvador is the first to legalise the use of cryptocurrencies as a form of payment. Bitcoin is widely accepted as a form of payment in El Salvador. Since cryptocurrency use differs from one state to the next, other nations can't enact a restriction on them.

Coincidence between cryptocurrencies and financial markets may be seen across various industries, even though the influence is limited. For example, the usage of bitcoin technology in education is on the rise. Some colleges in Cyprus, Switzerland, the United States, and Germany have recently begun accepting cryptocurrency as payment for educational services on their websites. As a result of the ability to purchase airline tickets, hotel bookings, car rentals, and cruises using this money, the system's adoption has accelerated [4].

Blockchain technology is also attracting attention from the retail industry. This began with Overstock.com, a website that sells furniture, accepting Bitcoin as a form of currency. This is followed by the possibility of shopping with bitcoin at various retail sales portals such as prominent merchants such as Crate & Barrel, Nordstrom and Whole Foods

As a final benefit to game publishers and creators, Bitcoin has opened up new doors. When it comes to cryptocurrency trading, Project Big ORB, a game that allows players to convert their

in-game money into other assets (including cryptocurrencies) and then trade it for real money, is an excellent illustration of this practise in action.

While the history of cryptocurrencies is still in its infancy, the economic impact of Bitcoin and other currencies cannot be ignored. Within a few years, a successful alternative to the world financial system has been created. We do not yet know if these external stimuli can do good or harm to the entire financial system and if they can affect the delicate balance that holds between the various world powers. One thing is certain, stopping the expansion of cryptocurrencies is currently unthinkable. On the other hand, their regulation and increasingly widespread use are more likely, starting with individual citizens up to governments around the world [5].

A noticeable rise in the use of cryptocurrencies has occurred since Bitcoin's inception in 2009. Since its creation, the new form of money has grown in popularity and relevance throughout the world due to its portability and independence. In order to provide a more secure means of payment, many varieties of cryptocurrencies have been developed.

More than 2000 coins are expected to exist by January 2020. In addition, 36.5 million people in the United States hold or invest in money. Bitcoins and other cryptocurrencies like them are popular because they offer a more modern and digital money. There are no third parties involved in transactions on these sites. As a result, the buyer and seller may conduct business directly. Low transaction costs and faster processing have also been praised for Bitcoin. That explains why hundreds of billions of dollars have been moving into new kinds of currency in recent years. Blockchain, the technology that underpins bitcoin, has also made its way into the public [6].

It's a win-win situation for entrepreneurs all across the world, thanks to cryptocurrency. Entrepreneurs no longer have to limit themselves to the domestic market in order to expand their businesses internationally. As a result, sellers in developing countries have been able to build connections and trust with customers they would not have otherwise been able to reach. There were around 287 thousand verified Bitcoin transactions every day in the final three months of 2020 throughout the world.

There are still drawbacks to this new kind of money, preventing it from progressing further. Failure to safeguard purchasers is a key problem with online currencies. Some purchasers are duped as a result of the sites' aversion to delegating transactions to a third party. Bitcoin is currently accepted by a limited percentage of internet shoppers [7].

Cryptocurrency has given rise to a new business model based on technology. As a result of the market, many new buyers have entered the market, making it easier for businesses to conduct business across borders. Even while the market has been on the rise, it still has a long way to go before it becomes a more commonly accepted form of cash.

The latest assessment from Russia's central bank warned that the anonymity of cryptocurrencies facilitates unlawful activities such as money laundering, terrorist funding, and drug trafficking.

This isn't quite the case, however. Public blockchains, such as Bitcoin and Ethereum (the two largest by market capitalization), have transaction histories that can be viewed by anyone with an internet connection.

Large private blockchain analytics corporations are working with governments to keep track of individuals' cryptocurrency wallet addresses and transactions. Money laundering and tax evasion are kept to a minimum [8].

Find out more here: Regulators throughout the world are realising that Bitcoin is currency.

Most cryptocurrencies, in contrast to common notion, are pseudonymous rather than anonymous. If a central contact point, such as a cryptocurrency exchange or an email, links a person's identification to their wallet address, that wallet may be tracked back to that person.

There is no significant illegal usage of "privacy coins" that protect users' anonymity, according to research commissioned by Zcash but carried out by the Rand organisation.

Future Directions Determined By Policy

It is becoming increasingly commonplace as an economic asset class, technical infrastructure and a societal experiment in non-state-based technology. As a result, the cryptographic community is gaining clout in discussions on public policy. Because of the efforts of crypto proponents, an important federal government infrastructure bill in the United States was put on hold in 2017.

With regards to policy and legislation, countries are taking a variety of approaches. Some countries, like China and Russia, see it as a budgetary and ideological threat to sovereign money. There are many who see it as a chance for new ideas, investment, and expansion.

The year 2022 might be a turning point for both the crypto business and those who want to either prohibit or embrace it, as diverse methods develop.

Bitcoin has been shown to boost the economies of nations that open their doors to it, bringing in new business ventures as well as tax revenue. Adopting bitcoin as a digital asset has the potential to open up new populations and improve treasury management efficiency [9].

While this is true, the consequences of policy and regulation on the business show that bitcoin isn't a wholly decentralised system that resides only within the blockchain.

As a result of this country's stance, a prospective "crypto friendliness" destination has emerged in the race to regulate yet gain from cryptocurrency: Australia. The Senate Select Committee on Australia as a Technology and Financial Centre produced a report in October that supports the use of cryptocurrencies.

It offers a regulatory framework for "decentralised autonomous organisations," or DAOs, as well as market licencing for cryptocurrency exchanges, simplified taxation, and a streamlined tax system. Blockchain technology and cryptocurrency tokens are used to control participation and enforce rules in a similar way to decentralised cryptocurrency networks.

The decision made by Australia is to take advantage of the immense economic potential of digitally decentralised assets. It's not clear how this will affect the economy of the United States. However, if the past can teach us anything, it's that policy has the power to influence the future.

Job Market Effects of Cryptocurrency

Throughout the world, there is now an entire business committed to ensuring that bitcoin exchanges are safe and secure. Some early adopters have become quite wealthy, whereas others have built businesses whose revenue is mostly derived from trading.

In 2017, the number of Blockchain-related occupations climbed from little over 1,000 in 2016. The Bitcoin business has consistently had the highest need for software developers. These occupations have remained popular, even though the labour environment has varied in recent years [10].

We should expect greater worldwide investments and job creation in the Bitcoin sector as it continues to be authorised outside of Western countries.

Unstable Domestic Currencies and Cryptocurrency's Economic Implications

There has been a steady decline in trust in American banks since the 1970s. In nations where the national currency is volatile, causing living standards to collapse, Bitcoin may be utilised to avoid these circumstances as well as those in which it is stable. In the case of cryptocurrency, each transaction is overseen by its peers without the intervention of the government.

Over one-seventh of a billion individuals do not have access to a bank account. Because of their financial plight, they are frequently forced to turn to risky lending tactics. The fact that so many people in this group own smartphones means that bitcoin might easily become a viable choice for them in the future.

Cryptocurrency's decentralisation makes it possible for inhabitants of nations where the currency is unstable to trade freely with citizens of more prosperous countries, establishing a level of economic equality for everybody.

Cryptocurrency has a positive economic impact because of low transaction costs. Aside from Bitcoin's present status, most cryptocurrency users' transaction costs are negligible, if not nothing. No additional expenditures are incurred since cryptocurrencies and Blockchain are decentralised and do not necessitate investment in physical property. This implies that, in contrast to a bank office, no utility costs, rental property, or employee compensation are required to be paid.

As a result, confidence in the system of cryptocurrencies grows, leading to increased usage of financial instruments, transactions, and a more global economy [11].

Through Transparency, Cryptocurrency's Economic Impact

As a result of the decentralised nature of blockchain technology and cryptocurrencies, it is impervious to human, corporate, or government intervention. People will have more control and independence as a result of this, and fraud and corruption will be less of a problem. Changing a system that can't be modified is impossible. This is especially advantageous to undeveloped nations and disadvantaged populations. It is possible for these folks to invest and trade in the global economy because of the utilitarian nature of cryptocurrencies.

CONCLUSION

Because of the currency's decentralised structure, bitcoin functions as a worldwide economy in which users may trade currency no matter where they are located. Entrepreneurs that are no longer limited to a domestic audience but one that is international, where monies may be traded without the burden of exchange rates and international legislation, will find this particularly significant. In reality, there are cryptocurrency companies that let African company owners conduct financial transactions with European, American, and Asian firms with the goal of expanding financial inclusion and promoting financial liberty through global exchanges.

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SOLAR MULTIFUNCTIONAL DRYER FOR DRYING AGRICULTURAL PRODUCTS

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ABSTRACT

This paper describes a new design of a solar dryer for agricultural products. It is characterized by simplicity of design, reliability in operation, autonomy, and increased resistance to weather changes. The results of field tests of fruits and vegetables are presented. Dried fruits are of high quality and light in colour. The solar installation developed by us is recommended for individual and farm farms.

KEYWORDS: *Innovative Dryer, Grain Vegetables, Fruits, Solar Energy, Food And Medicinal Herbs, Metal Sheet, Foam Plastic, Plastic Film, Absorber, Air.*

INTRODUCTION

The use of solar energy in agriculture is an urgent problem. The main directions are the use of solar energy heat in greenhouses, greenhouses, greenhouses, and drying devices: drying fruits, medicinal and food herbs, hay, vegetables, grains, grapes, lumber and wood for heating premises where livestock, pigs, poultry houses, warehouses are fattened, for heating water for household purposes.

Currently, solar dryers are widely used [1-7], since the production of a dried product, compared to canned fruits and vegetables, requires relatively small capital investments. Drying plants are conditionally divided into two groups: fuel and solar. The latter has the advantage of saving fuel

and energy resources, environmentally friendly production, and favorable natural and climatic conditions under which the season of ripening and processing of agricultural products occur at the same time [7-12]. In the world, solar installations of various designs are used, made by home-made people and produced by the industry, for example, SD-100 or SD-10, they are bulky, expensive, it takes a lot of time to manufacture them, it is unlikely that a simple farmer will buy this installation.

Solar tunnel dryers of the Hohenheim type, developed jointly by the Institute for Tropical and Subtropical Agricultural Engineering of the University of Hohenheim and Innotech, are used in more than 110 countries [13-19].

The Hohenheim tunnel dryer is not without drawbacks. The working surface of 36 m² for agricultural products has a film coating located on a metal mesh, therefore. Cereals cannot be dried, as the sharp edges and tips of the cereal shell will damage the film. Only large vegetables and fruits can be dried [20-23]. Strong winds, dry climate and sun are frequent in Uzbekistan, which negatively affects the quality of the film. The film dries up and breaks;

The tunnel dryer is an economically very expensive construction, costing many thousands of US dollars. Photocells cannot directly serve as a source for fans, an inverter converter is needed, which is not mentioned. Due to the large dimensions and cost, the dryer is not rational to use on individual farms. The innovative multifunctional modular solar dryer for vegetables and fruits developed by us for individual farms, fig. 1, is designed for drying all types of agricultural products using the thermal energy of the sun. Simple in design, accessible to every farmer, made from local materials, and has high reliability, this was shown by three-year full-scale tests in the Ferghana Valley (Table 1).

TABLE 1. RESULTS OF FIELD TESTS OF THE SOLAR DRYER IN 2020-2021 (SUMMER)

<i>№</i>	<i>Fruits and vegetables</i>	<i>Drying time. days</i>		<i>Dry product yield from 10 kg</i>
		<i>In a solar dryer</i>	<i>In a solar dryer</i>	
1.	Tomatoes (halves)	3-4	7-9	1
2.	Apples (sliced 2 mm thick)	1-1.5	3-5	1.5
3.	apricots	4-6	7-10	3
4.	peaches (halves)	4-5	6-10	3-3.5
5.	Dried apricots	2-3	4-5	2,5
6.	figs	4-6	8-10	2
7.	plums	6-8	12-14	2-2.5
8.	Plums (halves)	3-4	6-9	2.5
9.	cherry	3-4	5-6	2,5
10.	Sweet cherry	3-5	8-10	2,7
11.	eggplant	1-1.5	4-5	0,7-0,8
12.	(straw)	1,5-2	4-5	1,2-1,3
13.	bell pepper	2-3	4.5-6	1,3
14.	(straw)	2-3	5-6	1,2
15.	Carrot	-2,5-3	5-7	0,9

It is used in individual farms and directly in the gardens at the collection site, which allows you to prevent losses. Solar modular dryer, the area of which can be increased tens and hundreds of times by order. Oriented to the south. The cost of our solar dryer is an order of magnitude cheaper than the HohenHeim dryer.

It is made in the form of a horizontal table with an additional absorber on the south side. The metal sheet covering the horizontal surface of the table, part of which is bent at an angle and serves as an absorber, is painted with matte black paint. A thermal insulation pad (foam 1 cm thick) is laid under the sheet. The area of the foam and the table are the same. The goal is to reduce heat loss from the back of the table. A wooden board 80 cm long, 15 cm wide and 1 cm thick is fixed on one side of the table, on which a polyethene film 1 meter wide is fixed with a thin rail, when drying products, the film is stretched along the table, protecting agricultural products from dust, rain and insects.



Picture 1 Advantage of the multifunctional solar dryer for drying cereals, vegetables, fruits, medicinal and food herbs

On the other opposite side of the film, we fix a bar that stretches the film over the fruit along the entire length of the dryer table. When the dryer is not working, the film is rolled up and placed in holders. This allows you to save the film during a strong hurricane wind, which often happens in Uzbekistan. Dried vegetables and fruits are of high quality, as the process takes a short time, fruits and vegetables also differ in colour, they are light. From two sides of the table, air passes over the fruit. Creating a draft - natural ventilation. The horizontal table allows you to dry any grain crops, and cut vegetables of all kinds. Fruits, as well as medicinal and food herbs. The working surface of the table is 120 cm long, 80 cm wide and 40 cm high. The capacity of such a dryer is 10-15 kg of products. This makes it possible to dry dried fruits and vegetables during the summer season for the whole winter for a large Uzbek family. The solar dryer has been tested for three years in the author's garden. Polyethene film is sold in all hardware stores and can be easily replaced if necessary.

The structure of the innovative solar modular dryer is durable, compact, transportable, self-contained, and wind-resistant, takes up little space, and is indispensable in remote orchards where fruit grows. The tests were carried out on one modular section. By the order of the

consumer, any number of modules can be made. The module withstood the hurricane wind that swept over the city of Fergana several times in 2018-2021.

1. Reliability, strength, mobility, modularity, autonomy, transportability, durability, wind resistance, protection from rain, hail, storms, and snow;
2. Convenience of safe operation, unlike other similar designs. Compact collector and dryer footprint in one unit;
3. Serviceable by teenagers, school children and the elderly, the extraordinary simplicity and low cost of manufacture makes it competitive with the most famous dryers in the world;
4. High-quality dried products, which are especially suitable for diabetics.
5. Eco-friendly;
6. Economy of standard fuel, reduction of CO₂ emissions, absolute environmental friendliness of the process. The service life of tens of years, as it has no moving working units.

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INFLUENCE OF THE RATE OF PELLING WITH BENTONITE CLAYS ON THE DYNAMICS OF FIELD GERMINATION OF SOYBEAN SEEDS

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ABSTRACT

In the work, the influence of soybean seed treatment with bentonite clays on the dynamics of germination in the field conditions of light gray soils in the Kashkadarya region was determined. As a result of the analyzes, the acceleration of germination of soybean seeds relative to the control variant was established.

KEYWORDS: *Bentonite, Clay, Bark, Shade, Variety, Seed, Dynamics, Germination, Fertilizer, Irrigation.*

INTRODUCTION

Every day the role and importance of the agricultural sector in ensuring the food security of the population of our republic is increasing. One of the most important tasks is to ensure the guaranteed provision of the population with agricultural products, further increase in productivity and interest, as well as the processing of agricultural products through the effective use of resources and opportunities available in our country [1].

The leading countries of the world have developed and scientifically substantiated the norms for the use of non-traditional agricultural ores in various conditions as additional nutrition to mineral fertilizers. As a resource-saving technology for introducing non-traditional agro-ores into the soil, there is an improvement in the agrophysical and agrochemical properties of the soil, acceleration of biological processes in the soil, an increase in the absorption coefficient of mineral fertilizers by plants and, as a result, an improvement in the quality of products along with an increase in productivity [2].

World experience in the use of non-traditional agricultural ores shows that their use provides an increase in crop yields by 10-15%, improves product quality, agro-ores cleanse the soil of heavy metals, toxic substances and radioactive elements. In this regard, bentonite clay serves to improve the ameliorative state of the soil, filling the soil's need for microelements. Although bentonite clay retains moisture in the soil, it collects sand particles around it and increases soil viscosity. Bentonite clay is considered a source of nutrition for plants, it contains 0.3-4.7% carbon, 0.4-3.0% potassium, 0.3-1.5% phosphorus, as well as trace elements copper, zinc, boron, cobalt, molybdenum, manganese, sulfur [3].

Based on the foregoing, within the framework of the practical project PZ 202102154 "Development of a science-based agricultural technology for saving irrigation water using bentonite clay in the cultivation of crops", the coating of soybean seeds of Arleta and Nafis varieties with bentonite clay, sown at a sowing rate of 400 thousand hectares, was studied pcs / ha to a depth of 3-4 cm, as well as the influence on the dynamics of field germination in the conditions of light gray soils of the Kashkadarya region was studied.

In the results of the experiment, the dynamics of field germination of soybean seeds was not affected by the application rates of mineral fertilizers and irrigation regimes. However, depending on the coverage of soybean seeds with bentonite clay, the effect on the dynamics of germination was clearly observed.

In the experiments, variants of the irrigation regimes PPV-75-75-60 and PPV-75-80-75% were used at fertilizer rates; no fertilizer (control), N150P100K60 + 30% bentonite (seed pelleting), N180P100K60 + 40% bentonite (seed pelleting), and N210P100K60 + 50% bentonite (seed pelleting).

From the data in the table it can be seen that the germination of seeds of the Arleta soybean variety conducted on April 15 shows that under the irrigation regime PPV-75-75-60% in the control variant was 22.3%, and in the variants N210P100K60 + 50% bentonite 40, 3%, and under the irrigation regime PPV-75-80-70%, respectively, 24.5-41.0%, counts on April 17, respectively, 46.3-75.5% and 48.3-76.3%, and counts 19 April was 71.8-93.0% and 74.3-91.5%, the same trend of field germination was observed in seeds of soybean varieties "Nafis", respectively 24.0-41.8%, 24.5-43.0 %, 41.3-74.5%, 46.0-76.5% and 74.5-94.5%, 77.0-97.3%.

TABLE 1. INFLUENCE OF THE RATE OF DRAGEEING WITH BENTONITE CLAYS ON THE DYNAMICS OF FIELD GERMINATION OF SOYBEAN SEEDS.

№ Var	Variety name	Irrigation modes, %	Norm of mineral fertilizers, kg/ha (NPK)	Germination dynamics					
				15.aprel		17.aprel		19.aprel	
				piece	%	piece	%	piece	%
1	«Arlita»	PPV (75-75-60 %)	Control (no fertilizer)	89	22,3	185	46,3	287	71,8
2			N ₁₅₀ P ₁₀₀ K ₆₀ + 30% Bentonite (seed coating)	124	31,0	243	60,8	321	80,3
3			N ₁₈₀ P ₁₀₀ K ₆₀ + 40% Bentonite (seed coating)	146	36,5	297	74,3	353	88,3
4			N ₂₁₀ P ₁₀₀ K ₆₀ + 50% Bentonite (seed coating)	161	40,3	302	75,5	372	93,0
5		PPV (75-80-70 %)	Control (no fertilizer)	98	24,5	193	48,3	297	74,3
6			N ₁₅₀ P ₁₀₀ K ₆₀ + 30% Bentonite (seed coating)	137	34,3	263	65,8	328	82,0
7			N ₁₈₀ P ₁₀₀ K ₆₀ + 40% Bentonite (seed coating)	150	37,5	302	75,5	359	89,8
8			N ₂₁₀ P ₁₀₀ K ₆₀ + 50% Bentonite (seed coating)	164	41,0	305	76,3	366	91,5
9	«Nafis»	PPV (75-75-60 %)	Control (no fertilizer)	96	24,0	165	41,3	298	74,5
10			N ₁₅₀ P ₁₀₀ K ₆₀ + 30% Bentonite (seed coating)	122	30,5	213	53,3	336	84,0
11			N ₁₈₀ P ₁₀₀ K ₆₀ + 40% Bentonite (seed coating)	154	38,5	276	69,0	365	91,3
12			N ₂₁₀ P ₁₀₀ K ₆₀ + 50% Bentonite (seed coating)	167	41,8	298	74,5	378	94,5
13		PPV (75-80-70 %)	Control (no fertilizer)	98	24,5	184	46,0	308	77,0
14			N ₁₅₀ P ₁₀₀ K ₆₀ + 30% Control (no fertilizer)	129	32,3	228	57,0	345	86,3
15			N ₁₈₀ P ₁₀₀ K ₆₀ + 40% Control (no fertilizer)	157	39,3	286	71,5	378	94,5
16			N ₂₁₀ P ₁₀₀ K ₆₀ + 50% Control (no fertilizer)	172	43,0	306	76,5	389	97,3

In the experiments it was found that the dynamics of field germination of seeds of soybean varieties with options for drageeing with bentonite clays is 30; 40 and 50% were above 8.5-9.3; 16.5-17.5 and 19.8-20.3% than the control variant.

The complete germination of seeds of soybean varieties in pelleted variants ranged from 6 to 10 days, and in the control variants this indicator ranged from 6 to 12 days. This is explained by the fact that when seeds are coated with bentonite, more moisture is absorbed from the soil.

Based on the data presented above, it can be concluded that as a result of coating soybean seeds with bentonite clay, the absorption of moisture by the seeds increases and seed germination is accelerated.

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THE SCIENTIFIC AND PRACTICAL SIGNIFICANCE OF ORGANIC POWDERS MADE FROM ROOT CROPS IN THE FOOD INDUSTRY

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ABSTRACT

The article describes the beneficial properties of carrot (Daucus carota) and ginger (Zingiber officinale Rose) root for the human's health, the technology for making organic powder from them, the use of prepared organic powder as a biologically active substance in food and confectionery industry, the criteria for making bread and bakery products. The study was aimed to develop cake supplemented by carrot powder and to evaluate its quality parameters. Four samples were prepared to contain different proportions of carrot and ginger powders (15/5, 20/5, 30/5, 50/5 % w/w) in combination with wheat flour. The nutritional and sensory properties of bread and bakery products were also evaluated. The bread and bakery products supplemented with 20/5% (w/w) carrot and ginger powder had significantly improved the nutritional quality compared to control one (without carrot powder). The main sensory score of highly acceptable carrot powder cake S2 (80:20). The nutritional and sensory analysis suggested that the cake formulated by 20% (w/w) carrot powder was comparatively more acceptable than other formulations (0, 15, 30, 50% w/w).

KEYWORDS: *Ginger, Organic Powder, Glycosides, Virus, Bullet Blender, Sensory Evaluation, Zinc, Medical, Chemically Synthesized Products, Biologically Active Compounds (BAC).*

INTRODUCTION

In recent years, more than 90 laws, 88 decrees and 265 resolutions have been adopted on the development of the agricultural sector by the President of Republic of Uzbekistan. In particular, the Resolution of the President of the Republic of Uzbekistan "On Additional Measures for Deep Processing of Agricultural Products and Further Development of the Food Industry" PD-4406, the Decree "On the Development Strategy of New Uzbekistan for 2022-2026", a number of priorities are set out in the development strategy formula, including an increase in agricultural

income by 5%, the widespread introduction of processing technology in industry; tasks such as creating a product base and the widespread introduction of innovative technologies in their fields. In accordance with the decrees and resolutions on the development of the field, 32.2% of agricultural production of fruits and vegetables and 8.7% of Gross Domestic Product (GDP) were provided. [1,2].

In the following years, enrichment of food with artificially synthesized products may leaden increasing stress, unhealthy lifestyle. It is important to eliminate these factors and ensure good health, to nourish the body cells with natural products for longevity; more than 600 substances necessary for the human body must be replenished at the expense of natural foods. [10].

The human diet has changed radically, and the amount of natural and healing products in the diet has been relatively reduced. They are being replaced by artificially prepared and chemically synthesized products. As a result, in all countries, including our country, the consumption of such emotionally satisfying foods, consumption of semi-finished products, obesity due to overeating, atherosclerosis, diabetes, high blood pressure, heart attack, stroke and other diseases of civilization are increasing. [13].

When chemical and technical processing of agricultural products, vitamins, amino acids, phospholipids, micronutrients and various biologically active compounds are released or decomposed and denatured. Epidemiological analysis shows that the reduction in morbidity and mortality is due to regular consumption of natural products. [7].

Medicines derived from plant sources play an important role among the drugs used in various diseases. The relevance of the use of such drugs is very important in recent decades, as there is a sharp increase in toxic allergic diseases in the treatment with synthetic drugs. Recent researches show that medicinal plants have optimal ratios of a complex of biologically active substances with medicinal properties, which are evolutionarily and genetically closer to the human body than synthetic means. Herbal preparations with therapeutic and regulatory effects affect metabolic processes in the body, increase its protective properties and phagocytic activity of leukocytes. [25,26]. Herbal medicines fully meet modern medical and biological requirements, as they are highly effective in therapeutic doses, have a wide range of therapeutic properties, have no side effects, make them a symptomatic, prophylactic and long-term treatment for all age groups. [27].

Consumption of thousands of newly synthesized pharmaceutical drugs and fruits grown using chemicals and pollution of the environment leads to several diseases of the organism. To do this, it is important to consume natural products throughout daily life. Vitamins and minerals that are important for the human body are found mainly in natural fruit and vegetable products, which are consumed directly and in the form of processed products for daily needs.

Carrot root is a powerful source of bioactivity and is important in strengthening the human body with its richness in vitamins, organic acids, minerals, macro and micronutrients. [9,12]. Carrot is an economically important crop that has become increasingly popular recently due to increased awareness of its nutritional value. Among 39 fruits and vegetables carrots have been ranked 10th in nutritional value. The storage organ (root) of the carrot is the part of the plant that is most often consumed. They are consumed uncooked in salads, steamed or boiled as vegetables and may also be cooked with other vegetables in the preparation of soups and stews. Besides being food, carrot has therapeutic importance as it enhances resistance to blood and eye diseases.

Carrots do not supply a significant amount of calories to the human diet, but do supply nutrition in the form of photochemical, particularly carotenoids. The greatest nutritional interest in carrots stems from their photochemical content, but research has also focused on carrots as a source of dietary fiber. Nutrient content of carrots can vary with cultivar, season, environmental conditions, and maturity. [13].

The characteristic value of ginger differs from other root and vegetable species in that it is composed of carbohydrates such as fructose, glucose, various amino acids, including omega-3, omega-6, vitamins: E, K, S, B₃, B₅, B₆, glycosides, minerals: iron, magnesium, phosphorus, potassium, zinc, copper and manganese, most importantly the presence of the element germanium. Ginger plant extract has an important practical role in medicine in the treatment of various diseases, especially in the prevention and treatment of viral diseases such as colds, influenza, covid-19 from acute respiratory diseases, as well as enhancing the immune properties of the organism. It is known from scientific sources that the root of the ginger plant plays an important role in the prevention and treatment of acute covid-19 viral diseases that occurred in European countries in 2019-2020. [5].

Abu Ali Ibn Sina used the root of the ginger plant as a mood-boosting, invigorating, anti-vomiting and anti-diarrhea medicine. Ginger root extract has analgesic, invigorating and antibacterial properties. He recommended consumption when muscles, muscle ache, sprains, tissue damage. Its root is very useful, improves blood circulation, provides effective assistance in the process of weight loss. It lowers blood pressure along with diluting the blood. [23].

Materials and methods

The application of organic powder in the form of biologically active compounds (BAC) from vegetables in the food and confectionery industry is one of the current issues. For this purpose, a number of innovative research works on the preparation of organic powder from root products are being conducted at the Namangan Institute of Engineering and Technology. Research has been conducted on the preparation of organic powder from carrot and ginger root and the use of the prepared powder in the food industry in 2021-2022.

The studies used three repetitions, four different variants of carrot Red Mirzoyi and Yellow Mirzoyi and ginger root. To make organic powder grown carrots and ginger roots were sorted and cleaned. [4]. Then, at the 85 °C roots were blanched in boiling water. Blanched products were cut into 1 cm thick fan shapes according to the methodology and dried in a drying oven at a temperature of 70-80 °C for 4-5 hours. [14,15]. The dried product was crushed in a bullet blender and divided into fractions. Various products were prepared by adding the obtained powder as BAC in the production of bread and bakery products in the food industry. [20]. Samples were prepared in four variants by adding 15, 20, 30, 50% carrot powder to wheat flour to make a cake. The chemical composition of the flour used was as follows: water 14%, protein 10.6%, carbohydrate 73%, cellulose 0.2%, ash 0.5%. A relatively low nutritional value was found when the cake was prepared by adding 15% carrot powder and 5% ginger powder. In the S₃ and S₄ variants, the viscosity increased due to the increased amount of carrot powder, and the inside of the cakes did not cook well.

RESULTS AND DISCUSSIONS

In the variant (S₂) with the addition of 20% carrot and 5% ginger powder to the cake, the nutritional quality was significantly improved, and the quality was found to be higher compared

to the control (without organic powder). The cake prepared in the S_2 (80:20) ratio was sensory evaluated to have a better taste than other samples. (Table 1, Figure 1)

TABLE 1. CAKES WITH CARROT POWDER (OPTIONAL)

Product type	S_0	S_1	S_2	S_3	S_4
Wheat flour	100	85	80	70	50
Sugar	7	7	7	7	7
Vegetable oil	7	7	7	7	7
Carrot powder	0	15	20	30	50
Ginger powder	0	5	5	5	5
Other compounds	15-20	15-20	15-20	15-20	15-20

Fig. 1. Samples of cakes made with the addition of BAC



A product made by adding 20% carrot and 5% ginger powder



B product made by adding 30% carrot and 5% ginger powder



C. product made by adding 50% carrot and 5% ginger powder

In the laboratory, samples of bread from other types of bread and bakery products, Bundt cake, biscuits of different shapes with the same composition were prepared. Experiments show that the optimal ratio of organic powder (carrots, ginger) in bread products is 15% -5%. In biscuits and cakes, the addition of 20% carrot powder and 5% ginger powder was found to be acceptable in terms of appearance, nutritional and other parameters (Tab. 2, Fig. 2).

TABLE 2. STANDARDS FOR THE USE OF ORGANIC POWDER AS BAC IN THE PREPARATION OF BREAD AND BAKERY PRODUCTS

Product type	Composition of compounds%					
	Wheat flour	Sugar	Vegetable oil	BAC		Other compounds
				Carrot powder	Ginger powder	
Bread	55	0	7	15	5	15-20
Holecake	55	0	7	15	5	15-20
Biscuits	45	7	7	20	5	15-20
Cakes	45	7	7	20	5	15-20



Fig. 2 Samples of bread and bakery products prepared with the addition of organic powder

CONCLUSIONS AND RECOMMENDATIONS

The use of organic powder as a biologically active substance in the manufacture of bread and bakery industry may increase the body's resistance to viruses. The supply of vitamins and minerals necessary for the body through bread and bakery products is achieved through the use of BAC. Adding organic powder to bread and bakery products saves 30% of wheat flour consumption. Carrot powder, an abundant source of dietary fiber and mineral content can be used in the production of bakery and confectionery products. Protein, fat, ash and fiber contents in cakes can be increased by adding more carrot powder. The cake containing 20% carrot powder had a better appearance, taste, and texture compared to other cakes. This study suggested that cakes prepared with carrot and ginger powders of 20/5% (w/w) had comparatively better nutritional and sensory characteristics over control one. Therefore, bread and bakery products with 20% carrot powder are advised to consume in our everyday diet for health benefits.

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REGULATION OF BIOLOGICAL BALANCE BETWEEN PESTS AND THEIR ENTOMOPHAGES IN BIOLOGICAL PROTECTION OF COTTON

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ABSTRACT

The issues of regulation of biological balance between the main pests of cotton and their entomophages in biological protection are considered. The ways and methods of developing optimal work plans of biological factories for the production of useful entomofauna (trichogram, brackon, golden-eyed) against cotton pests (cotton and winter scoops) for various zones of the republic using mathematical modeling and programming methods are determined.

KEYWORDS: *Biological Equilibrium, Regulation, Management, Cotton Pests, Useful Entomophages, Mathematical Modeling, Algorithm And Program.*

INTRODUCTION

Of significant importance in the production of raw cotton, especially organic cotton, is the issue of regulating the biological balance between pests and their beneficial entomophages in obtaining environmentally friendly products without the use of pesticides. At the same time, the regulation and restoration of biological equilibrium is one of the acceptable ways by which large losses of the cotton crop from pests can be avoided.

The creation of a system for regulating biological equilibrium in agrobiocenoses is not an easy task and it requires the development of a specific system for the cultivation of cotton and other agricultural crops.

Biological suppression of harmful pests has occupied today a constant predominating position in the concept of integrated suppression of pests. In certain cases for successful regulation of number of insects - pests any form of biological suppression of their populations is enough; in a number of other cases, suppression is often supplemented with any other method, and at last, in the third, it plays only an auxiliary role. Nevertheless, an effective utilization of biological agents became now a method to be considered and widely applied in all chances. In this connection it is necessary to study the inter-specific ecological communications which play an important role in vital systems of populations.

Research results. There are following biological methods of control against agricultural pests: cultivation and reproduction of a carnivore (parasite) of the devouring certain pest for the purpose of suppression of agricultural pests reproduction; cultivation of pathogenic microorganisms causing certain diseases of pests, leading to reduction of their number, etc. But among the above listed methods of control the most comprehensible is a method of cultivation

and reproduction of carnivores (parasites). So, for sucking pests' control the main position is occupied with application of natural entomophages (trichogramma, bracon, lacewing, etc.). The big role plays an increase in number (density) of these useful insects by artificial cultivation and their seasonal colonization against pests. Thereto biological factories on cultivation and reproduction of parasites have been built and successfully functioning.

It is necessary to develop optimum plans of control against agricultural pests to define the plan of release of parasites (entomophages) depending on available forecast of number (density) of the owner (pest) for the most effective work of these biological factories. And development of optimum plans of control, in turn, being a difficult problem enough, demands preliminary mathematical modeling of population dynamics of agricultural pests.

As it has been noted in [3], among biological control the most effective is a method of mass release of "entomophages" grown up in laboratory conditions (now the automated biological factories on manufacture of "parasites" and "carnivores" exist and successfully function. From that follows the problem of development of optimum work plans of these biological factories (terms and norms of "entomophages" release depending on seasonal conditions of a year. For example, against cotton worms the parasite of Trichogramma sort, parasitizing the eggs of this pest is successfully used. But the authors of work [1] consider that "parasite" of this sort has a very low search ability which prevents to become it the agent of biological control.

But according to Yu.N.Fadeev (note to work [1]) these obstacles can be eliminated by applying "a flooding" method, at which a number of parasites is supported at high level by periodic mass releases of "parasite" in agrocenosis. In this case the acceptability of this method is defined by purely economic reasons.

By their nature the trichogramms infect eggs of the pest. Hence, a correct forecasting of terms of pests' mass ovipositions raises an efficiency of application of this kind of a parasite at pest control.

At realization of this problem in work [5,6] the following assumptions have been made:

- 1) Owing to small period of trichogramms life, to be equal to 3-5 days, summands

$$f_1(R_1, V_1, t_1) - g_1(R_1^*, V_1^*, t_1^*) \text{ and}$$

$$f_2(R_2, V_2, t_2) - g_2(R_2^*, V_2^*, t_2^*)$$

as gain factors, have equated to zero;

- 2) Instead of frequency factor of occurrence of "parasite" and "owner" the factor of intensity of "owners" defeat by "parasites" is used. This indicator has been defined experimentally, from a parity of a share of "owners" to the infected individuals.

Then, an expression (3.32) from [4,6] becomes:

} (3.1)

$$N_1^k(t+1) = N_1^k(t) - mN_1^k(t) N_2^k(t)$$

$$N_2^k(t+1) = N_2^k(t) - mN_1^k(t) N_2^k(t)$$

Thus, the problem was reduced to finding of such optimum values of $N_2^k(t)$ from (3.1) to satisfy restrictions system of (3.33) and providing a minimum of functional (3.34) of [6].

It is established that the intensity factor (m) of owners' defeats by the parasites, defined in laboratory conditions, gives the big errors in field conditions. As m really, directly depends on a number of pests.

If S - number of infected eggs of victims then the intensity of owners defeat by parasites is equal to $m = S:N_1$. On the basis of this and according to expression

(3.33) from [3] it is possible to write down for m:

$$m = (e^{aN_2} - 1) : e^{aN_2} \quad (3.2)$$

Where: a - the search area (an average area which a parasite searches in a current of its life). The search area depends on search ability of a parasite and is defined under the field data or in laboratory conditions. Then expression (3.1) taking into account (3.2) will become:

On the basis of (3.3) and with application of casual search method the optimum norms of release of a parasite (trichogramma) at the set prognostic values of the owner at $a = 0,01$ are defined.

} (3.3)

$$N_1^k(t+1) = N_1^k(t) - [e^{aN_2(t)} - 1] : e^{aN_2(t)} N_1^k(t) N_2^k(t)$$

$$N_2^k(t+1) = N_2^k(t) - [e^{aN_2(t)} - 1] : e^{aN_2(t)} N_1^k(t) N_2^k(t)$$

TABLE 1. NORMS OF TRICHOGRAMMA RELEASE AT GIVEN VALUES OF COTTON LACE WING

№	Number of the "owner" on 100 plants, in pieces	Optimum values of a parasite produced by bio-factory	
		piece	gramm
1.	7.0	158221.0	1,58
2.	7.5	158010.0	1,58
3.	8.0	152930.0	1,53
4.	8.5	152448.0	1,52
5.	9.0	150025.0	1,50
6.	9.5	147842.0	1,48
7.	10.0	146200.0	1,46
8.	10.5	145830.0	1,46
9.	11.0	143990.0	1,44
10.	11.5	142650.0	1,42
11.	12.0	141100.0	1,41

The results of calculation are resulted in Table1. It is visible from Tab. 1 that at owner's presence in the field, the certain quantity of trichogramma is necessary. The more the owners number, the lower the quantity of parasites norm released by biological factory on 100 cotton plants. It allows concluding that on the basis of such calculations scheduling it is possible to plan biological factories' work on operating time of a biomaterial depending on owners' number in concrete economic year for concrete region of cotton growing.

Thus, for definition of optimum terms of basic cotton pests' occurrence (cotton worms and winter cotton worms), depending on mean annual and real data for different zones of cotton growing in the Republic, the mathematical models and their algorithms are developed. On the basis of these algorithms the program of definition of terms of cotton worms and winter cotton worms' occurrence is made and introduced in practical activities of Plant protection Centers of Kashkadarya, Khorezm and Namangan regions. The research results are shown in Table 2. According to Table 2, it is visible that except the terms of cotton worms' development, the optimum terms of release of useful entomophages such as trichogramma, lace wing and bracon are revealed.

The specificity of the ecological interaction "parasite-host" is such that the host (pest) appears much earlier than its entomophagus. If the timing of the appearance of the entomophagus is delayed or the number turns out to be insignificant, then human intervention is necessary. In other words, a person must maintain the necessary number of parasites by multiplying them in the laboratory and releasing them, taking into account their number in natural conditions.

Taking into account the above positions, to solve this problem, expression (3.3) is transformed as } (3.4)

$$N_1^k(t+1) = N_1^k(t) - [e^{aN_2(t)-1}] : e^{aN_2(t)} N_1^k(t) N_2^k(t)$$

$$N_2^k(t+1) = N_2^k(t) + [e^{aN_2(t)-1}] : e^{aN_2(t)} N_1^k(t) N_2^k(t)$$

$$N_3^k(t+1) = N_3^k(t) + [e^{aN_3(t)-1}] : e^{aN_2(t)} N_1^k(t) N_3^k(t)$$

where N_3 is the number of entomophages in natural conditions.

The solution of a system of finite-difference equations of the form (3.4) makes it possible to regulate the biological diversity of the agrobiocenosis (in our case, the cotton field).

CONCLUSIONS

In addition to all this, one of the main problems associated with the protection of plants from pests is the solution of the issue of maintaining the biological balance between harmful organisms and their entomophages. This is essential in the production of environmentally friendly products without the use of pesticides, for example, an organic crop of raw cotton.

Moreover, this procedure may be used for integrated protection of cotton, cereals, forestry crops and medicinal plants from harmful organisms.

When regulating biological diversity against pests of forestry crops, entomophagus cryptolemus is used, the use of which is given in the works [2].

TABLE 2 DEVELOPMENT OF COTTON LACE WING AND OPTIMUM TERMS OF CARRYING OUT OF BIOLOGICAL PROTECTION (THE FIRST COTTON GENERATION, 2019)

Regions, areas	Development terms (day, month)				Release terms of entomophages (day, month)		
	Egg-laying	Caterpillars of 2 nd age	Caterpillars of 4 th age	Caterpillars of 6 th age	Trichogramma	Lace wing	Braccon
Pap Uchkurgan	Namangan region						
	On June, 6 th	On June, 11 th	On June, 17 th	On June, 22 th	On June, 5-7 th	On June, 6, 12 th	On June 18, 23 th
	On June, 8 th	On June, 14 th	On June, 19 th	On June, 24 th	On June, 9-12 th	On June, 9, 15 th	On June, 18, 23 th
Kasan Nishan	Kashkadarya region						
	On June, 3 rd	On June, 9 th	On June, 14 th	On June, 19 th	On June, 2-4 nd	3, on June, 8 th	On June, 15, 20 th
	On June, 2 nd	On June, 8 th	On June, 14 th	On June, 19 th	On June, 1-3 st	2, on June, 8 th	On June, 13, 18 th
Urgench Shavat	Khorezm region						
	On June, 3 rd	On June, 9 th	On June, 14 th	On June, 19 th	On June, 2-4 nd	3, on June, 9 th	On June, 14, 19 th
	On June, 2 nd	On June, 8 th	On June, 12 th	On June, 17 th	On June, 1-3 st	2, on June, 8 th	On June, 11, 17 th

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OBJECTIVES IN THE SPEECH OF THE IMAGES OF WIVES AND GIRLS IN ALISHER NAVOY'S "KHAMSA" (IN THE EXAMPLE OF THE CHARACTER OF LALI AND MAJNUN)

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ABSTRACT

In this article, one of the types of speech acts, the etiquette speech act-behaviors, is analyzed in the speech of the hero of Alisher Navoi's epic "Layli and Majnun", which is a rare example of our classic literature. In the article, the character and personal qualities of this character in different roles in the work are determined through the etiquette of behavior and speech acts of Laila. Also, the text contains thoughts about the importance of bekhabitivs in revealing the personality of the hero of the work.

KEYWORDS: *Speech Act, J.Austin, Illocutionary, Non-Informative, Non-Informative, Lyly's Speech.*

INTRODUCTION

Speech acts are one of the main concepts of pragmatics. A speech act is a purposeful communicative action performed in accordance with the rules of language. In pragmatics, any speech act can be considered, such as advice, thanks, threats, requests, excuses, etc. A speech act is a two-way process that involves speech, as well as hearing and understanding what is heard.

The concept of "speech act," created by J.Austin, is understood as a purposeful speech act subject to the rules and order of speech behavior. The main research object of this theory is: a) the speaker; b) the addressee; and c) a number of issues concerning their interaction and communication situation. In his research, J. Austin suggests a number of speech acts that clearly and clearly express an opinion, such as verdictive, exercisive, commissive, behaviorive, and expository, in addition to the speech acts that express an indication, question, and command in the process of communication. According to his theory, it is possible to carry out specific goal-oriented linguistic activities such as judging, giving advice, making a promise, behaving in a team or reacting to someone's behavior, explaining an opinion, confirming.

J.Austin distinguishes three stages of speech acts: 1) locution-the act of speaking to oneself. 2) illocutionary: expresses one's intent to another; defines one's goal. 3) perlocutionary expresses the influence of another person's actions. J. Austin called the functions of the speech act illocutionary forces, and the verbs related to them illocutionary. [2: 22-129].

Classification of illocutionary speech acts J. Austin

1. Verdictive (speech act "court, judge"), with the help of which the speaker expresses his assessment of something or someone;

2. Exercitive (to awaken) serving to implement the speaker's sentence (orders, orders, etc.);
3. Commissive (promise) formulation of promises and obligations;
4. Behabitive (etiquette) governs social behavior and relations between communicants (for example, congratulations, apologies, etc.).
5. Expository (explain, inform): determines the place of statements during the conversation (I admit, deny, etc.).

Behabitive (combination of two roots -behave "behave" and habit "habit") is a speech act. Behaving in a group means reacting to someone's behavior. Dj. According to Austin's theory, this is a speech act that reflects people's personal relationships and their behavior, including greetings, sympathies, and apologies. In speech, V. Hak classified speech acts into 2 groups according to their meaning: informative and non-informative. Behabitives are a form of non-informative speech act because non-informatives include various "social" acts: greetings, congratulations, etc.

Behabitive (Etiquette)

to give thanks

to praise

forgive

criticize

to blame

to ask

to curse

prove

to oppose

We can find idioms in all fiction. Through these speech labels used in the speech of the characters, we better understand the content of the work and the artistic function of the images. The works of Alisher Navoi, who left his masterpiece legacy to our classical literature, "can't be imagined apart from the science of God. In the current new thinking process, attention is paid to studying the poet's works in connection with his views on God and Sufism. " (N. Komilov and B. Eraliyev. "Samandar of the Fire of Love", Eastern Star. 1991. 11). However, the study of this work in the scope of new fields is also taking place and creates a basis for the creation of new interpretations in the analysis of this work. If we study the speech of women in Alisher Navoi's work "Khamsa" from a pragmalinguistic point of view, the essence of the characters in each role will be revealed. That's why we want to pay attention to the analysis of the speech of the character of Layli in the work "Layli and Majnun", which is also called "Firoqnoma" and "Nomayi Dard", which is the third epic of Alisher Navoi's "Khamsa".

In the play, Laili, one of the main characters, is transformed into a perfect, mature, perfect woman a symbol of love and loyalty. There are bride roles. His role in these roles, the etiquette of behaving in each role, is reflected in the character's actions (non-verbal means) and speech innuendos.

A speech quoted as the daughter of a tribal chief:

Please give your life

Please speak fluently to my body

You are a quarter to my soul's pain,

Don't call me a man, you are Surosh...

...I'm sorry, I can't handle this type,

I can't be satisfied with a face.[4:181-344]

"Oh, his words gave life to my body, and his messages made blood flow in my body! You are the one who finds a cure for my soul's pain, don't call me a person, you are an angel who brings news from the unseen! I will not forget your services. Even if I give you a hundred things, they will all be little. This speech was given to Zayd by a man named Zayd from his tribe before Majnun brought the news. In this place: "Zayd is a tribe member of Laila." He sympathizes with the two lovers and delivers letters to them. According to E.E. Bertels, Zayd was not in the original copy of Nizomy's work, and was added to the epic later by unknown editors. "Zayd is a small character in Nizami and serves to strengthen the religious spirit in the work, while in Navoi, he notes the importance of the love of Layli and Majnun as a mediator in the full development of their characters." (T. Ahmedov. Alisher Navoi's dastan "Layli and Majnun", T., 1970, 26-6.) The words "charako'sh" (seeker, finder) and "surosh" (Surosh - an angel who brings good news) mentioned in Layli's speech are the definition given to Zayd, and this word zlar has expressed the hidden meaning of comparing Zayd in Layli's speech to an angel who finds help and brings good news.

Speech delivered as a child.

In the play, Layli is the only child of the chief of the Hai tribe. It is known that in the saga, he is a valuable person not only for his parents, but also for his tribe. From the speech given in this role, it can be seen that Laila is a kind, beloved, passionate child towards her parents and midwife. In the 35th chapter of the work, Layli gets sick and dies. In that case, before her death, Layli tells her mother about her will. The speech in Layley's will contains a behabbit of apology and sympathy:

Oh, my soul is dead, myplace

Who, my dear soul.

