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## **ISLAND DZHARYLGACH AS AN OBJECT OF DEVELOPMENT OF ECOLOGICAL TOURISM IN UKRAINE**

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The Island of Dzharylhach - a pearl of Ukrainian ecological tourism.

Ecological tourism in Ukraine is a rather young phenomenon. It began its active development only in the beginning of the 20th century. Tourists have been always attracted by close communication with nature, by journeys to primeval nature territories as well. Such kind of tourism demands tender, careful and responsible attitude to the nature and minimal impact on the environment and local ecosystem. Ecotourism helps in developing of definite territory, creates new work places for local population and stimulates protection of the environment. Ecological tours include educational, historical, adventure, sport and wellness-tourism.

All these statements are applicable to one interesting place in the south of Kherson region - National nature park "Dzharylhatsky" or simply - the Island of Dzharylhach. The island with its 62 km<sup>2</sup> area offers visitors unforgettable resort among nature beauties in tents or wooden eco-bungalows. Everybody will find his own pleasure here: sea and beach resort lovers, naturalists and hiking fans, extremals like surfers or divers, yogis or just ones who'd like to spend their alone in complete silence, people who want to improve their health, fishermen and photographers. Tourists can choose "wild" resort as well as civilized one. For ones who need some comfort conditions there is a camping "Ukrainian Maldives" with organized resort area with cafe, volleyball court and bungalows. A long spit leads from Dzharylhach to Lazurne village on the continental part. From the city of Skadovsk fast boats and ships run every day.

The island can conditionally be divided into 4 zones of resort. Southern and Eastern parts with two lighthouses, deserted beaches and a source of mineral water for tourists who want to have a rest far from civilization. The old lighthouse was built by one of pupils of Eiffel in 1902. Northern part of the island or Hlyboka Spit offers the resort in comfortable bungalows with included resort areas, beaches with tents, volleyball court, trampolines and water slides for children, swing, pavilions, cafe with local delicacies, WCs, electricity and Internet - almost all accommodations. By the way, exactly from this part of the island a touring car runs every day along the paved ecoway deep into the island's reserved territory. Tourists will have a great opportunity to visit this photo-safari. They'll meet: deer, hares, moufflons, wild boars, does, racoon-dogs, turtles, foxes. Island Dzharylhach is located on a migrant birds route so visitors can notice swans, geese, ducks and sometimes pelicans. The underwater world strikes with its variety and scarcity of species: crabs, stone and grass-shrimps, dolphins, bottlenoses, porpoises, sterlet, stellate sturgeon. Far from swimming places fishermen or yachtsmen can stay. Also there are great opportunities for snorkeling, diving and kite-surfing. The whole territory of the island is dotted with firths and salty lakes that arouse a big interest among people who want to improve their health. Iodine and bromine are concentrated in water and can be felt with each breath. In the western part of the island there is a monastery where a lonely monk lives. This part of the island will be certainly beloved by

ones who fond of hiking because going along the spit till the end isn't always an easy task because flows from time to time drown the spit a little bit. But it is definitely worth doing: tourists can see breathtaking sea landscapes and if they are lucky - the sunset.

To summarize, Dzharylhach island is a great place for nature lovers and those who like some unusual and wild resort. This island offers plenty of opportunities for organizing a resort. But the infrastructure and conditions can still be improved and developed to make this destination even better.

## FOREIGN DIRECT INVESTMENTS IN GEORGIA

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Keywords: Foreign direct investment, index of economic freedom, top investor countries, reinvestment, geography of inflow of foreign direct investment.

Issue of foreign direct investments is quite actual nowadays and is under attention of international economical theory as it is well discussed in foreign economical literature. Foreign direct investments means organization of new enterprise, purchasing of existing enterprise and creating of joint enterprise in nonresident country. As foreign direct investment is long-term investment it significantly affects on economic growth, which means long-term growth tendency of production, consumption and welfare. From scientists' point of view, foreign direct investments support economic growth of all transitional country. Macroeconomic factor plays important role in attraction of foreign direct investments, namely, volume of domestic market, stability of currency and politics, development of infrastructure and qualified human resources; also investment politics of country receiver is also very important as it provides effective guarantee of legal systems and stabile functionality.

Regional foreign direct investment of Georgia in 2017 in compare with 2016 has increased. Significant amount foreign direct investment in the last five years comes to Tbilisi and Adjara. The share of Tbilisi in total investment in 2017 is still high and approximately is about 78.2%. Amounts of investment have also been increased in regions: Samtskhe-Javakheti, Kvemo Kartli, Samegrelo, Zemo Svaneti and Guria as well as Imereti, Racha Lechkhumi and Kvemo Svaneti. By the small amount of investment characterized the following regions: Shida Kartli, Mtskheta-Mtianeti and Kakheti.

As we already mentioned with the exception of Tbilisi and Adjara, amount of FDI in other regions are relatively low, this indicated that regional economic growth and development in Georgia are also low, but compared with the previous year regional FDI are growing, slightly but still rising.

As it is known, Georgia is actively involved in the process of urbanization, population is forced to leave their residential villages or districts and try to move in Tbilisi, Batumi, Poti or Kutaisi. This happened because in regions concentrated very small amount of jobs and is lack of education, the real income of families is low, which is lead to internal labor migration and all of this reflected on amount of inflow of regional foreign direct investment.

Therefore, the State should pay more attention to this problem and try to maintain the rural population and promote economic growth and development of the regions, and also attract foreign investors to invest much more investments not only in Tbilisi and Adjara but in other regions of Georgia as well.

## **THE ENTERPRISE LIFE CYCLE AND EMPLOYEE LIFE CYCLE: USE MODELS IN STAFFING PRACTICE TO MANAGEMENT EFFICIENCY**

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As a rule, modern Ukrainian enterprises have a unified approach to the assessment and accounting of factors affecting the financial and economic condition without taking into account the stage of the life cycle. There is a problem of the reliability of the assessment of the state of the enterprise and, as a consequence, the ineffectiveness of management decisions. Depending on the stage of the life cycle, there are a number of priority ways in the management of the enterprise, which are based on the characteristic problems of the corresponding stage. In particular, the question about the impact of the stages of the enterprise's life cycle on the human resource management system.

It is important to take into account the impact on the human resource management system of the enterprise's life cycle in order to achieve high productivity by top managers and line managers. Although each enterprise is unique, the entire period of its existence can be divided into the main stages through which it passes. The researches of domestic and foreign scientists regarding the definition of the stage of the enterprise's life cycle are worthy of attention in order to outline the main tasks and peculiarities of personnel management. Unfortunately, most of industrial enterprises of Ukraine are at the stage of recession / leaving the decline stage / on the way of reorganization. This is evidenced by low indices of profitability, convertibility and solvency; high share of borrowed funds of machine building enterprises.

Along with the cyclical development of an enterprise, employee activity according to the stages of the employment process also occurs cyclically. In addition, in the system "manager - subordinate" it also determines what stage of the lifecycle a department, a group/team, an employee is at. Along with the cyclical development of an enterprise, activity of an employee also occurs cyclically according to the stages of the employment process. For example, the following most common stages can be cited: selection, adaptation, career development, employee dismissal. Different stages of an employee's life cycle require the use of management methods precisely for this particular employee, the consideration and use of which will, of course, increase the quality of management and the effectiveness of management efforts (management product) by top manager and line managers of the enterprise.

Taking into account all mentioned aspects of applying management efforts to human resource management efficiency is a question of urgent importance of scientific researches.

## **SPECIAL ASPECTS THE COMMUNICATION PROCESS IN THE ACCOUNTING SYSTEM OF THE ENTERPRISE IN TERMS OF DEVELOPMENT**

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Economic activity of modern industrial enterprises can not be considered without taking into account the processes of their development, which can be manifested in expanding the scope of activities, changes in means and methods of production and management, adaptation to changing environmental conditions. If the company does not develop then it is doomed to decline. The accounting system is an integral part of effective management. For one part it acts as a factor for development and for the other part it is influenced by the processes of enterprise development. An important component of the accounting system is the exchange of information with external and internal users in the process of communication. Considering the accounting system of industrial enterprise can be distinguished two types of its construction, which influence the character of communication interaction. The first one is an isolated accounting system, which focused exclusively on the functions of registration and processing of accounting information. It is possible to distinguish intra-accounting communications in the process of interaction between the subjects of the accounting process, which organizationally and functionally belong to the accounting system.

Internally corporate communications of isolated accounting system is associated with obtaining information about business processes for their registration and the process of providing information to users. External communications in this case are limited and provide only the minimum necessary functional such as reporting external users, receiving information about the status of bank accounts, etc. With other external users the communication process is supported through intercompany structures.

This construction allows to ensure a high level of formalization of communication messages and limits the variety and number of communication channels. However, the focus on the formal accounting procedure deprives the vision of an important process – data usage which coming out of this system. For modern system accounting, it isn't important only to create information but also its target orientation, purpose, further application and its results. Integrated accounting system provides for the laying of part of accounting functions for entities, which formally do not belong to the accounting department of the enterprise, as well as the performance of accountants non-essential functions. The system supports direct communication with external agents, and a significant proportion of internal communications can not be unambiguously classified as intra-accounting or internally corporate. The communication process is carried out using formal and informal channels and characterized by a large variety of messages. Feedback is more effective in this system.

The communications are exposed to the development process of an isolated accounting system. However, an increase in the gap between the quality of communications and the needs of the enterprise is able to bring the accounting system of bifurcation point which is possible as a transition of the communication interaction of the accounting system to a qualitatively new level and avalanche-like decrease in the efficiency of accounting, which will negatively affect the overall quality of management. For efficiently functioning in the conditions of stability of the accounting system it is expedient to conduct regular diagnostics

of compliance of the level of communications with the needs of the enterprise in order to apply preventive measures to adapt to changing conditions of activity.

The system of communication of integrated accounting changes in the process of enterprise development adapting to new conditions. No additional communication barriers and the availability of effective feedback in the internal communications system provides an opportunity to quickly identify problems and obstacles. Then eliminate them by local measures by influencing communication agents, communication channels, format and content of messages, etc. While assessing the adaptation of the communication process, it is important to take into account the significant level of informal communications, involved in the accounting process. More flexible informal communications can replace formal ones. To solve current tasks of a one-time nature such a substitution is permissible but the global substitution of formal communications is informal in such a formalized system as accounting increases the influence of subjective factors and may be barriers to the process of organized development.

Taking into account the peculiarities of changing the communication system of the accounting system in the conditions of enterprise development depending on its construction will allow timely diagnosis and correction of problem communications, maintaining the necessary qualitative indicators of the accounting process.

## **PAYMENT CARDS AS AN INNOVATIVE WAY OF PAYING FOR TRANSPORT SERVICES**

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The regularity of the rationalization of the payment system in the country requires a significant reduction in cash transactions in favor of cashless settlements. Cashless payment systems are based on payment cards.

However, both the authorities of Ukrainian cities and carriers in particular are not ready to introduce an automated fare collection. Therefore, it is necessary both to develop and implement an automated collection of transport services at the national level and the conceptual, technical and organizational support of local authorities is expected. Innovations enable transport organizations to provide better and more convenient transportation services to customers who can take advantage of new innovative technologies and solutions, including a precise timetable, cost-effective tariffs, better forecast for vehicles, etc.

On the other hand, transport service providers can optimize their activities to meet customer needs and be more cost-effective. Transport service providers can reduce their own costs and increase their revenues. Thus, an increase in revenues of transport organizations may be due to the better structure of tariffs, the automated collection of payment for transport services and the targeted system of distribution of subsidies to beneficiaries.

True information on demand for transport services helps to optimize costs for both the state and municipal authorities for the transport sector of the economy, which will achieve better results at lower costs and improve the quality of transport services to customers.

Considering the development of contactless technologies around the world, NFC mobile phones, various carrier devices and contactless bank cards, it seems advisable to use bank cards as an alternative to paying for transport services. The availability of infrastructure

for accepting bank payment cards in public transport will be a catalyst for increasing the issue of contactless cards, which in the short term will allow the use of bank cards as a one-time trip. Moreover, cashless fares can act as a marketing tool in attracting tourists to cities.

As transport cards will be widespread among city residents, it is wise to have the technical ability to use the card data for other purposes. These transport cards will be used to pay for parking, bicycles hire, museums, theaters and other services provided to the city residents and guests. In order to ensure compatibility not only between transport organizations, but also other participants of the ecosystem, in particular transport service users, banking institutions, local and state authorities all sides of the ecosystem must adhere to the standards and global guidelines for the introduction of new services, including agreements by contactless payment cards.

Proposals for the transition from cash use to the development of cashless payments for transport services would reduce the volume of cash. The directions of development of cashless settlements are the introduction of the latest innovative technologies and use of contactless payment cards for fare payment in public transport.

## **EXPLORING THE NUTRITIONAL HABITS OF FOREIGN TOURISTS FROM FRANCE**

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Currently, in connection with the development of tourism, international sports competitions, cultural events, guests of various nationalities and religions come to our country. Therefore, the issue of catering for foreign tourists is quite relevant. Nutrition is one of the most important environmental factors and affects the human body throughout life. It is known that with the development of human society, the population of different countries has formed national traditions and food culture. To a large extent, special preferences for certain types of food are due to the climatic conditions of a person's residence, as well as religion. Every nation has its own, historically established dietary habits. They are connected with a geographical position, history of the country, its economy, with national traditions and religion. These existing features, customs, tastes, habits should, if possible, be taken into account when organizing the maintenance of foreign tourists by catering enterprises of our country.

Foreign tourists visit our country individually or in groups. Individual tourists travel according to a special program. Depending on the class of service, foreign tourists are offered a different range of services. One of the types of services provided to foreign tourists is food. Their impressions of the trip depend on the organization and quality of their service in restaurants, cafes and canteens.

Catering for foreign tourists is carried out at catering enterprises. 5 days before the service begins, catering companies provide schedules for the arrival of foreign tourists with an indication of the country from which tourists arrive, the numbers of tourists, arrival dates and length of stay, and no later than 24 hours a request for servicing each group of tourists.

The application indicates: the name of the representative responsible for serving foreign tourists, the group index, the number of the notice, the country from which the tourists arrived, the number of people accompanying the group for whom you also need to organize food, class service, food and hours of catering (breakfast, lunch, dinner), total duration of stay, date and hours of the first and last service. If the service is carried out in a restaurant for several days, then it is recommended to assign certain permanent seats in the hall to foreign tourists. When catering for foreign tourists from different countries in the same room on the tables should check the flags of these countries. The following approximate food intake intervals are recommended: breakfast - from 8 to 10 h, lunch - from 12 to 15 h, dinner - from 17 h 30 min. to 20 h.