You took my anger on you,

You are in my pain asru.

If you live for a thousand years,

What language can you use to apologize?

...Be patient as long as possible,

Your wish to come

May God grant you patience,

May your life be strong...[4:264-344]

"I sacrifice my sick life for your life, your life was in my life. You have taken my pains, you have become a century for my pains and sufferings. Even if I live for a thousand years, I will not be able to say sorry. May God give you patience and keep your family safe."

The speech of the character of Layli as a lover.

As a husband, this character is proud and modest, faithful to his lover, and sympathetic. The main character of Layli's story is Kais-Majnun, the only son of the head of the Bani Amir tribe. In the epic, Qays's love for Laila is later named Majnun. Majnun means crazy, crazy, crazy. He is "one of the most famous heroes in the East." According to ancient Arab sources, Majnun was a historical figure and belonged to the Bani Amir tribe in Arabia. There are a lot of stories in the East about the fate of a madman in love. He took a place as a tragic hero in the works of great artists such as Nizami, Dehlavi, and Navoi. " (Alisher Navoi, Collection of Perfect Works, Vol. VII, 359-b) In Alisher Navoi's work, this hero is described as a lover who was born with innate love and who saw God's palace in Layla.

From Laila's speech acts in her relationship with Majnun, we can see modesty, self-confidence, and cunning in her behavior. In chapter 11, Kais goes to the school of the Layli tribe to learn, and they see each other for the first time at school. At their first meeting, Laila already fell in love with Majnun. During their meeting in the garden in the following events, Layli, sensing Majnun's love for her, starts talking to Majnun and asks him how he is doing:

How are you, young man?

What kind of anxiety do you have?

Who, you have no joy like others,

Do you have no prosperity like others?

...This sad incident happened to you,

Who is the cause of this violence? [4:78-344]

In this inquiry speech, we can witness Laila's kindness to her husband, Majnun's efforts to find out the reason for his sad condition, despite not knowing, how he behaves wisely and with feminine modesty in various situations.

Laila's speech from Majnun's letter (asking, grieving):

Hey, I don't have an enemy in the fire of love,

Oh, why he is without heart mistress?

Hey, my future love is crazy,

Don't make a mistake!

Hey, it's raining down on me,

Do not hide a thousand stones! [4:183-344]

In this case, asking how things are in the first stanza- Hey, my love is my love, how are you?; in the second and third stanzas - sorrow - my heartbroken and desolate person, how are you? In the fourth and fifth stanzas, there are expressions of pity for the fact that Majnun could not enjoy even a single sip of Layli's drink, and that Majnun did not hide his head even when a thousand

stones (calamities) rained down on him in the ravine. The words "khas"im-stick, thing, "bekas"-lonely, lonely, "madhush"-unconscious, "jura"-friend in the verse express hidden meanings in the speech and are part of the verbs in Laili's speech. This served to increase popularity.

In the play, Laila's congratulatory speech is also given, in which Laila's brother-in-law Qays Nawfal congratulates his brother-in-law with the news that he will marry his daughter:

God bless you,

May this good deed be blessed.

How many times are you going to have?

Remember this disease as well.

Do not shy away from honesty,

Don't forget us one more time.[4:188-344]

"Nawfal is the head of one of the Arab tribes, who understood the situation of Majnun and is described in the epic as his savior. Although Nawfal is a statesman, he understands and appreciates the value of a person and his inner experiences from the bottom of his heart. Although Nawfal understands Majnun's love and helps him, he condemns him for walking away from people and walking in the mountains and among wild animals. (T. Akhmedov. Alisher Navoi's epic "Layli and Majnun", T., 1970, 88-6.) In the congratulatory speech given above, together with the nobility of this image, the jealousy characteristic of a lover was also revealed in this speech, hidden in irony.

The idioms used in the speech of each hero are a part of their culture, which shows the culture and manners of people and serves for effective and successful communication. Through the monologues and dialogues of the above-mentioned character, Laila, the qualities of this character in different roles, etiquette, and positive characteristics of his character were revealed.

As a companion:

devoted to her love, caring, feminine pride, noble.

As a child:

honorable, kind, obedient, educated, and beloved. As a student: self-confident, respectful, and knowledgeable.

As the Chief's daughter:

knows his place, believes in himself, can admit his fault, is generous. It can be seen that both for the writer and for the reader who analyzes it, the idioms in the speech act are important for the further perfection of the work, its enrichment, and the achievement of the goal of opening the world of the hero.

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PRINCIPLES OF UZBEK DRAMATURGY FORMATION

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ABSTRACT

In this article, socio-cultural life, religious belief, literary-aesthetic and psychological factors that influenced the creation of drama are observed in the context of the overall literary process from the point of view of genre nature, specificity, and historicity, and are related to the genesis and theory of Uzbek written professional drama. It was studied by connecting the cultural and historical factors with the influence of national folklore and classical literature.

KEYWORDS: Drama, Myth, Folklore, Genesis, Religion, Theater, Mockery, Conflict, Syncretism, Oral Dramaturgy, Folk Theater, Lyric, Epic, Dastan, Debate, Ghazal, Written Dramaturgy.

INTRODUCTION

Even today's limitless scientific and technological capabilities cannot control the human psyche, feelings, and inner world. As long as humanity has existed, it has felt an insatiable spiritual need for power, and more specifically, for art, which aids in understanding and resolving moral and aesthetic issues that arise in life and in society.

One of the fundamentals of dramaturgy is to satisfy the same natural and eternal human needs, particularly the need for spectacle. To meet this need, the reader (spectator) should study works (plays) that had a strong spiritual impact on him not through templates or theoretical-educational programs, but by purifying his spiritual world and discovering his identity.

Izzat Sultan evaluates the unique aspects of literary genres as follows: "Life is like a raging river. The epic tries to cover this river to its full extent and beauty. Lyrika, on the other hand, looks at the slow and quiet places. Its rapid flow and most "sloping" parts are the image of the drama¹. It can be seen that crisis, adventure, festive, playful, fast and hasty passing time, and plot motifs based on random conflict are more characteristic of dramaturgy than epic and lyrical works. But that doesn't mean that drama is drastically different from other genres. Because dramatic works are similar to epic works in terms of the breadth of events. But it is reminiscent of a song in terms of the events being expressed only in the speech of the characters.

Before talking about the drama type of fiction, let's pay a little attention to the dictionary and terminological meanings of the word drama. Drama means "action" in Greek. The great Greek thinker Aristotle defines drama in the following way in "Poetics". "Drama itself is a movement, because it reflects people who act"². From such definitions, we are once again convinced that the drama legally belongs to the art of "spectacle", theater.

When we study the terminological meanings of the word drama in Uzbek literary studies through the works of "Dictionary of Literary Studies"³ and "Problems of Theoretical Poetics"^{4 5} by Uzok

Jurakulov, we see that in both of the above works, attention is paid to two main meanings of the term drama. we can 1) drama as a type (genre) of literature along with lyrical and epic types; 2) drama as one of the genres of drama along with tragedy and comedy.

Today, in addition to the above-mentioned main meanings of the word "drama," there are also spiritual aspects that we should pay attention to. We want to say that drama, as a type of theater art, has already become a drama theater, like Opera and Ballet and Puppet Theater. In the opera and ballet theater, music, visual arts, dance, vocals, dramaturgy, and their forms are integrated into the whole stage process, but music takes the lead among them. Puppet theater is a show of puppets, which are performed by actors-puppeteers hidden in a tent or behind a curtain. In the drama theater, people themselves are seen on the stage as a live bearer of people's life experiences, in which, first of all, the expressiveness of the speech and all the elements accompanying it are strengthened and filled directly by the image of a live actor.

From this, we can understand that the drama, created as a type of literature, takes into account the second birth when it is transferred to the stage, understanding it with a new term meaning and accepting it as a type of theater art, not as a form of literary type and genre. It is appropriate for us to do so. We should add one more thing, that in the following years, we got used to calling the unstable, violent, complicated, and tragic situations in human life as a dramatic reality phenomenon in ordinary language as drama. This aspect indicates that the next concept of the term drama has been formed.

Although each of the above definitions has its own characteristics and differences, there are still elements that connect them and require one another. Therefore, in studying dramaturgy, it is necessary not to lose sight of any feature of the concept of drama. Two aspects of dramaturgy in world literary studies: 1) literary criticism; 2) analytical study of theater art is considered as a key that reveals all the hidden aspects and inner possibilities of the drama. Due to the fact that dramatic works are written not only for viewing, but mainly for showing and demonstration, the characteristics of theater art should be taken into account. This means that in order to fully analyze the works, it is necessary to be aware of the rules of theater art. In this study, we will try to express our opinions by referring to the general characteristics of the aspects listed above in the process of describing and analyzing the current Uzbek dramaturgy.

In literary theory, there are views that the epic was formed first, then the lyric, and after them, the drama. So, the drama that appeared later was based on the spectacle, as we said above, that is, at first, the life experiences of primitive people that arose as a result of daily life needs such as hunting, cattle breeding, farming, and later the content of myths, legends, and narratives that they invented in different ways. began with their demonstration in a guided manner through imitative actions, movements, and words.

Literary critic U.Dzhurakulov in his research on drama genres says that drama and all three of its genres go back to the oldest stages of the literary-historical process from the point of view of genesis⁶, and that myth syncretism was the leader in the form and content of drama genres in these early stages, and religious rituals of these genres tried to study theoretically and practically what appeared and formed in connection with Based on the ideas of this study, we can say that mythology is not only the beginning of dramatic art in the culture of ancient Eastern and Western peoples but also its soil.

The same ideas were reflected in the history of Uzbek dramaturgy and theater art to a certain extent. Theatrical scholar Mamajon Rahmonov, in his work "History of Uzbek Theater," cites the following as the stages of development of Uzbek theater art and sources of influence:

- 1) The animal masks found in the ruins of the cities in our country and the images of people performing dance-like movements with their skins covered show that they are rituals performed in order to get a good harvest from hunting and farming;
- 2) Zoroastrian religion and their holy book "Avesta", the creation of myths, religious traditions and rituals such as imitation of mythological images, worship;
- 3) The conquest of Central Asia by Alexander the Great and the mixing of Greek culture with the way of life of the local population.

The theater expert connects the following etymological analysis with the formation of "mockery" theater under the influence of Hellenism and the connection of this term (mockery) with Greek theater systems.

"It is known from ancient manuscripts that until the 4th century BC, folk performances in Italy were called "maskara", "masxnera" and "masnera"⁷ in ancient Latin. "The "mock" theater, built on the basis of laughter and humor, was undoubtedly one of the cultural achievements of the peoples of Central Asia during their youth. Mamajon Rahmonov proved with his research that these processes are primitive forms of theater while awakening imaginations about theater, while literary critic Sh. Rizayev⁸ considers the forms listed above to be oral dramaturgy before the appearance of written examples in the modern literature of dramaturgy.

In Central Asia, by the time of the Turkish khanate, together with the prose form of literature, "Mashara" and "Mim" theaters, which were formed on the basis of folk epics and Greek traditions, as well as oral dramaturgy, which was considered an integral part of this theater, began to develop. But this progress continued after the introduction of Islam to our country. By the 8th-9th centuries, views on the traditions and forms of theater art changed. Because, according to their beliefs, the worship of animals and inanimate objects and the activities related to them as religious ceremonies were absolutely condemned. Concepts such as music, clowning based on laughter and drawing human portraits were recognized as practices that distance people from God and distract them from worship, and theater art, along with other types of art, was assessed as a period of decline.

Literary scholar Sh. In his work "Jadid Drama", Rizayev cites two main reasons for the crisis of "spectacle" art. "The rule of the new worldview and beliefs did not recognize this art. He did not lose it, nor did he create an opportunity for development. At the same time, the Persian-Tajik literature of those times, the Turkish literature, which entered the stage of development in the 10th century, came to give priority to enlightenment, science and manners, religion and beliefs over humor⁹. But in such historical-literary processes, we believe that the drama, which has not yet formed as a literary type or genre, has not suffered the same losses as the art of theater. Dramatic elements characteristic of clown and curiosity theaters, which differed from today's theaters only in the absence of a specific place and building, have survived for a long time in folklore genres such as seasonal and ceremonial songs, lof, anecdote, askiya, and folk games in the form of spectacles. As a result of the development of fiction literature, new forms such as eulogies, sermons, parables, short stories, and poetry with dramatic elements began to develop.

Drama theorists do not deny the existence of specific elements of drama in the genres of Uzbek classical literature, such as epics, ghazals, and discussions. Literary critic Uzok Dzhurakulov Alisher Navoi says that all complex situations in "Khamsa" are reflected in the medium of dramatic dialogue, and he proves his opinion with the famous dialogue between Khusrav and Farhad. It shows that the conflict between the hero and the hero, the environment and the hero, the character and the characters is manifested in a harmonious state when the dialogue acquires a dramatic essence. Also, although the ghazal genre seems to be built on the basis of monologic speech, it analyzes the meeting of several forms of dramatic dialogue on the example of Navoi's ghazals¹⁰.

The presence of important components that determine the essence of drama in the debate genre, which is built on the basis of dialogue between two people from head to toe, such as internal dramatic movement, conflicts and struggles that find artistic expression in the plot of the work only through words, and the presence of characters that develop as a result of intellectual conflict, make this genre a drama. It determines the relationship with our classic literature, dramatic communication processes in genres such as epics, ghazals, and debates are brought to the level of life and death issues for the heroes, whether something is achieved or not, it undoubtedly reminds us of dramatic poetry.

The Uzbek dramaturgy, which has been progressing in the history of our culture from the distant past to the beginning of the 20th century in an oral form, became the basis for the appearance of the first written drama only in 1911 with the writing of the play "Padarkush" by Mahmudhoja Behbudi. In addition, the formation of the Uzbek professional written dramaturgy, founded by the creators of Jadid, was influenced by the decline of the Islamic ideology, which has been an obstacle to the development of theater art for centuries as a result of the occupation of Central Asia by Russia, as well as the influence of enlightened Jadids in social and cultural life. Their choice of dramaturgy as the most effective way to promote their ideas led to the revolutionary development of drama, which is considered an important type of written literature.

The existence of about five hundred stage plays performed in folk theaters has been determined by theater scholars. These written and identified oral plays, folk comedies show that the repertoire of folk theater of their time was very diverse. Such a rich creative reality did not fail to influence jaded dramaturgy. The fact that a number of folk plays, such as "Rich and Labor", "Marriage", "Usury", "Doctor's Work", "Drunken Rich", "Old School Life"¹¹, served as the basis for modern dramas in terms of themes and titles. will not be overlooked by dramatists.

Another similarity that connects these two theaters is that clowns and curious actors perform the roles of playwrights, directors, and actors in the stage process. stages are visible. But there is a fundamental difference between these two literary processes. From the point of view of the purpose of performance, the ideological and aesthetic tasks of stage plays contradicted each other. Traditional folk theaters have educational plays dedicated to socio-economic, educational, and household problems, but in many cases, their performances are purely for entertainment purposes. Also, a large part of oral theater and dramaturgy was organized by repertoires based only on laughter in order to raise the mood of the audience. There is even a saying that Gafur Ghulam, in his short story "Noughty Boy", exposed the true purpose of clowns, curious people, and clowns, who aim to deceive people in the market and earn money under the pretext of acting, through characters like Kosa Maddoh and Rafiq the clown. Taking such aspects into account, we

can assume that oral theater and dramaturgy, which have been formed for many centuries, arose as a result of various ideological goals.

The Jadids, who enlightened, developed, and considered building a free society as the main goal of "opening the eyes" of the sluggish black people, saturate their dramas with these ideas. Modern dramaturgy with such serious goals must be different from the literary process of any time.

Turkestan jadids established close contact with Russian, Azerbaijani, and Crimean Tatar intellectuals and tried to implement their educational programs through dramaturgy and the press, which led to the growth of these fields in these years.

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APPLICATION OF PEDAGOGICAL TECHNOLOGIES IN THE PROCESS OF TEACHING CHEMICAL SCIENCES

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ABSTRACT

In our country, a number of projects are currently underway in the sector of education. The creation of a new interpretation of the Republic of Uzbekistan's law "on education" demonstrates that great attention is devoted to work in this field. The employment of pedagogical tools in the process of teaching Chemistry subjects improves teaching effectiveness. This essay will address the use of pedagogical tools in the process of teaching chemical sciences.

KEYWORDS: *Chemical Sciences, Process, Pedagogical Technology, Experiment, Application, Chemistry, Organic, Effective Methods.*

INTRODUCTION

In the process of teaching the subject of organic chemistry, oxygen-containing organic compounds, pedagogical technologies can be used to further raise the level of understanding of the students and increase their interest in the lesson.

When reading about organic compounds containing oxygen, it is feasible to use concepts from innovative technologies and essential assignments.

The correct use of each student's educational opportunity, the availability of questions and assignments based on their interests, all contribute to an increase in the students' level of knowledge in the subject.

The "analysis of concepts" method can also be used to repeat, consolidate, or determine the initial knowledge of pupils on a new topic, what concepts they have mastered, and what they have learnt from today's topic at the end of the class.

"Conceptual analysis" method This method aims to have students memorize all of the subjects of the subject or section mentioned (completed in a quarter or year), independently making their own comments on the concepts given by the teacher on any topic, thereby creating an opportunity for the teacher to check and evaluate their knowledge, and to evaluate all of the pupils in a short time.

The purpose of the method. To teach the students to master the subject mentioned in the lesson and to determine the degrees of assimilation of the basic concepts on the subject, to be able to freely describe their knowledge independently, to be able to evaluate their level of knowledge, to be able to work alone and in groups, to respect the opinion of their comrades, as well as to

Application of the method: it is intended to assess the degree of assimilation, repetition, reinforcement, or intermediate and final control of the subject mentioned in all types of training (at the start of the lesson, at the end of the lesson, or at the end of any section of science), as well as to check students' knowledge before beginning a lesson. This strategy can be organized during the training process or as part of the training in a single, small, and team-based setting. When assigning duties to the House, the approach can also be employed.

Tools used in training: hand-held materials, a list of base concepts, a pen (or pen), a slide.

The procedure for training:

- students are divided into groups (depending on the circumstances);
- students will be introduced to the requirements and rules laid down for training;
- distribution and didactic materials are distributed to group members;
- students will get acquainted with the concepts given in the distribution material on a single topic or a new topic;
- students write comments (individually) on the basis of the knowledge (or their own) that the distribution is next to the concepts given in the material on the subject (no matter how they understand the concepts given);
- the teacher reads the concepts given in the distribution material on the topic and together with the team determines the correct explanation for each concept or is introduced on the screen by a slide (if possible) where the explanation of each concept is given;
- each reader will be able to determine the difference in the answers determined by the correct answer, will have the necessary understanding, will check themselves, will evaluate, and will also strengthen their knowledge once again.

Below we give an example of distribution materials used on the basis of the method "concept analysis" in the teaching of the topic of organic matter with oxygen:

METHOD " ANALYSIS OF CONCEPTS"

№	Concepts	Meaning
1	What is said to be one-atomic saturated alcohols	Organic matter, in which the general formula is $C_nH_{2n+2}O$, contains one OH.
2		
3	Saturated alcohols with one atom interact with alkaline metals:	Saturated alcohols with one atom form alcohols with alkaline metals.
4		Saturated alcohols with one atom interact with alkaline metals, but do not react with alkalis.
5	Tell me the difference of multi-atomic alcohols with single-atomic saturated alcohols.	Since complex ethers have a pleasant aroma, they are mainly used in the food and snack industry.

The application of the keys-Stadi method of education in the study of various situations is an educational process aimed at organizing the study of ordinary situations taken from life or requiring educators to seek purposeful solutions to relevant problems based on artificially created situations. This method allows educators to diagnose the relevant life situation on the subject, to model their practical activities in the field of expressing hypotheses, identifying problems, collecting additional information, clarifying hypotheses and solving problems, as well as designing specific stages of their implementation. The use of keys dedicated to specific life situations connects the learning process with real life. When considering keys, the educators create the process of learning. In the same process, their real state of exchange of views arises in mutual action. Keys give educators the freedom to analyze, compare, and solve problems. The use of various innovative technologies in teaching topics of oxygen-containing organic compounds in the science of organic chemistry has increased the interest of students to the lesson.

It is recommended to give the following "keys assignments" on the topic.

Keys description: it is used in medicine as a disinfection agent and in thermometers for temperature measurement. This substance has a strong effect on the body. It leads to severe diseases, disrupting the work of the nervous system, digestive organs and cardiovascular system.

Keys assignment: how organic matter is talking about, draw the structure in a suitable way.

Keys description: these substances are used in the food and snack industry because they have a pleasant aroma. Again, they are used as an additive in the production of cool drinks, confetti and other food products. Some of their representatives are used as solvents in the preparation of varnishes.

Keys task: draw the structure of complex Ether in a suitable way.

Keys assignment by students is prepared on the basis of information. In the lesson it is possible to assess the knowledge of students on the basis of keys assignments, which are included in the problematic educational technologies. Kengaytiradi improve the students' knowledge about oxygen-containing organic substances and improve their imagination. Correctly write the formulas of gidroksil Gruppa, carboxyl Gruppa, efir Gruppa, through which they perfectly understand the chemical composition of oxygen-containing organic substances. The above educational technologies enable students to support their previously acquired knowledge and skills in new situations, acquire new knowledge, develop their independent and creative thinking skills.

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COMPARATIVE ANALYSIS OF THE MAIN CHEMICAL COMPOSITION OF ORGANIC POWDER OBTAINED FROM CARROT ROOTS GROWN IN EARLY AND LATE PERIODS

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ABSTRACT

The article describes the beneficial properties of carrot (Daucus carota) root for the human's health, the amount of macro and microelements, carbohydrates, total acids, methods and technology of their determination and the chemical composition of carrot varieties grown in different periods. In order to analyze the chemical composition of carrot roots, samples were taken from 4 different varieties grown in 2 periods, early and late periods, and compared. Physical properties of organic powder obtained from 4 different samples: transparency, degree of color, solubility in water were also compared. According to the results of the laboratory analysis, it was found that the amount of total acid and carbohydrates (6:9 in order) in the composition of the local variety of Red Mirzoi grown in the late period is more than other samples, and the amount of organic powder (98.5%) obtained is also more than other samples.

KEYWORDS: Carbohydrates, Total Acids, Bullet Blender, Transparency, Degree Of Color, Early And Late Periods, K13 Ph Meter.

INTRODUCTION

In recent years, consistent reforms have been implemented in the field of agricultural development, introduction of modern market mechanisms, development of a modern management system, and increase of export potential. In this regard, in the development strategy of the Republic of Uzbekistan for the development of agriculture for 2020-2030, a number of activities are planned in order to fundamentally reform the activities of scientific and research institutions in agriculture, improve their material and technical base, and support the development of knowledge, innovations and agro-services relations in the field based on world

experiencepriority tasks are defined.As a result, in order to increase the volume of fruit and vegetable production in the Republic, based on the soil and climate conditions of the regions, in 2019, 55 districts were fully specialized in fruit and vegetable cultivation.In 2022, a total of 422.3 thousand hectares, of which 49.9 thousand hectares were specialized for vegetable growing. As a result of reforms, in 2021-2022, the volume of vegetable products grown in agriculture was ensured to increase by 103%.[1].

A number of scientific research works on introduction of innovative technologies, including production and processing of products, are being carried out at the Namangan Institute of Engineering and Technology based on the tasks defined in this Decision and decrees.In particular, thanks to the technology of obtaining organic powder from root vegetables, carrots and beetroots and its application to the food industry, it is possible to increase the company's annual income by 2.5-3 times.Vegetable products and organic powder contain vitamins (A, B, C, PP), organic acids (folic acid, pantothenic acid, ascorbic acid), minerals, macro and microelements, including: Fe, Ca, K, Mg. important in increasing resistance to various diseases. [2;3].

In published and historical sources, it is acknowledged that carrot root is used in medicine for liver, kidney, gastrointestinal and anemia diseases, and in the pharmaceutical industry, the drug daukarin is obtained from its seeds, and it is used in the treatment of heart disease. [5].

Materials and methods

Today, one of the most urgent issues in the field is the preparation of organic powder from carrot root in the form of BAC in the food and confectionery industry, as well as in the processing and farm industry. For this purpose, in 2021-2022, Nam.I.T.I.scientific-research works were carried out. For preparation of organic powder in the form of biologically active substances from root vegetables, four different varieties of carrots grown in two different periods: early and late periods were used.

Among the main substances in natural products grown in the early and late periods, total carbohydrate and acid amounts were determined using a K13 Ph meter and a sugarmeter.According to the laboratory analysis, it was found that the total carbohydrate is 7.5%, the total acid is 6.2-6.5%, β -carotene is 15-30 mg% in the early varieties, and this indicator is 9%, 5.6% and 40-60 mg% (in order) in the late varieties.(Table 1, Fig. 1.) [6].

TABLE 1.CARROT VARIETIES GROWN IN DIFFERENT PERIODS CHEMICAL COMPOSITION

Carrot Varieties	total carbohydrate in the natural product	The difference from the standard ±	Including		total acid in the natural product	The difference from the standard ±	Including	
			sucrose	Fructose			B carotene mg%	Ascorbic acid mg%
Varieties grown in early periods								
shantane-2461 (standard)	7.5		5.0	2.5	6.2		12.5	5
Mushak-195	8.0	+0.5	5.5	2.5	6.5	+0.3	14.2	5.6

Red mirzoyi	8.0	+0.5	5.0	3.0	6.3	+0.1	30.6	7
Yellow mirzoyi	7.75	+0.75	4.75	3.0	6.3	+0.1	25.3	7
Varieties grown in late periods								
shantane-2461 (standard)	8.2		6	2.2	5.6		15	3.7
Mushak-195	9	+0.8	6	3	6.0	+0.4	25	4.5
Red mirzoyi	9	+0.8	6	3	5.91	+0.3	60	6
Yellow mirzoyi	8.75	+0.6	5.5	3.25	5.96	+0.3	40	6

Figure 1. Product view obtained for the cultivation of carrot root and preparation of organic powder



A



B



C

A- early season carrot crop B- type of Shantane

C- an organic powder sample from carrot roots

Results and discussions

To dry the product, 10 kg of product from each variant grown in early periods was taken and dried in a drying cabinet at a temperature of 70-75 °C for 4 hours, and a product dried to 11% was obtained. The dried product was grinded in a "Bullet blender" grinder to obtain 90% powder. According to the physical characteristics of the obtained powder, it was found that the color is light yellow and has a unique smell, it dissolves well in water, the level of clarity is 65-70%, and the color is 22%. It was found that this indicator is 13% dry compared to the varieties grown in the late period, and the degree of powder formation is 98.5%, which is 8.5% higher than the powder obtained from the early period. It was observed that the color of the obtained powder is pink, it has a specific smell, it dissolves well in water, the transparency of its solution in water is 75-78%, and its color is 27%. According to chemical analysis, the total acid content of 5.5-6% and 9% of carbohydrates was determined in carrot varieties grown in late periods. The main

reason for this is explained by the slowness of the photosynthesis process in the carrot plant grown in early spring, relatively low soil and temperature. (Table 2.) [7;8;9.]

TABLE 2. ORGANIC POWDER MADE FROM ROOT VEGETABLES CHEMICAL COMPOSITION

Carrot Varieties	total carbohydrate in the organic powder	The difference from the standard \pm	Including		total acid in the organic powder	The difference from the standard \pm
			Sucrose	Fructose		
Varieties grown in early periods						
shantane-2461 (standard)	12.0		9.0	3.0	5.7	
Mushak-195	13.5	+1.5	10.5	3.0	6.5	+1.2
Red mirzoyi	13.5	+1.5	11.0	2.5	6.0	+0.3
Yellow mirzoyi	13.1	+1.1	9.0	3.1	5.8	+0.1
Varieties grown in late periods						
shantane-2461 (standard)	14.0		10.0	4.0	6.0	
Mushak-195	14.2	+0.2	10.0	4.2	6.0	0
Red mirzoyi	15.4	+1.4	11.4	4.0	5.5	-0.5
Yellow mirzoyi	15.1	+1.1	11.1	4.0	5.5	-0.5

CONCLUSIONS AND RECOMMENDATIONS

Based on the preliminary results of the conducted research, the following conclusions were drawn:

It was found that the chemical composition of carrot varieties grown in late periods is 1.5-2% higher than those grown in early periods. It was determined that the amount of organic powder obtained, its chemical composition is 8.5% more than the powder of the previously grown product. It is recommended to use Red Mirzoi and Yellow Mirzoi varieties to prepare organic powder from carrot root.

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TRANSFORMATION OF ACCOUNTING OF MAIN MEANS IN WATER ENTERPRISES BASED ON INTERNATIONAL STANDARDS

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ABSTRACT

The article describes the procedures for adapting preliminary financial statements prepared on the basis of national accounting standards to international standards of financial statements, their model forms, procedures for making changes to financial statements, reflecting deviations and identifying differences, in particular, the theoretical and methodological aspects of procedures for transferring or adapting main means to international standards and the results of scientific research on improvement are highlighted.

KEYWORDS: *International Standards Of Financial Reporting, Transformation, 16-IAS “Main Means” Standard, Transformation Procedures, Procedures For Transforming Data On Main Means To International Standards.*

INTRODUCTION

In the conditions of globalization of the economy, Uzbekistan insists that the processes of adaptation of the accounting system to the IFRS are carried out at an accelerated pace. In this regard, a number of scientific and methodological studies are being carried out by the economists of our country. The main reasons for this are attracting foreign investors to economic sectors on a large scale, bringing in investments and modern technologies by them, only then, the expansion of the market for production of products, work and services in economic sectors, increase in quality levels, competitive products, work and services can be achieved. Nevertheless, it can be seen that there is not enough development in this direction at the moment.

Our practice research shows that one of the tasks that are currently considered relevant is the lack of formation of a team of specialists who carry out work as a separate apparatus in the management system of enterprises in order to adapt financial statements to IFRS. For this purpose, in particular, in accordance with the IFRS, it is advisable to develop scientific proposals and practical recommendations for the implementation of adaptation of the accounting of main means to the IFRS.

Literature Review

In cases of transition from NAS to IFRS or its adaptation, the issues of transformation of financial statements to IFRS are considered one of the main links, in which it is important to reliably and correctly transfer financial statements, that is, to make transformation, mainly in order to adapt financial statements to IFRS. Therefore, first of all, it is necessary to pay attention to the term "Transformation" itself and its meaning, and below we found it permissible to cite the analysis of the private opinions of a number of economists in this regard [1].

A.B.Bogopolsky defines it as follows: "Transformation is all the adjustments necessary to transfer financial statements prepared in accordance with national accounting standards to the IFRS format, which are carried out on the reporting date and take into account the relevant principles of recognition, measurement and disclosure of all elements of financial statements procedure that includes" [2].

We support this view, the definition emphasizes the need for reporting changes, periodic features and adjustments, but this term is not only a method of making adjustments to financial statements and thereby determining financial performance.

According to M.A. Bulatov, "Transformation is the correction of accounting reports, that is, the reflection of the financial report in the accounts through correcting entries." [3].

This definition provides a method for transferring reporting data to another reporting format, but the inclusion of adjusting accounting entries is not considered a primary issue.

T.Yu. Drujilovskaya put forward the opinion that "Transformation is a method of preparation of reporting data of the organization in accordance with the accounting standards, which differ from the standards by which the financial report was originally prepared." [4].

Considering T.Yu.Druzhilovskaya's opinions as universal, we believe that it is inappropriate to consider this as a way of making changes to the report data.

According to R.G.Kaspina, "Transformation is a set of actions performed in a certain sequence to transform financial statements into financial statements that comply with the principles of IFRS." [5].

His comments are general, meaning that the definition states that the main objective is to make changes to the financial statements. At the same time, the actions that would allow to change the financial statements were not mentioned.

According to I.P.Kumaritov and S.V.Moderov, "Transformation is the process of preparing reports in accordance with the International Financial Reporting Standards for a certain date by making corrections to the financial reporting objects in order to comply with the requirements of international standards." [6].

In this definition, the source and Target Systems of IFRS are strictly defined, and it should be noted that the issues of making changes to the report are not limited through their systems established by certain standards.

The definition given by T.G.Sheshukova and S.V.Ponomareva is as follows, "Transformation is the regrouping of reporting data in order to adapt the indicators in the report to International Financial Reporting Standards." [7].

This definition states that the report needs to be changed, but the transformation or implementation mechanism is not disclosed, because transformation is not limited to regrouping the report data, but requires a number of other corrections and actions.

In our opinion, the procedures and actions for conducting financial statements compiled in accordance with the national standards of transformational accounting are calculated based on IFRS requirements, to analyze the deviations identified in the preliminary financial statements compiled according to the IFRS in accordance with the requirements of the IFRS and make changes to the report to eliminate them. This definition is based on the fact that the analytical actions carried out in the processes of making changes to financial statements are considered necessary and clarify the essence of financial indicators, since the technique of performing the transformation and the amount of adjustments, as well as making changes, depend on its results. The initial structured financial statements on the NAS serve as the basis for the subsequent correction or modification of the data.

Research methodology

In the preparation of the article, procedures and problems of adapting the accounting system to international standards of financial statements and transformation of financial statements, in particular, transformation of data on main means to international standards, were scientifically researched. Comparative comparison, induction, deduction, comparison and systematic analysis methods were used in the research.

Analysis and results

It is necessary to reclassify the account of main means and make corrections according to relevant items, to accurately determine the balance of existing main means. In general, sufficient information on the correspondence of accounts such as 0100-"Main means", 0200-"Depreciation of main means", 0300-"Leased main means, 0700-"Fixed equipment" and 0800-"Capital investments" should be provided to IFRS. In addition, advances made for the purchase of long-term means may be included in capital investments for the purposes of IFRS reporting. If such advances are made in foreign currency, their revaluation for NAS reporting may be reversed during transformation, as they are recognized as non-current means and their value may not be revalued.

As in NAS, a sub-account named "Unfinished construction" can be opened in IFRS, this sub-account is accounted for in NAS under sub-account 0810-"Unfinished construction". The "Construction in progress" account reflects only the costs related to acquisition and construction. In this regard, turnovers and balances in the account 0810-"Construction in progress" require analytical procedures for their validity and applicability for reporting on the IFRS. Of course, it is necessary to analyze other accounts, but the subaccount 0810-"Construction in progress" can be corrected during the transformation.

At the beginning of the transformation, when the list of account balances is obtained, it is necessary to control the detailed distribution of accounts in order to analyze them in detail. If there is a fully automated analytical account in obtaining such information, most of the information can be obtained from the accounting software.

First of all, the analysis begins with the report on the balance of means in the account, and the division by object allows to determine the difference between the balance of analytical accounts and the balance of synthetic accounts, the negative value of main means or the debit balance on

amortization, and this indicates violations in the methodology of accounting for main means. If there are violations, it is possible to determine the reasons for their occurrence and make appropriate corrections to the accounting information.

At the next stage, compliance with the criteria for recognition of means in the balance sheet is analyzed. In most cases, if non-core means exist, their use is not expected to generate future economic benefits. They include social objects (kindergartens, parks, etc.), non-financial means (honor plaques, busts and statues, etc.). Such main means, if they were purchased during the reporting period, are charged to the expenses of the period, if they were purchased a long time ago, they are deducted from the retained earnings account.

After the analysis of the account balances is completed, the process of making changes is carried out in accordance with the IFRS. First, balance sheet items are reclassified according to their economic content. Then, according to NAS calculations, they are closed and divided into categories according to IFRS and are carried out by calculations in special transformation tables.

In order to calculate the value of main means in accordance with IFRS, additional information is required in addition to the objects and depreciation of main means, the distribution of each object according to the initial cost before revaluation, depreciation rates, remaining useful lives, uncollectible tax amounts written off as expenses, etc.

Information on the arrival and additional equipment of main means during the reporting period is filled in separately, indicating the date of liquidation of main means and accumulated depreciation values.

If main means are revalued during the transformation to IFRS, then in addition to the information listed for each object, it is necessary to indicate their fair value at the time of transformation and remaining useful lives. This cost is an initial operation for the purposes of IFRS, and if the main means are not revalued, their value will differ from the value determined according to NAS.

Main means are objects of balance, which must be taken into account in terms of their historical values that exist at the time of purchase. Regardless of the currency in which IFRS reports are presented, the historical values of the main means differ from the financial statements in the NAS. If the report is drawn up in sums, then the recalculation of the value of main means, taking into account the impact of inflation, is one of the necessary elements for the transformation of IFRS.

As for the information on NAS, such tables can be made on the basis of the balance sheet, but it should not be remembered that the turnover of the period may be overestimated due to the internal turnover of main means accounts, therefore, the debit turnover of the account 0100- "Main means" is based on the initial period of main means does not mean that it will fall, and the credit turnover does not mean that it will completely disappear. The indicators obtained from the tables should be adjusted according to analytical accounting data, so that the debit turnover reflects the increase in the value of main means during the period, and the credit turnover reflects its decrease. These circumstances are also the basis for depreciation of main means. On the contrary, comparing them with each other will give wrong results.

The initial value of main means is determined based on NAS No. 16 "Main means". It is very similar to our national standard. The difference is that costs such as liquidation losses of the main means are also added to the original cost of the main means.

There are 2 different models for determining the current value of a main means in accordance with the standard of NAS No. 16 "Main means":

1. Initial value model.

After recognition as a device (means), the property, plant and equipment should be carried at cost less accumulated depreciation and accumulated impairment losses.

2. Re-evaluation model.

Once recognized as a device (means), an item of property, plant and equipment whose fair value can be reliably measured shall be carried at a revalued amount that reflects the fair value at the date of revaluation, less subsequent accumulated depreciation and impairment losses. At the end of the reporting period, revaluation of the balance sheet value should be carried out regularly enough so that it does not differ significantly from its true value.

If the device (means) is accounted for under the revaluation model, the following applies:

- it is necessary to constantly carry out periodic reassessments,
- maintain a consistent policy for each class of means;
- the revalued device should be amortized over the remaining useful life with a decrease in residual value.

Before the transformation of main means according to IFRS, it is necessary to indicate how the accounting of main means is taken into account in the accounting policy of the enterprise according to IFRS.

TABLE 1. PROPOSED TRANSFORMATION PROCEDURE FOR THE ACCOUNT OF MAIN MEANS¹

№	Name of the main means	2019 y. NAS	Correction 2019 y.	2019 й. IFRS	2020 y. Б NAS	Correction 2020 й.	2020 y. IFRS	2021 y. NAS	Correction 2021 y.	2021 y. by NAS
1	2	3	4	5	6	7	8	9	10	11
0120	Building									
0130	Machinery and equipment									
0140	Furniture and furnishings									
0150	Computer and computing techniques									
0160	Vehicles									
0190	Other basic means									
0220	Bin's depreciation									
0230	Depreciation of machinery and equipment									
0240	Depreciation of furniture and furnishings									
0250	Depreciation of computer and computing equipment									

0260	Depreciation of vehicles									
0290	Depreciation of other main means									

If the company applies the IFRS for the first time, they will have to transform their 3-year financial statements. Procedures for transformation of main means to IFRS are given in the table 1 and it is advisable to implement based on this table.

Column 1 – number in the NAS chart of accounts;

Column 2 – grouping of the main vehicle;

Column 3 – the amount of the main device under NAS for the 1st year;

Column 4 – the amount to be adjusted for the 1st year;

Column 5 – the value of the main means according to IFRS for the 1st year;

Column 6 – the amount of the principal under NAS for the 2nd year;

Column 7 – the amount to be adjusted for the 2nd year;

Column 8 – the value of the main means according to the IFRS for the 2nd year;

Column 9 – the amount of the principal under NAS for the 3rd year;

Column 10 – the amount to be adjusted for the 3rd year;

Column 11 – the value of the main means according to the IFRS for the 3rd year.

By adding columns 12-13-14, it is possible to enter designations according to IFRS. Table 2 is filled in according to the data of Table 1.

TABLE 2. RECOMMENDED TRANSFORMATION PROCEDURE²

Account number	Account name	2019 NAS	Correction for 2019	2019 IFRS
1	2	3	4	5
0120				
0130				
...				
...				

Based on the information of Table 1 above, Form-1 Financial Statement of Financial Status is filled out. In order to find the columns in columns 4-7-9 in this table, the enterprise must have information from the following tables. The information in this table can be used when using the initial value model of determining the current value of main means. If the enterprise only uses the main means revaluation model, it is necessary to find the market value of the main means in accordance with the IFRS No. 13 entitled "Fair Value".

TABLE 3. THE PROCEDURE FOR TRANSFORMATION OF THE MAIN MEANS OF THE UNITARY ENTERPRISE "OXANGARON HYDROELECTRIC POWER STATION" TO IFRS FOR 2019-2021³

Indicator name	Code	01.01.19	31.12.19	01.01.20	31.12.20	01.01.21	31.12.21
1	2	3	4	5	6	7	8
Means							
I. Long-term means							
Basic means:							
Initial (recovery) value (0100, 0300)	010	68076291	68088290	73908170	73908170	73908170	93611487
Depreciation amount (0200)	011	10478062	15042229	16300994	20511423	20511423	26633881
Balance (balance) value (row. 010 - 011)	012	57598229	53046061	57607176	53396747	53396747	66977606
Mounting equipment (0700)	090						
Capital investments (0800)	100						

We consider it is appropriate to present the economic processes associated with main means at the time when the economic entity presents financial statements to consumers on the basis of IFRS in the form of the following table.

CONCLUSIONS AND SUGGESTIONS

Business entities must use the following standards to transform the account of main means in accordance with the IFRS:

1. NAS No. 16 "Main means";
2. IFRS No. 5 "Long-term means held for sale and discontinued operations";
3. NAS No. 41 "Agriculture";
4. NAS No. 40 "Investment real estate";
5. NAS No. 36 "Impairment of Means";
6. IFRS No. 13 "Fair Value";
7. NAS No. 20 "Subsidy"
8. NAS No. 23 "Expenses on loans";
9. NAS No. 8 "Accounting policy, changes in accounting estimates and errors".

Due to the high inflation rate of money in the economy of our country, the value of means that are not adapted to current purchasing power may not give rise to a reliable idea of their real value. Therefore, it is necessary to adjust the actual values of main means and the accumulated depreciation values to the inflation rate based on the purchase value and the same date.

By multiplying the historical value at the time of acquisition of the main means by the cumulative inflation index, its historical values in current currency units are obtained. It should be noted that it is difficult to simply find the inflation index at the date of purchase. Therefore, it is observed that the value of main means, which were previously purchased cheaply, increases hundreds of times when they are re-evaluated. The values of main means can be compared with the current values of similar means and, if necessary, adjustments can be made to ensure that it is not overstated. The useful life of main means is reasonably reassessed and, if necessary, adjustments are made for the remaining depreciation period to correspond to the period when these main means bring economic benefits to the enterprise.

In addition, main means are divided into groups according to the classifications adopted by the NAS and the enterprise, for example, land, building, structure, vehicles, etc., which means that information on general groups is summed up and collected in the general table, which reflects the initial values and calculated depreciation values at the beginning and the end of the period.

To give rise to the historical values of main means, it is necessary, first of all, to be carried out by comparing the data of NAS and IFRS. To do this, we recommend drawing up tables on the actions of main means, reflecting the values of main means at the beginning of the period, receipts, write-offs, values at the end of the period, accumulated depreciation values at the beginning of the period.

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ABDULLA ORIPOV'S SKILL OF CREATING A POETIC LANDSCAPE

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ABSTRACT

This article examines the skill of creating a poetic landscape of the Hero of Uzbekistan, a highly talented Abdulla Oripov. His poems dedicated to homeland and natural scenes are analyzed. Through the analysis of the poems "Uchqun", "Yulduzlar", "Ona sayyora", the poet's ability to create a poetic landscape was studied. It is justified that the artist expresses big philosophical ideas in simple nature images, describes natural scenes depending on the human psyche.

KEYWORDS: *Mother Nature, Landscape, Artistic Detail, Landscape, Psychological Detail.*

INTRODUCTION

It is known to all of us that thousands of books written by our ancestors since the beginning of mankind are dedicated to mother nature and its beautiful description. We use the word "poet" for people who put these beauties on paper and share them with others, who share their own and people's pains with others in an artistic way. Sometimes we don't even think about how much responsibility and heavy burden lies behind this word. Not all claimants to poetry can bear this burden. Because the poet is the language of the people that can openly express the pain of the people even when they are all silent, a sharpened sword against the unruly, and a bird of paradise that glorifies the country and the people. Therefore, artists who have achieved popular recognition will gain prestige. Yusuf Khos Hajib, Ahmad Yugnaki, Navoi, Babur, and Abdulla Oripov have their place at the head of this happy caravan leading to the future.

Every artistic detail in Abdulla Oripov's work is connected to the sacred concept of Motherland. After all, "According to their nature and functions, artistic details can be divided into several groups. First of all, it is appropriate to divide them into two groups, such as external (material) and internal (spiritual). External details, as the name suggests, include the external aspects of a person, such as his appearance, material life, living conditions, things that surround him and interact with him. Exterior detail, in turn, can be divided into components such as portrait, landscape, and object. Mental (psychological) details serve to describe aspects of the image's inner world consisting of thoughts, feelings, desires, dreams, joys and sorrows"¹ In the poem "Uchqun" written by the poet when he was just 17 years old, "Sometimes I spend silent nights in the river of imagination, I wake up.//Sometimes I spend hours perplexing over a silly sentence." In the verses, he looks deeply into existence with the eyes of a teenager and sees his future in creation:

If my poems are like a waterfall,

It's like a flame when oil spreads.

Like a faithful son

If he serves, to the Motherland.

But the poet is not yet ready for this, there is still time for his poems to be like a waterfall, to flow into many hearts. As he himself admitted, There is still a lot to say, yet // My thoughts are scattered - without feelings...// How many more nights // I have to spend sleepless...

When we read the poet's poems created in this period, the image of a young man with bright eyes looking to the future rises before our eyes. He flies on the wings of his innocent dreams, and even sees his dreams in every state of nature. In the poem "Yulduzlar" written in 1958, the poet describes the harmony of spirituality and reality as follows:

Cheerleaders who leave a trail of silk,

They almost chase and bite each other.

Silver beds of heavenly beauties

He calls to his bosom, dawn is near...

While reading the lines, we consciously feel the image of the following scene: the morning is near, the stars are chasing each other in this part of the sky, the ruby lights are fixed on the huge blanket covering the ground - the silver bed where the beauties of the sky are dimmed and gradually begin to shine on the horizon. takes the road. Stunned by such beauty, the poet cannot contain his feelings and wraps his dreams in feelings related to his motherland:

I say: if I am the crescent of the heavens,

I want to be Hulkar and Zuhro.

If I grow up in this beautiful country,

I want to laugh like bright stars.

In the next lines of the poem, the image of the heart, amazed by the beauty of nature, is supported by rhetorical appeals and similes in fiction:

Stars, oh space, pure beauty!

You are like silver dew on evening flowers.

I will fly with you one day,

It's like arguing in the sky.

The poet considers himself an integral part of the Motherland, beautiful nature. Therefore, in his poems, he refers to things in nature and tells his secrets. This situation is evident in the poem "Tog'lar" written in the same year:

Oh, you mountains, charming mountains,

You charmed my young heart.

Youth, sing of happiness,

You inspired my creativity.

The poet remembers the natural scenes that inspired him with strong longing in his memories: "When spring comes, the air is filled with the pleasant, fragrant smell of grass, and when it rains

heavily, we hide in the small caves on the mountainside. “I often looked at the vast expanses of green to the north from that height, and breathed deeply. At that time, the hills were covered with a thousand different grasses, chuchmoma and saffron, with carragu hazoriisfand, with lambs...”² The power that inspires the poet’s creativity is that he enjoyed the beauty of nature as a child and was able to put it on paper. As the poet gets older, he remembers them a lot. He regrets that he can’t get the same impressions from nature scenes as he did in his childhood: “Hey, my childhood years! Where did his magic and big eyes full of wonder remain? The stars were not stars, they were a spectacle of heaven! The first rays of the sun rising through the mountains seemed to play with us, and the rays of the setting sun made our grandfather’s face redden. In the long and cold winter nights, the stable was warmed by the breath of cattle, and we children gathered around some eloquent uncle and listened to fairy tales in the dim candlelight. There is a wolf, a fox and a lion in the fairy tale. The princess turned into a frog and the lion turned into a boy. They became dear to us. Especially the fox. This satang, or the creature, sometimes turned into a tawiya, sometimes a parivash. Remember his pleasures... The morning dawns, the earth turns green, the gardens bloom and harvest, apricots and apples ripen:

From the delicacy of the apple

It looks like a grain.