Serving groups of foreign tourists in the shopping halls of restaurants ends at 20.00. For groups of tourists attending entertainment events, dinner is organized before or after the event, as agreed by the administration and guide-interpreter. The administration of a restaurant, cafe or canteen is obliged to pay special attention to the clarity and speed of service for foreign tourists. Breakfast service should not exceed 30 minutes, lunch and dinner –40 minutes. When serving groups, each waiter should serve no more than 10-15 people, while serving individual tourists no more than 8 people. In order to speed up the service of foreign tourists and increase productivity, the catering administration should introduce progressive forms of service (a comprehensive weekly menu of tourist breakfasts, lunches and dinners, refreshment or buffet service, etc.).

Foreign tourists who travel individually may have tourist books with food stamps according to the class of service: deluxe-suite, suite, first class, tourist class. Tourist book and coupons differ in color, stamp, inscriptions and determine the different cost of food. They are printed in four languages: Russian, English, German and French.

Foreign tourists traveling in groups are provided with food in the following classes: junior suite - group, first and tourist. They do not have individual books and food stamps. Meals for groups of tourists, regardless of the class of service, are issued upon confirmation of order fulfillment, which are pre-accompanying groups.

In order to better organize the maintenance of the department and the agency, at the beginning of each year, they inform organizations and catering companies about the expected arrival of foreign tourists during the year, and then inform the company about the monthly arrival schedules indicating the class of service.

In addition, no later than one day before the arrival of tourists, enterprises are notified of applications that indicate not only the class of service, but also the number of tourists, nationality, arrival date, the number of days during which tourists will eat, the name of the first meal (breakfast, lunch, dinner). Based on these data, separate halls or the required number of tables in the main hall are allocated in restaurants, cafes, canteens, and national flags are put on the tables. If tourists eat different classes of service in the hall, they are seated at separate tables.

For lunch and dinner menus are at least two options for each day. The menu indicates the name of the dishes, the output standards and the price of each dish. The menu should be varied by day of the week. The menu of the day should include at least 4-5 branded and custom-made dishes, taking into account the peculiarities of national cuisines, habits and the diet of tourists. In the menu for groups of tourists indicate the name of the restaurant, food class, the name of dishes with an indication of the output and price. It is forbidden to reduce or increase the cost of food in excess of the established food limit for groups of tourists, as well as to include alcoholic beverages in the menu.

When organizing meals for a group of tourists, it is recommended to use the brigade-link service method, since breakfast should not exceed 30 minutes and lunch and dinner 1 hour. Based on this, each link of four waiters serves 40 to 60 tourists. A team of waiters in the preparation of breakfast, lunch or dinner after the appropriate table setting for 10 - 15 minutes before the arrival of tourists according to the menu puts on the tables butter, bread, rolls, water with ice, cold snacks, etc. The rest of the dishes on the menu - soups, main dishes, dessert, hot drinks - are served during the service. When serving groups of tourists, you can organize the sale of fruit and vegetable juices, beverages, tobacco products through small bars in the hall or with the help of special carts.

European cuisine is light, healthy and varied. The development of European cuisine was most influenced by French cuisine. This is due to the fact that in France, even before the French Revolution, culinary traditions were strong and this country was famous for its cuisine. After the

revolution, most first-class cooks left their homeland: many went to America, many left for other European countries. So the French national cuisine in one way or another left a mark around the world. Therefore it is worth considering the peculiarities of French cuisine separately.

France, of course, is a gastronomic country, famous for its high-class cuisine, and cafes and restaurants are its symbol as much as the tower of Monsieur Gustave Eiffel. However, an interesting question of interest to many is how with such an abundance of sauces and desserts, the French continue to be one of the most harmonious nations in the world. Do not forget that the dishes served in gourmet restaurants are significantly different from the products that the French consume in daily life, but there are several dietary features that do not change for generations.

French cuisine is heterogeneous. It differs depending on the region and its traditions. For example, in the south of France, dishes are sharper, they use much more variety of spices (but mostly onions and garlic), and also wines. The cuisine in the provinces located on the coasts is characterized mainly by the use of lobsters, shrimps, fish and other seafood. Also distinguished Alsatian cuisine: she often uses pork for cooking. Therefore, practically the same dish in different provinces can be cooked in completely different ways.

French cuisine involves the use of a large number of sauces. But at the same time, their use is significantly different from Eastern and other traditions. In France, more than 3000 sauces. However, they are all used to impart certain tastes and flavors to dishes, but they never interrupt the taste and smell of their products. Among the widely used seasonings are leek, chervil, tarragon, rosemary, bay leaf, parsley, savory. As for the oil, in France olive oil is more common than sunflower oil.

The love of the French for cheeses is not a cliché, but a feature of national thinking, which they are taught from childhood. Each child is able to determine the type of cheese by sight and smell and to tell how and with what to combine it correctly. And yet, cheese is a dessert that is eaten with fruits, berries or nuts after dinner or Sunday lunch, and not as a breakfast sandwich, as they like in Russia.

In the process of cooking, French cuisine often involves the use of wines, brandies and liqueurs. This characteristic of French cuisine. Of course, there is no alcohol in the cooked dish, as it evaporates in the process of cooking, and therefore the wine gives the dish a special aroma and taste, without causing harm. Wine is used in dishes that are prepared quickly (but it should not be more than half the original volume of wine), as well as in the preparation of meat or fish. French cuisine involves a careful approach to the choice of wine. Grape wine should be dry or semi-dry. If the wine is white, it is not very dry. Most often, red wine is used for cooking meat, and white - for fish. In practice, wines are replaced by one another, and in different provinces and in different countries when preparing a particular dish, the wine can be replaced with some other alcoholic drink.

In French cuisine dishes from a wide variety of vegetables, as well as eggs, are widely presented. In addition to the specifics of French cuisine, it should be noted that in this country, food intake is a special, sacred act. Any meal is an art, and there are certain rules that govern the time of eating, the rules of behavior at the table, in a restaurant, the choice of dishes depending on the time of day. Of course, they are not performed literally by every person, but the general culture of eating in France is one of the highest in the whole world.

Despite the arguments of scientists calling for fractional five meals a day, every real Frenchman traditionally eats 3 times a day. For breakfast in France taken toast or pancakes with butter and confiture. Lunch is a sandwich and a small cake from the nearest bakery or a set menu in the cafe. Dinner is diverse and depends on the tastes of a particular family.

Baguette and a jug of water are always present on the French table. Most often, this is simple tap water, which you and the restaurant will definitely bring for free along with baguette cut into a wicker basket. By the way, water intake during the meal is another habit that goes against the modern rules of nutrition, according to which you should not drink during the meal and immediately after it.

Black coffee in France is more than a drink. Everybody drinks it, always and everywhere. In the morning, the French follow him to the nearest cafes or bakeries, drink it during the day to cheer up, for afternoon tea, if there is no time to eat, and, of course, after eating. By the way, ordering coffee



after lunch or dinner is perhaps one of the basic rules of French etiquette. And the more expensive the restaurant in which you dine, the more rigorously this rule is observed.

In this way, for the proper organization of food for foreign tourists, it is necessary to have an idea about the national cuisine, traditional types of dishes, methods of their preparation and consumption (i.e., food culture).

## **INCREASING INVESTMENT ATTRACTIVENESS OF REGIONS ON THE BASIS OF CLUSTERS DEVELOPMENT**

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Investment attractiveness is a positive characteristic of the research object, which involves not only a favorable investment climate, but also the quality of the macroeconomic environment that reflects the structural proportions of the regional economy, as well as the property of the regional investment environment to meet the high requirements of modern economic realities (for example, the development of the banking system, the existence of joint investment institutions, the implementation of megaprojects).

In modern conditions, the problem of ensuring economic growth of the region by addressing the implementation of territorial support instruments is of particular importance. The analysis of economic news and scientific literature allows us to judge that in the media, at various levels of government, at international events to date, the development of a quality methodology for building regional development ratings, which will trace, on the one hand, in which direction is moving, is widely discussed. The region, on the other hand, will increase the efficiency of efforts of the authorities in developing the innovative potential, investment attractiveness and ensuring economic growth through the targeted implementation of tools support.

The economic essence of the grouping of the regions of Ukraine is to create a system of measures of state influence on the investment attractiveness of the region, taking into account the peculiarities of the development of individual clusters. Thus, measures of state regulation in order to improve the investment climate can become targeted. At the moment, measures of state regulation of investment attractiveness of a specific subject of the country are universal, that is, public authorities use a common set of incentives to improve the investment climate for a particular region as a whole. However, we believe that measures of state influence should be differentiated for individual regions.

It is advisable to develop an organizational model for increasing the investment attractiveness of the region, which will take into account the distribution of funds between state bodies and commercial structures in the process of implementing regional structure-making projects. This model should be based on the basic principles of public-private partnership. The main task is not only to perform well-planned government programs, but also to maximize the involvement of business in their implementation. The state authorities must react promptly in the real economy, be mobile and responding, then there will be a chance to cope with the economic crisis, to overcome modern economic tensions and involve all regions in the process of forming and increasing the budget. The implementation of effective investment projects, including with the participation of foreign capital, will improve the socio-economic indicators of the regional budget without undue burden on local expenditures; also it will improve the quality of the regulatory environment and territorial development institutions. In our view, the partnership between the state and private business

will promote the targeted attraction of investments in various branches of territorial clusters and the implementation of the strategic vector of regional development programs. However, the leading role of the coordinator and the motivator for the implementation of investment projects, of course, is given to the state, which traditionally acts as the guarantor of the fulfillment of its obligations and functions.

In this context, the task of selecting investment projects becomes particularly relevant. Particularly significant indicator of selection of investment projects is their qualitative level, which corresponds to regional strategic goals, which are characterized by high profitability, economic efficiency, social orientation and adapted to the dynamics of modern events.

The algorithm for choosing a project for effective investment proposals involves a number of stages. In a generalized form, this can be represented in the following sequence: at the first stage, the projects are classified according to different types, and each project is made in the form of a proposal that is the basis for the development of a business plan; then the key details of the project are worked out, which allow us to conclude whether this idea of further research is worthwhile, and then allocate funds to the final formulation of the project, which is subject to detailed analysis and selection.

Thus, the methodology of cluster zoning of regions of Ukraine is intended to make a certain contribution to solving the global problem of the effectiveness of the applied forms and methods of state support for investment development. As a result, there is an opportunity to increase the efficiency of investment development of the territories in a certain time period, taking into account the unification of the peculiarities of the development of groups of municipal entities, which will lead to the targeting of a set of state investment policy.

## **ПЕРСПЕКТИВЫ РАЗВИТИЯ ЭКОЛОГИЧЕСКОГО ТУРИЗМА В ЧУГУЕВСКОМ РАЙОНЕ ХАРЬКОВСКОЙ ОБЛАСТИ**

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Политические и экономические кризисы, охватившие мир в начале XXI века, существенно повлияли на формирование туристических потоков. Постоянная эмоциональная нагрузка, информационный прессинг и стресс, давление «большого города» с его постоянным эмоциональным напряжением вызывает необходимость поиска новых видов отдыха. Уменьшение доходов потенциальных туристов, нестабильность политической ситуации на курортах Черного и Средиземного морей, отсутствие достаточного времени для организации длительной отпуска - подтолкнули к поиску альтернативных направлений одним из которых стал экологический туризм.

Организация системы экологического туризма может решать также ряд социально-экономических проблем, связанных с падением уровня жизни, безработицей, разрушением инфраструктуры, системы жизнеобеспечения на территориях, находящихся на расстоянии от крупных городов, в стороне от основных финансовых потоков. Формирование экологического туристического комплекса может создать новые рабочие места, повысить уровень благосостояния, социальной

обеспеченности местного населения с одной стороны, и дать возможность отдохнуть на природе, уставшим от урбанистического давления и постоянной суеты горожанам, позволить им «пообщаться» с природой. Среди потенциальных туристов - жители городов для которых урбокомпенсация (отдых от городского образа жизни) не просто рекреационной потребности, но и жизненной необходимостью.

Для Украины экологический туризм - это важный атрибут социального бытия, живущих в городах. Периодические путешествия «на дачу» (к родителям, родственникам, друзьям живущих в сельской местности, имеют дом за пределами города) или путешествия «в лес» (на пикник, за грибами, на рыбалку) имеют давние традиции. Все вышеуказанные факторы подчеркивают актуальность исследования в области организации экологического туризма.

Традиционно в специальной литературе утвердилось представление, что экологический туризм (зеленый туризм) - сектор туристической индустрии, ориентированный на использование природных, культурно-исторических и других ресурсов и ее особенностей для создания комплексного туристского продукта. Одной из составляющих такого отдыха считается образовательная, просветительская деятельность, а также пропаганда экологического образа жизни.

Традиционными для Украины регионами развития экологического туризма считаются Карпаты. Но существуют и иные регионы, имеющие значительный ресурсный потенциал и перспективы развития такого формата отдыха. К ним в частности относится Чугуевский район Харьковской области.

Фактически, с советских времен это территория традиционного отдыха харьковчан. Особый интерес представляет русло Северского Донца. Река, извилистой лентой проходит через территорию района. В этом регионе она полноводна и представляет интерес для возможных экологических экскурсий на протяжении 5 месяцев (с мая до сентября).

Вдоль течения реки располагаются тихие удобные заводи, изобилующие рыбой, водоплавающей птицей. Территория имеет богатую флору и фауну представляющую значительный интерес для путешественников.

К сожалению, на сегодняшний день не существует системы рационального использования ресурсов с учетом экологической составляющей. Для ее создания необходимо провести ряд мероприятий:

1. совместно с туристическими клубами, спортивными секциями и турфирмами, которые организуют байдарочные походы по реке необходимо провести мониторинг загрязненности русла и берегов и по возможности отчистить от последствий варварского использования, в качестве волонтеров можно привлечь студентов экологических, географических, туристических, биологических факультетов харьковских вузов;

2. совместно с областной, районной и местными администрациями разработать систему правил использования природных ресурсов реки, которые бы обеспечивали ее защиту (в первую очередь необходимо запретить использование на реке моторных лодок), привлечь соответствующие органы к контролю их соблюдения;

3. создать оборудованные стоянки для отдыха туристов-байдарочников, которые бы включали причал, место для палаток, кострище;

4. организовать, совместно с туристическими клубами, спортивными секциями и турфирмами, которые организуют байдарочные походы систему экологических походов, которые бы включали и просветительно-образовательную составляющую.

Данные меры могли бы решить ряд проблем:

1. повысить образовательный уровень как самих организаторов, так и их клиентов;
2. обеспечить защиту и рациональное использование ресурсов реки;

3. в свою очередь это бы повысило атрактивность ресурсов Северского Донца, а привлечение СМИ к рассказу про экологическую работу на реке – повысило бы уровень информированности среди потенциальных клиентов и привлекло бы дополнительное внимание к такому виду отдыха.

Таким образом проведение экологических мероприятий на реке Северский Донец в Чугуевском районе Харьковской области позволило бы рационализировать использование природных ресурсов, повысить их сохранность, а так же повысить уровень экологической грамотности среди участников туристических походов и стать дополнительной рекламой для таких походов.

## **КОНЦЕПЦІЯ «ДЕРЖАВИ ДОБРОБУТУ» В ЕКОНОМІЧНІЙ ТЕОРІЇ І ПРАКТИЦІ**

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Перша концепція соціальної держави (тобто держави, яка забезпечує певний рівень добробуту для всіх) була породженням консервативної думки, оскільки її початковим пунктом завжди була установка на неприпустимість революційних змін, які загрожують основам існуючого режиму. Саме тому було долучено ідеологічну складову, як необхідну щодо практичної побудови соціальної держави. Першим кроком в напрямку свідомого формування принципів для створення держави загального добробуту прийнято вважати звіт Беверіджа, у якому було запропоновано створити соціальну стратегію, яка б ліквідувала п'ять найтяжчих проблем – бідність, байдикуватість, нещасття, неповноцінність та хворобливість. Звіт відстоював ідею про введення соціального страхування задля створення загальної системи соціального забезпечення (включаючи допомогу багатосімейним) та універсальної, усебічної, вільної служби охорони здоров'я.

Незважаючи на особливості, що властиві кожній країні, історичні передумови виникнення «держави добробуту» очевидні. Її формування наприкінці 19-го століття у Німеччині виникло під зростаючим тиском робочого та профспілкового руху. Позиція німецьких консерваторів була не стільки захисною, тобто направленою на блокування будь-яких змін та перетворень, скільки еволюційно-реформаторською. Після революційних виступів 1840-60х років, що промайнули хвилиною у Європі, безальтернативність політики соціальних реформ стала очевидною.

Практичний інструментарій з метою забезпечення загального добробуту на підставі неокласичної теорії розробив Артур Пігу. Він зробив висновок, що держава повинна не тільки забезпечувати максимізацію суспільного добробуту через механізм перерозподілу доходів та облік «зовнішніх ефектів», але й забезпечувати розвиток фундаментальної науки, освіти, впроваджувати природоохоронні проекти, захищаючи інтереси майбутнього.

Одним із прикладів практичної реалізації концепції соціальної держави є Швеція. У першій половині 20-го століття голова соціал-демократичної робітничої партії Швеції П.А.Хансон запропонував програму виходу з економічної кризи. Відповідно до неї передбачалося збільшення соціальних видатків, встановлення

загальних пенсій за віком та у випадку безробіття, створення нових робочих місць (шляхом введення суспільних робіт), державний контроль, націоналізація та збереження у державній власності стратегічних підприємств, а також стимулювання економіки за допомогою незначного дефіциту державного бюджету, адже народ потребував грошей.

Дещо інший підхід до засад побудови держави добробуту пропонував Людвіг Ерхард, який був переконаний, що держава має встановити прозорі та зрозумілі усім правила «гри» в економіці, не допускаючи жодних невинуватених привілеїв, і разом з цим – жодної дискримінації певних суб'єктів господарювання. В цьому складається суть стратегії, що отримала у Німеччині назву «соціальне ринкове господарство»: конкуренція – всюди, де можливо, державне регулювання – там, де необхідно.

Переконливим є висновок сучасного американського дослідника Дж. Уїла, який стверджував, що саме консерватори заклали підвалини держави загального добробуту, причому виходячи із суто консервативних міркувань – примирення мас із негараздами індустріальної економіки, що розвивалася.

Таким чином, кінцева мета соціальної держави, «держави добробуту», – це збереження соціально-політичної стабільності, яка досягається шляхом встановлення балансу між різними суспільними інтересами. Тобто мета полягає не у зниженні соціальної нерівності, а у зниженні його гостроти за допомогою надання усім громадянам однакових можливостей для гідного існування. Сутність держави добробуту полягає у тому, щоб надати такий напрямок розвитку економіки, коли метою державної політики стає не пошук компромісу між працею та капіталом, а реалізація конституційно закріпленої стратегії, що спрямована на свідоме та поступове підвищення рівня добробуту громадян.

## **DEVELOPMENT OF RURAL TERRITORIES IN CONDITIONS OF DECENTRALIZATION**

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В Україні процес децентралізації розпочався у 2014 році з прийняттям Концепції реформування місцевого самоврядування та територіальної організації влади в Україні. Тому на сторінках наукових видань та під час проведення науково-практичних конференцій, семінарів і конгресів дуже часто обговорюється проблематика, яка пов'язана з розвитком сільських територій в умовах децентралізації та створенням на них об'єднаних територіальних громад.

Слід відмітити, що на сільських територіях проживає близько третини населення всієї України. Тому забезпечення сільських жителів гідними умовами проживання та розширення сфер діяльності на даних територіях сприятимуть розвитку економіки у сільській місцевості та в Україні в цілому.

В умовах децентралізації розширюються можливості розвитку та діяльності сільських територій, а тому краще забезпечуються потреби місцевого населення органами місцевого самоврядування на локальному рівні. Процес децентралізації дає можливість органам місцевого самоврядування самостійно приймати рішення щодо

фінансових питань у сфері розвитку сільських територій. Крім того, децентралізація виступає дієвим фактором стабілізації соціально-економічної ситуації в Україні, адже сприяє підвищенню ефективності використання бюджетних коштів на всіх рівнях управління.

На нашу думку, головним засобом забезпечення розвитку сільських територій є диверсифікація розвитку сільських територій, яку слід розглядати як комплекс заходів, спрямованих на урізноманітнення сільськогосподарської та несільськогосподарської діяльності на сільських територіях, розширення джерел фінансування програм сільського розвитку та заходів, організованих об'єднаними територіальними громадами з метою розширення сфер зайнятості та доходів сільського населення на основі системного підходу й через реалізацію процедур інформаційного забезпечення.

Отже, диверсифікацію розвитку сільських територій у сфері сільськогосподарського виробництва слід здійснювати за рахунок розширення асортименту продукції, збільшення обсягів органічного та нішевого виробництв. Вибір видів несільськогосподарської діяльності для кожної сільської території індивідуальний, який залежить від природних ресурсів та їх місця розташування. Найпоширенішими видами даної діяльності є сільський зелений туризм, заготівля лісу, видобуток щебеню, піску та корисних копалин, оригінальні мистецькі промисли, виробництво специфічної районованої продукції, транспортні перевезення, будівництво розважальних закладів та закладів харчової промисловості. Фінансування стратегій, програм, проектів розвитку сільських територій та заходів, організованих об'єднаними територіальними громадам слід здійснювати за рахунок коштів Державного та місцевих бюджетів, коштів фізичних та юридичних осіб, грантів та ін.. Залучення інвестицій у розвиток сільських територій та диверсифікація діяльності сприятимуть створенню робочих місць; зростанню доходів сільських жителів; відродженню місцевих народних промислів, звичаїв та ремесел, покращенню благоустрою сіл та зміні свідомості сільських жителів.

На нашу думку, децентралізація стає більш ефективнішою, коли до участі залучається населення об'єднаних територіальних громад. Тому розвиток сільських територій в умовах децентралізації залежить від забезпеченості природними ресурсами, місця розташування сіл, ефективного функціонування об'єднаних територіальних громад, правильності прийнятих рішень головами і старостами даних громад.

## **ЕКОНОМІКО-БЕЗПЕЧНИЙ РОЗВИТОК У СУЧАСНОМУ СВІТІ: ІНДИКАТОРИ І ЧИННИКИ МАКРОЕКОНОМІЧНОЇ ДИНАМІКИ**

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Зростаюча турбулентність світового економічного розвитку суттєво загострює проблему забезпечення національного економічного суверенітету кожної країни. Звідси проблема економіко-безпечного розвитку виходить на перший план як актуальне завдання макроекономічного регулювання національної економіки. Основними чинниками, що забезпечують національний суверенітет у сучасному динамічному світі, є інноваційна та інвестиційна активність, що спрямована на технологічне оновлення економіки.

Економічна безпека являє собою складну систему, сформовану на основі національних інтересів у даній сфері. Необхідність забезпечення економічної безпеки істотно зростає в умовах кризової фази розвитку. Неминучі економічні й соціальні втрати цієї фази багато в чому звужують можливості суспільства розробляти й реалізовувати програми економічної компенсації і стабілізації.

Управління процесом економіко-безпечного розвитку визначає необхідність розробки системи макроекономічних індикаторів, а також їх граничні значення, що характеризують умови, порушення яких спричиняє стан небезпеки або стан, що суперечить інтересам національної економіки. Їх чітке визначення сприяє точному та своєчасному визначенню проблем, з якими економіка країни може зіткнутися у найближчому чи більш віддаленому майбутньому, а також запровадженню комплексу превентивних заходів із підвищення її стійкості.

Система індикаторів макроекономічної безпеки має базуватися на таких методологічних принципах: відповідати національним інтересам країни в макроекономічній сфері, виявляти фактори, що загрожують цим інтересам, відповідати міжнародним стандартам з метою співставлення результатів аналізу, бути репрезентативною, інформаційно доступною та достовірною.

Однією з найбільш складних зовнішньоекономічних проблем, що породжують серйозні загрози не тільки економічному, але і політичному стану країни, є проблема зовнішнього боргу. Сам по собі високий рівень зовнішньої заборгованості ставить під сумнів можливість проведення цілком самостійної зовнішньої політики з повним врахуванням власних національних інтересів, оскільки країна змушена постійно озиратися на провідні країни-кредитори.

Внутрішні загрози – це нездатність країни до самозбереження і саморозвитку, яка визначається передусім слабкістю інноваційного та інвестиційного чинників, а також неефективністю всієї системи державного регулювання економіки. Вони можуть бути пов'язані із закономірностями циклічного розвитку економічної системи, а також викликані послідовним накопиченням довготривалих руйнівних тенденцій і проявляються у неможливості ефективного використання виробничого, інноваційного і науково-технічного потенціалу країни, у деформації економічних відносин господарювання і управління, соціальної сфери, погіршенні стану навколишнього середовища.

Так, значну загрозу економічній безпеці України представляє істотна зміна структури промислового виробництва, в якій все більше переважають сировинні галузі при скороченні питомої ваги галузей з високим ступенем доданої вартості, а також легкої і харчової промисловості, які мають важливе значення для розвитку країни й життєзабезпечення населення. Деформація структури економіки веде до надмірної залежності від світової кон'юнктури, зростаючого технологічного відставання життєздатних галузей, втрати науково-інноваційного потенціалу країни.

Отже, система економіко-безпечного розвитку України в умовах її інтеграції в європейській економічний простір передбачає науково визначену сукупність макроекономічних чинників та індикаторів, реалізація яких дозволяє гарантувати економічну незалежність, стабільність і стійкість національної економічної системи. Це передбачає пріоритетну активізацію інноваційно-інвестиційних та інституційних чинників економіко-безпечного розвитку країни.

## ТЕОРЕТИЧНІ ЗАСАДИ «НЕСПРОМОЖНОЇ ЕКОНОМІКИ»

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В умовах сучасної глобальної економічної динаміки певна частина національних економічних систем стає нездатною до вирішення нагальних економічних та соціальних проблем, які виникають перед ними. До таких проблем, зокрема, можна віднести: неспроможність забезпечити високі темпи сталого економічного зростання, неможливість переходу до нового технологічного укладу, розвитку передових технологій, вирішити екологічні та демографічні проблеми, неухильну інфляцію та проблему бідності, всеохоплюючу корупцію, міжнаціональні конфлікти, що руйнують економіку, проблему відходів та утилізації сміття, військові зтяжні конфлікти тощо.

Економічна теорія передусім досліджує стани ефективного соціально-економічного розвитку суспільства. У цьому полягає мейнстрім як історично визнаних, так і сучасних економічних досліджень. Проте у ХХІ столітті виникла нагальна потреба дослідження «неспроможних економік», тобто таких, які самостійно нездатні вирішувати актуальні проблеми сьогодення. Неспроможна економіка (unable, falling, failed, dull economy) – це падаюча, стагнуюча, технологічно відстала, структурно неефективна, кризова, нездатна, тупикова економіка. Це економіка, де панують девіаційно-мутативні форми господарсько-політичного механізму [Ніколенко, 2000], де держава не є конструктором ефективних форм господарювання, а виступає своєрідним деструктором господарських процесів, у результаті чого національна економіка руйнується.

В історії економічної думки такого роду деструктивні стани досліджувалися лише в аспекті циклічних економічних криз, у тому числі зтяжних (аграрні кризи, періоди довготривалої стагфляції або слампфляції, сировинні та енергетичні кризи). Однак сьогодні необхідним є розробка цілісної теорії «неспроможної економіки». У колі проблем, що входять до сфери цієї теорії, знаходяться: темпи економічного зростання та його сталість, ріст добробуту та якість життя, забезпечення здоров'я та освіти нації, екологія, роботизація та безробіття, наука та некваліфікована робоча сила, співвідношення матеріального виробництва та сфери послуг («оболонкова економіка»), вікова структура населення, проблеми пенсійного забезпечення, корупція, клептономіка та клептократія, олігархічний капіталізм як тупиковий шлях розвитку нації тощо.

Розробка методологічних засад теорії «неспроможної економіки» може відбуватися в межах концепції господарсько-політичного механізму [Ніколенко, 1994-2014], яка дає добрі можливості детального аналізу економічних, технологічних та неекономічних чинників, що активно впливають на стан та динаміку певної економічної системи. Ця концепція органічно вписується у сучасне поле інституційних досліджень. Якщо використовувати інституційну термінологію, теорію господарсько-політичного механізму можна назвати «інституційний ордолібертаризм», де термін «інституційний» характеризує вплив неекономічних чинників на економічний розвиток, «ордо» - розуміється як у сенсі німецької школи ордолібералізму, так і французької школи «дирижизму» та кейнсіанського твердження про активну роль держави у системі макроекономічного регулювання. Натомість «лібертаризм» у даній трактовці розуміється в аспекті ідей класиків та неокласиків - від А.Сміта до Ф.Хайека – як необхідність забезпечення умов для ефективного функціонування ринкових сил, зокрема, добросовісної конкуренції за умов активного антимонопольного регулювання.