Dew has settled on a leaf,

I am his lover.

Does not the owner of the apple’s seeds inside become crazy when he looks at the dew that has landed on its leaf? Where are those miracles, where are the rules, those injuries and pure dreams...”³

In the poem “Cho‘pon” it becomes clear that the unique scenes of nature are the source of the poet’s creativity:

It’s like a guard

Your grandfather is near your residence.

The morning that loves you and welcomes you

Light shines on your perspective.

In the poem “Kapalak va men” he pretends to be a butterfly:

You are already wandering around endlessly

Let’s have a lot of fun.

Then we shared

These lines touched me.

The poet does not hide his admiration for the beauty of nature. He expands the scope of the concept of Motherland in the poem “Ona sayyora”. For him, not only the place where he was born and grew up, but the whole planet earth becomes his Motherland. He writes:

In front of me is the image of the earth,

Salmogi Kuva has pomegranate.

Tim shines in the black sky,
This little planet is beautiful and majestic.
I look at him and grab his collar
What if what I saw is true?
Isn't our husband a little boy?!
Why don't we just go for it!
Oman is a seemingly young example.
Even the mountains that do not reach the seed.
Continents, seas once a week,
It's all down to one point.

This poem was written in 1969, and the universal ideas that were considered leading in poetry at that time also influenced the poet's work. Therefore, he, like other contemporaries, looks at reality from above:

Air is not magic, no
I took care of him with the love of a child.
Count whether it is day or night
I used to write poetry for you.
Today I pressed my lips to your picture without words,
Is it you, lonely, is it you. mother...
You are alone in the sky, wondering
Why are you so lonely?
Your child clinging to your chest is a human being.
Like an orphan in a widow's lap...
Where are you going in such a hurry?
Do you want rest in the blue?
Maybe holding your child to your chest
you're crying, mother planet...

In poetry, it is important to express the attitude of the author to the leading image in his work and to the situation described through this poetic image. Abdulla Oripov chooses suitable words and allusions to reveal the poetic psyche, and in the process of depicting nature, he also absorbs his own situation into their content.

To sum up, expressing big philosophical ideas in simple images, depicting natural scenes depending on the human psyche, using poetic and solemn forms of expression that serve to form the aesthetic thinking of the reader are the unique aspects of Abdulla Oripov's style.

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CLINIC AND DIAGNOSTICS OF IRON DEFICIENCY ANEMIA IN ADOLESCENT GIRLS

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ABSTRACT

This article is devoted to the clinic and diagnosis of iron-deficiency anemia in adolescent schoolgirls, the problems that arise in them and the measures to eliminate them. Most of the analyzed symptoms in girls with YTT and TTK were clearly expressed and the main ones were combined together. The total amount of hemoglobin and erythrocytes, hematocrit, reticulocyte formula, average amount and concentration of hemoglobin in erythrocytes were determined.

KEYWORDS: *Blood, Anemic Syndrome, Erythron Parameters, Iron Deficiency, Schoolgirls.*

INTRODUCTION

Significance of the article: Adolescence or puberty is considered one of the critical periods of ontogenesis. By this period, rapid growth and rapid development of the body increase the demand for the blood-forming system.

According to E.M. Mosyagina, the need for iron in teenagers is 2 times higher than that of adults. In such conditions, the lack of complete and uniform nutrition or the influence of other unfavorable factors quickly leads to a decrease in the amount of hemoglobin and a state of iron deficiency (Otaniyozov O.A., 2011).

Currently, 2 types of iron deficiency are recognized: iron deficiency anemia (IDA) and hidden iron deficiency (IAD).

The purpose of the work: to study the clinical semiotics of iron deficiency anemia in adolescent girls living in rural areas of Bukhara region.

Materials and methods of investigation: Clinical semiotics of the disease was studied by the questionnaire method among students of 9-10th grade. The questionnaire consisted of 36 questions on the clinical semiotics of illness. Questionnaires were distributed to 270 female students of Bukhara, Peshku, Shafirkon and Vobkent districts.

Obtained results: Anemic syndrome was observed in 144 (60.5%) girls based on the results of questionnaire analysis and peripheral erythron parameters, iron deficiency was noted in 86 (59.7%) girls based on the results of iron metabolism analysis. Of these, YaTT 62 (72.1%), TTK-24 (27.9%). During our inspections, 64.5% of schoolgirls with SEN had average physical

development, 25% below average and 9.6% above average. 60.1% TTK corresponds to the age of physical development in the observed students. The complete clinical semiotics of YTT and TTK is presented in Table 1.

Clinical semiotics of YATT and TTK in adolescent girls

Symptoms	YTT (n=62)		TTK (n=24)		
	n	M+m	n	M+m	p
Headache	16	25,8+3,4	8	33,3+4,2	
Dizziness	15	24,1+3,1	6	25,0+3,8	
Fatigue and fatigue	48	77,4+6,3	20	83,3+4,9	
Feeling sick in a stuffy room					
Decreased appetite	7	11,2+2,8	4	16,5+3,9	
Paleness of the skin and mucous membranes (pallor) Changes in taste	10	16,1+3,4	5	20,8+4,2	
Dry skin	34	54,8+6,7	17	70,8+7,3	
Hair loss	5	8,1+1,0	7	29,1+4,1	
Koilonychia	13	20,9+3,7	8	33,3+3,6	
Panting on physical exertion	18	29,0+1,9	7	29,2+2,6	
	27	43,5+4,2	14	58,3+5,3	
	25	40,3+3,8	11	45,8+4,2	

As can be seen from the table, all the clinical symptoms in schoolchildren diagnosed with CKD were found in those with CKD. It can be seen that many of the noted symptoms were also found in healthy girls with different frequencies and it was admitted that the main symptoms were added.

In TTC, Pica Chilrotica increased taste and smell (liking the smell of kerosene, gasoline, acetone, naphthalene), soil, toothpaste, and eating dry tea 3-6 times more often. Examination reveals dryness of the skin, hair and nails, dysphagia, stomatitis, smoothing of the tongue papillae, and in some, a bluish color in the sclera of the eye.

Most of the analyzed symptoms in girls with YTT and TTK were clearly expressed and the main ones were combined together. It was found that 3-4 of the epithelial symptoms were present in 39.5% of the children in the YTT, and only in 18.4% of the children in the group of healthy children. It was found that the changes in the skin, hair and nails accompanied by changes in the sense of taste were clearly expressed in the children with YTT and TTC (20.9% and 33.3%) compared to the group of healthy children (6.5%).

The combination of taste changes and anorexia is a manifestation of iron deficiency (21.5% and 16.4%) much higher than the group of healthy children (14.1%). Manifest and combined asthenovegetative disorders (combination of 2-3 or more symptoms) were found in children with YTT and TTK. In all variants of hyposiderosis, compared to healthy children, susceptibility to the disease has a high level of importance in children. More than 40% of girls (out of 270) reported feeling worse in rooms with heavy air (bus, bathroom).

When these girls are studied individually, it turns out that in narrow, stuffy rooms, i.e. classrooms, bathrooms, buses, short-term cases of fainting occur, and sometimes (in 10.5% of cases) girls feel bad about themselves for no reason, and these parents it was determined that it

always caused concern. Researchers attribute the frequent occurrence of fainting in children with paroxysms associated with increased sensitivity and low partial pressure of oxygen even at rest.

We focused on the onset, duration and period of menstruation in schoolgirls with iron deficiency. The identified data are as follows: the average age of the onset of menarche is 13 years, the duration of 6 months is 5 days in 77.9% of girls, 6-7 days in 21.9% of girls, it should be noted that in 75.5% of cases, the average duration of menstruation in girls with TTC is 6-7 days and full details are given in Table 2.

The beginning of menstruation in YTT and TTK

Character of menstruation	Healthy(n=94)		YTT(n=62)		TTK(n=24)	
	Abs	%	abs	%	Abs	%
1. Beginning						
13 years old	55	58,5	44	70,9	15	62,5
14 years old	23	24,4	14	22,5	4	16,6
15 years old	8	8,5	5	8	2	8,3
16 years old	2	2,1	-	-	1	4,1
2. Periodicity						
Every 3 weeks	4	4,2	24	38,7	13	54,1
Every 4 weeks	64	68	37	60	6	25
More than 4 weeks	20	20	1	1,6	3	12,5
3. Menstrual period -						
painful	27	28,7	38	61,2	11	45,8
-painless	61	64,9	22	35,5	13	54,2
4. Duration						
2-3 days	24	25,5	18	29,1	4	16,7
4-5 days	62	66	38	61,3	5	20,8
6-7 days	2	2,1	4	6,4	15	62,5
5. No menstruation	6	6,4	2	3,2	-	-

The period of onset of menstruation is 13 years and 6 months, it was found that the menstrual process is disturbed mainly in the YTT and TTK, that is, the periodicity and duration are disturbed. We believe that menstruating girls with heavy blood loss need iron supplements. It is not possible to satisfy the body's extiogen with microelements that fall with food products and are absorbed into the body from menstrual blood losses that last more than 4 days and go with the separation of clots. In such cases, it is necessary to take iron preparations for 10 days after each menstruation.

In order to confirm the diagnosis of iron deficiency, 238 schoolgirls were examined by the method of direct selection, 94 of them were healthy, 62 were diagnosed with CKD, and 24 were diagnosed with CKD. The total amount of hemoglobin and erythrocytes, hematocrit, reticulocyte formula, average amount and concentration of hemoglobin in erythrocytes were determined. In order to determine the level of starvation of the serum, as well as determining the level of saturation of iron and transferrin in the blood, indicators of the total iron-binding capacity of the serum were determined. And this last indicator in healthy schoolgirls ranges from 38 to 68.8 $\mu\text{mol/l}$, and the iron saturation level of transferrin is 17-26%.

CONCLUSION:

1. With the help of a questionnaire test-questionnaire, it helps to accurately assess the clinical semiotics of iron deficiency in a quick and short time.
2. Based on the results of a special questionnaire and red blood cell indicators, the clinical features of latent and manifest forms of iron deficiency in adolescent girls living in rural conditions are studied.
3. Objective examinations of peripheral erythron indicators revealed anemic syndrome in 60.5% of girls and iron deficiency in 59.7% based on the results of iron metabolism analysis.
4. Despite the fact that a constant diet consisting mainly of carbohydrates and fats fully covers the caloric deficit, it can cause iron deficiency anemia in children, adolescents with a lot of blood loss, and pregnant women, a particularly dangerous group.

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INTEGRATION OF ENGINEERING GRAPHICS AND DESIGN SCIENCE IN A COMPARATIVE DESCRIPTION OF METHODOLOGICAL APPROACHES

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ABSTRACT

This article provides a comparative description of methodological approaches to improving the effectiveness of teaching engineering graphics and design sciences, developing students' knowledge, skills and competencies, and integrating the content of the foundations of related sciences. It highlights the implementation of engineering graphics and design sciences as an integrative system, a comprehensive (comprehensive) view of the means of holistic and transformative teaching of engineering graphics and design sciences.

KEYWORDS: *Engineering Graphics, Design, Morphology, Modern Educational Technologies, Method, Method, Education, Upbringing, Technology, Concept, Skill, Art, Form, Project, Completion, Whole, Whole, Knowledge, Skill, Competence, Action Strategy, New Uzbekistan, Development Strategy, System, Complex Integration, Component, Structure, Function, Stage, State, Dependence.*

INTRODUCTION

The world's leading research institutions are responsible for determining the objective grounds, factors and classification of pedagogical integration, determining its morphological and instrumental-methodological appearance, developing means of technological support for pedagogical integration, characteristics of domestic and modern interactive educational methods and technologies. external factors of various alternative approaches to learning and internal factors are studied. The results of this scientific research serve to increase the effectiveness of the introduction of modern pedagogical technologies in the educational process, to ensure the quality of education.

The consistent reforms being carried out in our country to modernize the education system, create a new generation of textbooks, strengthen the material and technical base of educational institutions, equipping with modern equipment, technical means, computers, and supporting teachers expand the possibilities for the effective use of modern educational technologies in teaching.

The national basis of pedagogical technology is information about the forms and methods of implementing educational experience in different historical periods, the content and various pedagogical theories, which are the basis for the emergence of modern pedagogical technologies. Modern pedagogical technologies appeared and improved on the basis of teaching methods and

techniques carried out in different periods, folk pedagogy and the thoughts of thinkers about education.

The introduction of modern pedagogical technologies in the educational process and the achievement of its effectiveness has become an urgent need. It is known that the word "technology" is derived from the ancient Greek word "techne" - skill, art and "logos" - concept, education. The concept of "educational technology" (translated from English "educational technology") means that information is collected related to the organization of the educational process at a high level of skill and art. Pedagogical technology is a theoretically substantiated form, methods and methods of training and education, allowing to realize pre-developed educational goals and objectives. The main problem of pedagogical technology is the choice of those organizational forms, methods and methods of education that are focused on achieving specific goals. The requirements for increasing the efficiency of education give positive results when integrating modern pedagogical technologies with modern technologies.

It is known that the term "integration", although new in name, is quite historical in meaning. First of all, this is important in the Universe, in society, in life, in life and production, in education, or rather, integration from the microcosm into the macrocosm. Thus, integration has broad implications both historically and today. That is why the essence of the process of integration in education, its role in all spheres of life is comprehensively studied by scientists from developed countries.

According to dictionaries, the word "integration" comes from the Latin word "integratio", which means reconstruction, restoration, filling ("integre" means complete, whole, whole. Also in other dictionaries, "integration" means interconnected development, "integration" means to combine in a single whole, to form a single whole, in field dictionaries is interpreted as "integration" - to combine the goals and factors of education into a single whole.

The current work on the creation of additional scientific and popular literature for use in the educational process and independent learning activities, increasing the ability of students to think creatively, identifying and implementing new approaches to the formation of engineering, graphic and design competencies is highlighted.

On a global scale, research is being carried out to improve the effectiveness of teaching engineering graphics and design sciences, to develop the knowledge, skills and abilities of students, to integrate the content of the basics of related sciences. This, in turn, allows students to use the knowledge and skills they have received from engineering graphics and design sciences in designing, to understand the essence, to understand, to realize their educational and educational goals.

At the same time, there is a need to improve the content of the methodological support of engineering graphics and design sciences, to integrate existing concepts into them. In the action strategy for the further development of the Republic of Uzbekistan, priority is given to "improving the curricula and programs of higher educational institutions based on the requirements of the global education system" and by decree of the President of the Republic of Uzbekistan dated January 3, 2022 No. PF-60 "On the development strategy of New Uzbekistan for 2022-2026 years" task is defined. In this regard, engineering graphics and design science it is important to integrate the content and concepts, to improve the work on the formation of practical work skills in students.

Only an integrative methodology can ensure the quality and success of the educational process, which is a complex integrative object. Academician A.P. Belyaeva substantiated the need for a new direction of integrative methodology in education and science. According to A.P. Belyaeva, in addition to systematic objects (science, technology, production, education, man, society, nature), the methodology interpenetrates, thickens, updates itself, its infrastructure of a universal type, based on integration and differentiation, becomes more complicated. there is an interdisciplinary interaction.

Comparative characteristics of methodological approaches

Comparison signs	Approaches		
	system	complex	integrative
Source	greek origin. system - many parts	complexus - connection, union lat.	Lat integer - integer, integer
Purposefulness	Realization of engineering graphics and design sciences as an integrative system	Using a set of tools to transform integrative teaching of engineering graphics and design sciences	Implementation of integrative education in engineering graphics and design sciences as a system and complex
"prism of vision"	A holistic view of engineering graphics and design disciplines	Comprehensive (comprehensive) view of engineering graphics and design disciplines	An integrated (comprehensive) view of the means of holistically and re-transforming the integrative teaching of engineering graphics and design sciences
Integral concept	system	comprehensive	integration
special concepts	Consistency, forming a system, integrity	Complex, complexation, complexationes	Integrity, integration, integrativity, integrator, integrity
General concepts	Components, structure, function, step, state, dependency		

Today, the main task of theorists and practitioners in the field of engineering graphics and design is to create a system of professional graphic engineers and designers in a higher educational institution. But the following problems arise when implementing this process:

1. lack of practical experience in training specialists based on the mutual integration of engineering graphics and design sciences;
2. lack of theoretical approaches to the content of their education;
3. engineering graphics and design sciences based on educational standards, no integration requirements.

Design is a synthesis of art, science and technology and covers many problems of human life. A designer is primarily an artist, but he must be able to think at the level of technical categories, be able to speak the same professional language with an engineer. In order to solve this problem, the

effective use of the concepts of design science in training sessions on engineering graphics, training sessions based on them, the creation of teaching aids and textbooks performs an important educational task.

Theoretical and practical preparation of students for future professional activities contributes to the formation of thinking and action skills. Thus, understanding the content of engineering graphics skills paves the way for future professional teaching practice. Firstly, this determines the leading role of theoretical knowledge in preparing students for the profession, as well as the integrity of their theoretical and practical training. Secondly, thinking and action as an ideal and system-subject system leads to the formation of a unit of skills. Thirdly, it shows that engineering graphics skills are multi-leveled (from reproductive to creative) and makes it possible to improve them by repeatedly repeating some practical actions.

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INFLUENCE OF ACCEPTING BASIC ANTIRHEUMATIC THERAPY FOR ANKYLOSING SPONDYLOARTHRITIS ON THE CLINICAL COURSE COVID -19

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ABSTRACT

The article presents data from our own studies on the clinical course of COVID-19 in patients with ankylosing spondylitis while receiving basic therapy. Patients were divided into groups: those who underwent COVID-19 against the background of basic therapy and without it. The impact of COVID-19 was compared with clinical symptoms, disease activity. According to the results of the studies, a positive effect of basic antirheumatic therapy on the course of coronavirus infection in patients with ankylosing spondylitis was revealed.

KEYWORDS: COVID-19, Ankylosing Spondylitis, Coronavirus Infection.

INTRODUCTION

A new coronavirus infection, which gave rise to a pandemic in 2020, spread rapidly, struck the whole world with a high contagiousness of the disease, a variety of mutant strains, a polymorphic clinical picture, as well as damage to various organs and systems [5,6,10] . The disease is characterized not only by damage to the lungs, but also by the involvement of other organs and systems of the body in the pathological process, including the osteoarticular system [1, 7].

Ankylosing spondylitis (AS) is an autoimmune disease closely associated with HLA-B27 that affects the spine, sacroiliac joints, peripheral joints and ultimately leads to ankylosing and disability of patients [3, 4, 8, 9].

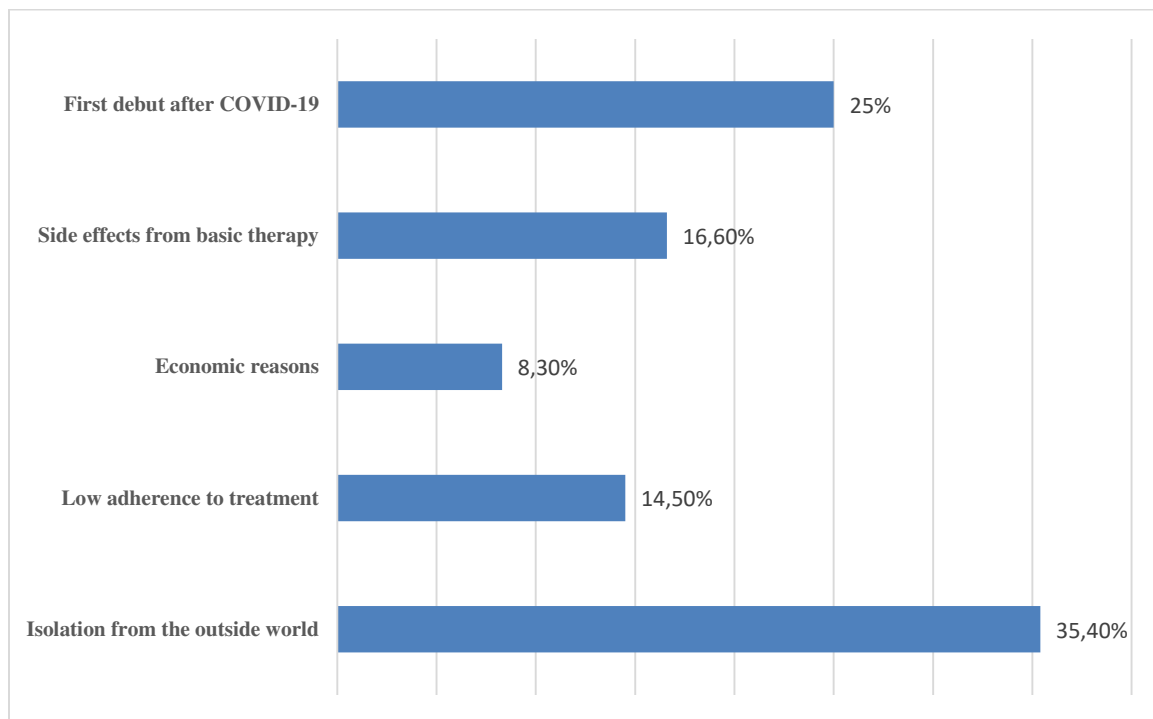
Given the similar immune mechanisms in the pathogenesis of development COVID-19 and AS [11] and studying the effect of taking basic antirheumatic therapy on the clinical picture of coronavirus infection with a combination of both pathologies is of particular interest.

Materials and methods of research:

In the period from 2020-2022, 211 patients diagnosed with AS were examined in the 3-city clinical hospital of Tashkent and the Multidisciplinary Clinic of the Tashkent Medical Academy, of which there were 174 men , 37 women, the average duration of the disease was 8.8 ± 2.4 years. The control group consisted of 40 healthy volunteers of the appropriate

middle age. The diagnosis was made according to the modified New York criteria for the diagnosis of AS. The patients were initially divided into two groups: group I , 91 patients with AS who had undergone COVID -19, and group II , 120 patients with a history of AS who did not have a past coronavirus infection. The first group, in turn, was divided into two groups: group IA - 48 patients with AS who underwent COVID -19 who did not receive basic therapy, group I Group B - 43 patients who underwent COVID -19 receiving basic therapy and Group II - 120 patients with a history of AS who did not have a past infection with COVID -19. The average age of patients in group I A was 42.2 ± 13.3 years, group I Group B 41.4 ± 10.1 years and Group II 40.2 ± 8.3 years . The axial form occurred in 53.7%, the peripheral form of AS in 46.3% of patients. The vast majority of patients with AS (n = 172; 82.86%) had the HLA - B27.

When analyzing the reasons for the absence of basic therapy in patients of group IA , the following were observed: the patient's lack of contact with the attending physician and isolation from the outside world during the first wave of Covid-19 - 35.4% (n = 17), lack of awareness of the need for long-term use of basic drugs therapy - 14.5% (7), economic reasons - 8.3% (n = 4), the presence of side effects from basic therapy 16.6% (n = 8) and in 12 patients (25%) after undergoing coronavirus infection in patients, the first debut of AS was observed (Pic. 1).

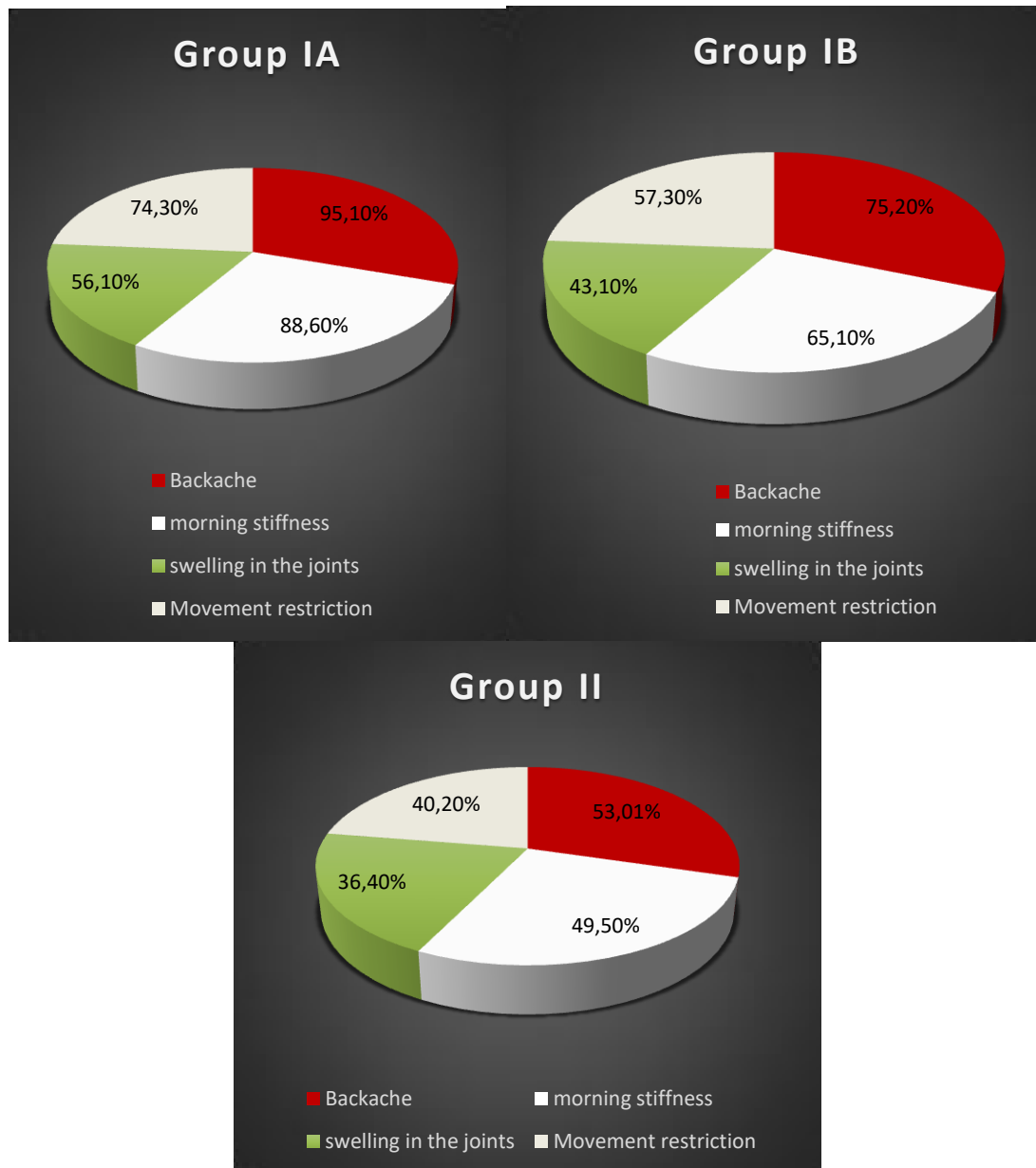


Pic.1. The main reasons for the lack of basic therapy in patients with AS during the incidence of coronavirus infection.

Patients from II Group B received the following basic drugs: sulfasalazine - 79.0% (n =34), methotrexate 9.3% (n =4), leflunamide 6.9% (n =3), combination basic therapy 4.6% (n =2).

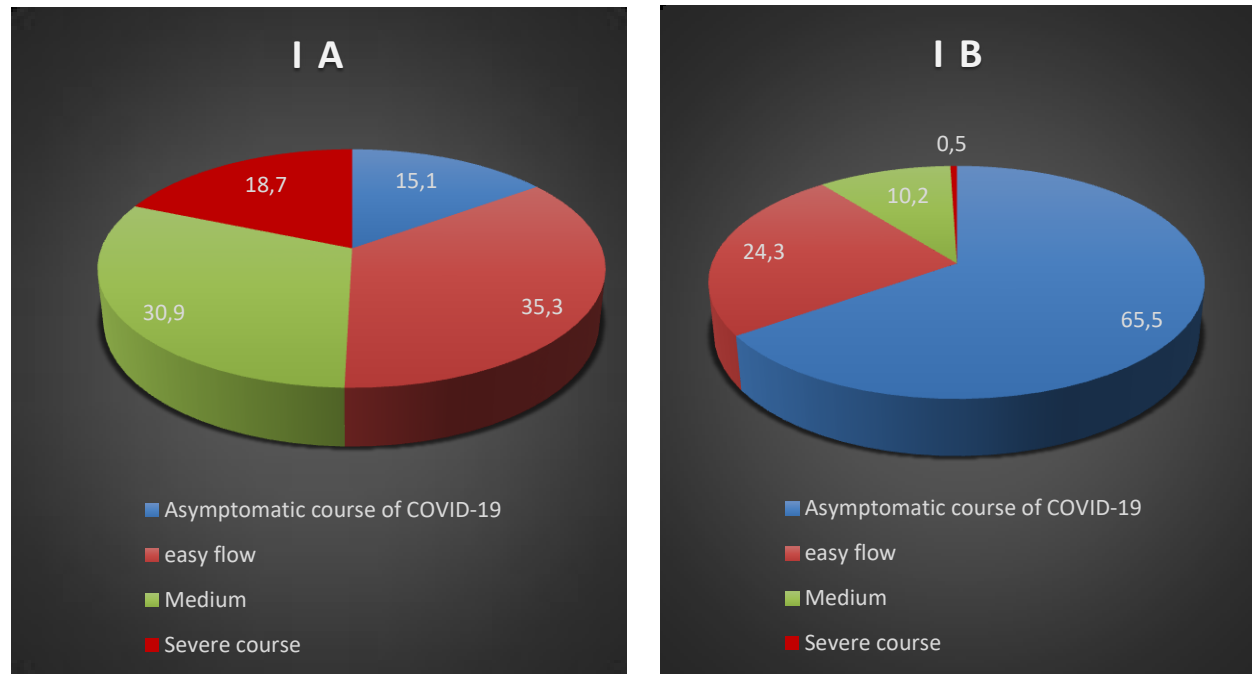
The main complaints of patients in the three groups were such as morning stiffness, which was observed in 88.6% of patients of group I A, in 65.10% of group I and 49.5% of patients of group II ; back pain was observed in 95.1% of patients of group I A, in 75.2% of group I B and 53.01%

of patients of group II ; joint swelling (in patients with a peripheral form of the disease) in 56.1% of patients of group I A, in 43.10% of group I B and 36.4% of patients of group II ; restriction of movements in 74.3% of group I A, in 57.3% of group I B and in 40.2% of group II (Pic. 2).



Pic. 2 The main complaints of patients in the study groups.

When studying the course of COVID -19 in groups IA and IB , differences were revealed: in patients who were on basic therapy (group IB), there was no severe course of coronavirus infection, and asymptomatic forms prevailed (65.5%); in patients who did not receive treatment for AS (group IA), an asymptomatic course was observed in a small percentage (15.1%), mild and moderate course were equally encountered, and a severe course occurred in 18.7% of patients (Pic. 2).

**Pic.3. The course of COVID-19 in patients with AS**

Very often the presence of IgG antibodies COVID -19 in the blood of AS group I patients B was an incidental finding due to the asymptomatic course of coronavirus infection. At the same time, the presence of antibodies due to vaccination was excluded, since not one patient from the study groups received the COVID -19 vaccine, due to a relative contraindication to it. Most patients IA groups contacted us after the end of the period of the second and third waves of COVID -19.

TABLE 1 THE MAIN CLINICAL MANIFESTATIONS OF COVID -19 IN AS:

Options	I A group	I B group
Fever	75.5%	28.1%
Intoxication syndrome	49.6%	30.0%
loss of taste	59.3%	27.7%
Loss of smell	64.6%	32.2%
Lung injury	39.4%	13.2%
Astheno-depressive syndrome	67.4%	22.1%

The main clinical manifestations of COVID -19 in patients with AS were the presence of fever (75.1% and 28.1%), arthralgia (49.6% and 30.0%), loss of taste (59.3% and 27.7%) , loss of smell (64.6% and 32.2%), lung damage (39.4% and 13.2%), astheno-depressive syndrome (67.4% and 22.1%), respectively, in groups IA and IB (Tab.1).

DISCUSSION:

Severe acute respiratory syndrome coronavirus 2 (SARS- CoV - 2) causes cytokine-mediated inflammation leading to multiple clinical manifestations in COVID -19 [1, 2, 5]. During the beginning of the pandemic, the rheumatological service was asked questions about the impact of basic antirheumatic therapy on the course of COVID -19, since these drugs have immunosuppressive properties.

Our work presents data on the clinical picture of COVID -19 in patients with AS. The most interesting fact in our work is that there was no severe course of COVID-19 while receiving basic therapy. Basic antirheumatic therapy suppresses the hyperproduction of pro-inflammatory cytokines, which play a role not only in the pathogenesis of AS, but also in severe COVID-19 [1,11]. If we compare the clinical and functional characteristics of the groups, we found a more pronounced limitation of functional activity, a higher activity of spondylarthritis on several scales at once, and a pronounced intensity of the pain syndrome in patients who did not receive basic AS therapy. Refusal to take basic antirheumatic drugs in many AS patients due to fear of a severe course of COVID -19 contributed to the progression of the underlying disease.

CONCLUSIONS:

1. Acceptance of basic antirheumatic therapy for ankylosing spondylitis helps to reduce the severe course of COVID -19.
2. It is not recommended to refuse to take basic antirheumatic drugs in case of COVID -19 disease in order to avoid an increase in the activity of ankylosing spondylitis.

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AHMAD ZIYOUDDIN AL- KUMUSHKHANAVI HONORABLE MAN

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ABSTRACT

The article explores al-Kumushkhanavi's tolerant human qualities. It is shown that the Kumushkhanavi was a tolerant man: he donated his earnings honestly, studied perfect science and taught it to students, built a printing house, published scientific books and distributed them to students free of charge, built an interest-free bank and supported the people economically. The life of Ahmad Ziyouddin al-Kumushkhanavi is a great help in educating our youth to be tolerant people.

KEYWORDS: Allah, Holy Quran, Hadith, Prophet, Naqshbandi, Tariqah, Tolerance, Honest Profession, Patience.

INTRODUCTION

Sufism originated in the late eighth and early ninth centuries Muslim countries, including Movarounnahr scattered. Sufism has played an important role in the spiritual life of the whole East in the formation of ideas about human perfection.

Sufism is based on the teachings that defined the ideological basis of the centuries-old spiritual life of the peoples of the Muslim East. It is a way of perceiving divine purity and human beauty, truth and truthfulness served as a means of protection. Sufism is a multifaceted school of thought, and there has never been a "pure" or "single" Sufism. It came in the form of different views, currents. But each has a different approach to the problem of human development, interpreting it in a different way.

People who believe in and practice the ideas of Sufism are called Sufis.

In Sufism, a perfect person is one who is wise, prudent, and pure in heart.

Sufis believe in divine purity, sophistication, faith and contemplation. who knew that it would protect them from accidents. They strive for the truth in accordance with and following these ideas. In fact, the formation of a perfect man was the ideal, the dream of the scholar. Nevertheless, they fought against ignorance, greed, and greed on the basis of creating the ideal of a perfect, mature, and enlightened human being.

The criterion for perfection is two things: the first is morality, that is, the believer. to be a Muslim, a righteous person; the second is self-knowledge.

At the end of the VIII century - beginning of the IX century the doctrine of Sufism appeared. Sufism

Alisher Navoi's Nasoyim ul-Muhabbat is a valuable legacy of the Sufi dynasty.

This trend appeared in the Arab countries in the VII - VIII centuries, and then

spread to other Muslim countries, especially Movarounnahr. However, scholars note that some manifestations of this trend existed even before Islam.

According to Sufi theory, the world, the existing being, is the incarnation of God. God is in all that is seen, and things are in God. Being is spread all over the universe in the form of a worldly spirit and is unique as a god. And man is a part of this spirit, so sooner or later he will join it.

The practical part is a set of ethical norms and rules of conduct the system is based on these norms and rules are selfish and personal requires self-restraint from interests.

Much research has been done on the doctrine and its essence, and these sources are a rich source in the study of the doctrine in question.

The concept of tolerance means being patient and tolerant of the behavior, lifestyle, thoughts, speech, feelings, beliefs, and actions of others. In dictionaries published in Uzbek, "bag'rikenglik" is used as a synonym for the concept of "tolerance" (tolerance - in Latin: "tolerantia" perseverance - endurance, patience). Tolerance is a concept that refers to people who are kind, caring, generous, generous, and have such spiritual qualities.

A sociological dictionary published in Russia defines tolerance as follows:

- a) A tolerant approach to the lifestyle, behavior, customs, feelings, thoughts, ideas, beliefs of a stranger;
- b) a tolerant approach to events that occur as a result of not noticing adverse factors;
- c) a tolerant approach to the effects of uncomfortable emotional factors [1: 278]

By Mark Notturmo tolerance is tolerance for a different way of life, attitudes, ideas and beliefs: "I think that because we are free and conscious beings, we should be free from heresies such as shifting the blame to others. In particular, it is about tolerance, which can be described as our efforts to overcome religious, ethnic and racial prejudices that have long been an obstacle to freedom".

From the judgments of Mark Naturno, one can understand that: "Tolerance is patience for what you do not like, even for what is considered bad". This type of attitude was interpreted by the enlightened philosophers Volter and John Locke as a measure against religious interpretations, and since the 18th century it has been valued as a moral ideal [2:40].

In Islam, the fourteenth century ago, the Prophet (peace and blessings of Allaah be upon him) called on his ummah to live in tolerance. He told the Companions to be tolerant on all things: "May Allah have mercy on him who is tolerant in selling, buying and asking for money" [3: 128].

The Prophet (peace and blessings of Allah be upon him) never got angry with himself and never took revenge on anyone. That is why he is honored at a high level. Such wonderful qualities were seen in the wali, saints and ummahs of the Prophet (peace and blessings of Allah be upon him) and the companions of the Prophet (peace and blessings of Allah be upon him), who remained steadfast on the path followed by his associates.

An example of tolerant people can be considered the founder of the Naqshbandi tariqah who lived in Bukhara, Hazrat Bahauddin Naqshband, as well as the followers of this tariqat, which is now widespread throughout the world [4: 3]. Qualities such as longevity, knowledge, health, generosity, good relationships with people, trust in Allah for all undertakings are a sign of tolerance.

One of the great representatives of the Naqshbandi doctrine, Ahmad Ziyouddin al-Kumushkhanavi, the pir murshid of the 32nd ring in the “Golden Chain” of the Silsilai Sharif, is one of such tolerant people [5:28].

Ahmad Ziyouddin al-Kumushkhanavi was born in 1228 AH (1813 AD) in a wealthy family in the Amirlar neighborhood of the present-day Turkish city of Kumushkhana, and his ancestors were from Bukhara Sharif. His father was a righteous man and engaged in business. Ahmad Ziyouddin al-Kumushkhanavi began reading at the age of five, memorized the Qur'an at the age of eight, and received permission from teachers to recite books such as “Hafiz Qur'an”, “Dalaili Khayrat”, “Qasidai Burda” and “Hizbul Azam” [6: 302].

Being highly generous, energetic, strong-willed, determined is a human quality that is necessary in the pursuit of knowledge. These beautiful qualities were manifested in Ahmad Ziyouddin al-Kumushkhanavi.

When Ahmad Ziyouddin al-Kumushkhanavi was ten years old, his father emigrated to Trabzon, one of the cities around the Black Sea. From the leading scholars there, he began to study the sciences of puberty, grammar, meaning (literature, art) and logic, as well as the sciences of Sharia. Despite his young age he also helped his father in the store and on the one hand with a divine love and passion he endeavored and zealously studied science, but his goal was to acquire more knowledge.

In his youth, he tried to earn honest money, weaving and selling wallets with his own hands and spending the money he earned in search of knowledge. When he was 18 years old, he came to Istanbul with his uncle took the goods needed for his father and handed them over to his uncles, sad: For me, gaining knowledge and enlightenment means more than anything. Please don't be upset with me. At the time, I had saved a lot of money by weaving wallets with my own hands, buying them, as I would need in the future. I will leave these with you and send them to my father leaving nothing behind.”[6: 302]

Honest earning through prayer is mentioned in several places in the Qur'an. “And when the prayer has been concluded, disperse within the land and seek from the bounty of Allah, and remember Allah often that you may succeed” (Surat al-Jumu'ah 10) [7: 143]

The Prophet (peace and blessings of Allah be upon him) said: “The best profession is to earn with one's own hands and every good trade.” It is narrated on the authority of Rafa' ibn Khadij (by Imam Ahmad). [8]

One of the proofs that Ahmad Ziyouddin al-Kumushkhanavi was a tolerant man was that he followed the above hadiths of the great Prophet and gave his wallet to his father without saving a penny from the money he bought.

Ahmad Ziyouddin al-Kumushkhanavi was appointed as a scholar who taught Islam to those who were in need of knowledge due to his perfect knowledge. Having studied the sciences of Sharia thoroughly, he perfected himself in the field of tasawwuf and teachings by taking lessons from

Sheikh Ahmad Ziyouddin Arvadi. Sheikh Kumushkhanavi was entrusted with the task of teaching and educating 240 works by the piri murshids. Realizing from their hearts that the greatest generosity of Kumushkhanavi was the dissemination of knowledge, the students imparted their knowledge to the sciences impartially. Even today, the most famous works of the scholar Ziyouddin Ahmad Kumushkhanavi are still used by Muslims [9: 175]:

1. “Jami 'ul-usul Fiy-l-awliyai wa anwaihim”. The title of the work is inscribed: “Asfiyyatu wa favoidi soir”. It has now been translated into Turkish and published.
2. “Jami 'ul-mutun fiy haqqi anvois - sifatil ilohiyya val -' aqoidil - Moturidiyya wa alfozil kufri wa tasdiqil - amalil - 'ajibiyya” (A set of texts on the attributes of the name of Allah Almighty.) There are different editions. Published in Uzbekistan in 2000, based on translations by Mirzo Kenjabek, Movarounnahr Publishing House, Tashkent.
3. “Romuzul – ahadith 'ala tartibi hurufil hija” (“Sea of Hadiths”). There are different editions. Published in Uzbekistan in 2007 on the basis of translation by Bakhridin Umrzaq from Movarounnahr Publishing House.
4. “Majmuatul ahzob”. (“Great prayer and remembrance”). In 2014, a group of translators from Sharq Publishing House published a book of the most necessary prayers, selected from the 2000-page books of Hazrat Kumushkhanavi.
5. “Hadisi arba'iyin”. (Forty Hadiths). A copy of the manuscript is kept in the Suleymaniya Library.
6. “Gharoib ul ahodis”. There are different copies.
7. “Najot ul g'ofiliyn”. There are several editions.

That is why the number of disciples of Sheikh Kumushkhanavi was more than a million. These qualities reflect one of the aspects of the tolerance he possesses.

Ahmad Ziyouddin al-Kumushkhanavi, as one of the most tolerant man established a printing house in order to increase the number of scholars and readers and to distributed scientific books free of charge to students of science [10: 9].

The scholar served not only in the field of knowledge and ethics, but also in the field of economic support of the people. This is evidenced by the fact that the Holy One created an interest-free bank, provided loans to those in need to cover their needs and created conditions for repayment of debts when they could on favorable terms [6: 305].

Evidence of Ahmad Ziyouddin al-Kumushkhanavi's generosity is as follows:

1. Donation of money earned by honest labor.
2. Having studied science to perfection, objective teaching of students.
3. Built a printing house, published scientific books and distributed them to students free of charge.
4. Building an interest-free bank and supporting the people economically.
5. The scope of the scientific work he carried out was so wide that it would not have been possible for anyone to do so in his lifetime.

In conclusion, we can say that the life of Ahmad Ziyuddin al-Kumushkhanawi will be an example in educating our youth to be tolerant.

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SOCIO ECONOMIC IMPACT AND ANALYTICS OF CASHLESS ECONOMY

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ABSTRACT

A cashless society does not use banknotes or coins for financial transactions, but rather digital information (usually an electronic representation of money). As early as the beginnings of human civilisation there have been cashless societies based on barter and other ways of trade, and current cashless transactions are also conceivable utilising digital currencies such as bitcoins (as well as credit cards, debit cards, and mobile payments). As a result, the phrase "cashless society" is used in this article to refer to a society in which cash is replaced by its digital counterpart, which means that legal tender (money) is only available in electronic digital form and may only be traded electronically. While this idea has been addressed extensively due to a rapid and expanding usage of digital ways of recording, managing and trading money in many areas of the globe, transactions that would previously have been done with cash are now commonly done electronically in many parts of the world.

KEYWORDS: *Socio Economic Impact of Cashless Economy, Cash less financial System*

INTRODUCTION

The use of non-electronic payment methods has been restricted in several nations, particularly in the developing world. Electronic banking became widely used in the 1990s, which sparked a shift away from cash transactions and settlements in everyday life. By the decade of the 2010s, several nations have adopted digital payment methods such as PayPal, Apple Pay, contactless and NFC payments through electronic card or smartphone, and electronic bills and banking [1]. When it came to certain types of transactions, cash was deliberately discouraged, and bigger cash quantities were viewed suspiciously because of its adaptability and ease of use in money laundering and terrorist funding. Some suppliers and retailers have even gone so far as to outright ban big cash payments that the phrase "war on cash" has been coined. According to the 2016 US User Consumer Survey Study, 75% of respondents chose to pay using a credit or debit card, while just 11% opted to pay with cash. Venmo and Square were both founded in 2009, and since then, digital payments have become more widely available. With Venmo, you can send money to another person without needing to have any cash on hand. Small companies may now accept payments from their customers using Square's new technology [2].

A mere 2% of the value exchanged in Sweden and just 20% of retail transactions were done in cash in 2016. In the United States, fewer than half of all bank branches accepted cash transactions. In the 1960s, banks persuaded companies to use direct deposit, banks began charging for checks in the 1990s, banks launched the Swish smartphone-to-phone payment system in 2012, and small retailers began using iZettle to take credit cards in 2011.

Share of payments

Estimated share of payments done by cashless methods (from studies published 2008–2013)

Country	%
Singapore	61
Netherlands	60
France	59
Sweden	59
Canada	57
Belgium	56
the United Kingdom	52
United States	45
Australia	35
Germany	33
South Korea	29
Spain	16
Brazil	15
Japan	14
China	10
UAE	8
Taiwan	6
Italy	6
South Africa	6
Poland	5
Russia	4
Mexico	4
Greece	2
Colombia	2
India	2
Kenya	2
Thailand	2
Malaysia	2
Saudi Arabia	1
Peru	1
Egypt	1
Indonesia	0
Nigeria	0

A common measure of how close to a "cashless society" a country is becoming is some measure of the number of cashless payments or person to person transactions are done in that country. For instance, the Nordic countries conduct more cashless transactions than most other Europeans. Levels of cash in circulation can widely differ among two countries with a similar measure of cashless transactions [3].

Across the 33 countries covered in the European Payment Cards Yearbook 2015-16, the average number of card payments per capita per year is 88.4. In comparison, the average Dane makes 268.6 card payments each year, the average Finn 243.6, the average Iclander 375.5, the average Norwegian 353.7, and the average Swede 270.2. This makes card payments in the Nordics two-and-a-half to four times higher than the European average [4].

Amount of cash in circulation

Even though a cashless society is widely discussed, most countries are increasing their currency supply. Exceptions are South Africa whose supply of banknotes fluctuates wildly compared to most nations, and Sweden which has significantly reduced its currency supply since 2007. China's currency has decreased from 2017 to 2018

Banknotes and coins in circulation at end of 2018				
Value per inhabitant (USD)	Code	Exchange rate EOY2018	Value per inhabitant (local currency)	Country or region
\$10,194	CH	0.9842	10,033	Switzerland
\$8,471	HK	7.8319	66,346	Hong Kong SAR
\$8,290	JP	109.9127	911,000	Japan
\$6,378	SG	1.3617	8,684	Singapore
\$5,238	US	1.0000	5,238	United States
\$4,230	XM	0.8734	3,695	Euro area
\$2,404	AU	1.4166	3,405	Australia
\$2,003	KR	1,116.0961	2,236,000	Korea
\$1,924	CA	1.3629	2,623	Canada
\$1,683	SA	3.7500	6,311	Saudi Arabia
\$1,417	GB	0.7813	1,107	United Kingdom
\$1,009	RU	69.6203	70,234	Russia
\$825	CN	6.8778	5,672	China
\$682	SE	8.9562	6,111	Sweden
\$680	MX	19.6438	13,365	Mexico
\$513	AR	37.6680	19,318	Argentina
\$327	BR	3.8812	1,271	Brazil
\$311	TR	5.2915	1,646	Turkey
\$230	IN	69.6330	16,042	India
\$205	ZA	14.3750	2,945	South Africa
\$196	ID	14,410.4803	2,827,000	Indonesia

Amount of cash in circulation (historical)

The amount of cash in circulation was much lower in past decades in all countries except Sweden. The oldest comparative figures at Bank for International Settlements were from 1978 and only including the USD and 10 other currencies [5].