Таким чином, розробка теорії «неспроможної економіки» на методологічних засадах інституційного ордолібертаризму є нагальним завданням сучасної економічної науки. Як уявляється, дослідження такого стану суспільства мають бути здійснені також і у межах політичних та соціологічних наук. За даного методологічного підходу уявляється необхідним введення у науковий обіг загального поняття «інституційна неспроможність» (institutional failure), яке охоплює поняття економічної неспроможності (economic failure), неспроможності еліт забезпечити ефективний розвиток країни (failure of elites), соціальну неспроможність вирішити нагальні проблеми позитивного розвитку соціуму (social failure) і, нарешті, загальну неспроможність суспільства вирішувати проблеми його виживання в умовах зростаючої турбулентності глобальної соціально-економічної динаміки (failure of society).

## **АСПЕКТЫ ВНЕДРЕНИЯ И РАЗВИТИЯ ИНСТРУМЕНТА РЕЗУЛЬТАТИВНОГО ФИНАНСИРОВАНИЯ НАУЧНЫХ ИССЛЕДОВАНИЙ**

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Внедрение инструмента «Инструмента Результативного Финансирования Научных Исследований» (Performance-Based Research Funding (PBRF)) во многих странах-членах ЕС в последние десятилетия является приоритетным направлением развития научной и инновационной деятельности.

Этот финансовый механизм относится к типу конкурентного распределения организационно-институционального и проектного финансирования научно-исследовательских работ на основе подхода фактической (ex post) оценки результатов их исследований. Этот подход отличается от других подходов к финансированию научной деятельности, в которых финансирование в основном осуществляется на неконкурентной основе или конкурентного проектного финансирования, для которого выделение средств осуществляется в режиме предварительной (ex ante) оценки.

Механизмы финансирования, основанные на результативности, являются одним из главных способов включения элементов конкуренции в распределении финансирования на организационном (институциональном) уровне. В отчете ЕК «Поддержка роста и рабочих мест - программа модернизации Европейские системы высшего образования» Европейская Комиссия рекомендует расширить «механизмы финансирования, связанные с эффективностью», которые «вводят элемент конкурентности». В выводах Совета ЕС от ноября 2011 года рекомендуется ввести механизмы, связанные с производительностью и конкуренцией, для улучшения управления системой высшего образования.

В контексте развития механизмов финансирования инноваций и исследовательской деятельности в последние годы в европейской науке появился ряд фундаментальных и прикладных исследований. Так, в работах Хикса (2012) исследуется основная причина

обоснования для введения финансирования на основе результатов исследований и уход от «блочной» (структурной) системы финансирования. Рассматривается проблема усиления влияния правительства (государства) на исследовательские организации в области осуществления исследований. Многие работы изучают как развития Инструмента Результативного Финансирования Научных Исследований может использоваться для стимулирования работы исследовательских организаций, увеличения объема или качества их научных работ; для определения приоритетности определенных областей исследований; развития более тесного взаимодействия науки, промышленности, государства (Трайпл-Хеликс) и других способов повышения их социально-экономического воздействия, интернационализации.

Конкуренция за ресурсы между организациями, занимающимися исследованиями, повышает их эффективность и производительность, а также стимулирует организации лучше выполнять конкретные задачи своих миссий, а также с позволяет распределять ресурсы между субъектами наиболее продуктивно и эффективно использовать их с точки зрения системы в целом. При этом эффективность и производительность системы в целом могут улучшиться.

Предлагается включить для быстрой оценки Результативного Финансирования Научных Исследований следующие показатели:

Общая научная политика - Использование индикаторов исследований для информации и принятия решений, а также для оценки науки и исследований в долгосрочной перспективе на абстрактном уровне.

Распределение финансирования - Использование исследовательских индикаторов для распределения финансирования. Связь между финансированием и показателями исследований.

Структура организации, планирования и управления. Использование научно-исследовательских показателей учреждений при формулировании их стратегии. Управление по целям. Управление персоналом.

Инструмент Результативного Финансирования Научных Исследований и увеличение конкурентного финансирования в целом рассматриваются как часть механизма снижения неопределенности, необходимой организациям и отдельным исследователям для участия в долгосрочных, рискованных исследованиях и инвестициях в исследовательские инфраструктуры.

## *Chemical & Material Science*

- *Analytical Chemistry*
- *Biochemistry*
- *Ceramic Engineering*
- *Chemical & Material Sciences (general)*
- *Chemical Kinetics & Catalysis*
- *Combustion & Propulsion*
- *Composite Materials*
- *Corrosion*
- *Crystallography & Structural Chemistry*
- *Dispersion Chemistry*
- *Electrochemistry*
- *Inorganic Chemistry*
- *Materials Engineering*
- *Medicinal Chemistry*
- *Molecular Modeling*
- *Nanotechnology*
- *Oil, Petroleum & Natural Gas*
- *Organic Chemistry*
- *Polymers & Plastics*

## **EFFECTIVE OBTAINING OF THE ZINC PHOSPHATE FOR USE AS AN ANTICORROSIVE COATING IN OIL AND GAS INDUSTRY**

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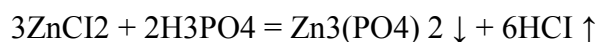
The most frequent problem in the oil and gas transportation is corrosion of the trunk pipelines. The main reasons of this corrosion are sulphur, oxygenated compounds and ion salts in the reservoir formation. In the known methods, the protection of the pipelines are using anti corrosion coating as inhibitor. The main composition of the inhibitors is phosphate, chlorite and other metal oxides.

The purpose of this research is finding another most effective technique to obtain anti corrosive coating. The product of this work provides a cost-effective anti-corrosion coating by treating the phosphoric acid chloride fumes extracted from waste plants.

Currently, in the Republic of Kazakhstan is very well developed metallurgical industry. As a result, there has accumulated several billion tons of waste iron and other metals' from frequent metallurgical wastages. One of the new directions of their utilization is a processing technology to develop zinc, lead-iron phosphate containing waste at nanocoating.

Analysis of the currently known literature data and the results of investigations of physical and chemical properties of the zinc phosphate allow to use them as nanofilms in solving corrosion problems.

Series of experiments were made in the laboratory, and the scientific theoretical data have been proved. Mathematical simulations of obtaining phosphate coatings were investigated by reaction of zinc chloride and phosphoric acid. Effect on basic parameters of the process such as temperature, time and concentration of phosphoric acid were studied. The optimal parameters producing zinc phosphate were determined. Laboratory work was carried out at temperatures of 70-1400 C with 60% phosphoric acid by the reaction:



For the purpose of definition of the maximum degree of chlorine extraction in reactionary system a method of computer mathematical modeling was used. Following results of this problem was obtained with the using of specially developed programs for personal computer (system Mathcad 14).

Economical calculation showed that the method of obtaining zinc phosphate for use anti corrosion coating is effective in its cost than the usual inhibitors. In the laboratory, from 200 g of waste 50 g of zinc phosphate was taken in 140 minutes. 1 kVt /hour of electrical current was spent in 1 hour and it cost 11.6 tenge. To take 1 kg zinc phosphate, it requires 46 hours. Further, if we take into consideration the hereafter application of battery for obtaining solar energy, the entire process financially will considerably lessen.

## *Engineering & Computer Science*

- *Architecture*
- *Artificial Intelligence*
- *Automation & Control Theory*
- *Aviation & Aerospace Engineering*
- *Bioinformatics & Computational Biology*
- *Biomedical Technology*
- *Biotechnology*
- *Ceramic Engineering*
- *Civil Engineering*
- *Combustion & Propulsion*
- *Computational Linguistics*
- *Computer Graphics*
- *Computer Hardware Design*
- *Computer Networks & Wireless Communication*
- *Computer Security & Cryptography*
- *Computer Vision & Pattern Recognition*
- *Computing Systems*
- *Data Mining & Analysis*
- *Databases & Information Systems*
- *Educational Technology*
- *Engineering & Computer Science (general)*
- *Environmental & Geological Engineering*
- *Evolutionary Computation*
- *Food Science & Technology*
- *Fuzzy Systems*
- *Game Theory and Decision Science*
- *Human Computer Interaction*
- *Information Theory*
- *Library & Information Science*
- *Manufacturing & Machinery*
- *Materials Engineering*
- *Mechanical Engineering*
- *Medical Informatics*
- *Metallurgy*
- *Microelectronics & Electronic Packaging*
- *Mining & Mineral Resources*
- *Molecular Modeling*
- *Multimedia*
- *Nanotechnology*
- *Ocean & Marine Engineering*
- *Oil, Petroleum & Natural Gas*
- *Operations Research*
- *Plasma & Fusion*
- *Power Engineering*
- *Quality & Reliability*
- *Radar, Positioning & Navigation*
- *Remote Sensing*
- *Robotics*
- *Signal Processing*
- *Software Systems*
- *Structural Engineering*
- *Sustainable Energy*
- *Technology Law*
- *Textile Engineering*
- *Theoretical Computer Science*
- *Transportation*
- *Water Supply & Treatment*
- *Wood Science & Technology*

## **BIG DATA: PROBLEMS, ANALYSIS METHODS, ALGORITHMS**

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The term Big Data refers to data sets whose size exceeds the capabilities of typical databases for storing, managing and analyzing information. By themselves, Big Data algorithms originated from the introduction of the first high-performance servers (mainframes), which have sufficient resources for online processing of information and suitable for computer calculations and for further analysis. Entrepreneurs and scientists are concerned with the issues of qualitative interpretation of data, development of tools for working with them and development of storage technologies.

Over the past three years, mankind has produced information more than in the history of its existence until 2008. And growth continues exponentially. Currently, many companies are following the development of Big Data technologies.

Review of the state of development, characteristics and application of Big Data technologies is carried out. The Big Data era has already come - the amount of data generated in science, business, industry and IT management grow exponentially. However, the existing Big Data processing application does not allow you to control the steps of data entry, collect statistics and select the optimal structures for storing indexes, optimize the placement of data on the disk to ensure high input/output. It is not possible to perform a thorough statistical analysis and to develop an optimal implementation plan for performing analytical queries.

Critical to the scalability and speed of applications are the characteristics of data processing center networks - QoS optimization requires an active exchange of information between computing nodes, but most current data processing centers are not able to provide high data transfer speeds comparable to those of high-performance computer networks.

As for the analysis methods for processing Big Data, the existing tools and the most common methods for analyzing data arrays, do not yet fully satisfy the requirements of the Big Data processing applications. In one case, they are not suitable for processing large data; in another case, their applicability is difficult when constructing an automatic classification of a set of objects in the absence of a priori information on the number of classes; in the third case, the algorithm has a high laboriousness, and so on.

At the moment, it is possible to predict the high-speed delivery of data from distributed sources and the optimization of data transfer can be carried out, for example, by means of the presently developing resource management methods with observance of quality of service guarantees. In the industrial sphere, it is possible to predict hardware with specialized sensors to accurately extract data indicators, as well as the development of applications that will collect, process and structure these data, transfer them to processing centers, visualize them for easy perception, which in turn will facilitate the adoption of the correct solutions.

## **PROBLEMS OF CAR TRANSFER TO GAS FUEL UNDER THE CONDITIONS OF TAJIKISTAN**

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**ABSTRACT:** this article discusses the features of the problem of the transfer of vehicles to gaseous fuel in the Republic of Tajikistan.

**KEYWORDS:** operation of vehicles, gas equipment, gas-cylinder cars, mountain conditions, fuel.

In the conditions of Tajikistan, where more than 93% of the territory is occupied by mountains, the operation of vehicles is not only economically viable, but in many cases technically the only possible means of transportation.

The issue of providing a legal basis requires the handling of technical issues, which primarily include the operation of vehicles with gas equipment (HBO) in the mountains, combined with a dry hot climate, maintenance tools, methods of storing gaseous fuels, technical training staff, etc.

This question is relevant in that the vehicle in use is at different altitudes above sea level for a day with a change in environmental pressure of 0.1 MPa to 0.07 MPa and temperature fluctuations of up to 15-20 ° C.

The main environmental factors in mountainous operating conditions are road and natural and climatic conditions. Temperature fluctuations during the day in different months are different: the greatest amplitude is observed in the summer months, and the smallest - in the winter. High-mountain areas are characterized by sharply continental weather: the harsh long winter here is replaced by a very short and cool summer.

With increasing terrain height, daily variations in air temperature usually decrease and, conversely, they increase in valleys and trenches. Thus, low and high air temperatures, as well as their rate of change with time, determined by the daily amplitude (cold) of these temperatures, affect the operational reliability of HBO.

The effect of low air temperature on the elements of vehicles in most cases is the opposite. The territory of the republic is considered as the warmest and driest area. However, in reality, due to the presence in the territory of the republic of both valley and mountain areas, natural and climatic conditions depend on the height of the object above sea level and differ from each other.

In mountainous areas, the picture is different. There is observed, at almost all altitudes from 1500 to 3500 meters in March-April and October, the absence of transitions in the summer months, with the exception of a small amount at altitudes of 3000-3500 meters. It can be said that the natural and climatic conditions of the republic substantially depend on the height of the terrain and natural and climatic factors and affect the reliability of gas equipment.

Climatic conditions have a significant impact on the performance properties of HBO. The degree of this influence depends on the parameters characterizing the processes occurring in the product, the working environment in conjugation, the material of the parts, the load.

Identification of this dependence will allow for the classification of parts of HBO in accordance with their climatic reliability. Climatic reliability is the degree of adaptability of machines and their elements to trouble-free operation in conditions of active and very adverse effects of climatic factors.

Analysis of the literature and sources, as well as a survey of competent specialists in road transport allowed identifying the following climatic factors as the main ones (air humidity and pressure, temperature fluctuation amplitude, wind speed, dust pollution).

#### FINDINGS

Gas-cylinder vehicles operated in mountain conditions must fulfill the following requirements:

- have fuel equipment and other auxiliary systems that ensure high-quality flow of the working process under conditions of low ambient pressure and significant temperature differences;
- to ensure a slight deviation of the maximum power of the internal combustion engine from standard conditions at altitudes practically encountered in operation;
- to ensure the safe storage of gas fuel in the car with a significant difference in temperature and ambient pressure;
- to maintain proper thermal conditions of gas equipment and the engine when driving on steep and long rises.

## **THE POSSIBILITY OF ARRANGING GREEN COVER FOR THE REDUCTION OF POLLUTION CAUSED BY THE COLLAPSE OF THE ROAD SLOPE AND TRANSPORTATION**

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**Abstract.** The purpose is to reduce the sloping erosion processes in the construction of different categories of roads and offer a new method of restoration of integrity, which implies the creation and use of new mulching materials. To prepare the pedestal for slopes in case of necessity, arranging the gap using pet bottles. Reinforcing slopes are the most urgent way when planning the highways. To reduce the erosion processes of the slopes and restore its integrity

Instead of expensive geotextile, we offer a new solution of this product - the use of secondary polyethylene terephthalate. The initial results have been obtained after a small experiment. The original bottle is made from the pet bottles in accordance with the nature of the slide and geometric parameters. In the adopted draw, we have replaced alternative, local, cheap composition used in seeder. Preliminary experiments were conducted to get a green cover on difficult terrain. The material we have developed has a liquid mixture. The material offered by us is as follows: Hydrocarbon - protein substance, fresh humus, grass seed. To compare the results of the experiment we have took available and our materials. Structures were placed on a complex relief on 20 x 30 (m) area. The slope of the relief is 20 degrees. In this section, the pet grid was installed and it consist of both the composition of the mixture. At the same time, the grass was cut off from the composition of both ingredients. The frequency and color of the grass was better stored in our composition. This was anticipated, because we only use natural proteins, its amino acid composition promotes the growth of the grass and increases soil properties.



## **THE ROLE OF INTERACTIVE WHITEBOARDS IN THE EDUCATION PROCESS**

Shamilova Bahar Gurban

In the beginning, information was given about the introduction of ICTs and their application to the teaching process. Subsequently, articles written in this direction were investigated. The strategies for implementation of ICT tools in the Republic of Azerbaijan have been mentioned. For the first time in 2003, the introduction of ICT tools in the Republic of Azerbaijan began. Conducting various training courses led teachers to use ICT tools effectively in the teaching process.

At the same time, the article focuses on the role of multimedia tools in teaching and interactive whiteboards. Information on the software needed to use interactive boards has been provided. The advantages of using them in the learning process are listed. ActivInspire, MimioStudio, and the use of Interactive Boards using ActivPrimary software. Their distinctive features are shown. The methods used in the learning process are highlighted. The interface of the MimioStudio software has been introduced. This software provides information on how and when to use it, its functionality and its familiarity with its elements. Finally, it was noted how to use the ready-made training materials included in the MimioStudio program. For example, the rules of using multimedia tools to perform processes such as crawling on animals according to the biology subject, the mathematics subject, placement of points in the three-dimensional space, finding the function of the given function, and setting the appropriate graphic are noted.

Using interactive whiteboard for teachers and schoolchildren in the process of education plays a positive role:

1. The process of education makes effective;
2. Prevents the loss of time;
3. In a short period of time, a large amount of information is given out;
4. The passed theme is well assimilated by schoolchildren;
5. A student who is not present at the lesson can make up for lost time by viewing the videotape;
6. Schoolchildren and teachers develop the ability to use communication technologies;
7. To work on the interactive whiteboard, you need to know other software.

## **FEATURES OF MODERN INDUSTRIAL ROBOTS**

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With the development of science and technology, the robotization of production and all spheres of human activity is expanding.

Industrial robots offer many advantages in a production environment compared to humans. Among them are the following: raising a large weight; speed reaction; high reliability; rhythmicity; versatility; adaptations to different conditions; performance of various works; forming teams to control other equipment; performance of work with the monotonous

nature of operations associated with the cost of heavy physical labor; the presence of toxic substances, as well as in severe temperature conditions, with high humidity, air pollution, vibration, noise and more. In addition, the robot does not get tired, does not require breaks for rest, eating, does not strike, does not require housing, creating favorable working conditions, shortening the working day, week, and creating a value infrastructure for life support.

As technical systems, industrial robots are characterized by the following main parameters: the number of degrees of freedom; moving speed; load capacity; service area (radius, height), positioning accuracy; number of positioning points.

There are many designs of industrial robots. They are distinguished by generations. Robots of the first generation (software robots) that automatically perform various operations on a rigid program. Second generation robots (adaptive robots), which operate in a fully incompletely defined and changing environment. Third-generation robots (intelligent robots) that perceive the environment with the help of artificial vision and other information devices. They can simulate the environment, automatically decide on further actions, learn in the process of gaining experience in specific working conditions. Robots can be fully automatic or work with human participation in the created biotechnical systems. By specialization, there are special, specialized and universal robots.

The load capacity of industrial robots varies widely: ultralight (to 1 kg), light (1 ... 10kg), medium (10 ... 200 kg), heavy (200 ... 1000 kg), super heavy - more than 1000 kg. The number of degrees of freedom is two, three, four. The latter group has more than four degrees of freedom. Industrial robots are stationary and mobile. Perform floor, suspended and embedded designs of robots. They can work in rectangular Cartesian, in cylindrical, in spherical, in angular and other coordinate systems. They use electromechanical, hydraulic, pneumatic and combined drives.

There are two groups and several subgroups of robot control systems. The group of program-controlled robots has three subgroups: cycle-controlled; with position control; with contour control. The group of industrial robots with adaptive control has two subgroups - with positional and with contour control. There are robots that are programmed analytically and learning.

The report is devoted to the disclosure of the features of modern industrial robots, which can become the basis for their improvement and rationalization of software, especially with regard to intelligent-type devices and biotech control systems, where the operator is involved.

## **WIRELESS SECURITY ISSUES**

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Today, a wireless network is considered secure if it has three main components of the security system: user authentication, confidentiality and integrity of data transmission.

To obtain a sufficient level of security, you must use a certain list of rules when organizing and setting up a private Wi - Fi network, namely:

- encrypt data by using different systems (the maximum level of security will ensure the use of VPN);

- use 802.11 x Protocol;

- deny access to the access point settings via wireless connection;
- manage client access to MAC addresses;
- to prohibit broadcast of the SSID;
- position antennas as far as possible from Windows, external walls of the building, as well as limit the power of radio emission;
- use the longest keys possible;
- change static keys and passwords;
- use the "Shared Key" WEP authentication method: the client will need to know the WEP key to enter the network;
- use a complex password to access the settings of the access point;
- if possible, do not use TCP / IP on wireless networks to organize folders, files, and printers for sharing (the organization of shared resources by means of NetBEUI is safer in this case);
- do not use DHCP on a wireless network (manually distribute static IP addresses between legitimate clients is safer);
- on all PCs within the wireless network, install firewalls, do not install an access point outside the firewall, use a minimum of protocols within the WLAN network (for example, only HTTP AND SMTP); regularly to investigate network vulnerability with the help of specialized security scanners (e.g. NetStumbler).

Just a threat to network security can be natural phenomena and technical devices, but only people (disgruntled dismissed employees, hackers, competitors) are introduced into the network to deliberately obtain or destroy information and they are the greatest threat.

## *Health & Medical Science*

- Addiction
- AIDS & HIV
- Alternative & Traditional Medicine
- Anesthesiology
- Audiology, Speech & Language Pathology
- Bioethics
- Biomedical Technology
- Cardiology
- Child & Adolescent Psychology
- Clinical Laboratory Science
- Communicable Diseases
- Critical Care
- Dentistry
- Dermatology
- Developmental Disabilities
- Diabetes
- Emergency Medicine
- Endocrinology
- Epidemiology
- Gastroenterology & Hepatology
- Genetics & Genomics
- Gerontology & Geriatric Medicine
- Gynecology & Obstetrics
- Health & Medical Sciences (general)
- Heart & Thoracic Surgery
- Hematology
- Hospice & Palliative Care
- Immunology
- Medical Informatics
- Medicinal Chemistry
- Molecular Biology
- Natural Medicines & Medicinal Plants
- Neurology
- Neurosurgery
- Nuclear Medicine, Radiotherapy & Molecular Imaging
- Nursing
- Nutrition Science
- Obesity
- Oncology
- Ophthalmology & Optometry
- Oral & Maxillofacial Surgery
- Orthopedic Medicine & Surgery
- Otolaryngology
- Pain & Pain Management
- Pathology
- Pediatric Medicine
- Pharmacology & Pharmacy
- Physical Education & Sports Medicine
- Physiology
- Plastic & Reconstructive Surgery
- Pregnancy & Childbirth
- Primary Health Care
- Psychiatry
- Psychology
- Public Health
- Pulmonology
- Radiology & Medical Imaging
- Rehabilitation Therapy
- Reproductive Health
- Rheumatology
- Social Psychology
- Surgery
- Toxicology
- Transplantation
- Tropical Medicine & Parasitology
- Urology & Nephrology
- Vascular Medicine
- Veterinary Medicine
- Virology

## **PREVALENCE OF DENTAL SYSTEM ANOMALIES AND SPEECH DISORDERS IN CHILDREN BITE OF TASHKENT CITY**

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Children with anatomical and functional disorders of dental system (FDS) observed speech disorders. This fact limits the communication with peers makes them unsociable and closed, is often the subject of ridicule from those around children. The child hardly learns to read and write, and later admits to writing a large number of seemingly completely inexplicable and unmotivated by anything errors (called dyslexia and dysgraphia).

The process is carried out sound-pronunciation energy (tidal), generator (voice form) resonator (sound form) departments of the vocal apparatus in the regulation of the central nervous system. According to world statistics, the number of speech disorders in children and adolescents is increasing, and therefore the urgency of this problem takes a global character.

The purpose of this research - identifying the prevalence and relationship disorders in children with sound-pronunciation anomaly and deformation of dental system of children mixed dentition.

Material and methods. From 2012 to the present day it was carried out speech therapy and orthodontic examination in 2284 (including 1115 boys and 1169 girls) of children living in Tashkent, Republic of Uzbekistan, at the age of 6 to 14 years.

To determine the orthodontic and speech therapy status of the surveyed children performed clinical studies, anthropometric measurements. And functional tests, as well as X-ray as needed. When evaluating speech function performed functional voice samples aimed at the definition of a normal or pathological character sound-pronunciation.

Results and discussion. The survey results and their analysis shows that the prevalence of abnormalities and deformities in children of mixed dentition is very high and is, according to our data 65.49% (1496 out of 2284 children). But, despite the high percentage of prevalence of dental anomalies and deformations of dentition and occlusion, providing dental, including orthodontic care for these children, not high, and is only 6.93%.

Of the 1496 children identified in 824 (36.08%) of dentoalveolar anomalies and deformations, including 385 boys and 439 girls were found sound-pronunciation defects caused by anatomical defects of articulation organs of dental system and myofunctional disorders. All 824 children we were divided into three conventional groups.

Of the 824 children identified dentoalveolar anomalies and deformations defective sound-pronunciation were diagnosed: prognathic bite in 182 children (22.09%), progenic bite - in 165 (20.02%) children, deep bite - in 108 (13.11 %), open bite - 85 (10.31%) children, cross bite - in 98 (11.89%) children. Among other anomalies crowding of the teeth and dentition occurs most often in 110 cases, transposition of teeth - 84, three, between the teeth - 63, diastem - 68 torsion - 53, secondary anodontia - 149, early removal of milk teeth - 122 and narrowing of the dental arch - 44, short frenulum language - 45, short frenulum of the upper lip - the lower lip 42 and - 18.

A significant number of surveyed children have a combination of anomalies and position of teeth with bite pathology, as well as the presence of several types of malocclusion at the same time.

The study showed that for all children with abnormalities of teeth, dentition and occlusion, have been characterized by various types of rotacism (uvular, velar fricative pronunciation).

Of the 182 children in the mixed dentition with prognathic bite in most cases it has been violated place form sizzling sounds. It is often a violation of the pronunciation of bilabial (p, b, m), labiodental (f, c), apicals explosive letters in this pathology. Children with progenic bite (165 children), it was noted a violation of the pronunciation of whistling and hissing sounds, spoken as the interdental sounds. Explosive apicals sounds at the same time sounded relaxed.

In children with a deep bite (108 children), dental lisping observed when all the hissing, whistling sounds and affricates pronounced apicals explosive sounds (t, d). And in children with open bite (85 children), sound-pronunciation defects were present, with the disturbed pronunciation of whistling, hissing sounds and affricates, which is pronounced interdental. In children with cross bite (98 children) defects sound-pronunciation instilled in the appearance of lateral lisping. At the side edges of the language is not adjacent to the molars, air jet took place not on the middle line of the language, and through a side slit. Shortened frenulum tongue (45 children) were hampered by the language movement towards the top, right and left, there was a violation of the audio pronunciation - "p".

Shortened frenulum of the upper lip (42 children) was hampered by the mobility of the upper lip and consequently pronunciation bilabial. A shortened frenulum of the lower lip (18 children) occurred violation pronunciation labiodental sounds. And in fact, in both cases labialized vowels (o, u) lost labialization sounded as approximate.

In 68 children with diastem and 149 - with edentulous even a single tooth in the frontal area led to a background hissing when pronouncing sounds of whistling, because in this case, it is a violation of the direction of air flow. Edentulous two or more incisors interdental lisping deterministic appearance, with tongue in pronouncing whistling and hissing sounds was in a gap formed by the defect of dentition.

The principle of treatment consisted of orthodontic treatment with the removal of anomalies and deformations of dentition and muscle training, which contributed to the normalization of the function of synergist muscles and antagonists. The effect of treatment depend on the severity of the morphological and functional disorders of the patience and perseverance of children, from the control of the quality of the exercise. Speech therapy sessions conducted individually and in groups. The use of modern methods and means of prevention and carrying out speech therapy sessions with a qualified speech therapist helped reduce the time of orthodontic treatment. The average duration of treatment varied and was as follows: Group 1 - 11+ 2.8 months, group 2 - 15 + 3.1 months. in 3 groups - has not been orthodontic treatment.

Conclusions: Thus, we conducted a survey of Tashkent children aged 6-14 years has allowed to reveal a rather high prevalence of dentoalveolar anomalies and deformations. Thus, out of 2284 surveyed in 1496 children (65.49%) showed abnormalities and deformities FDS, while 824 (55.08%) of the number of these children - sound-pronunciation defects. Timely identification, preparation and carrying out of a comprehensive plan of treatment and preventive measures are the key to the successful elimination of dentoalveolar anomalies and deformations of dentition in children.