Banknotes and coins in circulation per inhabitant in USD at exchange rate							
Country	2018	2008	1998	1988	1978	2018/1978	annual
Switzerland	\$10,194	\$6,371	\$3,065	\$2,688	\$2,008	5.08	4.15%
Japan	\$8,290	\$7,436	\$3,728	\$2,275	\$724	11.45	6.28%
United States	\$5,238	\$2,927	\$1,679	\$870	\$428	12.24	6.46%
Germany	\$4,230	\$3,324	\$1,759	\$1,300	\$680	6.22	4.68%
Belgium	\$4,230	\$3,324	\$1,244	\$1,127	\$1,229	3.44	3.14%
France	\$4,230	\$3,324	\$804	\$700	\$605	6.99	4.98%
Italy	\$4,230	\$3,324	\$1,205	\$747	\$394	10.74	6.11%
Netherlands	\$4,230	\$3,324	\$1,272	\$1,189	\$679	6.23	4.68%
Canada	\$1,924	\$1,444	\$685	\$554	\$320	6.01	4.59%
United Kingdom	\$1,417	\$1,168	\$726	\$470	\$326	4.35	3.74%
Sweden	\$682	\$1,553	\$1,082	\$1,063	\$772	0.88	-0.31%

Unbanked People's Issues

Many individuals rely on cash and are concentrated in specific groups such as the poor, the crippled, elderly, illegal immigrants, and teenagers, who may have difficulty adapting to cashless systems [6].

Deposit accounts (in a bank or other deposit-taking financial institution) and some knowledge of the payment system are required for electronic transactions. Unbanked or underbanked individuals populate many disadvantaged places. In 2012, about a third of the population in the United States lacked access to the complete spectrum of basic financial services. In 2011, the FDIC estimated that almost a quarter of low-income households had no bank account at all. Some 7.7 percent of the population of the United States does not have a bank account as of 2016, and in some cities and rural counties, the percentage was as high as 20% and 40%, respectively.

Singapore has been working toward a cashless society as part of its Smart Nation strategy. When it comes to payment methods, cash is still the most popular choice among the elderly. People who aren't used to using digital payment methods may run into difficulties while trying to fix problems like managing lost cards or passwords or keeping track of their spending [7].

Digital theft

Hackers are more likely to break into a server if payment information is kept there. Going cashless puts you at higher risk of financial cyber assaults and other forms of cybercrime. Several firms have already had data breaches, especially those involving payment systems, and this trend is expected to continue. Illicit access and the transfer of funds to another account, as well as unauthorised purchases, are possible with electronic accounts.

In contrast to cash transactions, electronic payments can be disrupted by attacks on or inadvertent outages of telecommunications infrastructure.

Opponents argue that in addition to recording all transactions, a cashless system would provide the federal government the ability to levy a transaction tax on all payments made from one person to another. Cash should be abolished as a method of avoiding nominal negative interest rates, which are used to combat deflation by discouraging saves (most effective if combined with bans on barter, private currencies like bitcoin, and storage of precious metals like gold). In certain cases, money might be programmed to "expire" and lose its value if it is not spent in a certain method or by a certain date. If the government permits for excessive inflation or allows for a depreciation of the currency, this is also conceivable with cash.

In totalitarian regimes, widespread monitoring might be more effective and swiftly prohibit some individuals from purchasing or earning money. Limit the kinds of consumer products that may be purchased with a specific quantity of money (and parents might be able to do the same with allowance money) [8, 9]

In Sweden, there is a lot of criticism. Swedish attempts to build a cashless society are a shining example for others to follow. Sweden is unique in that the amount of currency in circulation has decreased significantly. Between the years of 2000 and 2017, Sweden's society saw radical transformations as a result of efforts to replace all cash transactions with electronic ones. Between 2000 and 2005, cashless bank branches were introduced in Sweden as a prelude to the branch's eventual demise. Customers of Swedish banks have been receiving specific hardware (such as digital payment of bills) since roughly 2008, allowing them to perform financial transactions at home. However, people still had the option of using cash, and those who desired may continue do business in cash at the bank offices that remained.

This began in 2008 and peaked in 2015-17, when all Swedish coins and banknotes were exchanged for new ones (except for the 10 kronor coin). According to bank headquarters, withdrawals and deposits may be made (in restricted quantities) by machines, eliminating the need for cash. Bank customers may only withdraw between 5,000 and 10,000 SEK each week because of "safety standards." Deposits were also subject to "security rules." This practise of branch closure or "cash-free" branch closures was enforced by all major conventional banks with branches afterwards. The number of cash-handling bank branches has decreased significantly in recent years.

Smaller boutiques, businesses, and convenience stores in Sweden that rely on cash are struggling since they can no longer deposit their daily receipts or get any change. There has also been an outsized influence on non-profit organisations, which are particularly common in Sweden. Sweden's banks have responded by launching a mobile payment system called Swish. However, there have been several issues with this method [10, 11].

Complaints have been downplayed by banks and the media as "a difficulty for senior people," implying that some were merely having to master new technologies rather than being upset with a whole different transaction technique. The change's detractors argue that technology has advanced too quickly and that the reeds hide several risks. Increasing numbers of fraudulent transactions have been reported, and the rapid development of quantum computers has fueled worries of system hacking. When the Swedish authority Myndigheten för Samhällsskydd och Beredskap—MSB or "the Authority for Community Protection and Preparedness" in their writing "Om Kriget Eller Krisen Kommer" ("If war or crisis comes") contained a list of items to store permanently at home to be prepared, which includes "cash in small denominations." In

Sweden, there was a wave of unfavourable criticism from specialists outside the banking sector who expressed their worries.

Formed in the spring of 2016, Kontantupproret or "The Cash Petition" is the brainchild of former police chief Björn Eriksson. An rising number of people have joined this movement, which has fast expanded in size because to the increasing hostility of banks toward cash. People have complained about a wide range of difficulties. Television personality Robert Aschberg, for example, was outraged when the same drugstore that had just accepted his payment via his mobile phone sent him an advertising, raising privacy issues. According to math professor Svante Linusson, "the liquidation of currency is steadily eroding our democracy" (p. 68). It was almost necessary to close a Malmö billiard hall because their 20-year-old bank refused to recognise them as a customer after the hall refused to accept any other payments than cash (the bank claimed that the cash is not traceable in their crime investigation activities). A computer glitch led to the bankruptcy of a summer market in northern Lycksele. Due to the fact that Swish and cards had been mandated for payment, there was not enough money to conduct commerce in their market [12].

As the digital payments environment in the United States evolves, so does the technology that enables these developments. Because of this, the Committee on Digital Payments, headed by NITI Aayog's Principal Adviser Shri. Ratan P. Watal, was established in 2016.

The following NPCI modalities, in addition to UPI, have just been announced by NPCI.

- There are three levels to the Bharat Bill Payment System (BBPS), a unified bill payment system in India.
- UPI-enabled financial transactions may be made easy, fast, and speedy using BHIM, a smartphone software that connects to the Unified Payments Interface (UPI). To send money from one bank to another in an instant, all you need is your cell phone and a digital payment address.
- An interoperability QR code solution built by NPCI, MasterCard, and Visa technical synergy. The Bharat QR-enabled application in an interoperable environment allows customers to pay using associated accounts by scanning the QR codes that businesses can display on their locations or mobile devices.

The Indian Government is Trying to Promote a Cashless Economy

It was designed by the National Payments Corporation of India (NPCI) to help the RBI's objective of "less cash" and greater digitization. Several social benefit programmes, including the LPG subsidy, the Old Age Pensions, the Scholarships, and the MGNREGA, will be sent directly to the recipients' bank accounts under the Direct Benefit Transmit (DBT) programme [13]. As a result, rural Indians now have access to internet banking services. The Pradhan Mantri Jan Dhan Yojana was launched by the Indian government. The programme is a country's financial inclusiveness initiative that provides financial services to all families and adopts a comprehensive strategy to full fiscal inclusion.

CONCLUSION

As a rule, new money laundering regulations demand proof of the source of large sums of money. But while EU regulations allow transfers up to €15,000, Swedish banks need proof and can refuse to accept or seize cash if the limit is less than that, and they also have rigorous

paperwork requirements. For long years now, India's digital payments infrastructure has improved progressively thanks to advances in digital technology and nurturing in accordance with the RBI's aim. National Payments Corporation of India (NPCI) has been the driving force behind the technical progress of India's retail payment system since its foundation in 2008.

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STUDY OF ACUTE TOXICITY, ALLERGIC AND IRRITANT FEATURES OF DRY EXTRACT "HELMINTH-ART"

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ABSTRACT

The acute toxicity of the anthelmintic dry extract "Helmint-ART" was studied on white male mice. As a result, it was found that the studied anthelmintic dry extract is practically non-toxic at the studied doses and routes of administration. The local irritating features of the anthelmintic dry extract "Helmint-ART" were studied in an experiment on rabbits. The allergic features of the Helmint-ART dry extract were studied on guinea pigs. Also, in the experiments on laboratory animals, it was found that it has neither local irritating nor allergic features.

KEYWORDS: *Helminths, Dry Extract, Acute Toxicity, Local Irritating Effect, Allergic Features, White Rats, Rabbits, Guinea Pigs.*

INTRODUCTION

Studying the safety of different originated medicines is an obligatory component in preclinical studies. The study of acute toxicity is one of the first stages while conducting preclinical studies, since the study of acute toxicity helps to determine the average lethal dose, as well as the obtained data on lethality, help to establish tolerated doses to conduct studies on specific activity[1]. Nowadays, the compulsory program of preclinical studies includes the assessment of allergic features of new drugs on laboratory animals [2]. Related to the current transition of national requirements for drug registration to the requirements of the Eurasian Economic Union (EAEU), the question of assessing allergic features in preclinical studies is controversial.

The study presents the results of the research of allergic features of a number of drugs with an active substance molecular weight of more than 1000 Da and less than 1000 Da in standard tests on guinea pigs, such as the reaction of systemic anaphylaxis and active cutaneous anaphylaxis [3]. The study presents the results of preclinical trials to determine the allergic features of a complex antibacterial drug intended for the treatment of mastitis in lactating cows. 4 series of experiments were carried out, including the study of active skin anaphylaxis, conjunctival test, assessment of delayed-type hypersensitivity reaction and changes in the number of eosinophils in the blood of sensitized animals [4].

The study presents the results of preclinical tests to determine the local irritating effect of the herbal remedy normotrophin by the method of conjunctival test when applied to the mucous membrane of the eyes of rabbits [5]. The massive usage of herbal anthelmintics eliminates environmental chemical pollution. Plants have a complex effect on the animal organism and are quickly excreted, therefore, the cumulative features of plants are limited [6]. Healing herbs act in a complex manner and are quickly excreted from the body [7].

The aim of the research was to study the acute toxicity, allergic and local irritant features of the anthelmintic dry extract "Helmint-ART".

Materials and research methods. All experiments were conducted on healthy animals that were quarantined for at least 10-14 days. The experiment was carried out according to the recommendations for preclinical studies of drugs [8,9].

The animals were kept in a vivarium with a standard diet, temperature and light conditions with free access to water and food. Taking into account the chronobiological dependence of most physiological processes in the body, all manipulations with animals were performed at the same time of the day in the morning. For the analysis of hematological and biochemical parameters, biological material (blood) was collected according to standard methods [10] in the morning after 14–15 hours of hunger.

The object of our study was the dry extract of "Helminth-ART". "Helminth-ART" consists of a mixture of dry extracts isolated separately from anthelmintic plant materials, such as the above the ground part of wormwood (*Artemisia absinthium* L), pumpkin seeds (*Cucurbita pepo* L.), tansy flowers (*Tanacetum Vulgare* L.) and garlic bulbs (*Allium sativum* L.). This object is the substance of the "Helmint-ART" anthelmintic capsule. The substance of the "Helmint-ART" product is a dry extract of the sum of plant collections, highly soluble in water, with a content per 0.5 g of the substance: dry extract of wormwood - 0.2 g ; dry extract of pumpkin seeds - 0.15 g; dry extract of common tansy - 0.1 g; dry garlic extract - 0.05 g. To determine "acute" toxicity, experiments were carried out on non-purebred white male mice weighing 18-20 g. The "Helmint-ART" substance was administered orally with an atraumatic probe at doses of 1000, 2000 and 3000 mg/kg as an aqueous solution. Each dose was tested on 6 mice. After a single administration of drugs, the experimental animals were observed for 14 days.

The general condition, behavior and death toll of animals in each experimental group were taken into account. Records were made on the basis of the general clinical and physiological state of mice [11,12]. The local irritating features of an aqueous solution of an anthelmintic substance were evaluated by the potential ability of the drug to irritate the mucous membrane of the eye. The experiment was carried out on rabbits of both genders, weighing 2.2-2.5 kg, which were previously under observation and had healthy eyes. 0.1 ml of a 1% aqueous solution of an anthelmintic extract was instilled into the right eye of the rabbit. The left eye served as a control, which was instilled 0.1 ml of 0.9% NaCl solution. Both eyes of the animal were examined 1, 24 and 72 hours after exposure. The state of the iris, conjunctiva was assessed by the state of the mucosa and the state of the blood-vascular graphic with the presence or absence of lacrimation.

The sensitizing properties of an aqueous solution of an anthelmintic substance were studied on 12 guinea pigs weighing 300-350 grams using the "conjunctival test" method. The conjunctival test is a very sensitive test and, in some cases, allows you to identify the reaction of animals to an allergen with weak allergization and negative skin tests. To learn the sensitizing features of

guinea pigs, they were divided into 2 groups of 6 animals each. For 20 days Guinea pigs were administrated daily with 1.0 ml of infusion intragastrically once. Testing the sensitizing features was performed on the 10th; 15th and 20th days from the beginning of the introduction of an aqueous solution of the anthelmintic substance. To set up the reaction, 2 drops of the drug was instilled with an eye dropper under the upper eyelid of experimental control guinea pigs, 1 drop of distilled water was injected into the other eye (control). After instillation, the eyelids were connected and kept in this position for 1 s. Both eyes of the animal, which was once instilled with an aqueous solution of the drug, were examined after 15 minutes (rapid reaction), after 1 hour, 24, 48 and 72 hours after exposure (delayed type hypersensitivity).

Results:

The results of the research on acute toxicity showed that with the introduction of the substance "Helminth-ART" at a dose of up to 3000 mg/kg, no special changes in the behavior of animals and their death were observed in the next 14 days (Table 1). The introduction of higher doses of the "Helminth-ART" substance turned out to be technically impossible due to the formation of a thick mass after making an aqueous solution. Due to the absence of dead mice, it was not possible to calculate the average lethal dose of the drug.

TABLE 1 THE RESULTS OF DETERMINING THE ACUTE TOXICITY OF THE DRY EXTRACT "HELMINTH-ART" IN MICE WHEN ADMINISTERED ORALLY

Dry extract "Helminth-ART"	
Doses in mg/kg	Number of mice dead / total
1000	0/6
2000	0/6
3000	0/6
LD50>3000 mg/kg	

The results of research on studying local irritant action showed that an aqueous solution of an anthelmintic substance caused a slight lacrimation on rabbits after 15 minutes, and after an hour, 24 hours; 48 hours and 72 hours signs of irritation of the mucous membrane of the eyes in the form of hyperemia, swelling, changes in the sclera and cornea were not seen. The width of the pupils also did not change, which indicates the absence of local irritating effect of the drug on mucous membrane.

When sensitization of animals was detected on the 10th, 15th and 20th days of the study, the following picture was observed: after the introduction of an aqueous solution of the anthelmintic extract into the conjunctiva, guinea pigs did not open their right eye for some time. When examining the eyes of guinea pigs after 15 minutes, an hour; 24 hours, 48 hours and 72 hours, there were no visible changes in the state of the tear duct.

Discussion of the obtained results.

It has been established that in terms of acute toxicity, the "Helminth-ART" substance, when administered orally to mice, exceeds a dose of 3000 mg/kg (Table 1), i.e. are practically non-toxic. The anthelmintic substance, when applied to the conjunctiva of the eyes of rabbits, does not have an irritating effect. Also, an aqueous solution of the anthelmintic substance, when administered daily to guinea pigs for 20 days, did not show an allergic effect.

CONCLUSION

The acute toxicity of the anthelmintic substance was studied in an experiment on white mice. Thus, the data obtained on the study of acute toxicity showed that the studied aqueous solution of the anthelmintic substance, when administered multiple times intragastrically for 14 days at a therapeutic dose, at the maximum daily dose, does not cause disturbances in the functional state of the main organs and body systems. It has been established that in terms of acute toxicity, the "Helmint-ART" substance, when administered orally to mice, exceeds a dose of 3000 mg/kg, i.e. is practically non-toxic. It does not have a local irritating effect at the injection site (gastric mucosa). The local irritating features of the anthelmintic substance were studied in an experiment on rabbits. The studies showed that the investigated anthelmintic substance "Helmint-ART" does not have irritating features. The sensitizing features of an aqueous solution of the anthelmintic substance were studied on guinea pigs. Studies have shown that the investigated anthelmintic substance "Helmint-ART" does not have allergic features.

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THE IMPORTANCE OF MENTAL TRAINING FOR PHYSICAL EDUCATION STUDENTS IN HANDBALL

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ABSTRACT

Purpose: the technology of preparation of athletes in accordance with the requirements of the system approach. Team management methodology disclosed in terms of the training process in the competitive period between rounds of the regular championship of region. A number of scientists put forward a statements, which concern model micro-cycles: quantity of exercises' repetitions, intensity, duration, intervals and character of rest between series. The main condition of continuation of exercises' fulfillment was signal of cardio leader by data of HBR sensors, which shall have not reduced more than the lowest pulse frequency.

KEYWORDS: Handball, Microcycle, Preparation, Process, System.

INTRODUCTION

In sport games solution of problem of modern sport training's improvement is especially difficult. On the one hand there is no objectively measured result in games and on the other hand this result depends on the whole complex of quite different factors, differently compensated and interdependent at various stages of many years' training. That is why control of training process of highly qualified players requires clear knowledge of their condition at certain stages of training, scientifically grounded complex control of the whole process. With such approach to control role of choice and registration of system of factors, which influence substantially on competition results, increases significantly. It results in need in studying of competition functioning, integral reflections of fitness's levels as one of important tasks of control in system of informational provision of managements. As main directions of methodic a number of scientists offer methods.

MAIN PART

Exactly strive for proper provisioning of competition functioning conditions tasks of training at different stages and periods of annual cycle and as a result it is necessary to know not only the structure of competition functioning but also factors, which condition its effectiveness and positively influence on sport result. Special means of every training in model micro cycle of qualified handball players are oriented on improvement and maintaining on optimal level of special physical qualities and organism's functional potentials. A number of scientists put forward a statements, which concern model micro-cycles: quantity of exercises' repetitions, intensity, duration, intervals and character of rest between series. Some authors proved that correct alternation of loads and rest facilitates better development of physical qualities and organism's functional potentials against the background of tactical tasks' solution. It was

reflected in different kinds of sports, but up to nowadays it has not been elucidated for handball players' training in inter tour competition period. It is quite natural that absence of systemic work on this problem –control of training process in handball – does not determine the level of its urgency. But our own experience of scientific – practical work with combine teams and teams of region championship, analysis of modern literature, devoted to this problem, give understanding that to day one of problems is discordance of theoretical works about sport games and their insufficient implementation in practice. It permits for us to think this problem to be really urgent. The research has been fulfilled in compliance with plan of scientific research works of department of physical culture and sports theory and practice of Bukhara state university “Theoretical-methodic principles of individualization of training process in game kinds of sports”. Purpose, tasks of the work, material and methods The purpose of the work is working out of team control methods in conditions of training process in competition period between tours of regular championship of region. Results of the research Our research was oriented on determination of means and methods, which would permit to surely maintain condition of players and their functional state at high level, considering intervals between game loads and in training process between tours of competition period. Alongside with it one of local tasks of our research, in our opinion, was achievement of such training effect, which would permit during long time to preserve achieved indicators of physical, psychological and functional fitness. It is of common knowledge that during handball match there are changes of players depending on situations, tactic schemas, for keeping temp and so on. Some teams constantly replace one-two backs with forwards. It results in interruptions in loads-rest alternations, because it is impossible to envisage duration of game episode. From this fact we noted that general tea, HBR usually fluctuates between the lowest and the highest, independent on status of the match and its intensity. We determined that before coming of players on site HBR is 160-180 b.p.m. As a result of replacements, if handball player had rest about 5 minutes, HBR was 90-120 b.p.m. Percentage of mistakes' correlation was within – 0,3%. With rest up to 3 min. HBR reached 120-140 b.p.m.; mistakes –up to 1.2%. If duration of rest before micro series of loads reached 1 minute, quantity of mistakes reached 2.7% with pulse 180-190 b.p.m.

Especially it was noticeable, when constant game time trouble happens in important official championships requires increased physical and psychic functioning of organism, instant thinking and extreme quickness of movements. It is quite reasonable that with working out of model micro-cycles it is necessary to consider exactly orientation of means.

Basing on data of operative control of complex scientific-methodic team during first micro-cycle we developed organism's anaerobic potentials; in second - aerobic potentials. Obtaining of data was carried out in complex way by the following parameters: level of special physical fitness, level of physical workability; effectiveness of competition functioning; strong and weak sides of certain player and team in the whole; recommendations on corrections of training process. This process took place in the frames of micro cycles of different orientation. During control trainings, fulfillment of TTA was completely in strict mode of future matches. Control-model trainings were with higher imitation of competition's conditions. Advanced trainings were conducted with significantly excessive scope and intensity. Advanced –model trainings were maximally approximated to matches and simulated conditions and confusing factors, which exceeded predicted reality. First type of training (development of anaerobic qualities) contained individual complexes of exercises, which sportsmen fulfilled in series by 15 - 20 repetitions. At the beginning we offered to fulfill 2-3 starts, then 3-4 and up to 5. Orientation of these complexes

was targeted influence on main muscular groups, imitation of different elements of individual technical tactic actions. At trainings, pointed on development of special quickness with the help of technicaltactic exercises, duration of series reduced by the end of training in the following variants: 20, 17, 15, 12, 10 repetitions during 15-20 minutes. Rest pauses between them were 3-5 minutes – the time, which is required for HBR to reduce to 110-120 b.p.m. after loads. Rest pauses were filled with imitational exercises, oriented on improvement of ball handling. Depending on individual condition of a player we used 3 levels of load's complexity: 1st –gentle level, 2nd - main level and 3rd - mode of excessive loads for creation of optimal excessiveness. The second type of training (development of aerobic potentials) was oriented on improvement of technical-tactic actions with maintaining of available level of aerobic potentials' functioning or development. In this type we used circular method of training's constructing. One more innovation was opportunity to change temp and rhythm of tasks' fulfillment with the help of specially created musical accompaniment, which we could vary in compliance with complexity of task from 120 to 160 accents per minute. It, in its turn, permitted to completely simulate game rhythm of competition functioning of handball players. Schema of exercises' alternation (sequence of passing of circle) was the following: exercise for shoulder girdle muscles - exercise for lower limb muscles, - exercise for abdomen muscles, back and torso. Intervals of work with every kind firstwere equal to rest intervals and were 30-40 sec. that, in matches, corresponds to segments of high intensity and quick change of game situations. Then intervals changed to longer ones, 60 sec. every. And at last, we passed to fulfillment of exercises in mode: 60 sec. work - 30 sec. rest. Rest meant transition from “station” to taking initial position of next exercise. Quantity of “stations” (depending on quantity of players on site and bench players) – was 12-14. Method of changing of intensity of exercises' fulfillment was used, like in previous training variant, with the help of calculated temp of musical accompaniment. Under such conditions, rest pauses between training circles were absent. The main condition of continuation of exercises' fulfillment wassignal of cardio leader by data of HBR sensors, which shall have not reduced more than the lowest pulse frequency. It permitted to maintain constant cardio loading for long time within the set limits, thus, influencing on improvement of players' functional state. Physiological specificity of trainings in model micro-cycles was that every following series of exercises repeated at the end of phase of quick HBR reducing (at level of 125-135 b.p.m.), which happened after finishing of previous load and matched with it by period of restoration of muscular workability's indicators.

CONCLUSIONS

Quantitative and qualitative analysis of results of complex determination of fitness in conditions of model micro-cycles after first stage of experimental research in comparison with initial data witnesses about increasing of special physical fitness, psycho-physiological indicators, and physical workability.

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MYTHOPOETIC INTERPRETATION IN THE ARTISTIC WORK

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ABSTRACT

In this article, by the example of the analysis of mythologisms in modern Uzbek prose, the relationship between folklore and written literature, functional and semantic features of ancient mythological plots and images are revealed. The writer creators that the mythopoetic interpretation is a peculiar feature of modern Uzbek prose.

KEYWORDS: *Folklore, Written Literature, Remythologization, Mithologizm, Story, Mythological Story, Motive, Artistic Image, The Diffusion Of The Epic, Mythological Code, Cosmogonic Myth, The Myth Of Animistic, Composite Structure.*

INTRODUCTION

Mythologism is the most characteristic phenomenon of the literature of the XX century, the main reason for its most influential literary reception is the ability to see the mythological essence of reality, that is, “in the mythological perception of the world”.

The reason why writers such as Thomas Mann, Joyce, Kafka turned mythology into a literary element, a means of image, an artistic symbol in their works is that they were able to find the macro world of reality, its mythological breadth, mythological language, form of expression.

Uzbek prose, including classical prose, has a long history of using mythological plots through creative processing, the first of which can be found in Nosiruddin Burhonuddin Rabguzi's “Kisari Rabguzi”. In this monument we encounter such myths as cosmogonic, calendar, animal and plant, human activity and discovery, ethnographic.¹

Thus, the creative use of mythological plots, motifs and images in Uzbek classical prose has become a tradition. Analysis of the fact that this tradition is actively continued in the Uzbek literature of the XX century in Askad Mukhtor's novel “Oak” the mythologeme oak-tree, O. Yakubov's cosmogonic interpretation of the creation of the universe in the novel “Old World”, the literary expression of folk views in the works of U. Hashimov and many others, possible. In the literature of the independence period, a creative transformation took place in the creative processing of traditional mythological plots and motifs: the writers created a unique example of interpreting reality or artistic analysis of the hero's psyche through the prism of mythological imaginations. In particular, in the stories created in recent years by such writers as H. Dustmuhamad, N. Eshanqul, N. Narmatov, A. Dilmurad, I. Sultan, Sh. Butaev, Ulugbek Hamdam. The method of depiction based on dualistic myths related to the struggle against evil, the incorporation of mythological archetypes and image qualities into the interpretation of the

psyche of the characters, and other methods show that the mythological direction in Uzbek literature is also in the process of renewal. One of the brightest examples of literary expression of the psyche and problems of the period on the basis of creative reworking of the mythological plot is the story “Alanquva” by AsadDilmurad.

The author's story is based on one of the most common genealogical myths among the Turkic and Mongol peoples – the ancient myth that after the death of Dibun Bayan, his wife Alanquva conceived a creature in the form of divine light and Bozanjarkhan, a descendant of Kayan and Elkhan.² The writer moves on to a description of the thoughts that have passed through his mind as he intensifies the drama in the depiction of the state of the protagonist in the throes of mental anguish. The writer, who took the curious reader into the turbulent world of the historical period in which he is portrayed, goes on to tell the story of Alanquva, the cause of the crisis in the kingdom. The genealogical myths about the origin of the Buzunjardynasty are included in Rashiddin's “Jome at Tavorix”, MirzoUlugbek's “History of the Four Nations”, Sharafiddin Ali Yazdi's “Zafarnoma”, MirzoHaydar's “TarihiRashidiy”, and Abulgazi's “Shajarai Turk”.³

The genealogical myth about the origin of the Buzunjar dynasty and the main plot element in its artistic interpretation of AsadDilmurod's story “Alanquva” is the motif of the hero's unusual birth.⁴ It is known that the birth of the epic hero is one of the traditional motifs of epics and fairy tales of the peoples of the world.

In the interpretation of the myth of Alanquva in the story of AsadDilmurad, the chain type of evolution is expressed, and we see that the transformation of the celestial being took place in the sequence “light → rain well → young man → falcon”. The mythological basis of the evolutionary motif is linked to the ancient notion that after death a person continues to live in the form of a different thing — event, plant, or animal – that is, reincarnation. Using the ancient animistic motif of the human soul appearing in the form of a bird, the writer gave a special charm to the artistic interpretation by further depicting the miracle of the celestial being that came to Alanquva.

The effective use of mythological plots and images, artistic stylization of ancient myths, archaic rituals and beliefs, national-poetic interpretation of myths of the peoples of the world, syncretism of mythological and literary thinking are especially common in today's written prose. In the literature of the peoples of the world, there are cases of myth and written prose genres trying to create new forms of genres as a result of mutual contamination. For example, Thomas Mann's “Joseph and His Brothers” is considered by experts to be a “novel-myth”, while the author of the Kazakh writer A.Altay's “Altai Novella” is called a “novel-myth”.

In modern world prose, mythoritual, mythoexistential, mythoarchetypic, mytholinguistic and mythopoetic methods of literary understanding of the universe and human nature are widely used. In particular, as a result of mytho-existential modeling of reality, it became possible to perceive the most delicate elements embodied in human nature. It is noteworthy that the myth is being reinterpreted as the basis and integral part of national literary thinking. Therefore, the phenomenon of the emergence of genre innovations in literature, such as “novel-myth”, “myth-story” should be interpreted as a study of the writers on the national identification of artistic thinking through mythological modeling.

The genre of myth-story, which emerged as a unique mythopoetic phenomenon as a result of creative research in modern Uzbek prose, is also a syncretic product of a certain level of

mythological and artistic thinking. At the same time, it is observed that the peculiarities of the most ancient-archaic layer of perception of the world, that is, the tradition of expressing things through mythological codes, are intertwined with the method of artistic interpretation of reality. Such syncretism applies not only to the plot construction of a work of art, but also to the interpretation of characters and the expression of the human concept. While the writer refers to the essence, fable, or certain plot elements of an ancient myth in expressing his artistic intention, the issues raised in it are interpreted in terms of universal problems. In particular, although the protagonist of Nazar Eshankul's myth-story "Sound of a pennywhistle" is an ordinary barber, the pain that does not fit into his heart and turns into a flute is one of the problems of not only the human mind, but the whole society.

Although Uzbek literature has experience in creating works based on mythological imagery or mythical plots, traditional mythological motifs, the emergence of the work, which is directly related to the genre as a "myth-story", is a clear evidence of the renewal of mythology and syncretism of artistic thinking.

Nazar Eshankul's mythical story "Sound of a pennywhistle"⁵ was created not only in Uzbek, but also in the folklore of many peoples of the East.

The protagonist of the mythical story "Sound of a pennywhistle" is distinguished by the fact that, by its nature, it does not fit into the scope of a literary hero, that is, by its very nature, combines the qualities of a mythical hero. Because the protagonist of ancient myths appeared as a *demiurge*, that is, a mythical character who ensured the transformation of the creative-heroic chaos into space, the emergence of existence from nothingness, the emergence of existence in the universe. Thus it is believed that the being created the existing state of the universe and established the order in ancient society. The protagonist of the mythical story "Sound of a pennywhistle" also expresses the characteristic of a demiurge by transferring his pain to a plant.

Thus, as a result of the use of mythologisms in the current literary process has become a priority artistic tradition, the genre of myth-story based on the semantic transformation of mythical plots or the construction of the plot structure in Uzbek prose on the basis of myth.

As in modern world literature, one of the important principles determining the specific development of modern Uzbek prose is the emergence of a new genre relationship between folklore and written literature. The arsenal of tools and epic plots also gives the work a unique national-ethnographic color. This is especially evident in the system of mythological imagery and the peculiar expression of myth plots in the artistic context, which is one of the oldest forms of perception of the world. It has been recognized by many researchers that the feeding of fiction from mythology, in other words, the reliance of writers on mythical concepts in the creative process, is one of the priorities of modern poetic thinking that reflects national identity.

Myth is not only a shining example of the representation of the universe and reality through mythical symbols, but also a cultural phenomenon that allows even the most modern problems to be expressed in conditional-symbolic forms, as it is a system of intangible cultural heritage that embodies a wide range of philosophical and moral potential. In this case, the author is able to artistically analyze the socio-spiritual problems at the heart of reality, as well as the complex layers of the hero's psyche, described through the symbolic-conditional interpretation

of mythological codes. We see the same situation in the story of the writer Isajon Sultan "Garden of Eram".

In Uzbek folklore, the writer effectively uses the detail of the "stream" in the creative use of mythological notions about the hero's journey to the "other world". The archetype used here in ancient mythology served as a mythical means of uniting the "own" and "other" worlds, in other words, as the boundary between the world inhabited by humans and the "other world" that is the abode of mythological forces. Therefore, as soon as the protagonist crosses the ditch, he passes to the "other world" and in front of his eyes appears a "garden with golden lids and crystal handles", i.e. the Garden of Eram. Through the depiction of this strange garden in the hero's imagination, the author uses the ancient mythological imagination as a conditional-symbolic background and uniquely expresses the spiritual experiences of today's man, whose heart is fed by the fact that the environment is being deprived of its primary beauty. It is observed that through the complex combination of space and time there is a synthesis of myth with real reality, imaginary fiction with the reality of life.

Isajon Sultan, who was well acquainted with the folklore and mythology of the peoples of the East, tried to preserve the association of the bird and the "tree of life" pair in archaic mythology, describing the strange corner of the hero's vision in the story "Garden of Eram".⁶

Isajon Sultan was able to skillfully incorporate into his story the myths about the "tree of life", animistic beliefs, that is, the belief that the soul can exist outside the body. He promotes the idea that the essence of life is to live in pursuit of beauty, through the cosmogonic myth of the tree of life and the animated mythology that the human soul exists outside the body.

The method of mythological thinking in modern world literature, the tradition of creating using mythical plots and images "mythologism", "modern mythological prose", "mythological anthropology", "mythological modeling", "mythology of names", "neomythological prose", "neomythological literature", "Mythocentric literature", "mythogenic literature". This trend in written literature is associated with "neomythological consciousness", which played an important role in the development of word art in the XX century.

The concept of a neomythological work (novel-myth, story-myth) is a specific concept for written literature; it is based on myths, mythological images, plots and motives created by ancient mankind. The device of the work of art, formed on the basis of subjective myth or mythological thinking, created by a particular creator, the mythological image, the participation of mythological phrases, plots and motives form a neomyth, that is, a new form of myth. From this point of view, the neomythological works created by the creators of the twentieth century, in essence, mean a new interpretation of ancient myths. Hence, the creative imposition of a new spirit and meaning on myths creates neomythologism. F.Kafka's "Process", "Fortress", T.Man's "Magic Mountain", J.Joyce's "Ulysses", M.Bulgakov's "Master and Margarita", A.Platonov's "Chevengur", "Kotlovan", G.G. Marquez's "Hundred Years of Solitude", A.Camus's "Plague", U.Faulkner's "Story", and ChingizAitmatov's "Kunda" are examples of neomythological prose.⁷

In neomythological works, the plot of the myths, the mythological heroes sometimes point to a specific, definite folk myth, and sometimes in a hidden state. In the second form of the neomythological work, it is possible to understand that the writer used the mythology of the peoples of the world only through logical thinking. In the genre of neomythological novels arise a very wide range of possibilities for the use of myths.

An example of the creative heritage of OmonMukhtor is “Ffu”, “Rebellion and Obedience” by UlugbekHamdam, Isajon Sultan’s novels “Eternal Wanderer”, “Freedom”. Also, in the works of such writers as UtkirHoshimov, NazarEshanqul, ShoyimButaev, AsadDilmurod, mythology is interpreted in a unique literary way.

The poetic interpretation of ancient myths in the artistic context of Uzbek literature The legend of Ilhok and Ishak in UtkirHashimov’s “Works of the World” was in fact used as a structural component of the plot in the compositional structure of the zoonymic myth.⁸ In the Uzbek folklore example of this myth, the reasons for the origin of the name of a bird called “sak-sak” or “son of a widow” are explained in detail in the work.

UtkirHashimov, who effectively used the traditions of Uzbek folklore, including mythology, in the realization of his artistic intentions, creatively approached the epic plot of the brothers who turned into birds. In the artistic interpretation of the myth in the work, the characters are renamed Ilhak and Is’hak. Another peculiarity of the writer’s interpretation of the myth is that the eyes of the angry brother were blinded before he became a bird.

A classic example of a neomythological image in Uzbek literature can be seen in the story “Jajman” by H.Dustmuhammad. The image of the creature in the story represents the hidden evil in the human heart. This evil is often hidden and invisible, and in this respect is reminiscent of the “shadow” archetype.⁹ Just as the “Shadow” archetype reveals man’s incomprehensible evil abilities, the image of the creature in the story is also an image used to expose the true face of human beings. At the end of the work, it is revealed that this creature actually embodies the image and character of human beings, but this complete conclusion is not clearly expressed in the conclusion of the story, the understanding of the idea is left to the reader. The creature is very greedy and agile, avoiding traders for long periods of time and devouring their food without licking it. Meanwhile, the process of struggle between Ahriman and Ahuramazda is described. At the end of the story, the Jajman is captured and killed, but the Jajman's death leads to unhappiness - immediately another Jajman, who is even bigger than him, is born. While the story depicts the struggle between good and evil that is the basis of Zoroastrianism, it points out that anyone involved in this struggle is directly serving evil. The crowd that was killing for Jajman’s greed was also actually committing this crime because of his greed, his excessive love of food. But this evil served as the impetus for another, greater evil. The concluding event at the end of the work can be compared to the process of “attack” of the “shadow” (ego) under the pressure of “persona”. The fact that people are hiding their satanic behavior under the guise of goodness is revealed through the rebirth of the creature. In our work, the writer KhurshidDustmuhammad relied on the mythological images that exist in the mythology of the peoples of the world in creating the mythological image of Jajman.

The reason why mythology has had a consistent impact on fiction, and why creators have repeatedly turned to myth, is that myth is the first model for understanding, comprehending, and understanding the universe. That is why the artist makes extensive use of myth in order to

constantly renew his artistic world, to give life to new interpretations that are dormant in various layers of artistic and aesthetic thinking, and to expand the scope of artistic analysis.

In Uzbek literature, especially in prose, the creative use of the arsenal of the creative genius of our ancient ancestors, the creative use of various genres of art, folklore and mythology, which have been preserved in our subconscious for centuries, has become a tradition. At the same time, the main features of the structure of the myth are preserved, and the realities of life and modern problems, which are the basis of the plot of the work, are literary reflected. In other words, there is a process of mythologizing reality in creative artistic thinking.

There are also mythological images in Isajon Sultan's story "My mother": Through the giant, who is a mythological figure, the writer reveals the mental state of a young, omniscient, self-conscious girl.¹⁰ Through the giant, who is a mythological figure, the writer reveals the mental state of a young, omniscient, imaginative girl.

In this story of Isajon Sultan, Hizr is also depicted wearing a long green coat. It is said among the people that a person who is very rich has encountered Hizr, while it is said that a person who is very rich has been cursed by Hizr. In the author's work, the people revive the image of Hizr in the oral tradition.

In the story, Hizr helps the son of Jayran, and the spring that came from there is called Jayranbulak, and later the place was called Jarabulak. In the story, the motif of the sudden appearance of an old man in the desert and his release from the trap of a fox is one of the mythological motifs of our people related to Hizr, and this motif is related to the cult of ancestors. The author used this mythological motif to provide the development of events and the expression of artistic ideas.

In the story "Follow to Hazrat Hizr", the writer walked among the people, listened to the stories and narrations about Hizr from them and made them artistic. All the elements of folklore used in the story served as an important factor for the composition and plot of the work.

In the story, the writer combines past-present-future events in a circle based on a retrospective plot. Over the centuries, man has faced various trials and tribulations, and has achieved happiness or destruction. The play covers the spells that occur from the micro world to the macro world. The birds in the sky, the fish in the sea, the fox in the forest, the bears all point to the mystery of the planet in the order of their lives. All this shows that neomythologism is one of the peculiar forms of poetic expression of XX century artistic thinking, associated with ancient mythological archetypes, mythical plots and images.

In modern Uzbek novels, the reflection of folklore traditions, including the arsenal of mythology, is unique. In particular, the detail of the "well" in the novel "Platon" by OmonMukhtor ensured the literary fullness of the work. It is known that the motive of the epic hero to fall into the well is described in folk tales, as well as in the story of Joseph, which is widespread in the Muslim East. Therefore, this motive helps the reader in finding a solution to the mysterious events in the life of the protagonist. The writer used one of the traditional mythological motifs of the underworld – the motif of falling into a well - to take his protagonist to another world through a window at the bottom of a well. According to folklorist U.Sattorov, "in mythology, the well is interpreted as a means of transition to the underground world, so there is a view that there is a symbolic connection between well water and groundwater".¹¹

Elsewhere in the novel, OmonMukhtor deepens the psychologism by referring to the traditional dream motif: “In my dream, an extremely beautiful, glorious woman dressed in white came to me. He said to me, Socrates, your funeral will be read on the third day”.¹² The author describes the dreams of Socrates based on the traditional beliefs of our people related to dreams, including the notion of prophetic dreams. Similar artistic interpretations of the dream can be found in AsadDilmurad's historical novel Mahmud Tarabi.¹³

The fact that the ghosts of passers-by dreamed and warned the protagonist about the consequences of such evil deeds in the vortex of various tricks was one of the main links in the plot of ShaimButaev's novel “The Fortified Moon”. Mythological views on creatures are expressed in the play, and eagles and white antelopes emerge as one of the unique means of illuminating the character of the heroes moving in the novel's plot line.

In Isajon Sultan's novel “Eternal Wanderer”, the elements of myth are reflected in the work, in their content. Although the author writes this work on the basis of a postmodernist form, it reflects the oriental look, the oriental spiritual spirit, the oriental aesthetic expression. In the play, the mistakes and declines of the way of life of mankind are hidden at the heart of wandering. The novel depicts humanity's renunciation of their faith, thereby renouncing their Gods and going against it and its creatures. The narration and the subsequent events in the play are closely related. In the Turkic peoples, many features of birds were assimilated or considered as a symbolic means.

Each narration used by the author in the play served to complement some aspect of the novel's composition. The author's interpretation of the mausoleum “Grandpa Tortoise” served a similar purpose for the composition of the work.

What is the symbol of the tortoise used in the novel to harm no one? The tortoise is initially compared to a man who is increasing his fortune. Man cannot escape his destiny. No matter where he lives, his destiny will follow him. The tortoise also resembles such people at first glance. On the other hand, he is a symbol of a sinful man, but he will continue to increase his sins on the Day of Judgment. The tortoise is said to be a wise creature. Accordingly, we compare him to a sage who has accumulated knowledge behind him. But he is a slow-moving creature who does not benefit from his knowledge and lives a very long life. The image of the tortoise in this legend is a symbol of Professor Light, who has great knowledge potential. Professor Light is a very strong scientist, an educated person, but no one can benefit from his knowledge. The tortoise can also be a symbol of the new man created by Professor Light, because the man created by the professor, who does not know who he is, is a purposeless person. The tortoise is like that, that is, it is a creature whose address is not clear, whether it benefits or harms anyone.¹⁴

The literary context of the novel includes a number of traditional symbols, proverbs based on verses from the Koran, legends about saints, epic vultures in heroic epics such as Girkok and Baychibar, mythological notions about the invincible lion and the faithful dog, parables about tortoises and scorpions. In the novel, grassy flowers, all creatures are spoken of as mythical heroes, appearing as a divine creation. The apostate will be subjected to eternal physical and mental torment and will be thrown into the depths of the earth seven times. The events of the novel take place in unreal life. But they reveal important aspects of human destiny and the true nature of the spiritual world.

The emergence of new directions and trends, methods and techniques in our Uzbek novels today is a synthesized expression of the traditions of Eastern and Western literature of today's Uzbek novels, and mythologies play an important role in its artistic context.

The analysis of works in modern Uzbek prose shows that the author's desire to use universal archetypal models, images and motifs based on mythological understanding of the world in the way of depicting artistically perceived reality, and the construction of the work of art on the basis of mythological subtext is becoming a major factor. The use of mythopoetic tradition, in turn, leads to the harmonization of symbolic-metaphorical, mythological-symbolic expressions with the realistic interpretation of the reality depicted in the play, as well as the chronotope direction and the basis of the depicted artistic world.

One of the most important discoveries of modern Uzbek novels was the creation of the human spiritual world. The novelists used the experience of national literary-historical and world literature to reflect the purpose, psyche, character, and spiritual world of the heroes in general. The writers sought to create a perfect image based on the poetic methods used in the image of the protagonist, the study of the secrets of experiments. The role of following the literary traditions in the success of the heroes of such works as KhurshidDustmuhammad's "Bazar", NazarEshankul's "Son of the Grave or the Water of Life", AsadDilmurad's "Bird in the Steppe of Fano", UlugbekHamdam's "Balance", "Sabo and Samandar", "Rebellion and Obedience", "Namatak", Isajon Sultan's "Eternal darbadar" and "Freedom". The closeness of the image to the Western literary heroes in the novels of the independence period is also connected with the aesthetic ideal of the writer. The social changes and development of the era of globalization have brought changes and renewals to the aesthetic ideals of many Uzbek writers.

Making the plot of the work on the basis of mythological thinking is one of the most widespread and improving methods in Uzbek novels. A state of organic synthesis arose on the basis of interpretations of the elements of mythology in folklore and the identification of social realism based on national, cultural, domestic, historical, political events. It is not difficult to see that in this approach, which is manifested in the national novelism, Western modernism follows the ways of expression. Indeed, "this unique cultural-historical situation provides an interdependence and interpretation of elements of organic synthesis, history and mythology, social realism and true folklore, changing with the modernist explorations of recurring archetypes and the romantic nature of national identity".¹⁵

Characteristics of the national mentality, mythological views on the beliefs of the people in the works created in a realistic style served to prove the character of the heroes, their psyche, to ensure the course of events, to strengthen the ideological basis. In particular, Uzbek novels combine the mythological views of the Turkic peoples on the wolf totem. The legend of the wolf is included in P.Kadyrov's novels "Mother Falcon's Sound" and M.Ali's "UlugSultanat" as an episode. In "Bird in the Fano steppe" the EnaKokbori plays an important role in the plot of the work, and in the eyes of the reader is embodied in the imagination of the protagonist. In the mythology of the Turkic peoples, the wolf totem is instrumental in preserving the continuity of generations; kind, generous, generous; proponent of goodness; is described as a force and sponsor of great deeds. In these novels, too, these aspects of folk mythology predominate.

The role of literary influence in the development of artistic thought in modern Uzbek novels is incomparable. As a result of creative study of the achievements of world literature, art and

aesthetics, new researches in various styles and forms have emerged in Uzbek literature. Well-known representatives of Uzbek literature, such as A.Mukhtor, H.Dustmuhammad, A.Dilmurad, N.Eshankul, U.Hamdani, have enjoyed the creative achievements of many world-famous writers such as F.Kafka, A.Camus, J.Joyce.

The peculiar and vital aspects of such influence are observed in the works of N.Eshankul. In his novel "Son of the Grave or the Water of Life" there is a closeness to the creative discoveries of Franz Kafka in the form of plot construction, chronotope, composition, the world of images, as well as the author's ideological and literary expression. There are certain views in the literature on some aspects of this closeness. Franz Kafka and NazarEshankul are bounded by differences in space, time and worldview, of course. However, the common approach to the human tragedy caused by social threats allows a comparative-typological review of the works of writers. It brings the heroes closer together in despair, inability to decide justice, and their past in the process.