The data must be considered as a preventive and therapeutic purposes to doctors, orthodontists and speech therapists in the construction of correctional and pedagogical work.

## THE INCIDENCE OF MEASLES IN THE WESTERN REGION OF UKRAINE: THE IMPORTANCE OF VACCINATION

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Achievements of fundamental medicine and their implementation into practical healthcare allow to achieve significant reduction in the incidence and mortality from many previously common infections. However, the victory of humanity over infectious diseases has not yet been achieved. In the 21st century, infectious diseases remain an actual health problem in most countries of the world, including Ukraine.

Measles, despite carrying out a broad immunization program, until recently remains one of the most common childhood droplet infections. Measles greatly weakens the body's immune system and opens the way to other acute and chronic infections. It has been established that the only cause of death from measles is its complications.

According to the WHO, in the countries of the European Region, including Ukraine, there is a dangerous epidemic situation with measles. The dynamics of the incidence of measles in Ukraine indicates a cyclical nature of the epidemic process - every 5-6 years there are epidemic outbreaks of this disease.

In 2017, 4782 cases of measles were recorded in Ukraine. The most cases were registered in Ivano-Frankivsk region - 1344, Odessa - 1256, of which 3 children died, 637 cases in Transcarpathian, and 468 cases in Chernivtsi, among the sick 372 are children (79%) and 96 adults. Among adults, most sick people are at the age of 20-29 - 31 patients (45%), the oldest patient is 52.

Today there is an increase in the incidence of this disease in western regions of Ukraine, in particular in the Chernivtsi region.

According to the operative data of the Center for Public Health of the Ministry of Health of Ukraine, for the 37th week of 2018 440 people fell ill with measles - 187 adults and 253 children and by the beginning of December 2018 the incidence rate increased by 9.5%.

Children aged 5-9 are in the sphere of special danger (almost 32% of all children). These are the children who did not receive the second dose of the measles vaccine in a timely manner, so they did not develop immunity to the disease.

Vaccinations are the only effective way to protect against infectious diseases and prevent the development of dangerous complications. This is known throughout the civilized world.

Reduction in immunization coverage, mass refusal of parents to vaccinate children, loss of confidence in vaccination, defamatory materials in the media, etc. created favorable conditions for the spread of measles.

Of course, high-quality immunization of infectious diseases depends on many factors, and, of course, the first and one of the main is the state control in the sphere of medical services. However, in order to resist the anti-vaccination movement, it is equally

important to annually conduct advanced training of doctors and nurses responsible for carrying out vaccination.

It is doctors, nurses, who must stay for defense of evidence-based healthcare, which unequivocally asserts: today, the only reliable, effective and safe way to protect against measles and other infectious diseases is vaccination. After all, it forms a collective immunity, which does not allow their pathogen to spread.

## **CURRENT OPPORTUNITIES OF MEDICO-GENETIC CONSULTATION OF PATIENTS WITH DYSPLASIA OF THE CONNECTIVE TISSUE**

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Under the term dysplasia of connective tissue (DCT) understood hereditary connective tissue (CT) of multifactorial nature, combined in syndromes and phenotypes. DCT is not a nosological unit, but is a genetically determined system progredation process. The variability of defects in the genes encoding biosynthesis and degradation of collagen, the components of the intercellular substance and their various combinations lead to a pronounced clinical polymorphism of hereditary connective tissue pathology. To date, phenotypes and criteria for differential diagnosis of monogenic dysplastic syndromes and clinical signs of connective tissue dysplasia in some chromosomal diseases have been described. Clinical analysis of the spectrum of diseases has shown the presence of numerous undifferentiated syndromes of the DCT, changing the clinic and the prognosis of the underlying disease.

In connection with the development of technical capabilities in science, significant progress has been made in the study of the molecular basis of diseases associated with DCT at the genetic level. Each defect in each patient has a unique, structural violations of the fibrils non-specific, but permanent for each form of DCT. The treatment of these conditions by the effects on the genetic apparatus and the diagnostics necessary for this diagnosis are real in the future. Help for patients with DCT is needed now. Medico-genetic counseling is the most affordable way to detect DCT in the family. Finding out the health of relatives often helps in identifying collagenopaaths in a family, especially with limited manifestations in a separate system or even an organ. Determining the type of inheritance of this disease in a given family provides an opportunity to calculate the recurrent and genetic risk. The subject of a more in-depth discussion is the role of dysplasia of connective tissue in associated pathology. In some



cases, DCT is an essential factor in morpho- and pathogenesis, in others it is a favorable background substance in the development of many pathological processes. Any associated pathology in connection with dysplasia of the connective tissue will have its own peculiarities both in the formation, in the course and correction of the pathological process.

Currently, the generally accepted concept is the notion that hereditary predisposition and risk factors have locally populational significance. Different ethnic groups and populations differ in gene pool, they live in different climatic and geographical zones with different environmental conditions. Specific features of the gene pool and the environment in each population form specific risks. Therefore, the results of research, obtained in the world in different populations and groups of people, can not automatically be transferred to any population. This implies the need for population surveys in local populations. At the current stage, the compilation of open electronic databases is urgent, which will provide an opportunity to approach the integration of information about the DCT in a particular population and will help provide more qualified assistance on a case-by-case basis.

## **BIOLOGICAL AGE AND RATE OF AGING OF WOMEN IN THE DONETSK REGION (UKRAINE)**

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Our goal is to study the changes in physiological systems of premature aging and the biological age of women of different age groups. Special attention is paid to determining the correspondence between the calendar age and the functional and adaptive capabilities of the organism, an indicator of which is the biological age.

Methods and organizing of the research: scientific publications analysis, polling, establishing the arterial pressure under Korotkov's method, Ozeretskyi's test (static balancing on one leg), V. P. Voitenko's method for biological age estimation, mathematical statistics methods.

The study was attended by 52 women permanently residing in the Donetsk region. As a result of the survey, the respondents were divided into three groups: 20-30 years, 30-40 years and 40-50 years. According to the results of the "Subjective Health Assessment" questionnaire, there were also signs of premature aging that are present in some women in each group. The survey showed that the women in question had certain health problems. 56% of the respondents from the first group and 54% from the second found complaints of headache, 63% and 62% for lumbar pain, 69% of the first group noted shortness of breath and 56% of the same group had dizziness. The second group of respondents loses a good sleep due to a thrill of 77%. The third group is the most complaining about bad health. Headache is inherent in 80% of women aged 40-50 years, 66% feel pain in the heart, 73% notice memory impairment, and 80% have lower back pain.

Thus, studies have shown that the biological age of 58% of women in the first group is higher than the calendar one. Whereas, only 27% of women from the third group have a biological age above the calendar. It can be concluded that younger women are more likely to suffer from poor health, they are much more likely to feel stress and deeper to bear. Women aged 40-50, on the other hand, are stress-resistant, complaining less about poor health.

The results were obtained which made it possible to conclude that the territory of residence with all its positive and negative factors has an important influence on the biological age and rate of aging, as well as heredity, and the emotional state of a person.

## **OCCUPATION AS THE PREDICTING FACTOR OF A PREMATURE OVARIAN FAILURE**

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**Introduction:** Nowadays, a growing number of women have an active social position, make a successful career. They also want to become mothers but in contemporary economic situation more and more women plan their maternity in later period. A woman's age is negatively correlated with ovarian reserve. Insufficient number of oocytes decreases chances to become pregnant. Purpose of the study is to identify relationships between reproductive health of women and the profession.

**Patients & methods:** The study involved 120 women with infertility in age from 28 to 43 years. All participants had a variety of professions and belonged to different social groups. The average time the workload is 8 hour day, 5 days a week. Types of work were grouped depending on the predominant component: A. Manual Labor (light industry, agriculture) - 12%; B. Intellectual Labor (analysts, engineers, economists) - 25%; C. Communication (managers, consultants, vendors, service sector) - 35%; D. Creative Work (designers, artists, writers) - 8%; E. Mixed Labor, two or more dominant factor (teachers, doctors) - 20%. Stress load was assessed by psychological questioning. Ovarian function and ovarian reserve were assessed using hormonal examination (FSH, AMH, melatonin), ultrasound procedure. **Results:** The maximum degree of stress load was observed in groups B, C and E. Such profession as a teacher, journalist, physician, manager more than others exposed to stress loads. These women have the worst indicators of ovarian reserve, that the evidence in favor of premature aging and ovarian failure. Low ovarian reserve leads to a syndrome of poor response during ovarian stimulation, there is a very low efficiency of the use of assisted reproductive technologies. In such cases, the recommended oocytes donation or special training before the stimulation of ovulation. Positive correlation between professions related with intellectual labor and intensive communication is identified in the study group.

**Conclusion:** Type of occupation can be additionally used as a predictor of reproductive aging for the risk group selection of a premature ovarian failure.

## **HOMOCYSTEINE AS A PROGNOSIS MARKER FOR ASYMPTOMATIC STROKES**

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Modern possibilities of MRI allow diagnosing small-caliber cerebral vascular lesions in patients. Recently, the term disease of small vessels of the brain has been introduced. This condition is characterized by small focal lesions of the brain. Pathogenetically, the formation of small focals in the brain is ischemic in nature with the formation of small focal of infarction.

Small focal changes in the brain without a manifesting stroke more common in young people, mostly women. The lesion clinic in such conditions is represented by the presence of manifestations of autonomic dysfunction, migraine and panic attacks.

Clinical studies suggest that homocysteine an independent, highly informative predictor of cerebrovascular diseases. A number of studies have shown that high level of homocysteine is associated with the development of “silent” strokes. However, in most scientific publications, homocysteine is considered only from the perspective of a biomarker of vascular pathology, and not a component of its pathogenesis.

We are conducting a study aimed at improving the prevention of silent cerebral infarction in young and middle-aged people, taking into account the influence of hyperhomocysteinemia and impaired lactate-pyruvate metabolism on the development of cerebrovascular pathology, the development of scheme for drug and non-drug correction of homocysteine, lactate and pyruvate metabolism.

Object of study: group of 15 young and middle-aged people with asymptomatic cerebral infarctions. A comparison group of 6 people with symptomatic cerebral infarctions, and 9 with symptomatic in combination with asymptomatic cerebral infarctions.

Ischemic focals in the group of young people (main group) were mainly lacunar (42%) and small (46%) focals, while in the group of patients older than 50 years (comparison group), the most common were small ischemic focals. (35%) and medium (30%) sizes. At the same time, the prevalence of lacunar focals in the main group was statistically significantly higher than in the comparison group (42% and 27%, respectively;  $\chi^2 = 3.995$ ,  $p = 0.046$ ). In the studied groups, hemisphere infarcts were more common. In the group of young people, neurological deficit was easier, as confirmed by statistical analysis.

In patients of the studied groups, various degrees of increase in level of homocysteine were recorded. In the main group, the median level of homocysteine was 13.19

$\mu\text{mol} / \text{l}$ , in the comparison group  $15.22 \mu\text{mol} / \text{l}$ . The level of homocysteine in acute period of symptomatic ischemic stroke in young people was found to be statistically significantly higher than in patients than in patients of the older age group with no history of symptomatic stroke.

An increase in homocysteine levels above  $15.22 \mu\text{mol} / \text{l}$  in the acute period of ischemic stroke in young people can be used as an early predictor of the formation of a stroke of neurological deficit, which leads to disability. Such patients need more intensive treatment and rehabilitation treatment.

Patients with asymptomatic cerebral infarctions in the presence of cerebrovascular risk factors and hyperhomosteinemia ( $15.22 \mu\text{mol} / \text{l}$ ) may be assigned to patients at high risk of developing symptomatic cerebral infarction and progression of multifocal asymptomatic brain damage.

## **EXPERIMENTAL STUDY OF ANALEPTIC AND ANTIGIPOXIC ACTIVITIES OF HETEROSIDES - (DERIVATIVES FOR SULFUR AND NITROGEN CONTAINING HETEROCYCLES)**

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In order to expand the theoretical base of targeted search for analeptics, the awakening and antihypoxic properties of Heterosides-21, Heterosides-31 (derivatives of sulfur and nitrogen containing heterocycles) were studied and their mechanisms of action were established.

Sodium thiopental (42 mg/kg) was used to simulate suppression of the respiratory and vasomotor centers of the brain. Comparative drugs were the combined analeptic sulfocamphocaine (SCC) (20 mg/kg) and antihypoxant Piracetam (300 mg/kg). Analeptic (AL) (awakening) and antihypoxic (AH) properties of substances were evaluated on male non-linear white mice weighing 25 – 29 g. Sodium thiopental (PJSC Kievmedpreparat, Ukraine) was used as an inhibitor of the respiratory and vasomotor centers of the brain. This medical preparation is used in medicine and veterinary medicine as an anesthetic drug. For comparison, classic drugs were chosen – combined analeptic Sulfocamphocaine (SCC) (Darnitsa), stimulating the respiratory (RC) and vasomotor brain centers, as well as antihypoxant Piracetam (Halychpharm), prescribed during hypoxia of the central nervous system. Optimal doses of TPA (42 mg/kg), SCC (20 mg/kg), Heteroside-21 and -31 (2 mg/kg), Piracetam (300 mg / kg) were established experimentally.

Under the experimental conditions, the classic analeptic SCC was the most active, which accelerated the awakening of animals at the optimal dose by 32.5%. The awakening efficacy of Heterosides-21, Heterosides-31 was 28.2 and 27.9%, respectively. Under similar conditions, Piracetam on the contrary prolonged anesthesia by 30.3%. Thus, Heterosides-21, Heterosides-31 at a concentration of 10 times less than SCC practically did not yield to him in awakening efficiency, which indicates the promise of derivatives of sulfur and nitrogen containing heterocycles to search for original analeptics.

The symbasis of the of AH and AL values (awakening) effects in all the studied substances confirmed our assumption about the key role of antihypoxic properties for the manifestation of analeptic action of the substances, but did not provide an idea indication about the mechanism of their implementation.

According to our ideas, resistance to hypoxia can be increased in four ways: under aerobic conditions, by activating of RC, which accelerates natural oxygenation and blood circulation; hypothermic or drug-toxic (anesthesia, anabiosis) suppression of the metabolic activity of tissues; in anaerobic - stimulation of endogenous anaerobic mechanisms of energy supply; a combination of these options.

The results were obtained on the models of thiopental anesthesia and normobaric hypoxia with hypercapnia, the analysis of which allowed: to qualitatively and quantitatively assess the awakening, antihypoxic activity of the studied substances and classical preparations; their effect on the respiratory center of the brain and the behavioral responses of animals; theoretically substantiate, experimentally confirm and establish aerobic, anaerobic and detoxification mechanisms for the realization of effects in various conditions; to formulate the theoretical foundations of a targeted search for universal analeptics and antihypoxic drugs, to offer an instrumental and methodological complex for their experimental reproduction.

## **EPIDEMIOLOGICAL PARTICULARITIES OF ACUTE RESPIRATORY INFECTIONS DURING THE 2017/2018 SEASON IN THE REPUBLIC OF MOLDOVA**

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Relevance: Influenza, acute respiratory infections (ARI) and acute respiratory infection severe (SARI) are diseases that require special attention because of the level of morbidity and mortality which it causes, producing a negative impact on public health, health system and on the national economy. The National Surveillance System based on Influenza-

like-illness (ILI), ARI and SARI morbidity is adjusted to WHO, ECDC and CDC requirements.

**Materials and methods:** We collected the epidemiological data through the national surveillance and monitoring system of ILI, ARI and SARI in all administrative territories of the Republic of Moldova.

By molecular biology techniques (rRT-PCR) were detected influenza viruses, which were isolated in MDCK and MDCK-SIAT1 cell cultures.

**Results:** In 2017/2018 season, ILI had an extensive geographical spread with an medium intensity of the epidemic process and a moderate impact on the health system. 990 (27.9/100000) cases of ILI were recorded, 12.4% less than in the previous season. The first case of ILI was in 41/2017 week, the next case, confirmed by laboratory, was in 52/2017 week. The peak was in 09/2018 week with 4.8/100000 ILI cases. The last case was in 18/2018 week. ILI primarily affected people aged 5-14 years-38.5%.

During the mentioned period, were recorded 270268 (7611,3/100000) cases of ARI, 9.1% more than in the previous season. ARI morbidity started from 216.6/100000 cases at 40/2017 week, peak (387.5/100000) in 08/2018 week and the season ended with 141.0/100000 cases in 20/2018 week. The epidemic threshold of 312.49/100000 was exceeded in the 07/2018-09/2018 and 11/2018-12/2018 weeks. The most affected group by ARI was 0-4 years with 39.0%.

In total, 11807 (332,5/100000) cases of SARI were recorded, 2.4 times less than in the previous season due to a change of the SARI case definition. Thus, SARI morbidity varied between 7.2/100000 and 12.8/100000 cases. The most affected group was 0-4 years (58.6%), similar to the previous season.

In the 2017/2018 season, 872 samples were collected from 131 (15.0%) patients with ILI, 447 (51.3%) with ARI and 294 (33.7%) with SARI. 20.2% (176 samples) from them were positive. So, out of the total of flu positive samples, 17.0% were positive for A(H1N1)pdm09, 1.7%-A(H3N2) and 81.3%-influenza B (Yamagata – 85.4%, Victoria – 13.9% and lineage not determined – 0.7%).

In this season, 6 strains of influenza virus were isolated and identified in cell cultures. A/Moldova/29/2018 had its HA gene in the 6B.1 clade. The NA gene clustered similarly and had several substitutions in the NA compared with the vaccine virus A/Michigan/45/2015. The HA and NA genes B/Moldova/68/2018 fell into the main part of the 1A clade. All strains of influenza virus isolates were sensitive to Oseltamivir and Zanamivir. We are grateful to the specialist team at The Francis Crick Institute, London for professional support in studying strains of influenza viruses isolated in Moldova.

**Conclusion:** The National Surveillance System makes it possible to monitor the evolution of epidemic process in relation to dominant/codominant influenza strains, antiviral susceptibility, their place in the phylogenetic tree which makes it possible to predict the epidemiological situation and to intervene promptly with response measures in crisis situations.

## DEVELOPMENT OF HOP CONES LIPOPHYLIC EXTRACT-BASED GEL

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Studies of plants containing a large amount of lipophilic fractions showed that they possess anti-inflammatory and wound healing effects. These biologically active compounds stimulate proliferative-reparative processes of connective tissue; accelerate healing of wounds; intensify the basic biochemical parameters of restorative processes in the wounds; accelerate rejection of the scab and normalize the histological picture of the wound surface. In view of the above, the creation of anti-inflammatory ointment with the above substances is an urgent problem of modern drugs' technology.

The aim of the study was to create a semisolid dosage form with lipophilic extract of hop cones, which is a by-product in the production of dry flavonoid extract at the PJSC SIC «Borshchahivskiy CPP».

The lipophilic extract was obtained by extraction of the hop seedballs supplemented by the maximum removal of the lipophilic substances from the raw material, using as an extractant alkanes from the row C6-C7 in the ratio of DER not less than 1:12 with the priority of n-hexane use as cheaper raw material. On the basis of the obtained extract, a choice of base for the production of a semisolid dosage form was made.

When creating the optimal gel base, samples of gels with sodium alginate and collagen were prepared. As a result of this experiment, stable gel bases with a non-Newtonian type of flow and plastic properties have been obtained.

The next step was the introduction of the lipophilic extract into the prepared gel base. Due to the impossibility of dissolving it in water, the solubility of this substance in a number of non-aqueous solvents with the addition of various solubilizers has been investigated.

In the process of pharmaceutical development, the following indicators were assessed: appearance, pH, structural viscosity, colloidal and mechanical stability. Sample observation was performed at ambient temperature and in a cool place. On the basis of the study, it was proved that the sample based on the gel composition of sodium alginate: collagen in the ratio of 2.5:0.5 is optimal. Only this gel during the entire period of observation did not change the appearance (clear gel mass of pale yellow color odorless), had satisfactory consumer properties. The physicochemical and structural-mechanical indices studied were also stable throughout the observation period.

The data obtained became the basis for choosing a gel forming agent for the development of a gel with a lipophilic extract of hop cones. At the current stage, research is conducted to select other auxiliary substances.

## **THE CHOICE OF THE TREATMENT METHOD OF PATIENTS WITH THE MAXILLARY SINUS PERFORATION**

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### **SUMMARY:**

Cases of maxillary sinus perforation, especially during the extracting 16, 26 teeth in recent years, have become more frequent. Oroantral communication may be the result of: extraction of 14, 15, 16, 17 and 24, 25, 26, 27 teeth, displacement of an impacted tooth or root tip into the maxillary sinus during a removal attempt.

Key words: perforation of the maxillary sinus, oroantral communication, the cause of perforation, the anatomical location of the roots, radix stump.

### **The relevance of research:**

Perforation of the bottom of the maxillary sinus, a common complication in surgical practice that occurs directly during the operation of removing the teeth of the upper jaw, especially during the removal of 16, 26 teeth.

Removal of these teeth is a very laborious process, since anatomically, the roots of 14, 15, 16, 17 and 24, 25, 26, 27 teeth are located close to the maxillary sinus. In some cases, the thickness of the bone layer between the tooth roots and the bottom of the maxillary sinus can reach up to 1 cm, and in some people the bone border between these formations is very thin - no more than 1 mm.

Sometimes the roots of 14, 15, 16, 17 and 24, 25, 26, 27 teeth are located in the cavity of the sinus itself, separated from it only by a layer of the mucosa. Therefore, the removal of these teeth and their roots was, and remains, an urgent problem of surgical dentistry and maxillofacial surgery.

Communication of the oral cavity with the maxillary sinus requires the doctor to take urgent measures to close the defect, since the oroantral fistula is the entrance gate of infection in the future.

With traditional methods of treatment, the bone tissue defect is not restored, only the mucosa membrane is sutured, which leads to a sharp disruption of the shape of the alveolar process, and in 9-50% of cases to the divergence of the wound edges and the formation of persistent fistula [4,5].

Recently, directional regeneration of bone structures has been widely used. The scientific literature covers a number of clinical methods for treating patients using various osteoplastic materials in order to compensate for defects in the jaw bone tissue that arise after various surgical interventions.

Currently, given the large number of operations to close the oroantral fistula, the prevention of inflammatory complications of the maxillary sinus is relevant.

In the literature, which describes a large number of methods of plastic closure of perforations, there are no indications of the most convenient and acceptable methods for use in the broad practical work of an outpatient physician.

### **Goal:**

Improve the effectiveness of complex treatment of patients with the maxillary sinus perforation using fast-hardening plastics, Protocril and Redont.

### **Objectives:**

1. Create optimal conditions for closing the perforation of the maxillary sinus;
2. Make a stump to close the perforation hole of the maxillary sinus from quick-hardening plastics, Protocril and Redont;
3. Develop methods for installing a stump for closing the perforation of the maxillary sinus from quick-hardening plastics, Protocril and Redont;



4. Develop recommendations in the choice of treatment tactics for patients with maxillary sinus perforation on an outpatient basis;

Methods and Materials:

From 2013 to 2017, 15 patients came to the Temur-F clinic with a clinical diagnosis: "Perforation of the maxillary sinus". Perforation due to the removal of the roots of 16, 26 teeth.

Patient N., 17 years old, came to the Temur-F clinic with complaints about discharge from the nasal cavity during eating, headaches, discomfort in the oral cavity, pain in the area of the extracted tooth.

When examining the hole of the extracted tooth with the existing perforation of the maxillary sinus bottom, there is no blood clot in it. When probing the tooth hole, there is no bone bottom.

To reliably and visually diagnose perforation of the bottom of the maxillary sinus, you must use the following method: holding the patient's nose with your fingers, we suggest carefully breathing out, while the air rushes through the natural opening of the maxillary sinus, and if there is a perforation, air passes through it into the oral cavity. This is marked by a characteristic sound, while air comes out of the place of the extracted tooth along with blood (frothy blood).

The radiograph of the maxillary sinus in the frontal and lateral projections, as well as intraoral and computed tomography, has a diagnostic value.

Treatment:

Treatment of acute perforation of the bottom of the maxillary sinus includes:

- Removal of the impression of the tooth hole with perforation of the bottom of the maxillary sinus;
- Casting of a model of a extracted tooth root using a cast;
- Production of a radix stump of a remote root from quick-hardening plastic Protocril and Redont, during the manufacture of a stump of a extracted tooth root, anatomic-topographic configurations of the root are taken into account in order to hermetically fill the well space;
- Installation of the manufactured stump in the hole of the extracted tooth with a perforated sinus;
- Closing the hole with a flap;

Results:

The use of the stump to close the perforation hole of the maxillary sinus from the quick-hardening plastics Protocril and Redont helps to reduce the bone defect and creates optimal conditions for the healing of the bone wound and the wound of soft tissues. Moreover, the materials used have good biocompatibility. At the review CT scan, the results showed that during the 1st, 2nd and 6 week after treatment, the plastic stump was encapsulated, the bone defect did not develop, the alveolar ridge was preserved. The cavity of the maxillary sinus remained airtight, and local perforations at the sinus floor epithelialized.

Wound healing occurs fairly quickly, less traumatic. This method of treatment is widely available and practical, on an outpatient basis.

## **VOICE DISORDERS AND THEIR EFFECT ON QUALITY OF LIFE IN VOCAL SPEECH PROFESSIONS PERSONS WITH CHRONIC PHARYNGITIS**

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40% of the total number of patients accessing an ENT doctor is pharyngeal pathology. Chronic pharyngitis is one of the most common pharyngeal diseases. The causes of chronic pharyngitis are: the effect of pollutants on the mucous membrane, metabolic disorders, diseases of the internal organs, the respiratory system, age. The inflammatory process in the mucous membrane of the pharynx disrupts the normal functioning of the receptor elements n.

trigeminus, n. glossopharyngeus and n. vagus, as a result of which changes occur both in the timbre and in the normal mode of vibration of the vocal folds in relation to its frequency. Therefore, patients complain of periodic hoarseness of the voice, pain and sore throat, a feeling of "lump" in the throat, sleep disturbance, irritability, stress during phonation, which affects the quality of life of patients and its social aspects.

Materials: 22 patients with various forms of chronic pharyngitis and impaired vocal function (20 women and 2 men) were examined. The age of patients ranged from 19 to 54 years, the average age was  $33,86 \pm 10,16$  years. Catarrhal pharyngitis was diagnosed in 12 persons (54,54%), hypertrophic in 7 (31,81%), atrophic in 3 (13,63%).

Results: After specialized phoniatric examination, we found that all patients had voice disorders of varying severity.

The maximum time of phonation was reduced, in men from 15 to 16 sec ( $15,5 \pm 0,7$  sec), in women from 8 to 12 sec ( $10 \pm 1,45$  sec).

Perceptual voice assessment (GRBAS scale) showed that the G-degree voice strength index is of the I degree in 4 (18,18%) patients, the II degree in 18 (81,82%). The roughness indicator R: 0 - in 4 (18,18%), I degree - in 17 (77,27%), III degree - in 1 (4,55%). Aspiration index B: I - in 18 (81,82%), II - 4 (18,18%). The indicator of weakness, asthenic A: I - 17 (77,27%), II - 5 (22,83%). The rate of compression is S: I - 4 (18,18%), II - 15 (68,18%), III - 3 (13,64%).

According to the results of the VHI (Voice Handicap Index) questionnaire, the number of patients with a mild degree is 3 (13,64%), with an average - 18 (81,82%); severe - 1 (4,54%); functional (F-functional) indicator was  $12,95 \pm 3,04$  points; Physical (P - physical)  $21,73 \pm 4,11$  points; emotional (E - emotional)  $3,72 \pm 0,73$  points. The average total number was  $38,4 \pm 7,59$  points, which corresponds to a moderate degree disorders.

Summary: In patients with chronic pharyngitis the most pronounced changes in the assessment of voice disorders on the GRBAS scale were in terms of voice strength G and compression S. According to the VHI questionnaire, the most pronounced physical (P) index, the total number of points corresponds to a moderate degree of severity, which indicates a significant impact of voice impairment on the quality of life of persons with vocal speech professions with chronic pharyngitis.

## **АНАЛИЗ ПРИЧИН ЯВИВШИМИСЯ ПОКАЗАНИЕМ ДЛЯ ГОСПИТАЛИЗАЦИИ БЕРЕМЕННЫХ НА III УРОВЕНЬ ПЕРИНАТАЛЬНОЙ ПОМОЩИ.**

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**Актуальность:** Одной из основных задач акушерства является снижение материнской и перинатальной смертности, одним из путей решения этих задач является централизация беременных с различными патологиями в перинатальных центрах. Южно Казахстанская область является одним из крупнейших регионов республики. Численность населения области на 01.01.2016 года составила 2840557 человек, в том числе женщин фертильного возраста 658 359 человек, показатель рождаемости по области составил 28,1, за год по области принято родов 79344, из них на III уровне перинатальной помощи прошли 41%.