Character traits in the prose of the independence period, such as popular belief in the events that form the basis of the novel's plot, observation of characters typical of oral works, use of folklore elements and motifs in the artistic text of the work, transfer of characteristics of heroes to written literature, poetic language and epic expression are important aspects that are manifested.

The play is a monument of folklore, popular among the peoples of the Middle East, and the epic "Gorogly" is not mentioned.

The protagonist of the novel "Gorogly" N. the integrity of the faith, the pursuit of truth and justice, nourished by the poetic genius of the people in their relentless struggle. N. he lives in a society like a *lahad* that cannot prove its existence, its existence, its 'I'. A society that does not allow human spiritual maturity is criticized. N. helpless in the face of inhuman reality. In other words, the ethnos does not magnify its savior as in traditional epics. Severe and ominous conditions drag him into his whirlpool.

In the novel, the mythological basis of the creation of the living world from the dead world, that is, the creation of the cosmos (being) from chaos (non-existence) according to archaic mythology, radically changes its essence as it is transferred to the reality of social events. That is, the semantic function of interpreting the emergence of the primary cosmos, observed in the essence of ancient myths through demythology, is replaced by the aim of warning humanity of a situation that may occur as a result of loss of harmony inherent in the laws of nature and society.

The image of the ancient Greek mythological hero Sisyphus is based on the epics of the ancient Greek writers Homer's "Iliad" and Ovid's "Heroine Women". Ancient Greek mythology answers the question of why Sisyphus was punished. The legends of Sisyphus are many variants. But the artistic truth of these legends is unique. So Sisyphus is the image of a convict who is punished for rolling a stone and taking it to the top.

Greek myths about Sisyphus show dozens of negative qualities, such as cunning, deceit, cunning, deceit, stubbornness, rebellion. But KhurshidDustmuhammad prefers to portray Sisyphus as a sage, not as a hero whose life is in vain. Because of his determination and determination to build the city of Corinth, to enrich the country's treasury, to save people from the plague, to give them joy, to eliminate waste, to solve any problem wisely with the help of

reason and the advice of close relatives, not to be afraid of hard work. All of these qualities make Sisyphus wise. The name of the novel is also explained by the high poetic perception of the image. In "The Wise Sisyphus", the fate of Sisyphus is exactly the same as that described in the myth, but the view of this situation is twofold. In the play, Sisyphus finds content and meaning in his work, which is considered unmeaning, meaningless. Sisyphus believes that what he is doing makes sense, and that it will ultimately help him overcome the thoughts of being absorbed in nothingness. As a result, meaning overcomes nonsense. Therefore, this archetypal symbol not only overcomes the inefficiency of life, but also serves to express the meaning in it, its dignity. This symbol makes one think for a while and makes one think about his whole life and the necessary and unnecessary aspects in it, the valuable and invaluable behaviors.

The play also features the image of the mythological hero Asop, who appears several times in the eyes of Sisyphus in an old black boat, in a black coffin. The coffin was a symbol of death, Sisyphus was a sinful slave, and Rock was a symbol of punishment and destiny. KhurshidDustmuhammad's Sisyphus finds his way to his heart by talking to the rock. As the years passed, Sisyphus grew old and his limbs hardened like stones. The stone will fall. Through such a symbolic expression, the author emphasizes the vital philosophy that only man can endure the hardships of life.

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ANALYSIS OF POETIC DEVICES IN UZBEK AND ENGLISH LITERATURE

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ABSTRACT

Since ancient times, poetry has been the most important means of expressing people's feelings, thoughts and experiences. The poetic work is impressive and serves to express the current event. After all, as Oybek (1975) said: "Emotional tools of lyrics are strong; sometimes a small poem can leave a stronger and more lasting impression than a long novel or various writings full of facts." This effect is manifested through poetic devices.

KEYWORDS: *Ilmiaruz, Ilmi Bade', Ilmikafiya, Alliteration, Anaphora, Ellipsis, Irsolimasal, Exaggeration, Tabligh, Igrakh, Guluv.*

INTRODUCTION

In Eastern literature, the science of poetry has been studied in three directions, such as the science of poetry, the science of bade, and the science of rhyme. *Ilmiaruz* checked the of the poem. *Ilmi bade'* (science of art) studied the means of creating a poetic image. *Ilmikafiya* dealt with melody in poetry. Iranian scientists called these three sciences "Ilmhoyisegona" ("The Trinity of Knowledge"). Until the first half of the 15th century; all books on these sciences were written in Persian.

Ahmad Tarazi's "Fununul-balogha" ("Science of literature") is the first Turkish work dedicated to the science of aruz. Alisher Navoi's "Mezonul-Avzon" and Babur's "Mukhtasar" are classic works dedicated to the science of aruz.

THE MAIN FINDINGS AND RESULTS

Means of expressiveness and happiness in literature are called literary devices. The concept of poetic devices in Eastern literature used in the sense of literary devices. Poetic devices are divided into two types:

1. Poetic devices related to **form**.
2. Poetic devices related to **meaning, content**.

There are poetic devices that relate to both content and form.

Alliteration - is the device of matching sounds in speech, i.e. the art of placing words that start with the same sound. Alliteration applies to both vowels and consonants. For example, alliterative “tongue twisters” are useful for encouraging language learners, generally children, to hear similar sounds repeated at the beginning of several words. A well-known alliterative tongue twister in English language is:

- *Peter Piper picked a peck of pickled peppers. A peck of pickled peppers Peter Piper picked.*
- *Tyanshantog 'iningtagidatog 'amningtraktorituribdi.*

However, though alliterative tongue twisters are associated with children, they are useful for practicing and improving pronunciation, fluency, and articulation.

Anaphora - is the repetition of words or phrases in a group of sentences, clauses, or lines of poetry:

Birzummayasalargaonabo 'lsin u,

Birzumzaminbo 'libyashasinzamin. (A. Oripov)

Shag 'irlaydiosmonvahavo,

Shag 'irlaydibutunkoinot. (H. Olimjon)

“It was the best of times, it was the worst of times, it was the age of wisdom, it was the age of foolishness, it was the epoch of belief, it was the epoch of incredulity, it was the season of Light, it was the season of Darkness...”

“A Tale of Two Cities” (by Charles Dickens)

Through repetition of the phrase “it was,” Dickens reinforces to the reader that the time he is describing is a past filled with oppositions and extremes.

Ellipsis - (from the Greek "elipsis" - omitting, lacking) is a means of providing brevity and compactness in an artistic work, and means that a word in a sentence is omitted depending on the situation. This type of stylistic device is mainly used in dialogues, sometimes it can be found in proverbs, wise sayings.

Harso 'zningo 'zjoyibor,

Harnuqtaningmakoni ... (bor)

Yaxshidanbog 'qoladi

Yomondandog '....(qoladi)(Uzbek proverbs)

This passage is an example of how ellipses are used in English modern literature:

“Come to lunch someday,” he suggested, as we groaned down in the elevator.

“Where?”

“Anywhere.”

“Keep your hands off the lever,” snapped the elevator boy.

“I beg your pardon,” said Mr. McKee with dignity, “I didn’t know I was touching it.”

"All right," I agreed, "I'll be glad to."

. . . I was standing beside his bed and he was sitting up between the sheets, clad in his underwear, with a great portfolio in his hands.

"The Great Gatsby"(F. Scott Fitzgerald)

Instead of following this conversation with a lunch scene, Fitzgerald uses the ellipsis to omit what happened between the two men after leaving the party.

Irsolimasal - is a way of creating a proverb, saying, phrase, or wise word in a speech or poem, which has become popular in the folklore. "Irsol" means to quote, "masal" means an example, a parable, a proverb, a proverb, and an expression. In the Eastern literature, proverbs, sayings and expressions are called *masal* or *zarbul - masal*. In our current linguistics, they are called phraseologisms.

Avvalkijamolidinsochibbarq.

O'tichravujudimaylagang 'arq. (A. Navoiy)

G'urbatdauloyhajrimenipirqilibtur,

Hijronbilag 'urbat manga ta'sirqilibtur.(Bobur)

"He that is stricken blind cannot forget

The precious treasure of his eyesight lost."

Meaning: *A man who loses his eyesight can never forget the importance of lost eyesight.*

"Romeo and Juliet" (William Shakespeare)

"One fire burns out another's burning,

One pain is lessen'd by another's anguish."

Meaning: *You can burn new fire from lighting another fire; similarly a new pain could mitigate your old pain.*

"Romeo and Juliet" (William Shakespeare)

Exaggeration – (Arabic - exaggeration, exaggeration) is a way to exaggerate a person, object, event, to distinguish it from others, to attract attention. Exaggeration is called hyperbola in Greek.

Janobishahg 'akeldimbujihatdin,

Ko 'zimyoshig 'atoya – toyanavro 'z. (Ogahiy)

"Will all great Neptune's ocean wash this blood

Clean from my hand? No." "Macbeth" (William Shakespeare)

In literature, there are three types of exaggeration.

1. Exaggeration in the image is understandable, but it is not found in real life. It is called **"tabligh"** (Arabic for big, strong).

Buvilarduogago 'llarinochib,

Boshitoshdanbo 'lsin, – der jigarlarin. (S. Zunnunova)

“A day was twenty-four hours long but seemed longer. There was no hurry, for there was nowhere to go, nothing to buy and no money to buy it with, nothing to see outside the boundaries of Maycomb County.” “To Kill a Mockingbird” (Harper Lee)

2. Inconceivable exaggeration in the image, which does not correspond to the logic of human thinking, is called “**igrakh** or **ifrat**” (Arabic - exceeding, going beyond the limit).

Dushmanlarnito 'plabolib,

Yetganigaqilichsolib.

Hardarao 'likkato 'lib,

Bosh kesarmaydonichinda.

(“Ravshan” dostonidan)

I have been assured by a very knowing American of my acquaintance in London, that a young healthy child well nursed, is, at a year old, a most delicious nourishing and wholesome food, whether stewed, roasted, baked, or boiled; and I make no doubt that it will equally serve in a fricasie, or a ragoust.

“A modest proposal” (Jonathan Swift)

3. The unimaginable, excessive exaggeration in the image is called “**gulu**” (Arabic - qiy - chuv; to exceed).

Vah, muhabbatko 'yidaqonyig 'ladim,

Yettiiqlimg 'arqbo 'ldiyoshima.

(Mashrab)

My love is as a fever, longing still For that which longer nurseth the disease, Feeding on that which doth preserve the ill, Th' uncertain sickly appetite to please. My reason, the physician to my love, Angry that his prescriptions are not kept, Hath left me, and I desperate now approve Desire is death, which physic did except. Past cure I am, now reason is past care, And, frantic-mad with evermore unrest, My thoughts and my discourse as madmen's are, At random from the truth vainly expressed. For I have sworn thee fair, and thought thee bright, Who art as black as hell, as dark as night.

CONCLUSION

In our classical literature, which has a thousand-year history, it is a question of literature has always been in the center of attention. Not what the artist describes, but mainly how attention is focused on what it describes. The issue of norms is also important in the application of poetic devices. That is, in the poem just as it is not acceptable to use too much devices, with neglect of them looking at it, expressing the ideas and thoughts in the work without literary devices embellishments is also a poem there is no doubt that it will have negative effect on the price. That is why he is a great owner the poets used poetic arts in their works with their place and measure.

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SOME REFLECTIONS ON THE LEGEND OF "ALANQUVA"

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ABSTRACT

The article discusses the emergence and spread of the "Alanquva" legend and its artistic expression in the "Sabai Sayor". She got pregnant." Although she has been a widow for seven years, the fact that Alankuwa, who has been leading the country, is pregnant at an unusual age, is the reason for the increase of all kinds of talk among her compatriots. We consider it an honor for every royal family to be associated with the miraculous history of Alanquva. We observe the same situation in Hafiz Tanish Bukhari's work "Abdullanama".

KEYWORDS: Alanquva, Legend, Folklore, Mythology, Hobgoh, Motive.

INTRODUCTION

We know that Alanquva is the hero of the genealogical legend that arose in the folklore of the ancient Turkic peoples and Mongolians who lived in the mountainous Altai. Professor A. Hayitmetov also expressed certain opinions [1].

Alisher Navoi effectively used the mythological imaginations of our people related to various events in creating his epic [2]. In the ninth chapter of the work, the poet who connected the family of Husayn Boygaro to Genghis Khan on his father's side, and to Alanquva on his mother's side, alluded to a myth widely spread among the Turkic and Mongolian peoples:

Ҳаматохонуҳамангаанохон,

Йўқ жаҳонда анинг киби яно хон.

Анга Чингиз улуг ато келган,

Аносихуд Алонкуво келган[3].

According to the "History of Four Nations" written by Mirzo Ulug'bek, Alanquva is the daughter of Chuymanakhan ibn Yulduzkhan, and she is from the Kurlos and Qiyat people. Alanquva's beauty was so incomparable that those who saw it bit their fingers in surprise. Even the beauty of the moon is nothing compared to her beauty. In the mythology of the Turkic peoples, the epic plot of Alankuwa's unnatural pregnancy was very popular. In the "History of the Four Nations" it narrated this legend:

"When Alanquva reached the age of fourteen, the son of his uncle, then the leader and governor of the Mongols, Dibun Bayon ibn Uymana ibn Yulduz Khan, was a regular at the wedding celebration. After Dibun Bayon's home became bright like a full moon from Alanquwa's beauty, Alanquwa gave birth to two sons from Dibun Bayon. He named one Bilqado. Bilqado to the

second. After three years of their marriage, Dibun Bayon died. Alanquva remained. After the death of Dibun Bayan, Alanquwa became the mother and allow Ulus chief of the Mongol tribe, according to the program Dibun Bayon's government regulations. One night, seven years after Dibun Bayon's death, a ray of light like a full moon came down from the hole of the making the room completely clear and bright. When he came close to Alankuva, he became like the image of a magician and entered Alankuva's dream room. He strived for virtue and chastity. Taking him out from under the veil, Alankuva had a conversation. No matter how much Alanquva tried not to confess to him, to free himself from his hand, he could not succeed. After the final conversation, he looked at Alanku, and the bright young painter entered the picture of a colorless quail and went out of the room door. From that time until a certain period, he came and talked with Alankuva every night in this order. There was a series of wanderings from secret conversations in Alankuva. She got pregnant." Although she has been a widow for seven years, the fact that Alankuwa, who has been leading the country, is pregnant at an unusual age, is the reason for the increase of all kinds of talk among her compatriots. Then Alankuwa is forced to tell about the miraculous event that is happening. His compatriots watch him in order to be sure whether he is telling the truth or not. According to the "History of the Four Nations", "the representatives of the gathered tribes and the Mongolian nobles watched for three or four nights in order to find out whether the words of Alankuva are true or false." It became clear to the observation of each of that team that every night a light similar to the brightness of the full moon for four nights entered through the hole in the khirgah room, and they saw the same image as they had heard from Alankuva, that it entered the form of people and used pillows. Then, as soon as the attack was over, he would change into a quail and leave the door."

The gathered team waits one night with all kinds of weapons in their hands, hoping to save Alankuva from the attack of that luminous image. As soon as the vision, as bright as the light of the full moon, enters the hall, they attack it from all sides. But when they looked at themselves after a while, it was said that those who had been shot were injured and lying wounded. After the conversation, the luminous figure returned to its usual luminous quail form and disappeared from sight. After that, Alankuva got rid of all kinds of gossip and slander, and she gave birth to three sons at full term. They named one of their sons Burkun, the second Busunjur, and the third Buzanjar. In Mongolian legends, the family of Genghis Khan is connected to this Buzanjar. That is, "the people of Tavarikh call Buzanjar the owner of this class of owners" [4].

The legend of "Alanquva" is mentioned in many historical sources and genealogies created in our country. In particular, this legend is described in a unique way in the chapter of Abulghazi Bahadirkhan's "Shajarai Turk" entitled "Alanquva's wonderful story" [5].

This legend is of a genealogical character, in which the history of the origin of the Turkic and Mongolian tribes and chieftains is described through the medium of fiction. At the center of the plot of the legend are the motifs of a celestial being falling to earth in the form of a full moon and Alankuva's unusual pregnancy from it. The childlessness of the hero's parents and the mother's pregnancy in an unusual state (that is, under the influence of magic-magical forces, through prayer-applause, due to eating certain things, etc.) are among the traditional epic motifs of Uzbek folklore. In the myth of "Alanquva" there is also a unique epic interpretation of the motif of unusual birth, based on the image of the union of a luminous being with a woman in a mysterious way. The flight of a luminous being, freed from conversation, into the image of a quail, can be considered a traditional motif that arose under the influence of animistic ideas related to the manifestation of the soul as a bird.

In Turkic and Mongolian genealogical legends, Alankuva was honored as a dignified woman who was conceived by a celestial being, who appeared in the image of a luminous creature, and who founded the family of the Sahibkirans. Narrators described her carefree beauty, purity, loyalty to her love, patriotism and honesty. We consider it an honor for every royal family to be associated with the miraculous history of Alankuva. We observe the same situation in Hafiz Tanish Bukhari's work "Abdullanama". It contains interesting information about the history of the origins of the Mongolian tribes scattered from the legendary Alankuva [6]. Alisher Navoi Hossein Boykara's mother's likeness to Alankuva should be based on these legends.

We know that in connection with the spread of Islam in our country, many mythical images related to Arab folklore and mythology entered the folk art. According to the writings of M. Joraev and Sh. Shomusarov, who called this stage in the development of Uzbek mythology "Arab-Islamic mythology", "Movarounnahr was conquered by the Arabs at the end of the 7th century, and this process ended in the middle of the 8th century. As a result, Islam, which spread to this country, brought to Central Asia plots, motifs and images belonging to the epic traditions of the mythology and folklore of the peoples of the East. Although the structure of Islamic mythology is multi-layered and includes core myths (Arabic myths) and assimilated myths (i.e. folklore of later conquered peoples and myths related to other religious views), its basis was formed by examples of oral creativity of ancient Arab peoples" [7].

The great poet Alisher Navoi, who perfectly embodied the ancient mythology and artistic traditions of our ancestors in his works, created his own interpretations of the image of Volida by comparing Husayn Boygaro's mother to Alankuva in the epic "Sabai Sayyor".

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WAYS TO DEVELOP THE KNOWLEDGE, SKILLS AND ABILITIES OF PARENTS AND OFFICIALS OF DISTRICT'S QUARTERIN ORDER TO CREATE A FULL-FLEDGED LIFESTYLE FOR CHILDREN WITH DISABILITIES

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ABSTRACT

the paper focuses on issues of continuous professional development of parents and assembly of community locality (furtherin the text –mahalla) officials in order to create a full-fledged lifestyle for children with disabilities. The authors gave their opinions and comments on the intensive professional development of parents and mahalla officials for children with disabilities.

KEYWORDS: Mahalla, Officials, Disabled Child, Social Technologies, Knowledge, Competence, Skills.

INTRODUCTION

Modern mahalla officials of New Uzbekistan should know how to adapt to new socio-professional technologies, to interact with various information and communication systems and their subjects. In order to be successful and in demand in modern society, a person must have general and professional knowledge, skills and qualifications. [1, 59]

Achieving socio-professional mobility by the officials currently operating in the mahalla (the chairman of the mahalla, his deputies) is the readiness for competitiveness in the labor market, free occupation of one's profession and the ability to aim in mixed fields of activity, continuous professional growth help to form.

Therefore, the chairman of the mahalla and his deputies should always strive for innovation and be ready for processes such as assimilation and implementation of these innovations, study of their effectiveness, analysis and objective evaluation.

The innovation proposed in the project constitutes the structural structure of the process are: problems, need for renewal, subjects, goals, tasks, content, methods, results.

The development of knowledge, skills and competencies of parents and public figures serves to form a full-fledged lifestyle for children with disabilities. This is the force that moves them towards the goal. [2]

It is an activity aimed at solving complex problems arising from the incompatibility of traditional norms with new social requirements or the conflict between a newly formed norm of practice and an existing norm.

Therefore, the actual issue is educational processes organized in the direction of developing the knowledge, skills and competencies of parents and district officials in order to form a full-fledged lifestyle for disabled children, that is, processes that are an integral part of a complex pedagogical system.

MATERIALS AND METHODS: In this process, it is important to develop the knowledge, skills and abilities of parents and the mahalla officials, and to plan the processes to be organized in order to achieve the desired results, taking into account their specific characteristics.

Based on the above ideas, educational processes organized in the direction of developing the knowledge, skills and abilities of parents and officials of the mahalla, we interpret as a complex, multi-level pedagogical system in order to form a full-fledged lifestyle for disabled children. a set of characteristics that should be characteristics of innovation. These are dialectics, periodicity, level of validity, diversity, importance, risk, the ability to describe leadership styles, the relevance of the situation, structure (structurality), the ability to form an innovative action strategy, manageability, social orientation, the ability to differentiate according to the interests of people, the acceptance of innovations by the subject.

The importance of organized distance learning is that, the fact that parents and mahalla officials will have the opportunity to objectively assess their interest and attitude to news on **the formation of a full-fledged lifestyle for children with disabilities**, mutually in the pedagogical process about changing relationships, aggravation or coordination will occur, and, in turn, it will be possible to develop projects that are compatible with this process.

In developing the knowledge, skills and abilities of parents and officials of the mahalla, first of all, in achieving the intended goals, it is necessary to harmonize the prospective goals and opportunities of the mahalla with the interests of children with disabilities. And also, it is necessary to adapt the activities of the mahalla to modern changes, to introduce long-term management programs into the management process.

This, in turn, requires the necessary knowledge, skills and abilities in the study of prospects and the achievement of goals, in a preliminary analysis of the factors influencing development, the development of creative ideas and the direction of their implementation.

In particular, **the development of knowledge, skills and abilities of parents and mahalla officials** is carried out in the process of distance learning.

Thus, the processes of **developing the knowledge, skills and abilities of parents and mahalla officials** - by organizing training in professional knowledge, skills and abilities on the **basis of regular familiarization of parents and mahalla officials** with news in the social sphere, the systematic development of short-term distance learning courses, on-site advanced training, training seminars, Open Days, various parties, scientific and practical conferences, preparation of scientific, methodological, methodological materials, including advanced training includes theoretical and practical training in training courses and distance learning processes.

The purpose of organizing distance learning for parents and mahalla officials is to ensure the effectiveness of social support for parents with disabilities children in their families, systematic

training in distance learning, short-term on-site training, organization, development, popularization of family experience that set an example in the education and upbringing of children with disabilities and are an example for everyone.

The professional development's processes of parents and mahalla officials are organized on the basis of the Cascade technology.

RESULTS AND DISCUSSION: Through the implementation of the project, in order to create a **full-fledged lifestyle for disabled children in mahallas, priority areas** for the development of knowledge, skills and abilities of parents and officials of the mahalla, continuous improvement of their qualifications, independent education, short-term mobile learning is achieved based on the organization of educational processes, ensuring quality and efficiency continuous learning processes and coordination.

The directions for ensuring the effectiveness of the processes of continuous education of parents and members of the public are also determined and agreed upon.

The "Cascade" mechanism for the implementation of professional development processes will be introduced, monitoring will be established, measures will be developed to eliminate existing problems and shortcomings based on an analysis of their effectiveness, and control over their implementation will be carried out.

In order to improve the skills of parents and the mahalla officials, urgent problems in the region are identified and measures are being developed to eliminate them.

Cooperation "family-mahalla-educational institution" will be increased, the role, interest and responsibility of parents in the upbringing of disabled children will increase, their relations with children will be strengthened.

CONCLUSIONS: Public Partnership Council "Family - Mahalla - Educational Institution" under the Ministry of Public Education of the Republic of Uzbekistan (including "Family - Mahalla" under the Ministry of Public Education of the Republic of Karakalpakstan, public education departments Cooperation between the city of Tashkent city and the regions)"Family - mahalla - educational institution", proposals will be developed for a systematic discussion of **the issue of creating a full-fledged lifestyle for children with disabilities** in regional public councils.

In particular, the functional tasks of the regional public cooperation councils "Family - Mahalla- Educational Institution" should include:

- effectively organize and coordinate the activities of the "University of Parents" on the basis of the presented strategic plans for the development of knowledge, **skills and qualifications of parents and mahalla officials in order to create a full-fledged lifestyle for children with disabilities**;
- organization of training processes for parents and mahalla officials based on the results of district practices;
- creation of necessary conditions for professional education;
- organization of regular training seminars, regular reporting on the results to the Public Council;

- introduction of pedagogical and modern information and communication technologies into the educational process on the basis of national, universal and spiritual values;
- organization of dissemination of information about the work experience of effectively functioning mahallas;
- creation of a system for the effective use of electronic information and educational resources, new scientific and methodological, methodological manuals;
- promotion of best practices and experience of mahallas with high professional skills, achieving positive results in this regard.
- the above activities take place within the mahalla system, but in order for this system to be effective, the environment, that is, the socio-cultural environment, must be at the required level.

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THE ROLE OF UNIVERSITIES IN BUILDING A REGIONAL INNOVATION SYSTEM

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ABSTRACT

The article examines the role of universities in building a regional innovation system. The activity of higher educational institutions in the development of activities allows forming the centers of innovative activity in the region and the institutional foundations of the regional innovation system. Currently, one of the forms of organizing and carrying out innovative activities is the model of educational, scientific and innovative complexes (UNICS). In market conditions, universities for various reasons do not have the opportunity to integrate with science and production on cooperative terms, the process of integration is taking place in all types of activities by joining or acquiring other enterprises and organizations.

KEYWORDS: *Economy, Innovation Activity, Education, Science, Scientific, Technical, Financial Resources, Innovative, Organization, Integration.*

INTRODUCTION

The innovativeness of the economy means the transition to an intensive type of expanded reproduction, which is based on scientific and technological progress and innovative activity (ID) as factors providing competitive advantages of socio-economic systems. The need to develop the innovative component of the economy has been repeatedly confirmed both in the works of both foreign and domestic economists. However, according to experts, about 1.2% of GDP is spent on research and activation of innovation activities, for example in Russia, and about 50% of this amount falls on budget investments, whereas in the USA this figure is 2.6–2.7% of GDP per year, in the European Union, Japan, the share of R&D expenditures is from 2.7% to 3.1% of GDP [1].

The level of innovation of the economic environment depends on many factors, the main of which are the accumulated intellectual potential, the relevant regulatory and legislative framework and institutional framework, the availability of risky investment resources (venture type). The need for technical re-equipment of the leading sectors of the economy (mechanical engineering, petrochemistry, transport), a significant reduction in quantitative and qualitative terms of scientific and technical branch institutes and centers led to the fact that a layer of small

innovative and engineering firms began to form, on the one hand, and on the other hand, divisions related to development and implementation of innovations that increase business efficiency. However, the mechanism of systematic use of scientific developments to manage competitive advantages in industrial production has not yet developed.

Methodology

The domestic manufacturing industry, apparently, cannot be a source of innovation breakthrough in the coming years due to the lack of financial resources, personnel, management structure and support of innovation activities, orientation to an extensive development strategy and price competition. Thus, in the near future, the system of university and academic science may be the centers of systemic integration of innovation activity [2].

The role of universities in building a regional innovation system is associated with the development of the following areas of activity:

- reproduction of scientific and technical (intellectual) potential necessary for the development and commercialization of innovations;
- production of innovative products and services in-house;
- incubation and generation of small knowledge-intensive businesses associated with the university;
- formation of an innovative ID support infrastructure serving the needs of the regional innovation system;
- training of personnel for ID;
- formation of an innovative culture in the business environment.

The activity of universities in the development of all the above activities will allow the formation of centers of innovation activity in the region and the institutional basis of the regional innovation system [3].

One of the forms of organizing and conducting innovative activities is currently the model of educational, scientific and innovative complexes (UNICS). In market conditions, universities for various reasons do not have the opportunity to integrate with science and production on partner terms, there is a process of integration in all types of activities by joining themselves or absorbing other enterprises and organizations. This trend in changing the university's approaches to the external environment leads to the creation of a new structural form — the university complex [4].

The University Complex (CC) is an association of educational institutions operating in the system of higher and postgraduate professional education, implementing programs of various levels, scientific and other non-profit organizations; implementing educational programs of various levels in accordance with the established procedure, as well as other activities in order to improve the efficiency and quality of the educational process, the use of material, intellectual and information resources for training specialists and conducting scientific research in priority areas of education, science and the social sphere. In this case, the association may imply either a legal entity or interaction on the basis of contracts. Educational institutions may be established in one of the organizational and legal forms of non-profit organizations provided for by law.

The mechanism of functioning of university complexes provides for the formation of three types of associations of educational institutions and non-profit organizations on the basis of the university, i.e. according to the model:

- university educational district;
- associations of legal entities (union);
- the complex as a single legal entity.

Each university chooses a model depending on the existing infrastructure, established external relations with enterprises and local authorities, and also depending on strategic plans for further development.

The University educational District does not have the status of a legal entity. This is the educational environment of a university in a city or

a region that covers educational institutions that implement educational programs at various levels. Educational institutions of various forms of ownership are united with the aim of: improving the quality of education; forming continuity of educational standards and training programs; providing targeted training for the industrial and social spheres of the region.

The Association of Educational, Scientific and Other Non-Profit Organizations is a non-profit organization established with the aim of improving the quality of education and making fuller use of intellectual, material and production resources.

The CC as a legal entity can be formed of two types: type 1 – A university complex as a reorganization of the university in the form of joining other legal entities to it; type 2 – a University complex formed by self - development of the university. It can be noted that to a greater extent the creation of the Criminal Code has been developed on the basis of classical, technical and technological universities, universities of pedagogical profile, to a lesser extent the forms of complexes of universities of agro-industrial and economic profiles have been worked out.

Results

The results of a study of the experience of creating university complexes, for example, in Russia showed that of them: 15% were created or are being created as state educational institutions, 40% were created or are being created as an association (union), 45% were created or are being created as an educational district.

The creation of university complexes in the form of educational districts, including educational institutions regardless of ownership and implementing educational programs at various levels, is due to the fact that first of all a system of multi-level and multi-stage continuing education is being built: “School -college (lyceum) – university”.

The creation of conditions for affordable education (primarily higher education) is realized through the opening of branches and the development of distance education. As a rule, this approach is typical for regions where the higher education system is represented by one leading university in the region or several universities of the same profile (for example, pedagogical universities and institutes), the economy of the region has a pronounced specialization (for example, the agro-industrial complex). In the university educational district of single-profile

educational institutions, the profile university serves as an organizational and methodological center.

The creation of a university complex in the form of an association (union) makes it possible to unite educational, scientific and other institutions and organizations.

This form has a number of advantages: firstly, the subjects of the association can unite, maintaining their independence, the number of subjects is unlimited; secondly, a comprehensive approach is being implemented to solve the problems of development of all parts of the education system in the region; thirdly, the unity of the regional educational space is ensured; fourth, there is a consolidation of budgetary and extra-budgetary sources of financing for the implementation of specific projects of the association and the preservation of the financial independence of its subjects. All these transformations are innovative in nature and are dictated by the need to search for opportunities to achieve new results, and not by the logic of the development and self-preservation of the educational system.

An example of the organization of university complexes in can be: Bauman Moscow State Technical University (MSTU), which together with the Khrunichev State Space Research and Production Center created a consortium to organize targeted training of specialists in the areas of design, creation and operation of rocket and space technology; St. Petersburg the State Electrotechnical University where the UNIK was established and successfully operates, etc.

University complexes (UOO and UNIK) have been created and are successfully functioning in developed industrial countries (USA, Germany).

The successful experience and purposeful work of a number of classical and technical universities testifies to the unconditional effectiveness of investments in the formation of leading universities as centers of sectoral and regional innovation activity. The formation of the basic elements of the regional innovation infrastructure is determined by the level of the region's economy and the resources it has.

CONCLUSION

The existing university base plays a decisive role in choosing the model of the university complex, the development of infrastructure and its elements. This is, first of all: the scale of the university, the volume of research and development;

innovative potential; the degree of integration of the university with educational, scientific institutions, industrial enterprises and organizations of the region and the role that the university plays in the socio-economic, technological, educational and cultural development of the region.

Universities that create university complexes should become centers of innovation activity of regional economies. These complexes form an innovative environment and infrastructure for the commercialization of innovations in educational and scientific and technical activities. The special role of the university complex is that it should encourage teachers, students, scientists to innovative entrepreneurship.

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THE NEW METHOD OF PRODUCTION OF HIGH-DENSITY CONCRETES

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ABSTRACT

In numerous works by Soviet and foreign authors, a significant role is assigned to the density of concrete in the formation of its structure and physical and mechanical properties. It is noted that one of the important tasks of concrete technology is to find conditions that provide the possibility of obtaining the maximum density. As is known, it is POSSIBLE to solve this problem by reducing the W/C to values at which the mixing water completely interacts with cement, and at the same time, the maximum compaction of the concrete mixture is ensured, which practically excludes the presence of a gas phase in it.

KEYWORDS: Concrete, Sand, Water, Mixture, Density, Plasticizers, Molecular Forces, Phase Density.

INTRODUCTION

However, there is a contradiction between the W/C and the degree of compaction of the concrete mixture: with a decrease in W/C (especially in the range of its low values), the compaction of the mixture becomes very difficult. In order to provide the necessary workability of the mixture, much more water is introduced into it [2] than required, and, thus, a decrease in the concrete density is predetermined. On the other hand, when compacting a concrete mixture after mixing with water, air is trapped in it, and the more the mixture is stiffer, which also reduces the concrete density. The porosity of conventional concrete is 12–20% [3]. In the density classification [4], high-density concretes have a porosity of 15-20%, high-density concretes 10-15%, and extra-dense concretes up to 10%.

Methods

Existing ways to increase the density of concrete are based mainly on the use of plasticizers to reduce the water content and W/C concrete mixture or on the use of rigid mixtures with simultaneous intensification of their compaction. However, it is usually possible to reduce air content with the help of plasticizers only by 10-15%. and the intensification of the compaction process is associated with an increase in energy costs. Therefore, the problem of increasing the density of concrete continues to be relevant. Research into the issue of obtaining high-density concretes, based on the compaction of the concrete mixture before mixing with earth, led to the

development of the so-called “dry” concreting method. Its essence is that the preparation and compaction (molding) of the concrete mixture is carried out in a dry state, after which the mixture is impregnated with water.

It was assumed that the compaction of dry mixtures should provide a greater percentage of the solid phase in concrete, and their good gas and water permeability and acting outside of capillary and molecular forces during impregnation should contribute to the almost complete displacement of air and filling the intergranular space of the mixture with water. Experiments begun at the Institute of Physical Chemistry of the Academy of Sciences of the USSR and continued at the K. D. Panfilov Academy of Communal Services confirmed this assumption.

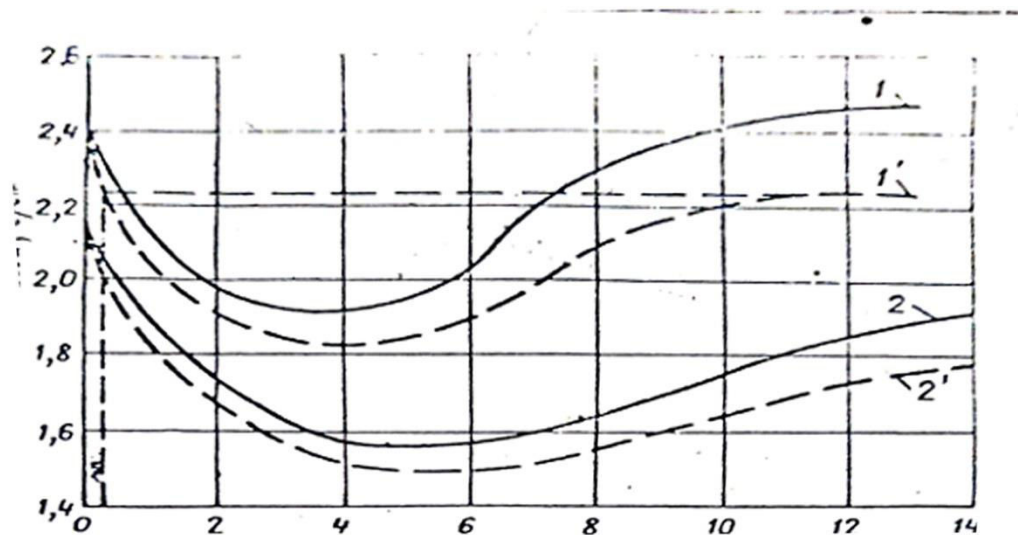


Fig. 1. Dependence of the volumetric mass of cement-sand (1) and cement (2) on humidity at the same compaction intensity (curves 1, 2 show the change in the density of the system; curves 1, 2. constructed by subtracting the volumetric mass of water, the change in the particle packing density solid phase)

Figure 1 shows a graph of the change in bulk density as an indicator of density for cement and cement-sand mixture, depending on moisture content at the same intensity of compaction.

As can be seen from the graph, the maximum solid phase density corresponds to the minimum moisture content when the cement and mixture were dried to constant weight. The bulk density of the dry mixture was 2.4 g/cm^3 , the void content was 12.5%, and the concrete obtained by impregnating this mixture with water (with an initial $B/L=0.18$) had a strength at the age of 28 days of normal hardening of 1180 kgf/cm^2 and a porosity of 3.5%, which indicates its high density. The indicated value of V_C approximately corresponds to the quantity. water, necessary for chemical interaction with cement, i.e., close to optimal. However, for a more complete hydration of the cement and a further increase in strength, in this case it is advisable to use water replenishment: water due to contraction, which occurs during water hardening. So, experiments show that during the first day of water hardening W/c increases up to 10%. Characteristically, with this method, the initial water content and water demand of the mixture are identical, depend on the degree of its compaction, and can be determined by the formula $B = 1000e \text{ (l/m}^3\text{)}$, where

the porosity of the dry mixture after compaction is in fractions of 1. This corresponds to 11. A. Popov [5] came to the conclusion as early as 1933 that the water flow rate at which the highest density is achieved can practically be considered equal to the volume of voids in a compacted dry mixture of solid components. The same opinion is shared by M. Z. Simonov [1] and S. V. Shestoporov [6].

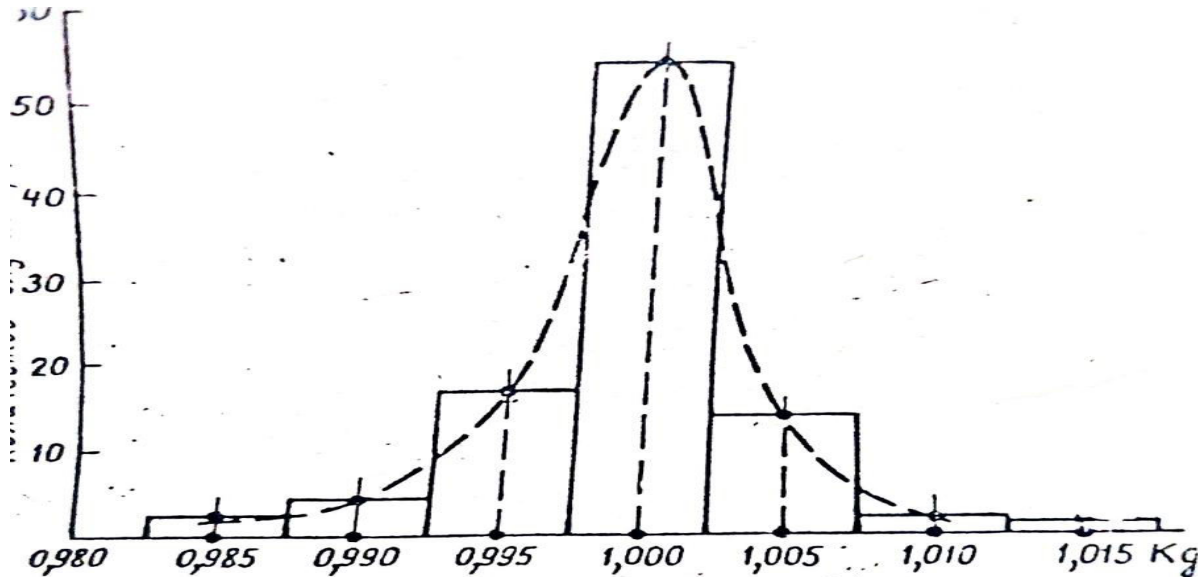


Fig. 2. Distribution of 196 obtained values of compaction coefficient of fresh concrete

Experimental determination of the compaction coefficient [7] of freshly prepared concrete, shown in the form of a graph (Fig. 2), indicates that k is practically equal to 1; this agrees with the above formula. Above. Some values of K above 1 are explained by the experimental error allowed by the existing technique. In this case, this error did not exceed 1.5%. The selection of the composition of the dry mixture is simplified, since there is no need to take into account the factors of workability and mobility of the mixture. The matter is reduced to the selection of such a ratio between cement and aggregate, when their most dense packing occurs. Due to the incoherence of dry mixes, their tendency to delamination, fine-grained mixes are the most acceptable for dry concreting.

Results

Indicators of density, strength and other characteristics of concrete were determined on sample cubes 10x10x10 cm from a cement-sand mixture of composition 1: 2.5 and cement-sand-crushed stone 1: 2.5: 1.5. Tuchkovskiy sand and cement or a mixed binder prepared by joint grinding of cement with sand in various ratios were used as starting materials. The specific surface area of cement and mixed binder in the experiments was about . 5000 cm²/g [Belgorod cement brand 500 ($S_y=2500$ cm²/g), crushed granite fraction 5-10 mm]. The residual moisture content of the dry mix did not exceed 0.3%.

The mixtures were tested for stratification by free vibrating with a CHTO load, vibrating at 100 g/cm². Experiments with at have shown that when vibrating with a load, the separation of the mixture practically does not occur. vibrating mill M-10 without balls for 1 min, Nyali compaction on a vibrating platform with a weight of about 100 g/cm². The degree of compaction of the dry mixture was characterized by a void content of 15-16% for cement-sand and 13% for a

mixture with crushed stone. After compaction of the mixture, its volume was fixed (by installing a clamping cover on its surface). This was done in order to prevent swelling of the mixture as a result of the wedging action [8] of water during the impregnation process. The impregnation of the mixture with water was carried out through the perforated bottom of the form under a pressure of 0.15 atm. The impregnation time of the samples was 55–68 min.

With an increase in the thickness of the mixture layer, the time increases. This was done in order to prevent swelling of the mixture. As a result of the wedging action [8-11] of water during the impregnation process.

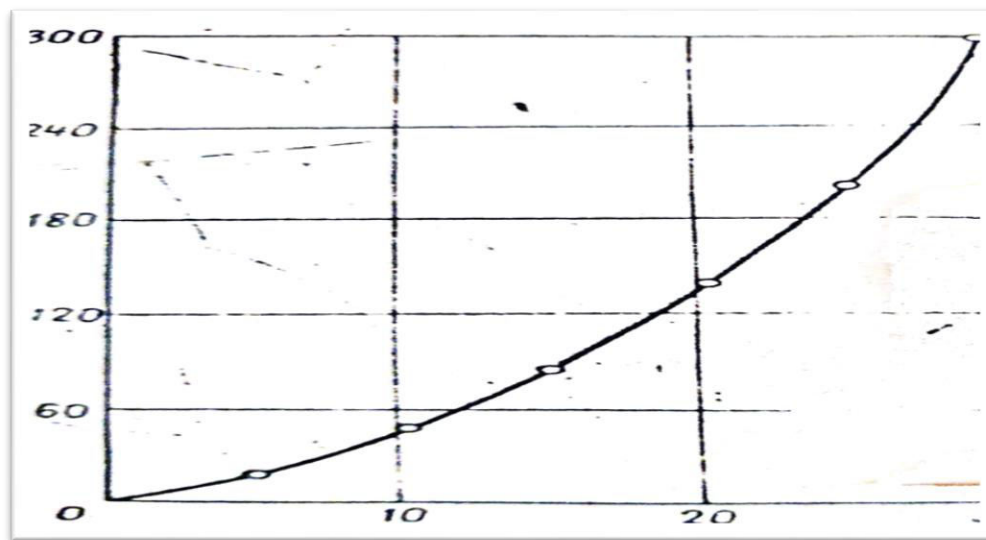


Fig.3. The dependence of the impregnation time of concrete under the mixture on its thickness

The mixture was impregnated with water through a perforated diish mold under a pressure of 0.15 atm. The impregnation time of the samples was 55–68 min. As the layer thickness of the mixture increases, the time increases. Thus, the impregnation of 10x10x30 cm prisms in the vertical direction lasted about 5 hours. The dependence of the impregnation time on the layer thickness is shown in Fig. 3. As experiments have shown, the duration of impregnation can be halved by the use of surface-active additives to water, in particular 0.1-0.2% PRS.

TABLE 1.

Type composition and of mixture		The ratio of cement and sand in a mix binder	Cement consumpt ion	W/C	Density of concrete in g/cm ³	The total porosity on day 28 in %	The chemical bound water on the 28 th day in %
Cement-sand	I	100:0	660	0.23	2.474	6.1	13.8
	II	80:20	525	0.30	2.458	6.8	15.6
	III	60:40	385	0.44	2.431	7.4	19.3
	IV	40:60	260	0.61	2.412	8.2	26.0
	V	20:80	130	1.20	2.405	9.8	26.4
Gravel mixture		80:20	360	0.35	2.490	5.5	16.4

After stripping, the samples are kept in a wet storage chamber. The resulting concrete was distinguished by high values of bulk density, low porosity and should be classified as especially dense (Table 1). The amount of chemically bound water (CBW) in it is within the same limits as in conventional concrete. It should only be noted an increase in CBW with an increase in the proportion of sand in the mixed binder, which is apparently associated with an increase in W/C.

The density of concrete was also checked by water and gas permeability of the samples. When testing cement-sand concrete of composition II for water permeability with a sample thickness of 3 cm and a hydrostatic pressure of up to 20 atm for 300 h, no signs of water penetration were found.

TABLE 2.

Type and composition of mixture		R_{sqz} , kg/cm ² in period of a day				R_{sqz}/C
		1	3	7	28	
Cement-sand	I	615	790	885	1064	1.61
	II	510	695	760	918	1.75
	III	300	536	648	714	1.86
	IV	148	320	435	496	1.95
	V	—	151	236	261	2.01
Gravel mixture		358	560	656	758	2.10

To test the gas permeability, samples were made in the form of a truncated cone with a diameter of 102/107 mm Bb with a hundredth of 100 mm, normal hardening, 2 months old. The gas filtration coefficient at a pressure of 50 atm for concrete with crushed stone turned out to be within

$$8 \cdot 10^{-7} \text{ — } 4 \cdot 10^{-5} \left(\frac{\text{cm}^3 \cdot \text{cm}}{\text{cm}^2 \cdot \text{atm} \cdot \text{sec}} \right)$$

for concrete without crushed stone on Tuchkov sand $1.2 \cdot 10^{-6}$ — $5 \cdot 10^{-5}$, on Juminsky sand - $4.2 \cdot 10^{-5}$ — $1.1 \cdot 10^{-4}$ Data on the compressive strength of concrete at different ages are given in Table 2.

From the data in Table. 2 it can be seen that the high density of concrete provides high rates of its absolute and, especially, relative (R_{sqz}/c) strength. The use of a mixed binder with different consumption of cement makes it possible to obtain concrete with a strength of 260 to 1060 kg/cm².

The highest relative strength was obtained for concrete with crushed stone, it is 30% higher than the relative strength of cement-sand concrete, although the absolute strength of the latter is much higher. This indicates a more complete use of the properties of cement in crushed stone concrete (although the content of crushed stone in concrete during “dry” concreting usually does not exceed 30-35% of the mass of the entire mixture, since a significant expansion of crushed stone grains is necessary for good compaction of a dry concrete mixture). Concrete samples of compositions II and III were tested for frost resistance and withstood 1000 cycles of alternate freezing and thawing: in this case, the loss in mass of the samples was 1.6–2.6%, and the strength was -0-20%.

An interesting question is about the homogeneity of the resulting concrete in terms of the height of the product with the technology of "dry" concreting. To assess the homogeneity of cement–sand concrete, the volumetric mass, the amount of chemically bound water, compressive strength, and the propagation velocity of an ultrasonic pulse along the height of the samples were determined.

In the experiments, 10x10x30 cm prisms were used, which were molded in a vertical position, in the direction of impregnation from bottom to top. The composition of the cement-sand mixture is 1: 2.5: Belgorod cement grade 500, Tuchkovsky sand, W/C of the resulting concrete 0.28. Samples of normal hardening were tested at the age of one month.

TABLE 3.

<i>N. of prisms from down to up</i>	<i>Prism 1</i>			<i>Prism 2</i>			<i>Prism 3</i>		
	γ g/cm ²	CBW %	R _{sqz} kg/cm ²	γ g/cm ²	CBW %	R _{sqz} kg/cm ²	γ g/cm ²	CBW %	R _{sqz} kg/cm ²
1	2.42	14.5	810	2.40	13.7	790	2.40	14.6	748
2	2.41	13.9	784	2.42	14.4	740	2.41	13.6	786
3	2.43	14.2	726	2.42	14.0	805	239	13.4	738

The prisms were split in the transverse direction into 3 parts, from which, after the strength test, 3 samples were taken to determine chemically bound water in concrete. The propagation velocity of an ultrasonic pulse was measured with a UKB-1 portable pulsed ultrasonic device at 9 points every 3 cm along the height of the prism. The test results are given in Table 3 and 4.

TABLE 4.

<i>N. of points from down to up</i>	<i>The velocity of an ultrasonic pulse</i>		
	Prism 1	Prism 1	Prism 1
1	4.95	4.89	4.94
2	4.94	4.96	5.03
3	5.03	4.98	5.05
4	5.03	4.91	5.05
5	5.05	4.92	5.05
6	5.03	4.91	5.05
7	5.03	4.98	4.86
8	5.05	5.13	4.91
9	5.07	5.13	4.94

The data show a good uniformity of concrete, the largest deviation of the ultrasonic velocity values does not exceed 3%. Some decrease in the speed of ultrasound (within 2.2-4.7%) is noted in the direction to the place of water injection.

CONCLUSION

Thus, the method of dry concreting makes it possible to obtain, from fine-grained mixtures, particularly dense concrete of high uniformity, strength, with a good degree of use of the cement's binding properties. The method can be used primarily for the manufacture of concrete

products intended for work in harsh operating conditions, where increased resistance and, at the same time, high concrete strength are required.

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IMPROVING THE STRATEGY FOR THE DEVELOPMENT OF THE OIL AND GAS INDUSTRY OF THE REPUBLIC OF UZBEKISTAN

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ABSTRACT

This article discusses the issues of improving the management of oil and gas enterprises in Uzbekistan, thereby increasing the efficiency of enterprises in the industry. The Investment Program of our Republic includes 26 projects with a total value of 27.8 billion dollars. Considering the economic development of the country and the sharp increase in the demand for energy resources in the future, the need to accelerate the reforms on the sustainable development of the network will increase even more. The program to ensure oil and gas economic stability is economic it should be developed on the basis of the multi-level structural structure of measures to ensure stability and its provision with resources.

KEYWORDS: *Oil And Gas Enterprises, Competition, Investment, Monopolistic Industries.*

INTRODUCTION

The implementation of reforms aimed at reducing the state share in monopoly industries in Uzbekistan shows that the infrastructure of oil and gas enterprises is changing in a positive direction. The reason is that the investments involved in network enterprises fully allow to update the infrastructure of the enterprise and stabilize its financial situation. Therefore, it is urgent to carry out research aimed at improving the mechanism of innovative management of infrastructures of oil and gas enterprises during the current period of rapid reforms.

Oil and gas, fuel and energy sectors in the Republic of Uzbekistan development and diversification of energy sources with alternative energy are being carried out consistently. It is becoming an important factor in meeting the ever-increasing need for energy resources of economic sectors and the population.

The Investment Program of our Republic includes 26 projects with a total value of 27.8 billion dollars. Determination of financing conditions for foreign loans worth 2.3 billion dollars to the Ministries of Energy and Finance under the project "Organization of production of synthetic liquid fuel (GTL) on the basis of purified methane of the Shu'rtan gas-chemical complex", "Shurtan gas-chemical complex" on the project of expanding the production capacities of the complex The task of attracting a \$300 million loan from Gazprombank loaded.

Mubarak gas processing plant, Sho'rtanneftgaz and Gazlineftgaz liquefied gas production, oil and gas production, it was emphasized that funds required for projects such as the purchase of geological exploration equipment should be financed from the country's Eurobonds. It was shown that attracting direct foreign investments to regions with complex geological exploration

is not at the level of demand. It is necessary to accelerate the transformation of state-owned companies while implementing structural changes in the economy. The participation of the private sector in the liquefied gas market will be expanded, and duties on its import will be canceled [1].

Analysis of literature on the topic: A number of foreign and local scientists have conducted research on the issues of improving economic management and innovative strategic management mechanisms in oil and gas enterprises. A number of scientists who have studied the improvement of management in oil-gas and energy enterprises, its content and impact on other areas of the economy, expressed different opinions on improving management efficiency.

I. Ansoffa, A. Chandler According to the planning theory of scholars like Mintzberg, as long as strategy follows structure, the result will be ineffective. According to A. Chandler, strategy is necessary to determine the main long-term goals and objectives of the enterprise, as well as to develop a program of activities and resource allocation to achieve these goals [2].

Henry Mintsberg said, "When we believe strongly in our actions, we usually achieve better results. The importance of the strategy for the enterprise: its adoption eliminates the main problems, and the most important thing is that the manager should pay attention to details and choose specific goals or choose to serve customers, instead of discussing the best market selection [3].

V. According to Quint, strategic management is the object of strategizing is the process of formation and operation of a strategic management system that contributes to the formation or increase of fundamental value, which includes the development and long-term realization of the strategy and its doctrine in accordance with the missions, priorities, goals and tasks defined in it [4].

R. Rumelt considered the issues of improving the economic management and innovative strategic management mechanism in oil and gas enterprises, researched the theoretical and methodological foundations of strategic management, and developed the concept of strategic management [5].

The efficiency of the oil and gas industry is directly related to the activity of other sectors of the economy. Considering the economic development of the country and the sharp increase in the demand for energy resources in the future, the need to accelerate the reforms on the sustainable development of the network will increase even more. Today, the oil and gas industry of Uzbekistan is an important branch of the economy, which is developing rapidly and innovative processes are widely introduced. It is known that the goal of the country's investment policy is primarily based on prioritizing innovative activity in strategic sectors of the economy, that is, modernization of sectors, technical and technological re-equipment.

Methods: During the research, in order to learn how to improve the management of the infrastructure of oil and gas enterprises in the Republic of Uzbekistan, to learn how to obtain a high-value finished product through the introduction and modernization of them, the observation, induction and deduction of dynamic series, economic-statistical analysis and synthesis, statistical grouping, monographic research, systematic analysis, comparison and other methods were used.

Results, and Discussion:In accordance with the strategy of Actions on the five priority areas of development of the Republic of Uzbekistan, a number of changes were made in the field of oil and gas industry. In particular, by the decision of the President of the Republic of Uzbekistan

dated June 30, 2017 "On measures to improve the management system of the oil and gas sector", the management system of the joint-stock company "Uzbekneftgaz" was improved [2].

Analyzing the export potential of the network, it is necessary to pay attention to the need to increase the volume of exports based on the deep processing of hydrocarbons, and not to depend only on gas. In order to regulate the monopolistic industry by the state, it is necessary to revise tariffs on the basis of market principles, provide oil bases and regional gas supply services gradually on the basis of public-private partnership, including concrete measures to transfer the Fergana oil refinery to the trust management of investors. was also emphasized by the leader.

The program for increasing the extraction of hydrocarbon raw materials until 2021 and the mechanisms for its implementation were approved. In 2017, the planned plan for drilling oil and gas condensate and production of liquefied gas was fulfilled. This indicates the need to improve the infrastructure of "Uztransgaz" JSC.

Network within JSC "Uzbekneftegaz" from the current year If we analyze based on the statistical data of the enterprises, the infrastructure of oil and gas enterprises today includes 25 gas pumping stations, 252 gas pumping units, 393 gas distribution stations, 101,317 gas distribution points, 13,250.2 km of main gas pipelines, high-pressure gas 13,736 km of pipelines, 31,651 km of medium-pressure gas pipelines, 85,203 km of low-pressure gas pipelines, 210 free gas fields, and 125 oil fields.

CONCLUSIONS AND SUGGESTIONS: Over the years, many problems have accumulated in the oil and gas network. Due to the insufficient increase of reserves, the forecast of natural gas extraction and production of oil products in 2017 was not fulfilled sufficiently. The forecast for the volume of drilling in the geological-exploration process has been fulfilled by 77%. If these works were completed, it would be possible to increase the reserve even more. Also, only 49% of the forecast of operational drilling and 53% of the forecast of the number of completed wells were fulfilled [2].

Modernization and maintenance of natural gas extraction facilities and distribution networks are also insufficient. As a result, 6% of this natural resource is lost from the extraction of gas to its delivery to the consumer. In accordance with the state program of geological exploration, the need to increase natural gas reserves by 57 billion cubic meters and oil and condensate reserves by 3.6 million tons in 2018 by opening new fields was emphasized.

In order to ensure the production of 63 billion cubic meters of natural gas, 3 million tons of oil and condensate this year, it was noted that 255 new wells and 26 new technological facilities should be completed, 76 wells should be overhauled. It is planned to implement 24 investment projects worth 2 billion 756 million dollars by JSC "Uzbekneftgaz". These funds will be used to build the Jizzakh oil refinery and provide it with modern technologies, to equip the 2nd line of the Kandim gas processing complex and the Kandim mining group, to produce synthetic liquid fuel at the Shu'rtan gas-chemical complex, to carry out exploration work at the "25th Anniversary of Independence" field in Surkhandarya. will be directed to projects such as development of technical and economic bases.

Analyzing the fact that more than half of the investments attracted to the economy of our country correspond to the contribution of the oil and gas sector, it is necessary to know that every spent dollar should bring economic benefits. From the point of view of the state's interests, it is necessary to review the terms of product distribution agreements and joint ventures, diversify the

logistics routes of oil and gas enterprises, and determine the transport corridors and tariffs that guarantee lower prices for the import of raw materials and the export of products.

Losses in the supply of natural gas to consumers indicate that the gas distribution system is physically obsolete. This, in turn, requires that the scientific innovations brought in the research work on improving the infrastructures of oil and gas enterprises should be introduced to the networks. Development of high and medium pressure gas distribution system, motor vehicles in cooperation with foreign companies gasification proposals should be considered. The US company Epsilon Development is expected to invest 5.2 billion dollars in gas production in Uzbekistan.

Earlier, the American company was in Surkhandarya and Fergana regions announced that it will extract gas in fields that require significant costs and are difficult to develop. In the next two years, the United States plans to invest 2 billion dollars in the development of gas fields in these areas. In recent years, 11.8 billion dollars have been invested in the country, 73% of this amount has been directed to the oil and gas sector.

Also, the economic stability of the oil and gas enterprise is based on the expanded reproduction, and the expanded reproduction at the level of value movement should provide sufficient additional value not only to replenish the spent reserves, but also to increase their volume, in turn, the value and quality of the produced product. From this point of view, it is important to develop a program to ensure economic stability in each oil and gas enterprise.

The program to ensure oil and gas economic stability is economic it should be developed on the basis of the multi-level structural structure of measures to ensure stability and its provision with resources. Alternative ways to achieve the economic stability of the oil and gas enterprise should be interconnected within the framework of providing resources for investment project activities on the basis of state partnership and relations between them.

As a result of the conducted research, the following conclusions were formed regarding the possibility of achieving economic recovery of financially unstable enterprises through the introduction of an innovative management mechanism in branch enterprises, which is connected with the use of important economic natural gas not as fuel in the national economy, but as raw material:

1. Oil and gas enterprises operating in our country improvement of its infrastructure, and at the same time, we propose to attract private capital to the oil and gas sector, as well as to the process of extraction and production of oil reserves.
2. Development of public-private partnerships on a large scale By putting new tasks we these network infrastructures development and financial stability of branch enterprises We offer that we can provide. As a scientific research solution to ensure the economic stability of the country's strategically important oil and gas network, we have the following we came to the idea:
3. Not only to attract foreign investors to develop the infrastructures of financially unstable oil and gas enterprises, which are part of Uzbeneftegaz JSC, but also to create a competitive environment for local business entities and implement financing through venture funds.
4. Attracting investments and their effective use if we use the experience of developed industrialized countries, especially the experience of investment policy of the Republic of Korea is distinguished by its importance. In this regard, one of the important priorities of the investment

policy in our country is the strategy aimed at introducing advanced techniques and technologies on the basis of long-term projects in attracting foreign investments.

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A STUDY OF THE GREAT SILK ROAD IN EUROPEAN HISTORIOGRAPHY

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ABSTRACT

The Great Silk Road contributed to trade between regions, also to the exchange of civilizations between peoples and continents, served as an important tool for the development of cultural values, science and cities, thereby creating conditions for intercultural dialogue. The article provides a comparative analysis of the study of the history of the ancient Great Silk Road, crossing Eurasia, in domestic and foreign historiography. The coverage of all aspects of the emergence and development of the Great Silk Road in domestic and foreign literature is determined using the methodology of comparative analysis. The final part of the article contains an analysis and update of the historical data studied on the topic.

KEYWORDS: *The Great Silk Road, Historiography, Source Studies, China, Samarkand, Europe, Asia, Civilization, Culture, Historical Literature, Comparative Analysis.*

INTRODUCTION

The Great Silk Road left an indelible mark on the history of mankind as a path of inter-civilizational dialogue, historically linking the West and East in the field of culture, economy, and social life. Uzbekistan is a unique historical region where West and East meet, and the merit of the Great Silk Road in bringing the two sides of the world closer together and in the integrity of human civilization is invaluable. In the fact that the Silk Road, as a trade, economic and socio-cultural road network, which is important for the history of mankind, does not lose its significance to this day, the role of many ancient peoples of the world with a rich material and cultural heritage plays an important role.

One of such ancient main routes that connected the West and the East for several millennia is the Great Silk Road. This path was introduced into science under the name "Silk Road" by the German scientist Ferdinand von Richthofen from the 70s of the XIX century. This is stated in the work of Richthofen "China". Before him, this road was called "Western meridional road". It should be noted that before the Great Silk Road there were also such roads as the Lalsky way, the Shah way, connecting the peoples of Central Asia and the East.

Historical sources write that the period of the first rise in trade relations on the Great Silk Road - the 3rd century BC - refers to the 3rd century AD. During this period, on the eastern side of the Silk Road was the empire of the Huns, on the western side was the Achaemenid Empire of Iran in 558-330. BC e. In the 3rd century, the state of Kang existed on the territory of modern Southern Kazakhstan and Uzbekistan. During this period, the Achaemenids took control of part

of the trade route. In the III-IV centuries. BC e. China and Central Asia split into small states that did not remain without influence on road development. The Great Silk Road dates back to another period of its heyday in the 6th-12th centuries AD. This period coincides with the period of strengthening of the Turkic Khaganate. In China, the Silk Road was merged with the Tang Empire (618-907).

The creation of relevant historical methodological foundations for studying the history of cities located on the Great Silk Road is aimed at an in-depth analysis of the level of their study by the scientific community and the application of methods recognized abroad, for which, first of all, it is necessary to determine in which direction the scientific research problem is directed. When conducting scientific research in the field of historiography, one of the priority tasks is, first of all, the selection of selected scientific literature in accordance with its various levels.

The Great Silk Road throughout its vast history of mankind for several millennia was characterized by its special historical character as a path of trade and intercultural communication between various peoples of the East and West.

MATERIAL AND METHODS

In Uzbekistan and foreign historiography, the study of the history of the Great Silk Road is one of the areas of particular importance, and is still being studied by historians as an actual area of historical scientific research. Central network routes run from the ancient cities of Uzbekistan, the most important of which is the Silk Road. Therefore, historians who conducted historical scientific research on the history of these cities will certainly touch on the history of the Silk Road. The relevance of the topic lies in the fact that by studying the past of this historically significant path, we can explore aspects of the relationship between Asian and European states with the valuable information that we know to this day.

On the topic “Comparative analysis of the history of the cities of the Great Silk Road in foreign historiography”, effectively using the scientific methodology of comparative analysis of research works of historians of Asia and Europe, we will present our considerations. Until now, a group of scientists in Uzbekistan has been conducting research work on the historiography of the Great Silk Road. As a result of scientific research, we divided the historiography of the study of the Great Silk Road by region as follows: the study of the historiography of the Great Silk Road in the states of Western Europe; The study of the historiography of the Great Silk Road in Asian states. Study of the history of the Silk Road mainly by historians of China, India, South Korea and Japan; in the states of Central Asia, special attention is paid to the study of the history of the Great Silk Road. Because this area is considered one of the most important on the trade route. In particular, in the work of Mahmud Kashgari “Devonilugotit-Turk” a Japanese is mentioned, who calls him “Yabarka” and is considered a great scientist who first put this country on his map. According to the results of archaeological research, today the spread of the teachings of Buddhism is proven, that existed in the social and spiritual life of ancient Uzbekistan in the 6th century AD, from the territory of the Kushan state along the Great Silk Road to China, Korea and Japan.

LITERATURE REVIEW

Let us dwell on some historical studies of individual branches of the Great Silk Road, their place and role in historical eras. In these research topics, A.R. Muhammadjonov, T. Nigmatov, V. A. Shishkin, A. Yu It is believed that Yakubovskiy, in his scientific research, thought deeply about

the role of the Great Silk Road in human civilization. Of the domestic scientists involved in the study of the history of the Great Silk Road, academician Edward Rtveladze, AblatKhodzhaev, O.P. Kobzeva [1], AbdukhalikAbdurasulugli, A.K. Kirgizboev, A. Berdimurodov, A. Anarbaev, G. A. Agzamov, A. Aitboev, O. Mavlonov [3] and several other historians covered some aspects of the topic in their research work. In the scientific research of these authors, such issues as the emergence of the Great Silk Road and its main branches, Trade of individual states, cities built on the Silk Road, mutual intercultural interaction of peoples on the Silk Road are considered.

The book of the famous archaeologist, academician Rtveladze Edward Vasilievich "The Great Silk Road" tells about the historical places of the Great Silk Road, which passed through the territory of Uzbekistan. The book contains information about the Chinese settlements of the Great Silk Road associated with the activities of ancient Uzbek traders. AblatKhodzhaev's book "The Great Silk Road: Relationships and Destinies" [4] contains a lot of scientific information about the history of the Silk Road. It can be said that AbdurasulogluAbdurasul is the author of "The Great Silk Road" [2], "Chin and Mochin" and other studies of scientific literature. Cooperation of Uzbekistan with the countries of Asia on the restoration of the Great Silk Road A.K. Kirgizboev analysis is given in the monograph "International cooperation of the Republic of Uzbekistan with the countries of Asia".

In the writings of Chinese historians, it is stated that in the 4th century BC, Chinese fabrics appeared in India and European countries. In India, these fabrics were called "Cinapatta", in European countries - "magic". And the country that grew silk was called "Serika". While most Chinese scientists believe that Serika was named after China, another group of scientists - Khorii wrote that Serika is Kashgariain the 5th century BC in Greece, long clothes were sewn from silk fabric, which was called - "Amorgiam", since the name of the fabric was considered "Amorgis" [4].

The Chinese scholar Li Minwei argued that the areas connecting the northern provinces of China with the Mediterranean Sea consisted of Mesopotamia, the Iranian Plateau, and the territories of Central Asia to the east of this sea. About the distribution of silk in Central Asia in this place, archaeologist A. Askarov, pointing to the age of the remnants of silk found on the keramolitepe monument in Sukhandar, 3600-3700 years old, previously claimed that silk was created in our country even before China.

Although some opinions have been expressed in studies concerning this topic, but in general, the modern methodological analysis of historiography has not been clearly proven. For this, one should turn to foreign historiography. A large number of scientific studies have been carried out on this topic by historians of developed foreign countries. One of the main objectives of the study is an in-depth scientific analysis of research conducted in foreign countries and the widespread involvement of new historical knowledge in the study of the history of the Great Silk Road in Uzbekistan.

From foreign historians, Peter Frankopan [5], Agnew Neville [6], Valeria Hansen [7], Nils Ambolt [8], Prabodh Chandra [9], Christopher Beckwith [10], Wilfried Blunt [11] participated in the study of the topic, Bonavia Judy [12], Hedin Sven [13], Hopkirk Peter [14], Liu Xingru [15], Nebenzya Kenneth [16], Tucker Jonathan [17], Whitfield Susan [18], Whitlock Monica [19], Wood France [20], Neil Green [21], Jacqueline Moore [22], Bernard Olivier [23] and others, this is reflected in the scientific research of many foreign historians.

Valeria Hansen's scientific paper titled "A New History of the Silk Road" provides a clear explanation of the city of Samarkand with the countries of the West and the East using the method of comparative analysis. V. Dedicated to the fundamental history of this Great Silk Road by Hansen. This literature consists of an introduction, 7 chapters and a final part. Chapter 4 of the work, namely "The Motherland of the Sogdians. The section "Silk Road traders in Samarkand and Sogdiana" is dedicated to Samarkand, one of the main cities of the Great Silk Road. V. Hansen's book, based on scientific facts, tells about the center of the ancient Sogdian country of Samarkand, which is the main branch of the Great Silk Road, and about the Sogdians who have lived here for a long time.

CONCLUSIONS

The Great Silk Road, having a huge potential, its huge opportunities, serves as an important factor in the periods of historical development of the countries of the East. The Great Silk Road occupies a special place in the history of mankind not only in connection with trade, but also as a way of intercultural exchange between various peoples of the East and West throughout its vast history of several millennia.

Our study is aimed at a comparative analysis of the study of the history of the cities of Central Asia on the Great Silk Road by foreign historians. Start a new direction in the study of foreign historiography, using, first of all, the scientific research of scientists from the most developed foreign universities today, analyzing and implementing as samples brochures published in internationally recognized scientific journals by our experienced specialists in this field. , the introduction of modern historical methods used in world historiography into the historiography of Uzbekistan by summarizing the scientific literature published in the historiography of foreign countries on the history of our country using comparative analytical methods, further clarifying the topic of scientific research in order to determine a specific historical period, an actual historical thematic direction , the historical and geographical region of the chosen topical thematic direction., the result of the study is to determine the main direction of the historiography of the Silk Road in order to unify the historical thematic direction. In the history of Uzbekistan, there is every reason to study the Great Silk Road, as there are sources and literature on the positive impact of the Great Silk Road on the development of science and culture, the development of ancient cities, the development of diplomacy, the establishment of economic and cultural ties. Analyzing the development of the intercultural civilization of the peoples of Eurasia on the Great Silk Road, one can distinguish a separate direction "historiography of the civilization of the cities of the Great Silk Road".

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PROTECTION OF VICTIMS' RIGHTS IN THE PRELIMINARY PART OF THE CRIMINAL PROCEDURE

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ABSTRACT

The article analyzes the role of the victim in achieving the goals of the criminal case, as well as provides a comparative legal analysis of the legal status of the victim, the study of international experience and the development of recommendations for the protection of the rights of victims in pre-trial proceedings.

KEYWORDS: *Pre-Trial Criminal Proceedings, Protection Of The Rights Of The Victim, Representative Of The Victim.*

INTRODUCTION

The policy of combating crime, first of all, covers the order and forms of activity of the subjects of its implementation, as well as the participation of the general public in the fight against crime.

In this regard, as V.N Kudryavtsev said, "Criminal policy not only determines the content and forms of legal norms, but also determines the structure of law enforcement and law enforcement agencies, and clearly shows the content of this system."¹ For a criminal policy to be successful, it must first and foremost be scientifically based and effective.

The criminal procedure legislation of the Republic of Uzbekistan specifies the rights and obligations of victims of crime (Article 55. "Rights and obligations of the victim") and defines the protection of the rights of victims as the main task of criminal proceedings.

Criminals take very cruel measures against victims and witnesses, and the law criminalizes the refusal of a victim or witness to testify as a non-socially dangerous crime. (For example, Article 208 of the Criminal Code of the Russian Federation provides for a severe punishment for a witness or victim's refusal to testify, and Article 240 of the Criminal Code of the Republic of Uzbekistan provides for a maximum penalty of up to three months' imprisonment. The punishment imposed by the perpetrators for the testimony of the victim or witness will frighten any person. Therefore, the victim prefers to receive the punishment prescribed by law rather than the punishment of the offender.

With this in mind, we are completely away from the idea that the punishment should be increased for a witness or victim refusing to testify or giving false testimony.

We want to emphasize that when a victim or witness testifies, he or she must first be sufficiently confident that his or her safety is fully guaranteed.

It is true that the Criminal Code of the Republic of Uzbekistan provides for criminal liability for torture and other cruel, illegal or degrading treatment and punishment. However, the subjects of this crime are only inquiry officers, investigators, prosecutors, law enforcement officers, as well as employees of the penitentiary institution. The law provides special liability for unlawful violence committed by criminals against a witness or victim in penitentiary institutions. As a result, the offender continues to enjoy criminal privileges over law enforcement officers. The most severe punishment for law enforcement officers to do so is imprisonment for up to eight years, which can be punishable by a total of more crimes. The perpetrator will be held accountable for the use of such violence, depending on the consequences.

Amendments to the Criminal Codes and other codes of the Republic of Uzbekistan and the CIS countries of Kazakhstan and Turkmenistan are mainly aimed at mitigating the fate of the offender. Ensuring the safety of victims and witnesses is not adequately provided for in the law.

In order to solve this problem, the Criminal Procedure Codes of the Russian Federation and other CIS countries (Articles 19, 537 of the Criminal Procedure Code of the Republic of Uzbekistan) may be seen in closed court if he is required to provide security.

Given the acute problem of harassment of witnesses and victims in the Russian Federation, on August 20, 2004 the Law "On State Protection of Victims, Witnesses and Other Participants in Criminal Proceedings" was adopted. This legal document sets out the measures for the protection of victims, witnesses and participants in criminal proceedings, the grounds and procedure for their application.

At present, not only in the Russian Federation, but in many other countries, serious attention is paid to ensuring the security of participants in criminal-procedural, criminal-executive legal relations. However, much of the research has been devoted to the study of general safety rules, with very little research on the safety of victims and witnesses in places of deprivation of liberty.

In the legal regulation of the institution of security of victims and witnesses, in addition to the participants in criminal proceedings, the issue of ensuring the safety of persons assisting in criminal justice should not be neglected.

This problem was also raised by the Russian scientist LV Busnitsyn².

Different countries use different methods of harassing victims and witnesses. In particular, according to A.Yu. Epixin, in Germany the following persons are more often used to harass victims and witnesses: a) constant telephone calls by an unknown person; b) relentless pursuit of a person; c) be psychologically influenced by killing (e.g., think of children, "think of your health"), and be intimidated by constant intimidation with similar words³.

The Commonwealth of Independent States was the first country in Belarus and other countries to adopt the Law on State Protection of Victims, Witnesses and Other Participants in Criminal Proceedings on August 8, 2004, which came into force on January 1, 2005.

After adopting of this law, the Government of the Russian Federation approved the State Program "Ensuring the safety of victims, witnesses and other participants in crime" for 2006-2008.

Criminals are also using new methods as they begin to make extensive use of the most modern methods of scientific and technological progress against the criminal world. One such method is to prevent the disclosure of the crime by harassing the participants in the criminal proceedings, to

mislead the investigators or to take revenge on the victim, witness or other participants in the proceedings, and thus to intimidate the people. they use.

The above-mentioned Law of the Russian Federation is also a measure developed by the state against such actions of the criminal world.

The law provides a list of participants in criminal proceedings under state protection, including: victim, witness, private prosecutor, suspect, accused, defendant and their lawyers and legal representatives, convicts, acquitted persons, experts, specialists, interpreters, attesting witnesses, and educators and psychologists involved in the process, representatives of the civil plaintiff, the civil defendant, the victim, the civil plaintiff and the civil defendant, and the private prosecutor.

In addition, the law may apply to persons who reported a crime before the initiation of criminal proceedings and tried to prevent the crime, as well as those who assisted in the detection of the crime. The court (judge) has issued a decision to ensure the protection of the participants in the criminal proceedings and instructs the body entrusted with the protection to do so.

Article 2 of the law provides a list of participants in criminal proceedings who are subject to state protection, which does not include judges or public prosecutors. They will be prosecuted under the relevant articles of the Criminal Code if they are attacked in connection with the performance of official duties.

While the law provides for state protection of participants in criminal proceedings in general, Article 14 sets out the rules for the protection of witnesses, persons arrested on suspicion of a crime and persons serving sentences in penitentiary institutions, as well as witnesses.

The problem of ensuring the safety of participants in criminal proceedings has been present in almost all countries for many years. Adoption and implementation of the Law of the Russian Federation "On state protection of victims, witnesses and other participants in criminal proceedings" is another important step in the development of national legislation of the Russian Federation and being an important step, it can also serve as a model for the criminal laws of the countries of the Commonwealth of Independent States. In particular, in order to ensure the safety of the victim, witness and other participants in the criminal proceedings, in some serious or very serious crimes, the identities of the victims and witnesses are indicated only in the case file and their testimony is obtained by videoconference without visiting the building.

The main reason for this is that as a result of the destruction of witnesses or victims in some of the following crimes, the crime remains unsolved or the perpetrator is released from punishment.

While the CIS countries, including the Republic of Uzbekistan, recognize human beings as the highest value at the current stage of development, one of the important tasks of the state should be to ensure the legal protection of fundamental rights and freedoms in all spheres of society. Unless the participants in criminal proceedings are specifically protected by law, the provisions of the law on the commission of a crime against a person in connection with the performance of his official duties or civic duty shall remain declarative.

CIS countries, including the Republic of Uzbekistan, are harmonizing their national laws with international standards and developing them on the basis of these standards.

In court, a stimulating norm is not provided in accordance with criminal law, the victim or witness is forced to give false testimony or to be in such conditions, to give false testimony during an inquiry and investigation, or to give correct testimony. Although the law provides for a

lighter penalty for giving false testimony, the victim or witness is more likely to comply with the offender's claim because the calamity that can be inflicted for giving correct testimony is more severe.

By this we do not mean that the punishment for giving false testimony or testimony should be increased, and we are far from such an idea. However, we suggest that the exemption norm be included in the Criminal Code if a person gives false testimony during an inquiry or preliminary investigation and gives correct testimony or testimony, regretting that he or she will remain in court. In view of the above, we propose to introduce the following incentive norm after Article 238, part 3 of the Criminal Code of the Republic of Uzbekistan, Article 238, part 4, "If a person repents in court and gives the right testimony, he may be released from criminal liability."

The reason we come to this conclusion is that the crime of perjury is considered as a crime of a formal nature, and the act of perjury is itself a crime committed during the interrogation or preliminary investigation.

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UZBEK FOLKLORE ART AND FOLK EPISODES

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ABSTRACT

This article presents the opinions of scientists and researchers who conducted research in the field of studying the role of folk art and folk tales in the spiritual life of the people. And also, examples of high attention to this type of art are shown. The saying that any art begins with folklore did not appear today. It is the result of long-term life observation, scientific experience. The basis of the above classification is determined by the nature of the events described in the epics. We can proudly say that we have epics, fairy tales, proverbs, songs, legends and narratives that can easily compete with examples of world folklore.

KEYWORDS: *Folklore, Story, Fairy Tale, Bakhshi, Saying.*

INTRODUCTION

Folklore is the beginning and end of all art, therefore it has harmony with many other arts, and at the same time, it is a unique art type. This field includes ideas related to music, dance, crafts, visual, artistic and other arts. In other words, oral creativity is a creative process that expresses the past, present and future of the nation and is closely related to its destiny. That is why our scholars called it folk literature. In order to know what kind of people a nation is, it is necessary to first look at its national traditions and customs.

Folk art is the art of constant change, constant movement in the true sense. That is, the samples of folk art are constantly renewed, changed and perfected, keeping the continuity of traditions in every performance. That is why the examples of folk art are colorful. This diversity is one of the most important aspects that ensure the uniqueness of folk art. A sample of folklore is not only because it is performed orally, but also because it is orally appropriated, performed orally, and passed down orally, in other words, any performance. It differs by its regeneration in the process. As noted by folklore scientists, there is no song in folklore, but there is a state of performance, a performance process of the song. This idea can be applied to other genres of folk art.

We can proudly say that we have epics, fairy tales, proverbs, songs, legends and narratives that can easily compete with examples of world folklore. The number of dos-tons recorded in our country to date exceeds 400. Other genre sample options make up many volumes. This is truly a great treasure for rostkami. Not all peoples have such an invaluable heritage. There is no doubt that the written literature of a nation with such a huge oral heritage is also colorful and rich.

The saying that any art begins with folklore did not appear today. It is the result of long-term life observation, scientific experience. In fact, the creation of visual arts, handicrafts, music, dance, art, etc., directly goes back to the oral creativity of the people, the first imaginations and beliefs

of the people. We can see that special attention is paid to the wide development of all types and directions of culture and art from the side of our honorable President, which is being recognized not only by the citizens of our country, but also by foreigners. One example is the President's speech at the opening ceremony of the "International Festival of the Art of Brawling" held in Termiz, Surhondarya region on April 10-15, 2019. The situation of yesterday and today was specially touched upon.

"These immortal works of the world's cultural heritage show us that the genealogy, historical roots, and noble ideals of mankind are the same, and therefore, the aspirations of the representatives of different nations and peoples towards the future are also common. At the same time, attention and interest in folklore art, which is the source of any national culture, is unfortunately waning in the current era of globalization, the negative influence of "mass culture" that has become a commercial tool, and the negative influence of show business is increasing. It's not a secret either. However, folklore art, so to speak, is the childhood song of humanity. It is a bitter truth of our time that such a unique and great art has become a mere example of a cultural monument, is being forgotten in many places, and is in need of protection. The disappearance of this beautiful and unique art worries art people more. Therefore, preserving and developing our incomparable spiritual wealth, classic art, rare examples of national creativity, and passing it on to future generations is the duty of forward-thinking scientists and artists, state and public figures, and people of all cultures. it is our duty," says President Sh.M. Mirziyoyev.

In fact, it is no exaggeration to say that today, as a result of the high attention paid to folklore art and folk epics, our immortal values, national customs and traditions, and rare masterpieces of epics are being rediscovered.

Folklore and history are a really hot topic. After all, epics, that is, epics that are an example of oral creativity, are not just works of art, but also a national encyclopedia that embodies the history, culture, customs and traditions of the people, and the way of thinking.

Let's take just one "Alpomish" saga. This epic has a special position not only in Uzbek, but also in world epics, its historical foundations are ancient, and it is considered an example of high artistic epic creation.

This saga has been studied a lot. However, the role of this epic in world folklore, its mythological foundations, and artistic layers require repeated and repeated study.

"Epic" in folk art has attracted the attention of folklorists, it is the most studied part of Uzbek folk art, it has caused great debates, moreover, Uzbek folk art It is a genre that made the legacy of his work known and famous all over the world.

Scholars consider the epic to be a syncretic genre. The word "syncretic" is united in Greek; part means divided into pieces. When it comes to the epic, the word syncretic explains the harmonious manifestation of the arts of words, music, singing, poetry, artistic reading, oratory, and acting in works of this genre. In fact, in the process of directly seeing and hearing the performances of Bola Bakhshi (Gurbannazar Abdullayev), Chori Bakhsh Khojamberdiyev, Shomurod Bakhsh Togayev, Qahhor Bakhsh Kadir Bakhsh ogli Rahimov, the full range of the above-mentioned arts We have seen the harmony in beauty, and in addition, the artistry of Badiha art has been fully demonstrated in these performers and creators. In order to create a complete picture of the epic according to the four requirements set by Ustoz Muhammadnodir Saidov, we would like to additionally note the condition of enjoying the performance skills of the

bakhshi in a natural situation within the immediate audience. The necessity of this condition is clearly felt as a result of getting acquainted with the performance of the epic through television, radio, and phonograms. Bakhshi feels free when he performs the epic in natural conditions for the audience directly, rather than through technical means (camera, microphone), and has the opportunity to show his artistic abilities better. There is a moment when Bakhshi is enjoying his performance while singing the epic. The listeners make passionate sounds, benefiting from the artist's skill. In such a case, the boiling of bakhshi occurs. Boiling takes place faster under natural conditions. In addition, there is a habit of knocking over the drum. Under the pretext of a little rest, the performer knocks on the drum and leaves the room for air. At this time, the listeners collect their gifts and put them in a box next to the drum. This habit is also easily and conveniently performed during natural performance. Therefore, it is recommended to tell a story in a simple, friendly, natural environment, both for the speaker and the listener.

Thus, dozens of works such as "Alpomish", "Birth of Gorogli", "Princess Aiyor", "Ravshan", "Kuntugmish", "Rustam Khan" from the Gorogli series, "Ashiq Gharib and Shahsanam" are examples of the folk epic genre, and are masterpieces that have been sincerely respected by the people for centuries and have gained fame.

The epic is sung by Bakhshis. Bakhshis are artists who learned the secrets of epic writing from their teachers.

Not all Uzbek epic traditions are limited in size. The treasury of our cultural heritage includes small works such as "Bozirgon", "The Birth of the Master", and at the same time, large epics such as "Alpomish", "Malika Ayyor". Taking into account the relative size of epics, the volume of epics told in Samarkand, Bukhara, Kashkadarya, and Surkhandarya, which are played by drumming, is different from epics of Khorezm and epics of Ferghana Valley. Those in Hajman Fergana valley are much smaller.

The text of the epic consists of poetic and prose passages.

We considered that the Uzbek epic has a different appearance depending on the method of performance. According to the results of studies of famous scientists V. M. Zhirmunsky, H. T. Zarifov, M. Saidov, T. Mirzayev, B. Sarimsakov, epics are divided into types such as proverbs, fairy tales, and songs. Noting that there are differences in the classifications of our scientists, in general, according to some sources, it is said that epics are divided into the following types:

1. Heroic epics ("Alpomish").
2. Romantic epics ("Ravshan", "Kuntugmish").
3. Battle epics ("Yakka Ahmed").
4. Book epics ("Oshiq G'arib va Shohsanam", "Sayyod va Hamro").
5. Historical epics ("Oysuluv").

The basis of the above classification is determined by the nature of the events described in the epics. First of all, there are no epics without scenes of love, heroism, adventure, and battle. No matter what epic you hear or read, the hero of the work will certainly win respect for us with his bravery and courage. Of course, he loves someone and goes on a long journey. But despite this, a certain topic is the leader in the general content of the work.

To the Folklore Archive of the Institute of Language and Literature named after Alisher Navoi of the Academy of Sciences of the Republic of Uzbekistan, which, thanks to the honor of independence, has been doing great work in collecting, systematizing, public and academic publications, and creating large-scale fundamental research. given the status of one of the unique scientific objects embodying the rich cultural heritage of our country. Taking into account that the Folklore Archive is one of the leading scientific funds of our country, and the materials stored in it are a source for the creation of major scientific works that define the development of Uzbek philology, we recognize the great achievement of the devotees of the field who are conducting research today.

Therefore, showing our identity, the history of world culture and civilization, and our worthy place today is closely related to the study and promotion of folklore. The above summation of our thoughts can provide students and masters with some necessary resources on the essence, object and subject of folklore science, research methods, theories of leading scientific schools in world folklore, history of Uzbek folklore, and serves the noble purpose of realizing national identity.

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SOME TRANSLATION CONVENTIONS ENGLISH-LANGUAGE BRANDS IN UZBEK

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ABSTRACT

Attracting new customers and gaining the attention and trust of the target audience is one of the key tasks for the development of businesses of any size and scope. Brand cannot be considered the object of one science because of its integrative nature, special social specificity and complex structure that can be interpreted in different scientific paradigms. Accordingly, brand research today is conducted in the context of various sciences: psychology, sociology, marketing, philosophy, culturology, law and, finally, linguistics. This article presents an attempt to consider brand communication from the linguistics point of view. The possibility of linguistic interpretation is explained by the fact that the communicative approach to brand and branding is distinguished in the works of specialists of other sciences.

KEYWORDS: *Onimas, Eponymous Translation Methods, Transcription, Borrowings, Transliteration, Practical Transcription, Direct Transfer.*

INTRODUCTION

The language of business is not a set of words, but a clear and well-thought-out structure that includes brand names, complex ideas and popular stories with deep meaning. Almost all of these elements, with a few exceptions, are figures of speech that affect the behavior of customers, customers, employees, and most importantly, make a profit. The behavior of market participants is largely determined by the language of business.

In modern society, the brand and its linguistic semantics act as one of the mental units of the language picture of the world, accumulating various associative images, concepts, representations, attitudes, evaluations, which are realized in English and other languages.

Semantic keys of the business picture of the world are pragmatism, rational perception of time, optimism, expansion, constructiveness, communicativeness, project thinking[1]. Semantic and conceptual filling of a brand name is carried out on the basis of revealing and analysis of methods of formation of brand names.

If we consider brands as our own names, onimas, then their representation in bilingual and linguistic dictionaries assumes their translation into Russian and Uzbek, more precisely, finding their Russian-language matches. Traditionally, there are several borrowing methods and “eponymous translation methods [2]” such as calculating, transliteration, or transliteration, transcription, while some other authors also refer to practical transcription. T.I. Arbekova writes:

«They do not differ in their mechanism, they differ in their final results: the translation does not increase the vocabulary, while borrowing in the language, new vocabulary units appear[3]. In fact, in the case of brands, one can sometimes observe the addition of new lexical units to the dictionary of the Russian language, obtained through their translation, more precisely, their transmission from English and other languages. But this happens as they become appeals and is a longer process than the penetration and assimilation of borrowings. Answering the question of why such borrowing of brands takes place is also necessary. In this case, borrowing fills a gap in the language system. The transition to the conceptual sphere of Russian and Uzbek language of new concepts is connected with the borrowing of brands, and in our life - new realities, as were the jeep, *Coca-Cola*, *Xerox*, *Lycra*, *Lego*, *Pepsi*, *Scotch*, *Teflon*, *felt pen*. - Therefore, it is possible to assert that with the growth of brand usage in different functional spheres the dictionary neologization takes place, and not only in English, as popular brands become the object of borrowing in other languages, especially in the era of globalization. In this connection, one can also speak about such a phenomenon, which V.I. Karasik calls «import of concepts»[4]: «It is a question of introducing a concept into another culture - mental education based on multilayer cultural experience concentrated in individual and collective language consciousness»[5]. However, it seems that it is not always when borrowing brands that concepts are borrowed. This issue requires special research.

So, let's consider the Russian and Uzbek translations of English language brands obtained by the above methods. The first of them is *calculus*.

Calculation is not always seen as a subspecies of borrowing, as in the case of calculating new words are formed by the means of their language. Word calculus is a Pomorphemic translation of a foreign language word, semantic calculus is a borrowing of the figurative meaning of a word, phraseological calculus is a literal translation of phraseology. Half-perfect is a type of word-paper, when part of a word is borrowed and part is translated (see about it:[6]). For example, Saturday is a half-page of lat. Saturni dies, where only the second part of the word is translated and the first part is simply borrowed. However, in the classic work by Vittor Pisani, pebbles are considered as a subspecies of borrowing: «The category of borrowings includes also those which are borrowed according to their content, i.e. words and constructions formed from the original material but according to the structure introduced from outside»[7].

Among the translated brands you can find cases of composite and complex brands. For example, in LDELС dictionary we find articles by Barbie doll with *trademark marking*, i.e. «Barbie doll» (half-pinned)[8], Spiderman with *trademark marking*, i.e. «spider-man»[9], which is also translated by calculating, and Teletubbies with *trademark marking*, which is translated by «Телепузики», respectively. Here, the first component is borrowing-internationalism, and the second component is calculated. This is important because it is an essential difference in this type of calculation: «*strange imaginary creatures who have television screens on their stomachs*»[10]. Another calculation of this kind is the Russian word «minibus», which is not currently perceived as a brand, as is its prototype Microbus. But as can be seen from the information given by David Crystal[11], «Microbus» was a brand in 60-70s. of the 20th century. Today, only a few archival links to this brand from Volkswagen, for example[12], can be found on the Internet.

The next method of translation is *transliteration* (from lat. trans - «through» and littera - «letter») - letter-by-letter transmission of words written with the help of one graphic system by

means of another graphic system, or «transmission of text written with the help of one alphabetic system by means of another alphabetic system»[13]. Based on an alphabet, transliteration allows the conditional use of letters. Recommendations on transliteration are developed by the International Standards Organization (ISO) - see A. V. Superskaya's article «Transliteration» in LES[14], where it is stated: «In Russian practice transliteration is sometimes called practical transcription of foreign words by means of Russian graphics».

Examples of transliteration when translating brands are as follows.

Ajax - «Аякс»(*trade name universal detergent*);

Cellophane *noun* [u] a thin transparent plastic material used for wrapping things corresponds to the Russian transliteration «cellophane»;

Flo-Master ['fləʊ,mɑːstə] «Flomaster»(*the brand name of the marking colored pencils of the company «Vinus Ester brook»*); the dictionary in the article «Flomaster» also states: «Apparently, from the flow - a leak, pouring, flow and master - artist, master»;

Persil «Persil»(*brand name of Unilever detergent concern*);

Xerox *noun* a process for producing copies of letters, documents, etc. Using a special machine <...> - this word, already mentioned above, is translated in Russian as «xerox», and it comes from the Greek «xēros» (dry) and «graphō» (writing), that is, if we took into account the ancient Greek pronunciations, this brand would be obtained in Russian by transcription. However, it appeared in the USA and came from English, so it was translated into Russian and Uzbek by transliteration.

The transcription method is also widely used in brand translation. While transcription preserves, as far as possible, the original sound form of a foreign lexical unit, the main goal of transcription of brands is to achieve the phonetic similarity of the sound of the original brand as accurately as possible. Of course, this is not always possible, as the English language has phonemes for which there are no close Russian matches, for example, /θ/, /w/, /æ/. However, there are many brands that can be translated using this method. For example, the following:

Dove - «Dove», a brand of white soap and other cosmetics;

Jeep- «Jeep», SUV, «brand of small but powerful, high cross-country ability trucks. - Angel. (amer.) jeep - (...) general purpose <...>;

Lycra - «Lycra», polyurethane fiber, brand of «Invista» company, parts of «DuPont» company;

Nike - Nike, a brand of sportswear and footwear company Nike (USA)». LDELС dictionary gives pronunciation in Nike *trademark* article /naɪk, 'naɪki/.

It is believed that this brand came from the name of Nike, the ancient Greek goddess of victory, which should be pronounced according to the second version.

Practical transcription is the recording of foreign words by means of the alphabet of the native (in our case - Russian) language, taking into account their pronunciation. Unlike transliteration, the rules for using graphemes in practical transcription should take into account how these graphemes and their combinations are pronounced in the original word forms.

The English letter «a», meaning phoneme /æ/, is translated by means of Russian graphemes «а», «е» and «э», as a result of which Stanley is translated into Russian as both «Stanley» and

«Stanley». Practical transcription requires both the most accurate reproduction of the sound image of the original variant, and the most accurate reproduction of the morpheme structure and graphical image of the word, for example, the reproduction of double consonants and so on. In addition, the resulting variant must be legible in the target language. The term «practical transcription» itself was first used by A. M. Sukhotin in 1935.

M.A. Krongauz notices: «As a result of practical transcription, foreign words

may be included in the text and generally function as words of the given language, i.e. they are actually borrowed»[15]. Note, by the way, that this is especially important in case of application to brands with widespread circulation. Let us give a number of examples of Russian and Uzbek correspondences to such English-language brands correspondences obtained using practical transcription:

Burberry- «Burberry» is a British brand and company, which has existed since 1865 and produces high class clothes. According to the rules of practical transcription, the combination of «ur» is transmitted in Russian as either «er» or «yer», especially after consonants. The letter «e» is not used in transcription of names, although it resonates with the pronunciation of the original. Double «rr» is subject to transliteration.

McDonald's (since 1940 McDonalds) /mæk'dɒnəldz \ -'da:-/ «McDonalds» and «McDonalds», the largest American corporation and fast food chain. The handbooks recommend that in practical transcription of the «s» sounding like /z/, you pass the «z» between the vowels and the «s» in other cases. Traditionally, it is transmitted by one word, with only the first letter in the Russian version.

Microsoft/'maɪkrəʊ, sɒft \ -sɔ:ft-/ -«Microsoft» is a brand of an American software company. The name comes from the abbreviation and subsequent merger

of the two English words MICROcomputer and SOFTWARE, which literally means «software for microcomputers». To preserve the morphological, written and sound structure of the brand, the initial vowel «i» is transmitted using the Russian combination of «ai» by transcription, and the remaining letters of the word are translated without any changes. In the practical transcription «micro-» ['maɪkrəʊ-], the Russian letter «o» replaces the diphthong [əʊ], which is more appropriate and acceptable for the Russian version, since the translated brand becomes more convenient in pronunciation.

Twitter-Twitter is a social network for public message exchange in the form of micro blogging. The service was created in 2006. Its name, which has become a brand, comes from the English «twitter» - «twitter», «chirp», «chatter». The translation is done with the help of practical transcription: double «tt», which means one sound /t/, is transmitted in Russian version by two «tt», and the unspoken final «r» is traditionally transmitted by «p», as in all names of its own. In this way, the brand acquires visual recognizability while retaining the Russian and Uzbek pronunciation as close to the original English as possible.

Recently, English language brands have been often introduced into foreign language texts and used in Russian and Uzbek advertisements in their original form - in English, without translation. In this case, the so-called *method of direct transfer of the graphic form of the brand* without changes is used: from the text in English to the text in Russian with the preservation of the alphabetic system of the English language.

D.I. Ermolovich writes: «The principle of preserving the original graphic <...> form of one's own name can play an important role in interlingual communication. After all, the written shape of the name even more than its sounding, performs the function of legal identification. The method by which this principle is implemented is the method of direct transfer of the graphical form of the name of one's own name without changes from the text in one language to the text in another language[16].

In spite of the fact that this method is more typical for languages that use a common graphic basis of writing, various Russian publications started to actively include foreign brand names in the Russian text in the original Latin script.

Examples of direct transfer are such brand names as KFC (abbreviation for «Kentucky Fried Chicken») - a chain of fast food restaurants, which specializes in the preparation of dishes made of chicken); Stansk - a famous American company selling coffee, and the eponymous chain of coffee shops in different countries, including Russia and Uzbekistan; Technics - brand of Japanese company Panasonic, under which high-quality audio equipment is produced. Direct transfer of the graphical form of their own names has both advantages and disadvantages. Preservation of the foreign language appearance of the brand name on the letter makes it more recognizable due to the international character of a number of brands, and its constant use in oral speech in Russian reduces the probability of variability of pronunciation. D.I. Ermolovich names the disadvantage of this method as «the fact that speakers of another language can not always determine from the spelling how a foreign name is pronounced and impose the name pronunciation corresponding to the rules of reading in their native language»[17].

Let's summarize some of this. When translating English-language brands into Russian and Uzbek, such methods are used as calculus (sometimes it is a half-rock used under conditions of complex composition of brands), transliteration, transcription and its subspecies - practical transcription. The use of the direct transfer (transplantation) method is not strictly related to translation matches, although it is becoming more and more common in the Russian context. Its advantage is the low variability of the spelling form, and the disadvantage is that the vast majority of native speakers of Russian and Uzbek – advertising consumers - do not have knowledge about the correct pronunciation of such brands. Practical transcription seems to be the best and most universal method, as it takes into account both phonetic and morphological peculiarities of the languages as much as possible, as well as graphic traditions established in the host language.

CONCLUSION

1. Since a brand contains linguistically functional semantics, i.e. the semantic load that the brand name carries, the brand name, formed with the help of special methods, can generate trust and create a positive image.
2. Performance of the brand as a dynamic cultural construction of human consciousness, which can be linguistically classified and considered as a dictionary definition, as an associative and real frequency of use in speech
3. In modern society, brand and its linguistic-functional semantics act as one of the mental units of the language picture of the world, accumulating various associative images, concepts, representations, attitudes, evaluations, which are realized in Russian and other languages Semantic-notional filling of the brand name is carried out on the basis of

revealing and analyzing the methods of forming brand names.

Name is one of the most important elements of the so-called marketing mix of the brand. It is the name that plays a huge communicative role and greatly facilitates the promotion, informing the consumer about the consumer properties and positioning of the product. In the modern, saturated market information, the consumer experiences continuous pressure from advertising, and therefore the «right name» can play a key role.

The above methods allow you to create brand names that can be classified Descriptive Names.

This category of names represents the advantages and quality of the product in a simple and direct form.

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**GRAIN QUALITY PARAMETERS OF SOFT WINTER WHEAT
VARIETIES TESTED AT THE KHOREZM SCIENTIFIC
EXPERIMENTAL STATION OF GRAIN AND LEGUMES RESEARCH
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ABSTRACT

In the soil and climate conditions of Khorezm region, despite the fact that winter soft wheat varieties are grown with the same agrotechnics, it was observed that the biochemical composition of the grain is different. Among the varieties, the highest result of wet gluten content was determined in Mars-1 (30.9%), Aziz (30.8%) and Gurt (30.7%). Andijon-2 Tanya and Nadir varieties have significantly higher content of gluten and protein in grain and GDM parameters than other varieties.

KEYWORDS: *Winter Soft Wheat, Grain, Gluten, GDM Parameters, Climate Conditions.*

INTRODUCTION

Nowadays, in the cultivation of wheat varieties, the main requirement is to increase not only the amount of yield, but also the amount and quality of gluten content, transparency and protein content of the grain, which meet the state standards. Because the quality of bread and bread products made from wheat flour is determined by the amount of the above substances [2]. Protein, carbohydrate and enzyme complex properties of wheat grain are also of great importance. Wheat contains proteins known as gliadin and glutenin. These proteins dissolve in water, absorb 2-3 times more water than their own mass, and form an elastic mass connected by disulfide bonds called gluten. The elastic properties of gluten make it possible to make high-quality bread and pasta products from wheat flour [1].

It is important to choose intensive winter wheat varieties, which are suitable for the conditions of irrigated lands, resistant to adverse natural climatic conditions, as well, have stable productivity and high grain quality.

Taking into account the above, laboratory experiments were conducted on the available collection materials at the Khorezm Scientific Experimental Station of Grain And Legumes Research Institute in order to test varieties of soft winter wheat that produce quality grain in irrigated lands and to determine their biochemical parameters.

Materials and Methods

The amount of wet and dry gluten in grain, the index of GDM (gluten deformation measurement) was performed in the laboratory “Analysis of Cereal Crops and Products” of Khorezm Mamun Academy based on the method “UzST13586,1-68” for determining the amount and quality of wheat gluten [3]. 30 varieties of winter wheat grown using the same agrotechnics in the soil and climate conditions of the Khorezm region served as research objects. The Krasnodarskaya-99 variety was taken as a control variety.

Results and Discussion

The data on wet and dry gluten content and GDM parameters in the grains of soft winter wheat varieties tested in the experiment are given in the table.

Wet gluten in grain was performed in the laboratory “Analysis of Cereal Crops and Products” of Khorezm Mamun Academy based on the method “UzST13586,1-68” for determining the amount and quality of wheat gluten [3]. According to this standard, wet gluten is divided into 5 grades. When the wet gluten content is 32-36%, it is included in the high grade, the 1st grade wet gluten content is 28-31.9%, the 2nd grade wet gluten content is 23-27.9%, the 3rd grade wet gluten content is 18-22.9%, the 4th grade wet gluten content is less than 18%. In our experiments, wet gluten content belonging to high grade, 3rd and 4th grade was not observed. Wet gluten content of varieties Krasnodar 99, Antonina, Druzhba, Andijon-2, Tanya, Alekseich, Yogdu, Mars-1, Chillaki, Vekha, Gurt, Yuka, Durdona, Grom, Nadir, Pervitsa, Andijon-4, Zvezda, Bezostaya-100, Navbahor, Babur, Aziz, Velen and Starshina varieties were included in the 1st class, and the remaining Asr, Qadr, Uzbekistan-25, Kroshka, Vassa and Brigada varieties were included in the 2nd grade. The wet gluten content of all tested varieties was around 26.0-30.9% (Table 1).

70-80% of reserve proteins in wheat grain are gliadin and glutenin proteins. Their ratio is about 1:1. The amount of protein varies depending on factors such as the genetic characteristics of the variety, fertilization, irrigation, and temperature [1].

TABLE 1 GRAIN QUALITY PARAMETERS OF SOFT WINTER WHEAT VARIETIES

N	Varieties	Wet gluten content, %	Dry gluten content, gramm	GDM parameters	Group of GDM parameters
	Krasnodar 99, control variety	29,2	2,9	90	II
	Antonina	29,5	3,2	95	II
	Druzhba	30,6	3,0	88	II
	Andijan-2	30,5	3,0	72	I
	Tanya	28,6	2,9	75	I
	Alekseich	29,2	3,0	85	II
	Yogdu	28,6	1,9	75	I
	Mars-1	30,9	3,0	92	II
	Chillaki	29,7	2,9	93	II
	Asr	26,7	2,9	82	II
	Qadr	27,7	2,4	88	II
	Vekha	28,2	3,6	89	II
	Gurt	30,7	3,0	88	II
	Uzbekistan-25	26,4	2,3	90	II

	Yuka	28,5	3,1	87	II
	Durdona	29,9	2,8	87	II
	Kroshka	26,4	2,3	86	II
	Grom	28,5	2,5	87	II
	Nodir	30,2	3,0	74	I
	Pervitsa	29,6	3,0	85	II
	Andijan-4	29,9	2,8	91	II
	Zvezda	30,1	2,7	89	II
	Bezostaya-100	28,5	2,3	95	II
	Navbahor	29,4	3,2	90	II
	Babur	29,3	2,8	85	II
	Wassa	26,0	2,1	95	II
	Aziz	30,8	3,0	89	II
	Velena	28,9	2,5	87	II
	Brigade	27,0	2,2	72	I
	Starshina	28,9	2,5	93	II

When we determined the amount of dry gluten in the grain in our experiments, it was observed that it was in the range of 1.9-3.6 grams. The amount of dry gluten in the grains of the Krasnodarskaya-99 variety planted as a control variety was 2.9 grams. Among the varieties, the highest result was 3.6 grams in the Vekha variety, while the lowest result was 1.9 grams in the Yogdu variety.

In the conducted experiments, the index of GDM (gluten deformation measurement) was divided into 5 grade. When determining the groups of varieties according to GDM parameters, Andijan-2, Tanya, Yogdu, Nadir and Brigada varieties were classified as first grade, i.e. “good”, and all other varieties were classified as second grade, i.e. “satisfactorily strong”.

CONCLUSION

Based on the research results, the following conclusions can be drawn:

- In the soil-climatic conditions of Khorezm region, despite the fact that soft winter wheat varieties are grown with the same agrotechnics, the biochemical composition of the grain was observed to be different;
- Among the varieties, the highest result in terms of wet gluten content was determined in Mars-1 (30.9%), Aziz (30.8%) and Gurt (30.7%) varieties;
- Andijon-2, Tanya, Yogdu, Nadir and Brigada varieties were classified as first grade, i.e. “good” according to the GDM parameters;
- Andijon-2, Tanya and Nadir varieties were distinguished by significantly higher gluten and protein content of grain and GDM parameters than other varieties.

In the soil and climate conditions of Khorezm region, it is possible to obtain high-quality grain from soft winter wheat varieties by growing Andijan-2, Tanya and Nadir varieties.

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MID CAP EMERGING COMPANIES AND CAPITAL IMPACT IN STOCK MARKET

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ABSTRACT

Mid-cap companies are those with a market value between \$2 billion and \$10 billion. 1 The market capitalisation of a company is calculated by multiplying shareholders' equity by the stock price. It is a well-known company with a great deal of potential for growth.ETFs that track mid-cap companies are another option. Fees for mutual funds are much higher. Because an ETF will never outperform the market, it has a downside. Consequently, they may keep an eye on the market. It's common for new investors to have a hard time deciding which stocks to buy. Even seasoned investors might be overwhelmed by these questions. If you're going to be a successful stock market investor, you need to have a good grasp of the fundamentals. You may suffer losses if you don't know which stocks to invest in. Stocks on the stock market are subject to inherent risk, which can vary greatly from one company to the next.

KEYWORDS: *Mid Cap, Stock Market, Impact of Mid Cap Companies*

INTRODUCTION

Mid-cap mutual funds are much easier to choose from. These funds are managed by people who have a lot of expertise in the mid-cap market. A little homework will still be required, but the risk is much decreased. This is because money provides a wide range of choices. It is great for investors because of its minimal risk and long-term profitability [1].

Large-cap, mid-cap, and small-cap equities are commonly categorised in the stock market based on their market capitalization (or market cap). Informed investment selections may be made with the aid of this classification for investors. Learn about the distinctions between big, medium and small cap stocks in this article.

This is a list of the most crucial points to remember.

- ETFs and mutual funds that track the total performance of all mid-cap public companies, as well as equity shares in mid-cap enterprises, can be acquired by investors.
- When a company is expanding, mid-cap firms provide extra growth opportunities.
- When it comes to volatility and stability, mid-caps and large-caps are very different.
- What You Need to Know Before You Buy

- The ideal option to invest in mid-cap equities is through mutual funds. Investing in individual stocks necessitates thorough research of each firm. It's going to require some time and effort, as well as some education. However, there is a chance that you may uncover something that the stock gurus have overlooked.

Let's begin by defining market capitalization and its many subcategories.

The current market price of each share is multiplied by the total number of outstanding shares of a firm to arrive at the company's market capitalization. It is an indicator of a company's estimated market value.

Large-cap, mid-cap, and small-cap corporations are all traded on the stock markets and may be divided into three major groups. Learn more about each one of them.

As a rule of thumb, large-cap firms are those that have been around for a long time and have a large market share. Companies with a market capitalization of Rs 20,000 crore or more are considered large-cap. These firms are the most powerful and stable in the industry. Regardless of the economic downturn or other adverse circumstances, they maintain their composure admirably. Then there's the fact that they've been around for a long time and have an excellent track record. Large-cap stocks are a fantastic alternative if you want to invest in a company's shares without taking on too much risk. Comparatively, these equities are less volatile than those in the middle and small caps. They are less dangerous because of their decreased volatility.

Examples of large-cap market corporations listed on the Indian stock markets are Reliance Industries and Infosys. Long-term investors should look to these companies because of their solid market position and steady success.

Midcaps Stocks	Smallcaps Stocks
Ipca Laboratories Ltd	Intellect Design Arena Ltd
Laurus Labs Ltd	Avanti Feeds Ltd
Endurance Technologies Ltd	BASF India Ltd
Indian Bank	IDFC Ltd
Indian Railway Finance Corp Ltd	Quess Corp Ltd
Syngene International Ltd	Rain Industries Ltd
Balkrishna Industries Ltd	Granules India Ltd
	India Cements Ltd

Figure 1 : Key Stocks in Mid and Small Cap

Stocks In The Mid-Cap Area

Companies with a market capitalization between Rs 5,000 crore and Rs 20,000 crore are considered mid-cap. Small-cap stock investments have a higher level of risk than large-cap ones. To put it another way, mid-cap stocks tend to be more volatile than smaller ones. Mid-cap firms, on the other hand, have the potential to grow into large-cap ones in the long term. Investors are drawn to these firms because they have a stronger growth potential than large-cap equities.

There are a number of mid-cap corporations in India, such as Metropolis Healthcare, Castrol India, and Life Insurance Corporation of India (LIC).

Small Cap Shares

Companies with a market capitalization of less than Rs 5,000 crore are referred to as small-cap. These firms are modest in size, but they have a lot of room for expansion. What makes them dangerous is that there is a low likelihood that they will succeed over time. Stocks in these firms are therefore very volatile. Historically, small-cap firms have underperformed, but when the economy is recovering, small-cap stocks frequently thrive.

Small-cap market firms with Indian stock exchange listings include Hindustan Zinc, DB Corp, KNR Constructions, and Hathway Cable.

Large, Medium, And Small Companies

Type and stature of the company: Large-cap firms are those that have been around for a long time and are well-known in the stock market. These businesses have solid leadership and are among the country's top 100. Between big and small-cap corporations, there are mid-cap companies. These are some of the country's most well-known and well-respected enterprises. Finally, small-cap firms have the ability to develop quickly since they are smaller in size.

The total value of the stock market in the United States: A company is considered large if its market capitalization exceeds Rs 20,000 crore. While mid-cap firms have a market value of between Rs 5,000 crore and less than Rs 20,000 crore, they are not publicly traded. The market capitalization of small-cap enterprises is less than Rs 5,000 crore.

Volatility is a key factor in determining your stock market risk. In a volatile market, if a stock's price doesn't fluctuate much, it's said to have low volatility. Stocks that fluctuate greatly in price during these periods are said to as volatile. It is common for large-cap stock values to stay relatively constant even in the face of market turmoil. Because of this, they are considered to be low-risk investments. There is a tiny difference between large-cap stocks and mid-cap stocks when it comes to volatility and risk. Investors' exposure to small-cap firms is more volatile, and as a result, their values might fluctuate widely [1].

Large-cap stocks have a lesser growth potential than mid- and small-cap equities. If you have a long-term investing goal in mind, large-cap stocks are a safe bet. This makes large-caps ideal for investors who aren't afraid of taking on a lot of risk. Consider investing in mid-cap stocks if your risk tolerance is modest, as they offer a somewhat larger growth potential. You should only invest in small-cap companies if you are willing to take a high degree of risk.

Liquidity: Liquidity refers to the ease with which large-cap shares may be bought and sold by investors without impacting the share price. This has resulted in a rise in the liquidity of large-cap equities on the stock market. As a result, buying such shares makes squaring off holdings a lot simpler. Mid-cap firms, on the other hand, have less liquidity due to a slightly lower demand for their equities. Squaring off investments might be more challenging for small-cap corporations since they have a lower liquidity.

Market Capitalisation And Mutual Funds

In India, mutual funds constitute an essential aspect of the economy. A mutual fund's investment allocation determines whether it is a giant, mid, or small-cap fund. It's possible to invest in a large-cap mutual fund, for example, whereas a mid-cap mutual fund would invest in a smaller-cap mutual fund, for example.

What factors should you consider while selecting a mutual fund for your portfolio? Your risk tolerance will play a role in some of your decisions. Large-cap funds are typically less hazardous than small-cap funds, but small-cap funds may have a better chance of achieving their promise. However, it's crucial to know the variations between mutual fund plans in terms of risk before you begin looking into them.

MID, SMALLCAPS RACE AHEAD		
	Price (Rs)	Change (%)
Brightcom Group	183.55	2583.5
Tata Teleservices (Maharashtra)	187.75	2255.7
GRM Overseas	596.15	1539.6
Nahar Spinning Mills	496.85	551.6
Ganesh Housing Corporation	203.2	550.2
Saregama India	5275.3	532.2
PTC Industries	5245.75	529.4
Tips Industries	1848	481.9
Trident	53.15	438.0
JSW Energy	305.4	350.1
S&P Bse Smallcap	29066.03	60.6
S&P Bse Midcap	24684.86	37.6
S&P Bse Sensex	57806.49	21.1
<i>Price on BSE as on December 29, 2021; Change in CY21; Data source: ACE Equity</i>		

Figure 2 : Mid Cap Stocks and Performance

Investing in Large Cap Funds

Blue-chip corporations are the primary focus of large-cap funds. Certain benefits are inherent in these funds: They only invest in well-established, well-capitalized firms that can withstand market ups and downs. These stocks are in great demand, and as a result, they are quite liquid. However, their development potential is minimal, and so is the danger. In the long run, investors should expect modest but steady returns from these funds [2].

Investing in Mid-Cap Funds

Mid-cap equities dominate the portfolios of these mutual funds. As a result, there is a little larger chance of growth and consequently better returns for mutual funds. However, the likelihood of

risk is higher since mid-cap corporations are less able to handle market volatility than large-cap companies. The fund manager's purpose is to invest in mid-cap firms that have the potential to succeed in the future.

Small-cap funds are prone to risk

These mutual funds have a primary concentration on small-cap stocks. Because small-cap firms are less well-established, investors face greater risk when investing in these funds. During a recession, for example, they may find it difficult to stay afloat. However, growth opportunities for mid- and large-cap stocks are greater when a small-cap company does well. Small-cap funds seek to exploit this potential. Even if the danger is greater, the potential reward is greater.

A company's market capitalization can have a major impact on your investment portfolio. Smaller and larger companies' performance changes when the stock market moves through different phases. Mid- and small-cap stocks may be on the rise when large-caps are struggling. The large-caps in your portfolio can also help to stabilise your total returns when the mid- or small-caps are in decline. The importance of investing in different market capitalization cannot be overstated for stock and mutual fund investors. It will help you weather the storm of fluctuating market circumstances with your investment portfolio.

Before making an investment, consider your financial objectives, risk tolerance, and time horizon. When it comes to the stock market or mutual funds, remember that you need to do some study and analysis. An account with Kotak Securities, a well-known stockbroker, may be beneficial if you're unsure about investing or require guidance. In addition to market research and analysis, you will have access to an extensive library of instructional resources [3].

Any well-diversified investing portfolio should include some mid-cap equities or mutual funds. Amounts vary based on your own investment goals and the make-up of your portfolio. A factor to consider is also where we are on the business cycle. 3 Investing in mid-cap stocks is a smart idea for these four reasons.

An Increase In Length Of The Current Economic Cycle

Mid-cap companies benefit from the expansionary phase of the business cycle. Economic development is projected to continue as long as interest rates are low and money is available. It is possible for management of mid-cap companies to obtain low-interest loans as a result of this [4]. They primarily grow through acquisitions, mergers, and purchases of capital equipment.

Smaller businesses are more risky than medium-sized firms. In an economic downturn, small-cap firms are less likely to go out of business than their larger counterparts.

There is more information on mid-caps than smaller ones due to the length of time they have been in business. They've been around for a while and have a lengthier track record of success.

Actually, you need to complete your due diligence before investing in mid-capitalization companies. As a result, each of these businesses has its own unique profitability and development opportunities.

Some of these companies' shares will remain in the mid-cap range. They may not be able to expand because of their business model. It is possible that their goods will be able to meet the entire existing demand. Also, the company's executives may be reluctant to go public. They may want a small or medium-sized firm [5].

In spite of their high earnings, some firms' shares are listed in an unattractive market segment. Because of this, the P/E ratio is low for them. Despite strong sales, the industry's investors have a negative view of it. Mid-caps might become giant corporations without this consequence," he says. "

More mid-cap companies may be on the cusp of becoming breakouts. A new product or acquisition might be in the works. The growth potential of mid-cap corporations is comparable to that of smaller companies, but the risk is lower.

A large-cap company may also purchase a mid-cap business. In that scenario, the stock might become a large-cap stock. If the transition is lenient, it's feasible to gain a lot.

A mid-cap company's financial health is less guaranteed than a large-cap company's. As a start, they don't have as much liquid assets on hand to help them through a time of economic distress. As a result, during the downturn of the business cycle, they will be more volatile. Second, they tend to focus on a specific market or sector. If that market disappears, they'll be out of business.

Examples

Many mid-cap companies have a good reputation. As a result of their years in the company, they've managed to carve out their own unique niche. Financial services, real estate, and transportation all have a disproportionate amount of mid-cap companies versus their larger counterparts.

A few well-known mid-cap corporations for the future may be found in the list below:

3D Systems Corp. has a market value of \$1.91 billion. This firm produces 3D printers. Dollar Tree, Inc.'s stock is valued at \$31.86 billion. Retailer providing a discount on their products. The ten Nu Skin companies are worth a combined \$2.36 billion. Network marketing for personal care products. Pitney Bowes has a market capitalization of \$861 million. The company's best-known product is the postage metre [6, 7].

In order to show the wide variety of mid-cap companies, this list has been put together. Moreover, the company does not recommend or guarantee the safety of these stocks. An expert financial counsellor is absolutely necessary. The best stocks for your portfolio's asset allocation will be found by him or her. Depending on your financial objectives, mid-cap stocks might not be the best choice for you.

Sectors and domains of the stock market are suffering steep declines. However, a typical pattern has been that the decline in mid-cap equities has been sharper than the decline in large-cap stock [8].

Investors have become more cautious as a result of concerns about the possibility of a recession in the United States, which might have an impact on Indian equities. This stage has picked the "best among equals" large caps over the "midcaps."

In addition, analysts believe that the current market value of mid-cap stocks is probably a reasonable one, given the recent rise in their prices. Due to lesser stock volumes, mid-caps also tend to move quickly.

A bigger amount of correction was predicted because they had risen so much before compared to the large cap. G Pradeepkumar, CEO of Union Asset Management Company, told Business

Insider that mid- and small-cap stocks would be more volatile in the next few months since they are more risky, less liquid, and move on smaller quantities.

The sell-off in sentiment may have reached a bottom.

According to analysts, the FII outflow of 2.07 lakh crore in the previous six months had little impact on midcap values. Market conditions are to blame for the current sell-off according to Vikaas M Sachdeva, CEO of Emkay Investment Managers.

There are no FIIs in most midcaps, although they are prevalent in the bigger midcaps. As a result of robust SIP inflows, domestic mutual funds are available, but there is no selling pressure. Vikaas M Sachdeva, CEO of Emkay Investment Managers, told Business Insider that "if it is sentiment driven, there is no structural concern as such and it will bottom out shortly."

"Interest rates and the resulting debate have already been included into stock prices. At this point, the market is looking ahead to the next batch of results, which are fine even if they are only reasonable and not exceptional, as there are many concerns about inflation that might damage the profitability of some firms. If you look for a bottoming out, I think you will get outcomes that are reasonable and not as awful as predicted," Sachdeva said.

Angle of descent of the MF

However, mutual funds' increased investments in midcap stocks may remain sluggish. According to ICICI Securities, midcap and smallcap funds outperform in an up-cycle while underperforming in a down-cycle.

No one can say how long the present market cycle will last, therefore investors should proceed with caution when making new investments in midcap/small size funds. It's critical to exercise self-control in the face of today's unpredictability and high volatility, according to the research.

Fewer investors and funds are interested in purchasing the dip in small caps than in large ones. Despite the fact that mutual funds don't face a fund shortage, tiny and midcap companies might see a lot of back and forth, which could lead to additional volatility even if mood and results don't disappoint.

Most stock price movements are driven by external variables such as socioeconomic circumstances, inflation, and currency exchange rates. The value of a company's intellectual capital does not influence its present profitability. The increase of a stock's return is dependent on the presence of intellectual capital [9].

In financial economics, the efficient-market hypothesis (EMH) posits that asset prices represent all currently available information.

Events like the 1987 stock market crisis, in which the Dow Jones Industrial Average fell by 22.6% in a single day, cannot be explained by the "hard" efficient-market hypothesis [10].

Despite the fact that non 'reasonable' development could be discovered to account for the crash, this incident revealed that stock values can fall substantially even when there is no generally agreed upon precise explanation. There are a few things that can happen at random, although they are quite unusual. According to a research of the fifty greatest one-day share price fluctuations in the United States since the end of World War II, many price moves (beyond those projected to occur 'randomly') are not caused by new information.

Market players must be unable to profit systematically from any temporary 'market oddity,' but prices need not remain at or near equilibrium in order to satisfy a new, "soft" EMH. The stock market has a well-documented propensity to trend over time periods of weeks or months, contrary to EMH's prediction that all price movement is random (i.e. non-trending) in the absence of changes in fundamental information. Several hypotheses have been put out to explain such huge and seemingly non-random changes in pricing. The employment of tactics like as stop-loss restrictions and value at risk limitations, as well as changes in assessed risk, have been proven to theoretically lead financial markets to overreact. In reality, the most likely explanation is that stock market price distribution is not normally distributed (in which case EMH, in any of its current forms, would not be strictly applicable) [11].

EMH implies such actions "cancel out," however other research shows that psychological variables might cause stock price movements to be amplified (statistically abnormal). Studies show that humans are inclined to "seeing" patterns and often perceive a pattern in noise, such as seeing recognisable forms in clouds or ink blots in the aforementioned examples of noise. The current meaning of this is that a string of good news about a firm may cause investors to respond favourably, resulting in an increase in the stock's price. Investors' self-confidence is bolstered by a period of positive returns, which lowers their threshold for accepting risk.

Group thinking, a psychological phenomena, is another factor that impedes impartial evaluation. As social creatures, it is difficult to maintain an opinion that is radically different from that of the majority. One example is the reluctance to enter an empty restaurant; individuals like to have their opinions validated by those of others in the group, as is the case in many cases [12].

Markets typically act like a game of roulette, where the odds are predictable and generally unaffected by individual investors' choices. However, when the market is in turmoil, the game resembles poker (herding behaviour takes over). Other investors and how they may respond psychologically must now be taken into account by all stakeholders. According to the citations cited above,

By helping to shift funds from units with excess funds (savings) to those with a deficit (borrowing), stock markets play an important role in the growth of sectors that eventually impact the economy (Padhi and Naik, 2012). This is to say that financial markets make it easier for money to travel across the various entities listed above. Because of this, financial resources are expanded, contributing to the expansion of the economy.

CONCLUSION

Macroeconomic movements, according to economic and financial theories, have an impact on stock prices. Economic trends such as GDP, unemployment rates, national income and price indices are examples of macroeconomic trends. These also include changes in production, consumption, inflation and saving and investment in energy as well as international trade, immigration, productivity and the ageing of the population. lower investment rates and lower productivity growth, a smaller proportion of corporate revenues for employees and a greater concentration of business are all factors that contribute to a rise in corporate profit margins. Many academic studies have shown that smaller firms and those with low price-to-earnings ratios tend to outperform the overall market. Smaller firms have typically outperformed large ones in terms of stock returns, according to research.

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FEATURES OF EARLY ENTERAL NUTRITION IN PATIENTS WITH INTRAABDOMINAL HYPERTENSION SYNDROME IN SEVERE ACUTE PANCREATITIS

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ABSTRACT

The problem of treating severe acute pancreatitis is currently not solved. It was suggested that a large number of treatments. But unfortunately, that it seems to be working in experimental and initial clinical trials have not proved their effectiveness in the major randomized trials and cannot be recommended for widespread use in terms of evidence-based medicine. This statement relates to antimicrobial prophylaxis in the enzymatic step using antiproteaznyh, 5-fluorouracil, somatostatin drugs, anti-inflammatory drugs. Volumetric fluid therapy, sufficient early nutritional support is considered effective and recommended for use in severe acute pancreatitis. This article describes the importance of using early enteral nutrition in patients with this pathology.

KEYWORDS: *Enteral Nutrition, Pancreatitis, Intraabdominal Hypertension Syndrome, Intra-Abdominal Pressure.*

INTRODUCTION

The starting point of the development of intraabdominal hypertension in acute pancreatitis is considered to be the production of proinflammatory cytokines, an increase in capillary permeability and sequestration of fluid into the intra- and retroperitoneal space. Progressive reduction of the free volume of the abdominal cavity and an increase in intra-abdominal pressure aggravates pancreatic hypoperfusion and accelerates necrobiotic processes [1].

Of great importance in the pathogenesis of intraabdominal hypertension in acute pancreatitis is paralytic intestinal obstruction, which, on the one hand, increases intra—abdominal pressure, and on the other hand, progresses under the influence of intraabdominal hypertension -associated mesenteric ischemia, increases the permeability of the gastrointestinal mucosa, translocation of enteral microflora, infection of necrotic pancreatic tissues and retroperitoneal space [2].

Iatrogenic causes may also contribute to the development of intraabdominal hypertension in patients with acute pancreatitis: rigidity of the anterior abdominal wall against the background of insufficient analgesia, as well as massive infusion of crystalloids at an early stage of the disease [3].

The elevated position of the diaphragm in intraabdominal hypertension leads to a decrease in the elasticity of the chest, an increase in intra-thoracic pressure and a decrease in respiratory volume. Ventilation-perfusion discrepancy is manifested by a violation of oxygenation and the development of respiratory failure requiring mechanical ventilation [4].

An increase in pressure on the inferior vena cava, as well as mechanical compression of the heart and the main vessels of the chest, create hypertension in the small circle of blood circulation, making it difficult for venous return to the right parts of the heart. All this contributes to a decrease in cardiac output, a decrease in blood pressure, a violation of organ perfusion, the occurrence of arrhythmias, especially in patients initially suffering from coronary heart disease [5].

Changes in central hemodynamics, as well as direct compression of the renal parenchyma with reduction of renal blood flow, reduce perfusion pressure and filtration gradient, contributing to the development of oliguria. It is proved that an increase in intraabdominal pressure of more than 20 mm Hg is associated with oliguria and reduction of cardiac output. Violation of arterial hepatic and portal blood flow leads to ischemic damage to hepatocytes, mitochondrial dysfunction, impaired glucose metabolism, decreased lactate clearance [6].

Thus, intraabdominal hypertension makes a significant contribution to the development of systemic (organ dysfunction) and local (purulent-necrotic) complications of acute pancreatitis, which allows many researchers in recent years to consider it as one of the markers of severe disease.

Diagnostics. According to the recommendations of the World Society for the Study of Abdominal Compartment Syndrome, in critically severe patients with risk factors for intraabdominal hypertension, intra-abdominal pressure should be measured every 4-6 hours. The most common measurement method remains intravesicular, since the pressure in the lumen of the bladder exactly corresponds to intraabdominal, as well as due to technical simplicity and non-invasiveness. The resolution of the World Society for the Study of Abdominal Compartment Syndrome requires expressing the level of intra-abdominal pressure in mmHg and strictly adhere to the measurement algorithm to exclude false high results. In particular, the assessment of intra-abdominal pressure should be carried out in a horizontal position of the patient in the absence of tension of the muscles of the anterior abdominal wall for 30-60 seconds after the introduction of 25 ml of sterile isotonic sodium chloride solution into the bladder. To date, there are no recommendations for routine monitoring of intra-abdominal pressure in acute pancreatitis, however, the results of a recent prospective study indicate in favor of monitoring intra-abdominal pressure in patients with severe acute pancreatitis with persistent organ failure and (or) systemic inflammatory reaction syndrome [7].

Predictors of abdominal compartment syndrome are signs of compression of the inferior vena cava and kidneys according to the results of multispiral computed tomography; an increase in the ratio of anteroposterior to transverse abdominal size, the formation of bilateral inguinal hernias. There is also information about the correlation of the serum level of procalcitonin with the value

of intra-abdominal pressure in acute pancreatitis, which, according to experts, can be used in determining therapeutic tactics [8].

Prevention and conservative treatment. Priority in the prevention and correction of intraabdominal hypertension in acute pancreatitis is given to non-surgical techniques. Despite the importance of replenishing the volume of circulating blood and optimizing pancreatic perfusion, it was found that hyperhydration lasting more than 48 hours increases the risk of abdominal compartment syndrome and increases mortality. An accurate marker of visceral perfusion and a possible endpoint of infusion rehydration is the index of abdominal perfusion pressure, the achievement of which at the level of 60 mm Hg correlates with greater survival in intraabdominal hypertension and compartment syndrome. As a laboratory guideline for the adequacy of infusion therapy in recent years, it is recommended to use the lactate level [9].

Great importance is given to the choice of the nature of the infusion medium: it is assumed that the total use of crystalloids contributes to the development of intraabdominal hypertension. Colloidal solutions, in particular, hydroxyethyl starch, stay longer in the vascular bed and allow faster replenishment of the volume of circulating blood compared to crystalloids. Randomized studies in patients with severe acute pancreatitis demonstrate the advantages of combined administration of isotonic salt solutions with hydroxyethyl starches in the prevention of abdominal compartment syndrome, as well as in reducing the need for ventilation compared with the total use of crystalloids.

Pathogenetic correction of intraabdominal hypertension in acute pancreatitis includes 3 main directions: reducing the "volume of hollow organs" associated with the development of paralytic intestinal obstruction; reducing the amount of pathological contents of the abdominal cavity and retroperitoneal space (necrosis and exudate); reducing the rigidity of the anterior abdominal wall. Adequate sedation and analgesia, including neuromuscular blockade, are necessary to exclude excitation and non-synchronous respiratory movements that increase the tone of the anterior abdominal wall. Enteral decompression, as well as the appointment of prokinetic drugs, contribute to the elimination of paralytic intestinal obstruction and gastrostasis. The possibilities of early enteral nutrition in intraabdominal hypertension are associated with the restoration of perfusion and intestinal motility. The results of a prospective clinical study demonstrate that in patients with severe acute pancreatitis, early enteral nutrition prevents the development of intraabdominal hypertension, improves clinical outcomes of the disease, but has no significant effect on mortality. A number of randomized studies have shown the possibilities of prolonged veno-venous hemofiltration in the prevention and elimination of intraabdominal hypertension against the background of severe acute pancreatitis through the elimination of cytokines (IL-6 and TNF- α) and negative hydrobalance[10].

Surgical treatment. In the case of an increase in intraabdominal hypertension against the background of conservative measures, percutaneous drainage of acute fluid accumulations is justified. Z.X. Sun et al. in a randomized study, the effectiveness of abdominal drainage was compared with conservative measures. It was found that the volume of fluid evacuated through drainage correlated with the level of intra-abdominal pressure, the duration of hospitalization and the dynamics of scores on the APACHE-II scale. Despite the achieved reduction in the intensity of pain syndrome, the duration of inpatient treatment, significant differences in the level of postoperative mortality in clinical groups have not been established. In the presence of extensive fluid accumulations, percutaneous drainage helps to reduce intraabdominal hypertension, but the

possibility of further development of organ dysfunction and compartment syndrome remains unpredictable [7].

To date, there is no consensus on the optimal duration of surgical decompression. It has been shown that in patients with acute pancreatitis with intra-abdominal pressure above 25 mm Hg. during the first 14 days of intensive therapy, the mortality rate is more than 50%. With the development of abdominal compartment syndrome on the background of severe acute pancreatitis, surgical decompression improves the functional state of the kidneys, lungs. According to P. Mentula et al., early decompression contributes to a significant reduction in mortality (from 46 to 18%), as well as a decrease in respiratory and renal insufficiency in 54% of patients. The authors recommend surgical decompression in patients with intra-abdominal pressure above 25 mmHg during the first 4 days after the onset of the disease. Similar results were obtained in an experimental model of severe acute pancreatitis in laboratory pigs: decompression upon reaching the intra-abdominal pressure level of 25 mm Hg was associated with an improvement in systemic hemodynamics and the morphological state of the pancreas, which, in general, contributed to a decrease in mortality [11].

The most common method of surgical decompression in abdominal compartment syndrome is median laparotomy. At the same time, all layers of tissues (skin, aponeurosis, peritoneum) from the xiphoid process of the sternum to the pubic articulation are dissected in layers by vertical incision. Such access makes it possible to monitor the state of the intestine and diagnose possible ischemic injuries in a timely manner. Despite a significant reduction in the frequency of complications such as intestinal fistulas, the preservation of the defect of the anterior abdominal wall in the future often requires reconstructive surgery and even skin grafting.

As an alternative, a transverse approach can be used below the costal arch on the right and left, which facilitates necrectomy of meso- and paracolic tissue in case of infection of necrosis. Among other things, this access has advantages in the technique of primary wound closure.

Another option for surgical correction of intraabdominal hypertension is subcutaneous fasciotomy, performed from small horizontal skin incisions. The remaining intact peritoneum provides a lower probability of developing purulent-necrotic complications, including the formation of intestinal fistulas. According to A. Leppäniemi et al., the effectiveness of subcutaneous fasciotomy of the white line of the abdomen was comparable to decompression laparotomy and was accompanied by mortality at the level of 40% in a group of 10 patients [11]. The achieved economic effect was due to a decrease in the need for follow-up interventions and patient care. Closed monitoring of intra-abdominal pressure must be provided without fail in order to confirm the adequacy of decompression after the intervention. This is associated with the risk of recurrence of intraabdominal hypertension, and some experts do not recommend fasciotomy when the intra-abdominal pressure is more than 35 mm Hg [12].

To date, there is no convincing evidence of the advantages of one or another method of surgical treatment of intraabdominal hypertension in patients with severe acute pancreatitis. It is not clear, in particular, how effectively minimally invasive methods (percutaneous drainage) provide decompression and prevention of the subsequent need for laparotomy.

CONCLUSIONS

Thus, the problem of the development of intraabdominal hypertension in acute pancreatitis has acquired exceptional importance in recent years, which, apparently, is associated with a change

in tactical approaches to the treatment of the disease and, in particular, with the rejection of routine open laparotomy interventions in the pre-infectious phase of the disease. Despite the existence of a consensus on the pathophysiological significance of increased intra-abdominal pressure and the need for its monitoring, the issues of treatment and prevention of intraabdominal hypertension in acute pancreatitis remain controversial.

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INFLUENCE OF SOWING RATES OF SEEDS AND MINERAL FERTILIZERS ON YIELD OF DURUM WHEAT VARIETIES UNDER LIGHT GRAY SOILS

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ABSTRACT

The article shows the sowing rates of seeds and mineral fertilizers on the yield of durum wheat varieties Krupinka, Zilol and Nasaf. The highest grain yield of durum wheat was observed in varieties Zilol (59.6 c/ha) and Nasaf (60.7 c/ha) when nitrogen fertilizers N180P90K60 kg/ha were applied with a seeding rate of 4 million seeds, in the variety Krupinka (56.9 c/ha) with a seeding rate of 5 million seeds, and when applying nitrogen fertilizers N210P90K60 kg/ha.

KEYWORDS: Variety, Krupinka, Zilol, Nasaf, Durum Wheat, Sowing Rates, Fertilizer, Productivity.

INTRODUCTION

Wheat is one of the most widespread agricultural crops in the world. Its grain contains almost all substances (proteins, carbohydrates, minerals, etc.) necessary for the normal development of the human body. Wheat bread has high taste and nutritional properties, is well digested and absorbed by the body. Wheat grain is also used in the cereal, pasta and confectionery industries. It is the staple food for 35% of the world's population and provides about 20% of the population's energy needs [1].

According to N. Umirov et al., when sowing seeds of winter wheat at the rate of 4.0-4.5 million germinating seeds/ha in the optimal period and 4.5-5.0 million germinating seeds/ha in the late period in autumn, top dressing nitrogen fertilizers in late February-early March at the rate of 60-70 c/ha, in the phase of entering the tube-earing 75-80 c/ha, allows you to get the planned yield of 70-75 c/ha [2].

According to the results of N.M. Turdieva, in the conditions of irrigated meadow-gray soils of the Samarkand region, sowing in the second decade of October of intensive types of biological two-handled (optional) durum wheat variety Istiklol with a sowing rate of 4.0 million pcs/ha of viable seeds and 5.0 million pcs/ha of Alexandrovka variety provides a high productivity [3].

P.Kh.Bobomirzaev notes that sowing dates also affect sowing rates. With a delay in sowing from the optimal time, the sowing rate increases. In plants sown late, seed germination coefficient is low, resistance to unfavorable autumn-winter conditions is low [4].

Hard wheat (*Triticum durum*) is one of the most important food crops around the world, producing 36 million tons of grain annually. Durum wheat is mainly grown in the Mediterranean basin, the southeastern United States and the northern plains of Canada, the desert regions of northern Mexico, and many other regions.

In 2020-2021, a slight increase in durum wheat grain production is expected in the world. US production increased by 12% per year. In 2019-2020, the European Union, Spain and Greece were the countries with the highest levels of production. In other countries, there is a reduction in production. Production in Italy has dropped sharply. Production is also declining in North Africa. Morocco, Tunisia and western Algeria, where dry conditions are experienced and durum wheat production has declined as a result.

This has led to a reduction in the area under durum wheat in many countries.

The world wheat market receives 120-140 million tons of wheat annually, and the United States, Australia, Canada, Argentina, the European Union, Russia, Kazakhstan and Ukraine play an important role in this market. Most of the world's wheat exports are produced by these 8 countries. The United States ranks first among them.

From 1950 to 1990, production greatly increased productivity through a combination of genetic improvement and new agronomic practices.

Nitrogen consumption has increased nine-fold since the 1960s, and scientists predict it could increase another 40 to 50 percent in the coming years. Today, in many foreign countries, research is being carried out to improve agricultural technologies and to grow high-quality durum wheat, which is one of the most urgent problems.

Over the past five years, one of the brightest features of the current modernization strategy of Uzbekistan in the country is the diversification of agriculture, further strengthening food security and expanding the production of environmentally friendly products. Through the introduction of efficient production technologies and strengthening the material and technical base of farms and clusters, 7 million 130 thousand tons of grain were grown in 2019.

Within the framework of the Strategy for the Development of Agriculture of the Republic of Uzbekistan for 2020-2030, special attention is paid to "... the introduction of effective mechanisms for managing water resources, water use and water consumption, the introduction and rational use of fertilizers to preserve and increase soil fertility." In this regard, it is of great importance to conduct scientific research to improve the optimal agricultural technologies for growing import-substituting and export-oriented durum wheat on irrigated lands.

Conducted research, foreign and domestic literature, the role of durum wheat in the national economy and cultivation technologies, the impact of sowing rates on grain yield and quality of durum wheat, the effect of nitrogen fertilizer rates on grain quality, the effect of irrigation on valuable economic characteristics of durum wheat. Many foreign and domestic the scientists reviewed the literature based on numerous recommendations for composition, experimental placement, and phenological observations.

A study in light gray soils of the Kashkadarya region shows that at a seed sowing rate of 4 million pieces per hectare, with the application of the norm of fertilizer $N_{150}P_{90}K_{60}$, the average yield for three years was 43.7 centners per hectare for the Krupinka variety, and 47.1 centners / ha for the Zilol variety and for the variety Nasaf 48.3 centners / ha. With an increase in the sowing rate by 5 mln. 45.8 c/ha, toyst with an increase in the sowing rate, an increase in yields were aside the error of experience.

The conducted research shows that with an increase in the norm of mineral fertilizers, the productivity of durum wheat varieties increases markedly. At the norm of fertilizer $N_{180}P_{90}K_{60}$ in the Krupinka variety, when sowing 4 million seeds per hectare, the average three-year yield was 55.2 centners per hectare, or 11.7 centners per hectare higher than when compared with $N_{150}P_{90}K_{60}$. Accordingly, the Zilol variety had 59.6 centners/ha and 12.5 centners/ha, and the Nasaf variety had 60.7 centners/ha and 12.4 centners/ha. The same trend as in varieties with an increase in the sowing rate of seeds, an increase in yield, were aside the error of experience.

TABLE 1 INFLUENCE OF SEEDING RATES AND NITROGEN FERTILIZERS ON GRAIN YIELD, C/HA (2018-2020)

№	Fertilizerrat ekg/ha	Seedin grate	Variety name	2018 year	2019 year	2020 year	Average
1	$N_{150}P_{90}K_{60}$	4 million pieces	Krupinka	41,6	46,6	42,8	43,7
2			Zilol	45,8	48,8	46,8	47,1
3			Nasaf	47,7	49,1	48,2	48,3
4		5 million pieces	Krupinka	43,9	47,7	44,8	45,5
5			Zilol	47,6	49,2	48,9	48,6
6			Nasaf	48	50,2	49,1	49,1
7		6 million pieces	Krupinka	44,4	47,8	45,1	45,8
8			Zilol	48,7	49,6	49,4	49,2
9			Nasaf	50,7	50,7	51,2	50,9
10	$N_{180}P_{90}K_{60}$	4 million pieces	Krupinka	52,3	59,2	54,2	55,2
11			Zilol	57,5	62,3	59,1	59,6
12			Nasaf	58	64,2	60	60,7
13		5 million pieces	Krupinka	54,7	60,1	56	56,9
14			Zilol	58,3	64,6	60,5	61,1
15			Nasaf	59,7	65,9	61,2	62,3
16		6 million pieces	Krupinka	55	61	57,5	57,8
17			Zilol	59,6	67,9	61	62,8
18			Nasaf	61,3	68,9	63,4	64,5
19	$N_{210}P_{90}K_{60}$	4 million pieces	Krupinka	56,5	64,9	59,8	60,4
20			Zilol	59,7	69,7	63,2	64,2
21			Nasaf	60	70,7	65,7	65,5
22		5 million pieces	Krupinka	57,4	65,9	60,2	61,2
23			Zilol	62,2	70,5	64,3	65,7
24			Nasaf	62,4	71	66,6	66,7
25		6 million pieces	Krupinka	56,9	66,9	61	61,6
26			Zilol	60	71	65,2	65,4
27			Nasaf	61,9	72,1	68,6	67,5

Experienceerror	S_x =	1,14	1,15	1,29	X
AverageDifferenceError	S_d =	1,61	1,63	1,82	X
Least significant difference, c/ha	LSD₀₅ =	2,98	3,01	3,37	X

At the norm of fertilizer $N_{210}P_{90}K_{60}$ in the Krupinka variety, when sowing 4 million seeds per hectare, the average three-year yield was 60.4 c/ha, or 16.7 c/ha higher than when compared with $N_{150}P_{90}K_{60}$. and 5.2c/ha vs. vs. $N_{180}P_{90}K_{60}$. Accordingly, the Zilol variety has 64.2 c/ha and 17.1 c/ha higher than when compared with $N_{150}P_{90}K_{60}$. and 4.6 c/ha vs. vs. $N_{180}P_{90}K_{60}$. and in variety Nasaf this figure was 65.5 c/ha and 17.2 c/ha ha higher than when compared with $N_{150}P_{90}K_{60}$. and 4.8 c/ha compared to $N_{180}P_{90}K_{60}$..The same trend persisted in other variants with an increase in the seed sowing rate.

When studying the effect of seed sowing rates and the application of nitrogen fertilizers on the grain yield of durum wheat varieties under the conditions of irrigated light gray soils of the Kashkadarya region, the effectiveness of using a high agricultural background was determined. For example, at a fertilizer application rate based on $N_{180}P_{90}K_{60}$ kg/ha, the seed sowing rate for local varieties was 4 million seeds, and for foreign varieties 5 million seeds, and at a fertilizer application rate based on $N_{210}P_{90}K_{60}$ kg/ha, vice versa, for local varieties 5 million pieces, and for foreign varieties 4 million pieces, (table 1).

When studying the interaction of sowing rates and the application of nitrogen fertilizers on the technological quality of durum wheat grain, it provided a high nature of grain against a high background of nitrogen fertilizers, and an increase in sowing rates led to a decrease in grain yield.

In the variant with the application of nitrogen fertilizers at the rate of 150 kg/ha, the weight of 1000 grains was 39.5-44.1 g, with the application of 180 kg/ha - 41.5-46.2 g, with the application of 210 kg/ha 43.5 -47.6 g. According to the results obtained, it was determined that with an increase in mineral nutrition, an increase in the weight of 1000 grains was observed, and with an increase in seeding rates, a decrease in this indicator.

CONCLUSIONS

1. When applying nitrogen fertilizers at the rate of $N_{210}P_{90}K_{60}$ kg/ha to $N_{150}P_{90}K_{60}$ kg/ha, the vegetation period of varieties was 223-231 days. Experiments have shown that an increase in the application rate of nitrogen fertilizers for every 30 kg/ha ensures the full growth and development of plants and prolongs the development period by 2-3 days.
2. The highest grain yield of durum wheat varieties was observed in varieties Zilol (59.6 c/ha) and Nasaf (60.7 c/ha) when nitrogen fertilizers $N_{180}P_{90}K_{60}$ kg/ha were applied with a seeding rate of 4 million pieces, seeds, in the variety Krupinka (56.9 c/ha) with a seeding rate of 5 million seeds, and when applying nitrogen fertilizers $N_{210}P_{90}K_{60}$ kg/ha, on the contrary, in local varieties (65.7 - 66.7 c/ha) with a seeding rate of 5 million seeds , seeds and in the foreign variety Krupinka (61.6 kg / ha) with a seeding rate of 4 million seeds.
3. For local varieties Zilol and Nasaf when applying nitrogen fertilizers $N_{180}P_{90}K_{60}$ kg/ha, the seeding rate is 4 million pcs, 5 million pcs, for the foreign variety Krupinka and vice versa 5 million pcs, seeds when applying mineral fertilizers with the norm $N_{210}P_{90}K_{60}$ kg/ha for local varieties and 4 million pieces for the foreign variety Krupinka.

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PEDAGOGICAL POSSIBILITIES OF INFORMATION EDUCATION ENVIRONMENT IN THE DEVELOPMENT OF SOCIO-PEDAGOGICAL COMPETENCE OF FUTURE TEACHERS

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ABSTRACT

The content of the terms "environment", "educational environment", "educational environment" and "informational educational environment" is revealed in the article. In the context of the globalization of society, the role of the information education environment and its pedagogical possibilities are scientifically based. Also, the purpose, tasks and conditions of creating an information environment in modern educational conditions are revealed.

KEYWORDS: *Educational Activity, Educational Environment, Educational Environment, Information Educational Environment (IEE), Pedagogical Possibilities Of Information Educational Environment, Information Environment Blocks, Information Resources.*

INTRODUCTION

The concept of the learning environment, which is understood as a continuous, integral form of development of learning opportunities in terms of the formation of the global information space of human society, inevitably enriches the meaning of the information system and its optimal management process, such as self-learning based on the principle of expediency, speed, efficiency and clear work considerations. serves. Information educational environment (IT) appears as one of the categories of worldview along with the scope of information - matter, space and time, movement, etc., about the processes and laws of information transmission, distribution, processing and transformation, as well as one of the most important conditions of life [1]. The information educational environment is the ultimate model of movement, multidimensional information, which is created, transmitted and used in the form of symbols, signals, information flows and environments, as a space that creates conditions for understanding a single view of the world for the information civilization of the individual worldview. One of the most characteristic functional features representing the adaptive model of the global information educational environment is electronic communication systems and teaching tools of IEE in the communicative aspect [3].

The interpretation (interpretation) of the component of the general information educational environment is of particular importance in terms of familiarization with the principles of the civilization of the animated subjects of IEE and the basics of the information paradigm, in essence, the establishment of cooperative actions, mutual agreements. In this regard, it is necessary to understand the abbreviation IEE as "information-educational environment" and not "information-educational data".

Psychologist M. Chernoushek admits that the concept of "environment" is interpreted based on several approaches in scientific and pedagogical literature and practice. He expresses his opinions about the environment as follows [7]:

- does not have clearly defined and clearly recorded boundaries in environment, space and time;
- we receive information about the environment through our various sense organs;
- information about the environment is not the same, it can be divided into different parts (important, primary, secondary information);
- there is always more information in the environment than we perceive, record and understand;
- a person knows what the environment is through his practical activity;
- any environment has psychological and symbolic (symbolic) significance along with its natural and other specific features;
- the environment is affected as a whole.

In the science of pedagogy, the educational aspects of the environment are analyzed and determined. But its educational aspects as a research object require extensive scientific research. H.F. Rashidov puts forward the following opinion about the "educational environment": "where a person is motivated to learn, there will certainly be an educational environment, that is, an educational environment. In this case, the same environment may be educational for one person and non-educational (neutral) for another person. Each person has the opportunity to independently form his own educational environment within a specific educational space" [5]:

In the context of the formation of a multidimensional IEE of education, it envisages the technologicalization of the pedagogical process in higher education institutions, information technologies (IT) - technological systems of delivery of educational materials and ideal tools used to provide feedback, modernization of information transmission and its distribution. For the operation of IEE, on the one hand, scientifically based pedagogical theories, psychology, informatics, informatics and technologies of using the most modern possibilities of management, on the other hand, synergistic, integrative, coordinating, developing, aimed at realizing the main tasks of the information educational environment in the conditions of pedagogic higher education institutions, professional-oriented, general cultural, humanistic and others are important.

Although the information learning environment has been studied in various fields, three main ones can be distinguished. First, IEE is one of the types of activity. In it, a person was considered as a participant in the process of communication, that is, it mainly means the ability to demonstrate the ability to transfer personal knowledge to others in an informational form, and vice versa, to transform the received information into personal knowledge.

Secondly, it is considered as a system of historically formed forms of communication.

Thirdly, as an information infrastructure created by the entire society, it includes publishing houses, libraries, information centers, databases, mass media, etc.

One of the characteristics of any information environment is that it allows you to get the necessary data, information, hypotheses, theories, etc. It is necessary to educate and develop the skills of receiving and processing information. This skill is formed during the educational

process. Researchers note that the information environment of educational activities is formed as follows:

- by the pedagogue (he determines the content of the course program, selects educational literature, teaching methods, communication style, etc.);
- by the pedagogical team of the educational institution (it determines the general requirements for students, the traditions of this educational institution, the form of interaction between pedagogues and student groups, etc.);
- by the state as a social institution (it determines the general material provision of education, the social order for the formation of one or another system of knowledge and views).

So, the information-educational environment is the informational, technical and educational methodical support of the educational process, as well as the system of interaction of its participants. Pedagogical possibilities of the information learning environment are presented in Figure 1.

Each subject of the educational process forms its information environment independently. As a subject of the educational process, he creates information resources and uses them to develop not only himself, but also the information environment.

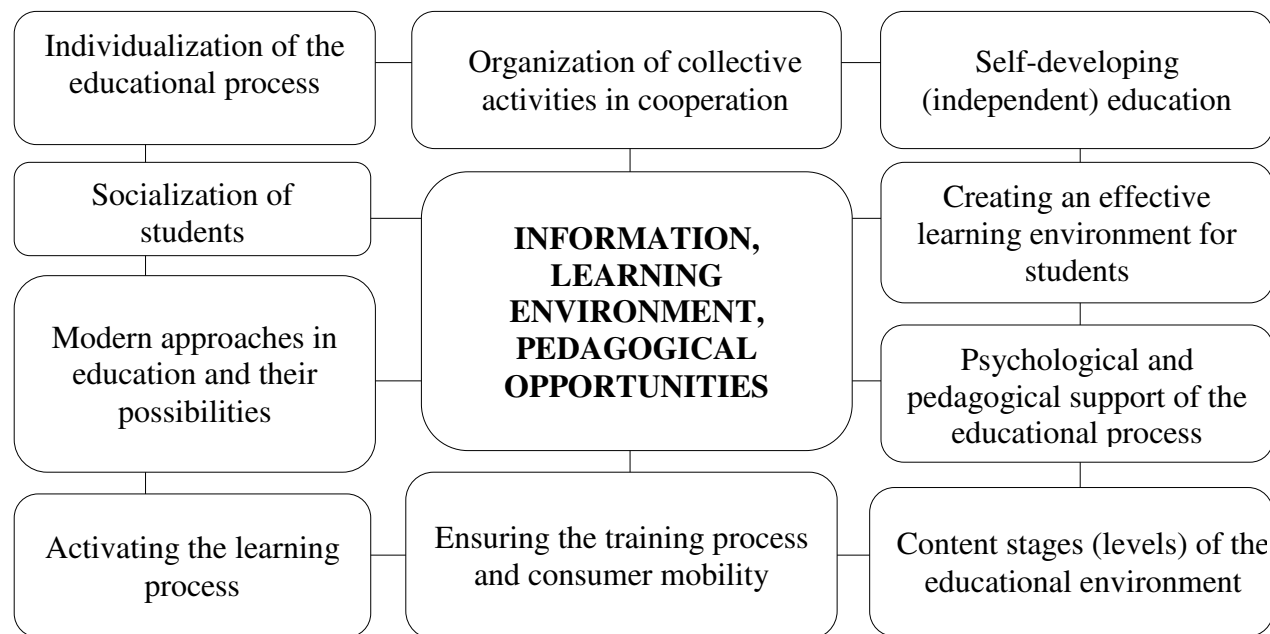


Figure 1. Pedagogical possibilities of information educational environment.

In our opinion, the information-educational environment in the conditions of mixed education refers to the informational, technical and teaching-methodical support of the educational process, as well as the organizational aspects that form the basis of the system of interaction of its participants.

Thus, the essence of the information-educational environment is interpreted differently. The most important points in these interpretations can be singled out.

When talking about learning environments (or educational environments), researchers mean interrelated learning and teaching processes (in the indicated processes, both processes are

present). The concept of "learning environment" further defines the concept of "learning environment", since a learning environment can contain many learning environments. However, unlike learning environments, which can be organized or emerge spontaneously, learning environments are always ad hoc. In this way, the educational environment is understood as the interdependence of specific material, communication and social conditions that ensure the teaching and learning processes. In this case, the presence of the teacher/learner in the environment, the interaction and cooperation of the environment and the subject is assumed.

In our opinion, the educational environment is a specially organized environment aimed at students' acquisition of certain necessary modern knowledge, skills, skills and competences. In it, it will be possible to change the goals, content, methods and organizational forms of education within the framework of a specific educational institution. In other words, it is a complex of external organizational forces and material supplies that provide ample opportunities for the processes of education and personal development. O.P. Okolelov talks about the pedagogical learning environment, he means the systematic education created by the participants of the educational process, instilled with a special, specific interaction for this education. In this case, communication within the environment takes the lead.

Recently, the term "information environment" is widely used in consumption, and in the future, it is expected to be manifested in the conditions of information exchange organized with the help of special software tools of educational institutions that are connected in a certain way.

In order to ensure the information environment in modern education, the following conditions must be met:

- a system of means of "communication" with universal culture. It serves to store, organize and present the information that makes up the content of the accumulated knowledge, as well as to transfer, process and enrich it;
- system of independent work with information;
- existence of both vertical and horizontal intensive communication between the participants of the educational process.

The information environment consists of five blocks: value-targeted, programmatic-methodical, information-knowledge, communicative, technological.

The value-purpose block includes the goals and values of pedagogical education, and they can be important in achieving the specified educational and teaching goals.

The software-methodical block contains all the necessary information related to the possible strategies, forms and programs related to the preparation.

The information-knowledge block includes the system of knowledge and skills that form the basis of the student's future professional activity, as well as determine the characteristics of the learning activity, affecting its effectiveness. In addition, it shows the role of information in education.

The communicative block includes forms of mutual communication and communication between the participants of the pedagogical process.

The technological block includes all educational tools used in the information environment (new information technologies, telecommunication networks).

The analysis of the literature allows to determine the "social quality" of the educational environment of the information, it reflects the characteristics and values of the relations of the groups of people interacting in the social-educational environment.

Considering the qualitative uniqueness of the information environment through the uniqueness of the relationships connecting people, we came from the concept of education as a free relationship based on the need of people to receive information and transfer the received information. Based on this assumption, it can be said that the information environment is a space of specially organized relations.

The theoretical analysis of works on pedagogy makes it possible to come to the following important conclusion: the environment is a specific regulator of the relations of the educational subject and at the level of its organization (social-pedagogical, organizational-pedagogical and psychological-pedagogical).

Choosing this approach provides the following opportunities:

1. Distinguishing the macro- and micro-levels of the definition of the information environment. The first is related to determining the exact structure of the educational environment, which can be expressed as a space of relations of educational groups within the framework of the social approach. The second one is related to the communicative rationalization of the life activities of these groups, which is the basis for considering the team as subjects of the educational environment, the group in terms of their interaction with the environment, and the acquisition of professional and spiritual culture.
2. Representation of the quality of the information environment as a specific necessity of the social order.
3. To demonstrate the communicative aspect of the activity of educational groups as a determining method of development of the educational environment.
4. To distinguish the development of the individual's ability to create individual life projects as a cultural potential of the information environment and to activate this ability as the main function of the information environment.
5. Determining the humanization of human morality at all levels of personal development in the information environment as an indicator of human development.

The obtained conclusions were clarified on the basis of the results of the study of problems in the interaction of the person and his environment, and they indicate the following:

- the environment is inextricably linked with human activity and serves as an important factor in regulating his morals;
- a person is connected with any component of the environment through the processes of adapting to it and changing it;
- the process of interaction between the person and the environment has a two-way nature. On the one hand, it affects the development of a person through its structural elements. On the other hand, a person creates this environment while entering into relationships with other persons, objects and events, giving it a certain social quality;

- the level of attachment of a person to the environment is different both physically, physiologically, and psychologically, and it can be expressed by indicators of remoteness, control, and identification characterizing the processes of personalization of the environment;
- a person's character depends to a large extent on what image of the environment is formed in his mind.

Based on the above points, it can be said that the information-educational environment in higher pedagogic educational institutions is an information infrastructure, organizational-methodical tools that provide the possibility of quick access to pedagogical information, implement the goals and tasks of pedagogical education and develop the science of pedagogy. , includes a set of technical and software tools for storing, processing, and transmitting information. It is clear from this that students cannot become full-fledged pedagogically competent teachers without acquiring information about the pedagogical information educational environment, without mastering the methods of its use.

Three types of information-educational environments are common, namely knowledge presentation, independent learning, and both knowledge presentation and independent learning (mixed type). Some types of information-educational environments are currently widely used in practice, and some are only theoretically described in scientific and pedagogical literature.

Currently, the creation of an information-educational environment based on innovative approaches in the higher education system, especially in the field of higher education, is considered one of the urgent socio-pedagogical problems. In our opinion, the modern model of the development of pedagogical competence of students of higher educational institutions can be imagined as an information-educational environment (IT) aimed at developing the learner's personality. The information-educational environment formed in the higher education system, without a doubt, serves to improve the professional knowledge of teachers, students and system employees and master the methodology of practical application of the acquired knowledge.

The main goal of creating an information learning environment in the educational system is to meet the requirements for learning using the most modern information and telecommunication technologies, regardless of where students live, as well as the necessary services of education.

In order to realize the main goal of the information-educational environment, it is necessary to solve a number of tasks: to create an opportunity to conduct educational and methodological support and independent economic policy of the educational institution; preparation of an exemplary service complex; automation of the process of creating a list of information resources that provides the maximum possible information to the user in a voluntary higher education institution entering the information educational environment; to make it possible for voluntary scientific-pedagogical personnel to use the information educational environment, regardless of the place of work; description of statistical and other dynamic data on the information educational environment and automation of their collection; providing monitoring of the informational educational environment; formation of the scientific-methodical database and the staff of professors and teachers engaged in it; regularly expanding databases.

It is necessary to apply an algorithmic approach to the creation of an information-

educational environment. This is important for improving the continuous and

professional training of specialists, including those who improve their qualifications. It is a promising direction. The information-educational environment is a software-telecommunication complex, which ensures the organization of the educational process with uniform technological means. In our opinion, in order to create and optimize the information-educational environment of higher education institutions and to make it function according to the purpose, it is necessary to implement the following:

- determining the purpose and task of creating an information-educational environment;
- development of the principles of creating an information-educational environment;
- development of operating procedures of the information-educational environment;
- determining the structure of the virtual office of the educational institution;
- defining and clarifying the elements of the information-educational environment and the structure of users;
- formation of information resources;
- development and support of the information-educational environment.

Therefore, the main goal of creating an information-educational environment in higher education institutions should be to maximally satisfy the need of educational institution managers and teachers to acquire knowledge and develop pedagogical competence in various specialties.

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APPLICATION OF VIRTUAL LABORATORIES ON THE COURSE "DESIGN OF MEASURING INSTRUMENTS"

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ABSTRACT

This article discusses virtual laboratory work on specialization and their advantages in use. Naturally, this can only be a virtual, computer laboratory workshop that fits on a regular flash drive and runs without first installing the program on the computer. The presence of an additional virtual laboratory in addition to the 8 laboratories provided for in the plan will allow all students to work independently. The presence of an additional virtual laboratory in addition to the 8 laboratories provided for in the plan will allow all students to work independently. To avoid this malfunction, manufacturers use light fluxes of an unusual spectrum, for example, a laser beam. Such a source is quite simple to manufacture - the radiation is focused into a thin beam, usually red.

KEYWORDS: *Design, Device, Laboratory.*

INTRODUCTION

The use of virtual laboratories in the field of teaching laboratory work in subjects provides programmatic training that allows you to conduct several different experiments without contact with the real equipment or object.

The modern practice of teaching the course "Design of Measuring Instruments" in higher educational institutions requires, in addition to well-equipped stationary educational laboratories. etc. Naturally, this can only be a virtual, computer laboratory workshop that fits on a regular flash drive and runs without first installing the program on the computer. In addition, it is desirable to use the elements of this workshop both as lecture demonstrations of physical phenomena and as an element of practical exercises (virtual laboratory work). [one]

Virtual work provides research skills, control the quality of knowledge gained, test hypotheses and confirm the reality of physical laws. [2]

The purpose and objective of the course "Design of measuring instruments" is the development of models and algorithms for complex design processes using the basics, rules, principles of design, the use of information technology in the design of measuring instruments; building

computer-aided design systems, stages of building measuring instruments, patenting new designs, optimizing the choice of structural elements, optimizing the selection of critical elements of measuring instruments, characteristics of sensors, their types, dynamic mechanical analysis of the requirements for protecting the design of devices, ergonomics and technical aesthetics requirements are mainly important for studying construction design .

According to the course, the following requirements are imposed on the knowledge, skills and abilities of students.

The student must:

- study the design process, search for technical solutions, general and special requirements for measuring instruments, design stages, project documentation, terms of reference, technical proposal, instrument sketch, technical project, working documentation, factors affecting the operation of the instrument, search for a design solution, selection the physical principle of motion, physical and technical effects, a set of criteria for the similarity method, the identification of patentable designs, the efficiency achieved as a result of the use of automation, understanding the development of modern design methods, etc.

The course "Design of measuring instruments" for students in the direction of "Metrology, standardization and product quality management" is designed for 2 semesters, the total educational process of the lesson is 276 hours.

General	276 hours	5 semester	6 semester
lecture	80 h	48h	32h
practice	48h	32h	16h
laboratory	16h	-	16h
Independent work	132h	72h	60h

Laboratory classes are held in the 5th and 6th semester for 3rd courses. There are 8 laboratories in total.

Laboratory classrooms of the department are equipped with all educational materials and devices. Each student is given a maximum of 30 minutes to conduct and explain the lab. In small groups of 12 students. Students want to conduct experiments on their own, but lack of time worsens the process of laboratory studies.

The need for virtual laboratories was felt after studying the problem. The presence of an additional virtual laboratory in addition to the 8 laboratories provided for in the plan will allow all students to work independently. The virtual laboratory allows you to control the time inside the experiment, slowing it down or speeding it up.

Methodology for preparing a virtual laboratory

Structure - laboratory work.

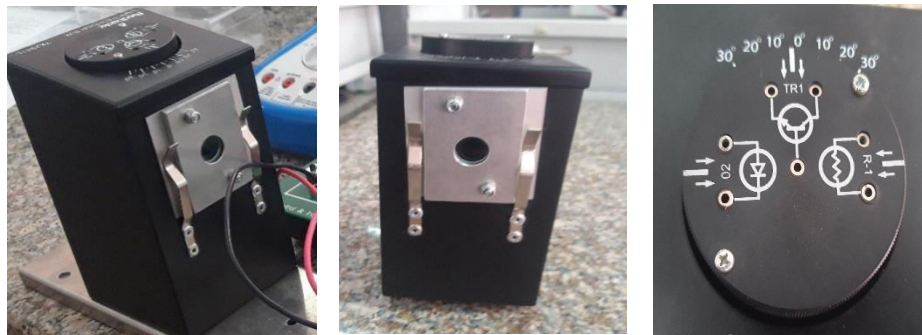
1. Note to the student (rules, formulas, diagrams, graphs).
2. Job description.
3. Measuring instruments. Multimeter.
4. Accessories. Insertion fee. Set of connecting wires. Lamp. Power supply

5. Experiment.

Subject: Design of Measuring Instruments
1-laboratory. Study of the characteristics of optoelectronic sensors.
Objective:
1.Characteristics of the optoelectronic sensor
2.Elements of the optoelectronic sensor
3.Working principle.
Basic information about the device.
Report.

1.Characteristics of the optoelectronic sensor

Front view Rear view Top view

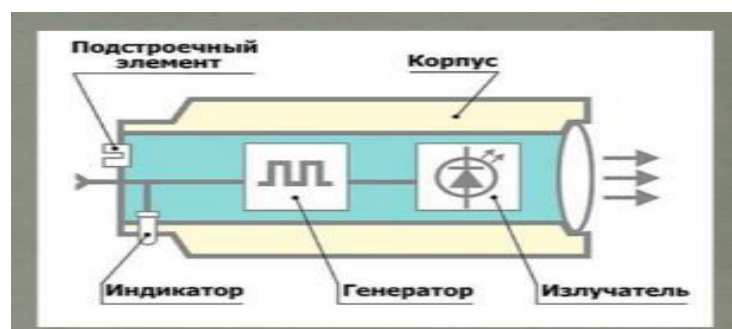


Optoelectronic sensors (OPS), often referred to as photosensors, are among the most versatile sensors. They allow you to measure many physical quantities: pressure, displacement, speed, acceleration, temperature, chemical composition, magnetic fields, etc.[3]

An optoelectronic sensor consists of two main components - an emitter and a receiver. In turn, the emitter usually includes:

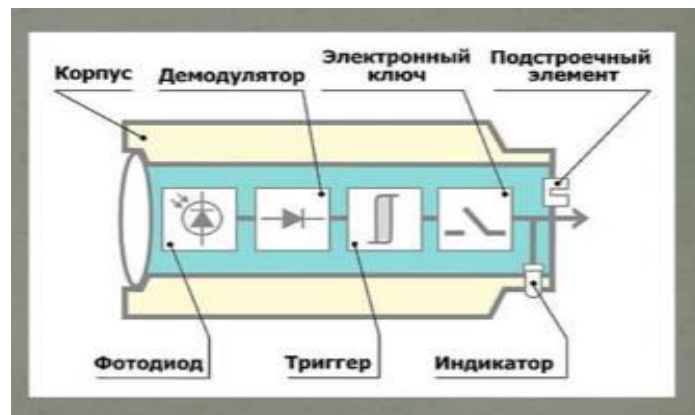
- emitter (LED, laser, or other option)
- generator
- setting element (potentiometer/button/screw)
- work indicator

Structure



The receiver is a more complex device and includes:

- photodiode
- demodulator
- Schmitt trigger
- electronic switching element
- setting element (potentiometer/button/screw)
- operation indicators [4]



Elements of an optoelectronic sensor

A multimeter is a versatile measuring instrument.



Power supply unit - a device designed to generate the voltage required by the system from the voltage of the electrical network.



Lamp - electric light source



Board - installation for electrical connection



Principle of operation

Optical sensor working principle: when the beam passes through the sensor unobstructed, it will be activated. But, when it is interrupted by some kind of barrier, the device stops working and transmits a signal to the central computer, from which the operator learns about the information he needs. To avoid this malfunction, manufacturers use light fluxes of an unusual spectrum, for example, a laser beam. Such a source is quite simple to manufacture - the radiation is focused into a thin beam, usually red.



For the subject "Design of measuring instruments" for laboratory work, the best option is VirtualLab . This is a project to develop virtual laboratory work for students in physics, chemistry, biology, ecology and other subjects. With the help of VirtualLab , students master additional materials and independently solve the problem of laboratory work, even in the absence of the necessary equipment.

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OUR EXPERIENCE OF LAPAROSCOPIC TREATMENT OF ACUTE ADHESIVE INTESTINAL OBSTRUCTION

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ABSTRACT

The issues of the most common causes and tactics of treatment of adhesive intestinal obstruction, its timely diagnosis (consisting in the need for X-ray, ultrasound and endoscopic examination) are discussed. It is shown that laparoscopic adhesiolysis in combination with anti-adhesive therapy makes it possible not only to minimize complications in the postoperative period, reduce the patient's stay in the hospital, provide a good cosmetic result, but also allows to verify the nature and prevalence of the adhesive process, as well as to exclude the presence of other diseases of the abdominal cavity.

KEYWORDS: *Adhesive Disease, Intestinal Obstruction, Laparoscopy, Adhesiolysis.*

INTRODUCTION

Acute adhesive intestinal obstruction is a serious postoperative complication. The prevalence of this form of pathology, with a history of surgical interventions, ranges from 1.1 to 6%. Up to 40% of cases of intestinal obstruction are caused by acute adhesive intestinal obstruction[1, 2]. It is the cause of up to 60% of repeated laparotomies, 90% of which are performed in the first year after previous surgical interventions [3, 4].

Acute adhesive intestinal obstruction develops mainly in children older than 3 years, while in younger children it is extremely rare [5].

Laparoscopy allows to confirm the diagnosis of acute adhesive intestinal obstruction in the shortest possible time, which allows you to visualize the levels of obstruction, the cause of its occurrence, to assess the volume and localization of the adhesive process, the degree of intestinal damage[6, 9]. After assessing the condition of the intestine, laparoscopy allows endoscopic adhesiolysis (dissection of adhesions) to be performed. With the development of laparoscopic technologies, endoscopic adhesiolysis has become the main method of diagnosis and treatment of acute adhesive intestinal obstruction[7, 8]. This method is used in patients of all ages, regardless of the localization of the pathological process.

The purpose of the research: Studying the results of treatment of patients with acute adhesive intestinal obstruction using laparoscopic technologies.

Materials and methods. The results of treatment of 53 patients treated with acute adhesive intestinal obstruction in the emergency surgical department of the Republican Scientific Center of Emergency Medical Care of the Samarkand branch, who underwent laparoscopy for diagnostic or therapeutic purposes, were analyzed. The age of the patients ranged from 4 to 67 years. The early form of acute adhesive intestinal obstruction was in 45% of patients, the late form was noted in 55%. Among the reasons for which primary laparotomy was previously performed, acute appendicitis prevailed – 78,5%. Upon admission, general blood and urine tests, biochemical homeostasis, determination of group and rhesus affiliation, survey radiography and ultrasound of abdominal organs, rectal finger examination were performed. In parallel, preoperative preparation was carried out, which included: cleansing or siphon (according to indications) enema, gastric lavage with a permanent gastric probe, catheterization of the bladder, infusion therapy. We preferred to carry out all of the above in the conditions of the intensive care unit and intensive care unit. The duration of the diagnostic stage and preoperative preparation did not exceed 2-4 hours. Videolaparoscopic operations were performed under endotracheal anesthesia using long-acting muscle relaxants.

Results and discussion. The introduction of the first trocar in acute adhesive intestinal obstruction was carried out at the point furthest from the postoperative scar, consistent with the data obtained by ultrasound of the abdominal cavity. Then the installation of a minimum sufficient number of trocars for the introduction of manipulators was performed, usually no more than three. The responsible component of laparoscopic intervention is the revision of the abdominal cavity, in which the following were assessed: the degree of prevalence and severity of the adhesive process; the relative location of intestinal loops, their mobility and displacement, changes on the part of the serous cover; inflammatory changes on the part of the large omentum, its involvement in the adhesive process; the presence and amount of exudate, its nature.

Depending on the data obtained, the possibility of performing radical laparoscopic intervention or the need for conversion was evaluated. The most important task during the audit was to detect the place of intestinal obstruction and identify the mechanism of intestinal obstruction. A reliable symptom in this case is the detection of a section of the intestine deformed by adhesions, with an expanded adductor and a collapsed diverting section. The most expedient technical technique seems to us to be a methodical revision of the loops of the small intestine from the ileocecal junction in the proximal direction to the detection of the transition zone of the collapsed loops into the inflated ones.

In the presence of a widespread adhesive process that does not allow for an adequate revision of the intestine and immediately identify the place of obstruction, we combine the revision with laparoscopic adhesiolysis, which makes it possible to detect the obstruction zone and eliminate the obstruction during the operation. One of the most difficult moments is the separation of adhesions during viscero-parietal adhesions in the area of postoperative scars. In such cases, due to the absence of adhesions, as such, the intestine is tightly fixed in the scar, which is probably due to the partial divergence of sutures on the peritoneum after the previous operation. The isolation of such tightly fixed loops in the scar was carried out in an acute way within the tissues of the abdominal wall without affecting the actual wall of the intestine in order to avoid opening its lumen. When intestinal obstruction occurs in the early postoperative period, viscero-visceral

adhesions are quite easily separated and blunt. A very important stage of the operation is the control of intestinal patency, which also uses a thorough step-by-step revision of the small intestine from the ileocecal angle to the ligament of the Treitz. The final and mandatory stage is the rehabilitation of the abdominal cavity, which is especially important in early adhesive-paretic intestinal obstruction against the background of ongoing peritonitis. Sanitation is carried out by fractional metered irrigation-aspiration with a physiological solution of NaCl to clean washing waters. According to the indications, drainage of the abdominal cavity was carried out. The postoperative period during the first 1-2 days took place in the intensive care unit and intensive care unit, where the standard scheme of conservative therapy was used: infusion, antibacterial therapy, administration of analgesics, correction of homeostasis disorders, drug and physiotherapeutic stimulation of the intestine. After the transfer to the surgical department, special attention was paid to the early activation of the motor regime, as a prevention of recurrent adhesions in the abdominal cavity. The stitches were removed for 5-7 days. Patients were discharged with normalization of the general condition, complete restoration of the passage of contents through the intestine, on average for 7-9 days, taking into account living in rural areas.

There were no fatal outcomes in our observation. Damage to the intestine with the opening of its lumen in the analyzed material was not noted. A postoperative complication was observed in one case: suppuration of an operating (trocar) wound after surgery for early adhesive-paretic intestinal obstruction against the background of ongoing peritonitis. Conversion to an "open" operation was required in 3 cases.

CONCLUSIONS

Acute adhesive intestinal obstruction is one of the most important problems of modern surgery. Generalization of many years of experience made it possible to develop an algorithm for the management of patients with this form of pathology and conclude that laparoscopic adhesiolysis and additional drug treatment are an effective method of therapy for acute adhesive intestinal obstruction.

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PSYCHOSOCIAL IMPACT ON A HEALTHY LIFESTYLE OF PATIENTS WITH VITILIGO AMONG THE POPULATION OF UZBEKISTAN

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ABSTRACT

Since patients with vitiligo in Uzbekistan have a relatively darker skin colour, the centre of depigmentation are more pronounced on darker skin, and this is an important factor associated with the disease. A survey of 50 patients was conducted to study how the disease affects the patient's social life, psychosocial status and healthy lifestyle.

KEYWORDS: *Uzbek, Marriage, Profession, Psychosocial Impact, Vitiligo, Concern.*

INTRODUCTION

Aim of the study: This study was conducted to determine the causes of the disease, the concerns of the patients, their medical and psychosocial needs, treatment, the expected results of the healing doctor, and the psychosocial effects of the disease on the patient's healthy lifestyle.

IMPORTANCE

Vitiligo is a chronic disease that is common among people and is accompanied by skin whitening (depigmentation). The origin of vitiligo is inextricably linked with the history of leprosy. In the past, patients with leprosy and vitiligo were kept separately in leprosy hospitals. Not being able to clinically differentiate between vitiligo and leprosy, the fear of white spots on the skin, causes various mental changes and patients' to be separated from the community.

By 1842, D. Danielson's scientific research ended word games in terminology. By 1873-1874, the Norwegian scientist A. Hansen proved that the causative agent of leprosy is mycobacteria and that this disease can only be transmitted from person to person. In this way, vitiligo and leprosy were recognized by scientists all over the world as separate diseases. But there is another side of the matter, why people still cannot distinguish between these two diseases.

0. 5%-1% of the world's population suffers from this disease, and the average age of onset is 24 years. Men and women also have the same rate of disease, regardless of skin type or race [5, 6, 7].

As people in our country are much dark-skinned, vitiligo is of special importance. Because white pigment skin is clearly distinguished from dark-coloured skin. Research conducted using tools

such as the dermatological index of quality of life (QOL), which assess health-related quality of life, has shown that vitiligo affects QOL [1], [2], [3]. For example, many studies have shown that mental disorders, such as stress, depression and sleep disorders, are manifested in a large number of patients. [4]. Other studies have proven the importance of appearance in psychological adjustment and the impact of depigmentation on physical impairment. [5], [6]. Vitiligo patients have lower self-esteem and confidence than the general population. [7]. Women with vitiligo are more likely to experience QOL disorders than men. [8]. Vitiligo has a disproportionately high psychosocial impact on children. [9]. Research conducted through questionnaires on QOL and mental illness in patients with vitiligo showed that mental disorders (depressive episodes, adjustment disorders, stress) were common in 25% of patients. [10], [11].

Many of these effects are caused by other serious skin conditions, and patients in other parts of the world have many of these problems, but the combination of individual, familial, and social attitudes to vitiligo place a particular burden on Uzbek patients with the disease. Studies of the burden of vitiligo usually use universal tools that have been developed in advance, and some issues that are particularly important for patients with vitiligo may not have been addressed.

We could not find any detailed research on the disease and its effect on healthy lifestyles in Uzbek patients. This study was conducted to determine the causes of the disease, aspects of the disease of concern, the medical and psychosocial needs of patients, treatment, the expected results of healing doctor, the impact of the disease on the patient's life, and the belief in the mechanisms used to cope with it.

In our study, information was obtained by conducting a semi-structured interview, which provides in-depth information about the patient's psychosocial depression and allows us to understand the subject's thoughts, feelings, and behaviours.

For such studies, purposeful sampling of patients is used, in which patients are selected who can fully express their thoughts and fully solve problems related to the disease. [12]. This research design has the advantage of being more dynamic, as the interviewer learns from the patient's responses, and as the learning continues, questions or different phrases can be added. It also allows for greater diversity in patient responses. [13]. It is clear that this study only provides complete information about the studied patients, but relative information about the population and the rest of the patients.

METHODS

From July 2019 to April 2020, 50 patients who received outpatient and inpatient treatment at the Bukhara Regional Skin and Venereal Disease Dispensary were interviewed. Most of the visitors to our clinic are from the middle socio-economic class, mainly from the northern and southern regions of Uzbekistan.

The purposive selection was used because we wanted to assess the effect of psychosocial aspects on healthy lifestyles of patients with vitiligo onset at different levels and on a wide range of scales. Patients included men and women (married and unmarried), children (>12 years old), parents of children with vitiligo, elderly patients, recent disease (<6 months) and long-standing disease (>two years), limited vitiligo (<5%) and those with the disseminated type (> 10%), which included types found on non-visible parts of the body and genitals.

Patients who were able to fully describe their thoughts and experiences were interviewed. Interviews were conducted in one of the consultation rooms of the clinic with patient information

kept confidential. Interviews were conducted based on a literature review guide and clinical experience. It consisted of questions about knowledge about the disease, psychosocial effects and coping mechanisms.

Probes for follow-up questions were created in the interview guide to explore the questions asked on the topic. The draft guideline was presented to three experienced dermatologists and suggested changes were made. During the interview, patients were given full opportunity to talk about their illness and additional information was obtained by asking relevant questions. Consent was obtained from patients and parents of patient children to participate in this study and to record the interview. 46 interviews were held in Uzbek and 4 in Russian. Each interview lasted about 40-50 minutes. The interview was stopped when the patient did not want to talk or when the questions in the manual were completely answered. Each interview was fully recorded. Those in Russian were translated into Uzbek. This process includes the steps of data familiarization, theme identification, sorting through written data and identifying evidence, selecting specific evidence and categorizing it into themes/categories, mapping, and final interpretation. The data were examined step by step to identify the participants' descriptions of their thoughts, feelings, and behaviours related to the topics mentioned in the interviews. After all, interviews were coded, general thematic data were combined and the following themes were identified: impact of the disease on healthy lifestyles, beliefs about vitiligo, concerns about the disease, issues related to treatment, and coping mechanisms.

RESULTS

A total of 50 patients were interviewed. Patients were 31 men and 19 women aged 5 to 75 years, of which 16 men and 6 women were married. Interviews were held with the parents of 5 sick children. 5 patients only finished school. Most of the remaining patients have completed their studies (higher education) and 3 have master's degrees. Profession type of patients: engineering, pupil, student, health worker, accounting, marketing, farming, business, unemployed and housewife. Employed patients have a monthly income of 1. 1 million to 6 million, the remaining 20 are students, 4 are unemployed, and 4 are housewives. The duration of the disease in patients is from 2 months to 12 years. White spots increased in 28 patients, and the process was stable in 22 patients. The mental status examination of all patients was within normal limits. In patients, white spots covered from 1% to 95% of the body surface. In 39 of the patients, it covered the damaged areas of the skin. In 9 patients, it appeared on the branches where the skin was not injured. It was present in the mucous membranes of 27 patients, of which it was present in the genitals of 18 patients. Patients had acrofacial (n=25), vulgar (n=10), focal (n=2), segmental (n=2), acrofacial and vulgar (n=8), mucosal vitiligo (n=1), universal (n=2) types were identified.

Interview analysis. The development of vitiligo can be related to nutritional problems, drug allergies, blood diseases, melanin deficiency, physical injuries, gastrointestinal and liver problems, climatic conditions (atmosphere, water), chronic diseases, infectious diseases, stress and depression. The disease was not considered by many to be contagious, hereditary, and related to leprosy, but some did not, and this led to stigmatization. Some patients report that their friends and relatives believe these misconceptions; even if they don't. The first reaction of patients to the appearance of vitiligo would be to ignore it as much as possible. They were given reasons such as allergies, dry skin, leprosy, mineral deficiency, worms, fungal skin diseases, burns, wounds and insect bites. Vitiligo is a serious disease due to its negative impact on life and work, feelings of inferiority, resistance to treatment and exposure to sunlight in depigmenting

skin. Those who said it was not a serious disease noted that the disease was asymptomatic, non-contagious, effective in early treatment, not leprosy, and no one had a negative reaction to the spots. Dietary restrictions were repeated frequently. Avoided from various food items like sour food, non-vegetarian food, milk/curd, excess bitters/spices, alcohol, oil, uncooked food, sweets, rice, tea, wheat pastry, green vegetables, and fish. Other restrictions include wearing synthetic and cotton clothing and shoes made of rubber or plastic materials. Patients wore clothing that covered their vitiligo areas. Various alarming cases of the disease have been reported. Patients were dissatisfied with their appearance and seriously lowered their self-esteem. The disease caused anxiety, depression and low self-esteem. Over time, these concerns subsided and they accepted it. A few patients admitted that they sometimes had suicidal thoughts, but none attempted suicide. Some patients thought about vitiligo all day, some looked at the mirror repeatedly, and some did not pay attention at all. Parents of children with vitiligo have always thought about this disease. They thought a lot about the fact that the disease would cause serious problems for their children to have a family.

On the contrary, the anxiety of parents has a strong influence on the minds of their children; the disease caused less concern than the anxiety and unhappiness of the parents. At school or college, patients had difficulty in participating to various activities, preferred to study part-time whenever possible, missed classes due to constant doctor visits, and were teased by other students. Problems were less common in workplaces. A few patients faced a number of problems in getting a job and were not allowed to pursue the profession they wanted. Due to illness, they had to look for other professions. Patients had difficulties in starting a family, women more than men. This was a greater problem for patients living in rural settings. One patient said that he had been rejected four times because of this disease. In some cases, after noticing the symptoms of the disease in the patients, their parents, fearing the spread of the disease, forced them to start a family as soon as possible, regardless of their age. The illness was kept a secret until the time of marriage due to embarrassment and fear of rejection. Also, some patients believe that it can be transmitted by sexual intercourse. One patient said that her mother-in-law would divorce her with his son if she did not get treatment for her illness. A woman with vitiligo on her chest had problems because her husband was uncomfortable during sex. Another major concern was disease progression.

Although the disease was located in invisible areas of the body, patients were afraid of drawing attention to others because of their skin. Another concern is the greying of the hairs in the area of the white spots, not wearing revealing clothes and being exposed to pathetic situations. Most of the patients received adequate encouragement from their family members, including moral support, financial support for treatment, and companionship from family members. This gave them great comfort. However, many patients felt guilty and feared that the disease would spread to family members or affect other family members' marriages. Patients with visible scars severely limit social activity and meeting people because of their shame. People's comments about their scars prevented them from shaking hands with others. They have difficulty or are tired to answer various questions. One patient did not visit his sister because he was afraid that her family would be disturbed if they found out that her brother had a spot. Due to this disease, two of our patient's lives were disrupted. In our patients, the spots were located in invisible areas of the body and did not have social difficulties. Patients turned to alternative medicine, healers, and other practitioners of the local medical system in search of cures. These were believed to

have no side effects. Dietary and lifestyle restrictions are often recommended by alternative and indigenous medicine practitioners and dermatologists.

Vitiligo treatment has been a financial challenge for some of our patients. Many doctors were consulted for treatment, the maximum number of them was 20. Patients who presented for the first time had relatively less information about the disease and had fewer misconceptions than those who had been talking about the disease for a long time.

Treatment issues. Patients wanted complete treatment. When asked what level of improvement is possible if full recovery is not possible, many patients say that they are satisfied if the spots do not spread to other areas or increase in size. Repigmentation and varying degrees of regeneration were desired in damaged skin (such as on the hands and feet). Some have said that they are not at all satisfied if their skin colour is not completely restored. There were those who were older than 50 and married with children who did not feel the need for treatment.

Disease coping mechanisms. Patients used several coping mechanisms when thinking about their illness. Patients distracted themselves by praying or listening to music, watching television, reading books, playing games, or doing tasks related to their daily work and job. Other mechanisms were to talk to their family members, friends, or doctors, or to seek information from different sources in search of a cure. Patients with unsuccessful coping mechanisms had crying spells, persistent depressed mood, isolation from the community, persistent thoughts about the illness, engaging in unhealthy habits, and suicidal thoughts.

DISCUSSION

Our study shows how it affects the lives of Uzbek patients with vitiligo. Despite the different upbringing, scientific and spiritual levels and professional backgrounds, the patient's concerns and beliefs were similar, and misconceptions about vitiligo were ingrained in all social classes. In addition to being separated from society, patients with vitiligo also felt guilty that their disease had affected non-diseased family members. Several studies have reported lower self-esteem in patients with vitiligo [7], and those who completed a better coping mechanism for the defect had higher self-esteem. [6]. Some patients thought about their illness all day and could not bear to look at themselves in the mirror, even when the closed parts of the body were affected. Based on a previous survey and interview, many patients indicated that they were concerned about the spots spreading throughout the body, the disease being passed on to their children, and whether new treatments would be found. More than half of them said that people were staring at them, and 20-25% of the patients said that they were mentally tormented by the words spoken by strangers. [6], [14]. Another study found that 10% of 30 patients had depression, one had anxiety, one had depression, and one had a suicidal idea. [4].

The concern that the disease might spread throughout the body was an important reason for seeking treatment. Psychosocial effects on education, life and professional activities are felt more by patients of marriage age. In elderly patients, the difficulties in the social and spiritual life of young family members who were not ill caused more concern. Vitiligo is seen as having careers and being denied employment. On the other hand, it may have less influence on the development of the disease after employment. A strong sphere of influence is the difficulties encountered in marriage. Even after marriage, vitiligo continues to take its toll, leading to inbreeding, sexual difficulties, and even divorce. Patients also faced difficulties due to unsolicited advice and various questions from family members, peers and friends.

In a study conducted by Ongenae and others (3), it was found that the location of vitiligo on the head, neck, arms, and legs affected the overall DLQI scores. Vitiligo patients were exposed to social problems, but the majority of patients noted that they were indifferent to these problems. While patients with invisible illnesses were less concerned about social impact and functioning, they were more concerned about the spread of the disease and its social consequences. DLQI indicators were often higher in patients who were referred to a dermatologist for their diseases [3]. Our study required rapid treatment results, resulting in multiple consultations and high costs. Treatment should have resulted in complete repigmentation or at least termination of disease progression. Patients often changed their doctors due to a lack of information about long-term treatment, very low efficacy after each course of treatment and patient impatience. Dietary restrictions are believed to play an important role in the treatment process by patients, their families, and physicians. Over time, less concern with illness emerged, but this was not an irreversible change in attitudes. For example, patients who were not bothered by their disease and did not want treatment began to worry about the disease when they were discharged for medical reasons due to vitiligo. The ability to handle responsibility is related to the level of self-awareness. Patients with a positive self-image are able to overcome mental and physical deficits [15]. Patients with poor coping mechanisms are more distressed about their illness than those with other coping mechanisms. This is very important in treatment, as these patients need to be taught disease-fighting mechanisms in addition to treating white spots. The limitations of our study are that we selected patients on purpose (it is not possible to conduct such questionnaires on all patients in general), so the results may not be applicable to all patients with vitiligo. However, the observations made in this study are important for treating vitiligo and preventing depression. In addition to the primary dermatologic condition, assessment of psychological and social factors is more likely to be associated with vitiligo than with other skin conditions [16]. Interestingly, less positive treatment efficacy was found in patients with poorer quality of life. [17,18,19,20]. In assessing the psychological impact of vitiligo, the patient's life situation, including the attitude of social support colleagues and family members, is also important, because even a mild disease can cause severe distress to the patient. Psychological interventions, such as cognitive behavioural therapy, can help improve body image, self-esteem, and QOL and have a positive effect on the course of the disease in patients with vitiligo.

CONCLUSION

Addressing psychosocial factors is an important aspect of vitiligo treatment and healthy living, especially for patients in communities that tend to be socially excluded.

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