**Цель и задачи:** Определить основные показания для родоразрешения на III уровне перинатальной помощи.

**Материалы и методы исследования:** Проведен ретроспективный анализ медицинских карт ГKKП «Областной перинатальный центр №3» 2246 беременных поступивших на родоразрешения с 2014 по 2016 годы. Регионом обслуживания перинатального центра №3 являются районы с общей численностью населения 404 474, из них женщин фертильного возраста 94 092.

**Результаты и обсуждения:** Из всего контингента направленных городские 43,7%, сельские жительницы-56,3%. Основной контингент направляемых беременных имели акушерскую (55,9%) и экстрагенитальную (44,1%) патологию, и были родоразрешены преждевременно (35%). Из числа направленных беременных нуждались в интенсивной терапии 61 %, в круглосуточном усиленном мониторинге состояния 39%. В разрезе районов в 2014 году направлено из I-II уровней на III уровень: город Кентау 135 беременных что составляет 6,6% от всех взятых на учет по беременности, Отырарский район 289-10%, Сузакский район 219-15,6%, за 2015 год город Кентау 295 беременных что составляет 5,1% от всех взятых на учет по беременности, Отырарский район 263-22,3%, Сузакский район 300-22,5%, за 2016 год город Кентау 189 беременных что составляет 11,3% от всех взятых на учет по беременности, Отырарский район 311-25,1%, Сузакский район 245-25,6%. Показания для госпитализации на III уровень перинатальной помощи разделены на 2 группы: из 2246 беременных имели 1-ая группа акушерские патологии 1254-55,8%, 2-ая группа экстрагенитальной патологии в 992 случаях 44,1%. Акушерские патологии внутри группы были разделены по причине патологии матери 1184 (94,4%), по состоянию внутриутробного плода 70 (5,5%). Из 2246 беременных в доношенном сроке были направлены 548-24,3%, в недоношенном сроке 1698-75,7%. Доля женщин направленных на III уровень перинатальной помощи растет, что связано с расширением диагностических возможностей перинатальной и фетальной медицины, что отражается в группе акушерских причин с 2013г. по 2016 год имеется тенденция рост количества женщин направленных в связи с состоянием внутриутробного плода, чему способствует внедрение в практику доплерометрии сосудов маточно-плацентарно-плодового комплекса

**Выводы:** В структуре причин явившимися для госпитализации на III уровень перинатальной помощи с не большой (на 11,7%) разницей преобладали акушерские причины (гипертензивные нарушения, преждевременный разрыв плодных оболочек, олигогидроамнион, полигидроамнион, задержка и аномалии развития плода и т.д.) над экстрагенитальными патологиями (хроническая артериальная гипертензия, хронические

воспалительные заболевания почек, поражения печени, болезни органов дыхательной системы, болезни щитовидной железы). Преждевременные роды в особенности на фоне экстрагенитальной, акушерской патологии а зачастую в сочетании требуют квалифицированного с более усовершенствованным подходом к уходу за новорожденным, что в анализируемых случаях и было обеспечено.

## HEPATOPROTECTIVE PROPERTIES OF PHYTIN AND IMMUNOMODULIN COMPOUNDS

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**The aim:** The aim of present work was study immunomoduline influence and phytin compounds: phytin-C, cobalt phytat and their combination on indices of lipid peroxidation at toxic hepatitis in laboratory animals.

**Methods.** For the first time we carried out the study of antioxidant action for immunoglobulin, phytin-C, cobalt phytat and their combination ad experimental toxic hepatitis. Phytin is taken from rice husk, being the mixture of calcic and magnesium saits, different salts of inosit phosphoric acids, mainly inosit heaphoric acids, are insoluble in water. Cobalt phytat is coordinational mixture from phytin and cobalt, and, it was synthesized by the workers of the institute. The experiments were taken on 42 unite headed mate rate with masses 120-150 gr, and, being kept in conditions and vivarium ration. Toxic damage of liver was induced by subcutaneous injections of 50% oil (sunflower) solution of tetrachlormetan (CCl<sub>4</sub>) in volume 0,4 ml/ 100gr of rats' mass for 4 days. Experimental animals were divided into seven groups per 6 heads in everyone. 1- intact healthy rats were given water and introduced subcutaneously sunflower oil in the volume 0,4 m/ 100 gr mass of animals body during 4 days; 2 -th e controls were preliminary given water solution and then injection CCl<sub>4</sub> subcutaneously; 3 -th e experienced were introduced immunemodulin 2 mkg/ kg + CCl<sub>4</sub>; subcutaneously; 4-the experienced were introduced phytin -C in the dose 100 mg/kg +CCl<sub>4</sub>; subcutancausly; 5 - the comparison group was introduced inside silibor in the dose 100 mg/kg+CCl<sub>4</sub>; 6- the combining use, immunemodulin 2 mkg/ kg +phytin -C 100 mg/kg +CCl<sub>4</sub> were introduced subcutaneously; 7- the combining use, orally cobalt phytat in the dose 200 mg/kg + subcutaneously immunemodulin 2 mkg/kg. + CCl<sub>4</sub>; The researching drugs were preliminary introduced for 10 days for prophylaxy before intoxication, and, then simultaneously with hepatoxin. After the last drugs introduction the animals were decapitated, observing the rules of euthanasia the liver was removed by the general ways. In liver tissue homogenate the content of conjunctive diens, malon dialdehyde, activity of ferments in antioxidant system-catalase] and superoxiddismutase (SOD) were determined. Taken results were processed by the way of

variational statistics using program packet statistica V.G.O (StatSoft, USA, 1999) statistically significant were the differences at  $p=0,05$ .

**Results.** At toxic liver damage  $\text{CCl}_4$  in the rats disorder of general state as wool ruffle, loss of appetite, general malaise, loss of body weight were observed. At the same time with general disorders in homogenate tissue of liver strengthening processes POL intensity and reduce ferments activity of antioxidant system were revealed. Prophylactic immunomodulin introduction before hepatotoxemia  $\text{CCl}_4$  led to considerable reduce content conjugated dienes by 27% and 33%. In this case the content of malon dialdehyde was lower than the level of control group by 33,2%. The catalase activity raised by 18,2% and superoxidase mutase by 78,8% in comparison with the control. In the animals, getting phytin - C, having in their content bioactive legands both phytin and ascorbic acid, it was expressed antioxidant action, reduce both the content conjugated dienes by 37,4% and conjugative dienketones by 41,9%. The level of malon dialdehyde was reduced by 44,7 % at comparison with the control. Enzyme activity of antioxidant system was enforced in comparison with the controls, for example, the level of catalase raised by 40,9% and superoxidase mutase more than in 2 times. Classic hepatoprotector -

silibor in the terms of our experiment also made antioxidant action, it reduced the level of products for lipid peroxidation and raised activity of catalase ferments and superoxidase mutase. As it is seen from the table, the raw indices of antioxidant activity silibor gave up action of phytin-C, and, combined introduction immunoglobulin with cobalt phytat. Apparently, antioxidant activity of phytin-C was connected with membranestabilizing and antioxidant action of phytin and ascorbic acid. Taken results of studies witness on that at simultaneously use immunomodulin with phytin compounds lead to raise of antioxidant activity as one of the main mechanisms hepatoprotector activity at tetrachloridemethane hepatotoxemia. Apparently, expressed antioxidant action of drugs combination may be caused not only activity strengthening of catalase ferments and superoxidase mutase, but, and property to raise detoxic liver function, immune system, to make antihypoxic and antioxidant action. It's known that immunomodulin stimulates immune system, raise fermentative activity of monooxygenase liver system and regenerative hepatocyte potential, whereas, phytin removes hypoxia, and, induces detoxicating liver function, and, ascorbic acid and biometal cobalt have antioxidant effect. Besides that ascorbic acid as electrone donor can give electrone to free radicals and reduce their reactivity. Taken results at study different drugs give the base to recommend them for clinic use at toxic hepatitis. Along with it shown that combining use immunomodulin with phytin-C and cobalt phytat lead to synergism of antioxidant effect.

**Conclusions.** Taken results at study different drugs give the base to recommend them for clinic use at toxic hepatitis. Along with it shown that combining use immunomodulin with phytin-C and cobalt phytat lead to synergism of antioxidant effect. Thus, immunomodulin, phytin-C, cobalt phytat also as silibor, makes expressed one-directed antioxidant action. Use immunomodulin in combination with phytin compounds leads to potentiality of antioxidant action, and, by given index they exceed using hepatoprotector silibor.

## ДАМУЫНДА АУЫТҚУШЫЛЫҒЫ БАР БАЛАЛАРҒА ТҮЗЕТУ ЖҰМЫСТАРЫН ЖҮРГІЗУ

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Аннотация. Бұл мақалада балалардың ақыл – ой дамуындағы психикалық ауытқулар жайында ой қозғалған. Қазіргі қоғамда ауытқушылыққа ұшыраған балалармен түзету жұмыстарын жүргізу жайында айтылған.

В статье представлены психические расстройства в умственном развитии детей. О проведении коррекционной работы детьми с отклонениями в современном обществе.

The article presents mental disorders in the mental development of children. About carrying out corrective work with children deviations in modern society.

Тірек сөздер: соматикалық аурулар, дефектолог, олигофренолог, методологиялық концепция.

Қазіргі қоғамда дамуында ауытқуы бар балалардың санының көбеюі мәселесі көптен бері педагогтардың, психологтардың, дәрігерлердің және социологтардың көңілін аландатуда. Олар дамуы артта қалған балаларға жатпайтын, бірақ білім деңгейі шектелген балалар категориясын ашып тапты және оларды «Психикалық дамуы кешеуілдеген (ПДК)» деп атады. Дамудың алғашқы және туынды кемістігі туралы ұғымды Л.С.Выготский енгізді. Туа бітті кемістіктер алғашқы кемістіктерден туындамайтын бірақ солардың негізінде қалыптасатын (саныраулардың сөйлеуінің бұзылуы соқырлардың бағдарлау қабілетінің бұзылуы) психикалық жетіспеу және әлеуметтік негізден алыс болса, оны психологиялық түзету оңай болады.

С. Певзнер және Т.А. Власова (1968, 1973) ПДК баланың жеке бас қалыптасуындағы эмоциялық даму рөліне көңіл аударды. Баланың ПДК – ананың жүктілігінің алғашқы айларында түрлі патогендік факторлар арқылы орталық нерв жүйесіне әсер етілген қолайсыз жағдайлар арқылы пайда болатындығын анықтайды. Сонымен қатар, ПДК психологиялық-педагогикалық түзетумен қатар, емдеу шараларын да жүргізілу керектігі айқын болды.

Кемістігі бар балалардың дүниеге келуі қазіргі таңда көптеген факторлардың әсерінен болып жатыр. Мысал ретінде айтатын болсақ:

1. биологиялық;
2. генетикалық;
3. қоршаған орта;
4. мидың зақымдануы;
5. соматикалық аурулар;
6. әлеуметтік факторлар;

Қазіргі таңда кемтар балалардың дүниеге келуі осы факторларға байланысты.

Айта кететін мәселе қазіргі таңда кемтар балалардың санының көбеюі : тұқым қуалайтын гендік мутацияларға; жүкті кезіндегі ана тарапынан дұрыс күтімнің болмауы және әр түрлі жұқпалы ауруларды жұқтырып алуы; эндокриндік аурулар; ата – ананың резус факторының сәйкес келмеуі; ата – ананың маскүнемдік пен нашакорлыққа салынуы; нашакорлық пен маскүнемдік еліміздегі басты мәселелердің бірі; жүктілік кезіндегі токсикоз; ананың соматикалық ауруға шалдығуы; мидың зақымдануы; туу патологиясы; Осының

барлығы болашақ бала денсаулығына үлкен қауіп төндіреді. Сол себептен қазіргі таңда психолог ғалымдардың зерттеулеріне сүйене отырып денсаулығы нашар балаларға түзету жұмыстарын жүргізудің алдын алу шаралары жүргізіліп жатыр. Келесі жағдайлар бойынша оларға түзетету жұмыстарын жүргізуге болады:

1. Арнайы мекемелер құру және соған сәйкес тәрбиелеу жұмысын ұйымдастыру;
2. Бұндай балармен және ата – аналарымен тығыз қарым – қатынас орнату;
3. Оқу және тәрбиелеу жұмыстарын балаларға артық салмақ түсірмейтіндей етіп ұйымдастыру;
4. Олардың белсенділігін және еркіндігін көтеретін әр түрлі әдіс тәсілдер жүргізу;
5. Балалардың мүмкіндіктерін тиімді пайдалану үшін арнайы жабдықтар мен оқу құралдар жүйесін, түрлі техникалық құралдарды кеңінен пайдаланы;

Қазіргі таңда кемістігі бар балалардың әр түрлі топтарын ескере отырып, сонымен қатар әр баланың ерекшеліктеріне тірек қоя құрастырылған коррекциялық-тәрбиелік жұмысты қалпына келтірудің, түзетудің және функциялардың қызметін орнына келтірудің маңызды шарты болып табылады.

Кемістікпен дамудың таза мөлшерлік шектеуге әкеліп тіреуге болмайды. Себебі мұндай даму сақталып қалған мүмкіншіліктерге сүйенетін ерекшеліктерге машықтанады. Арнайы оқыту мен тәрбиелеу жағдайында кемістігі бар балалардың биологиялық жетіспеушілік кедергілері тегістеліп, атап өтіледі. Дефектолог маманның методологиялық концепциясы осыған негізделген. Бұл концепция кемістіктің алдын алуға, баланы әрі қарай тұлға болып қалыптасуына септігін тигізеді. Кемістікпен дамудың сапалық ерекшеліктерін танудың принциптері мен әдістері дефектологияның зерттеу пәні болып табылады.

Қазіргі кезде Қазақстанда жүзге жуық арнайы түзету мектептері бар. Бұл мектептерде орыс және қазақ тілдерінде білім беріледі. Республикамыздағы арнайы мектептер балаларға білім беруде және тәрбиелеуде көптеген жетістіктерге жетті. Арнайы мектептің педагогикалық ұжымы білім беруде және тәрбие дәрежесін көтеруге өз үлестерін қосты. Бұл ұйымдарда дефектолог, психолог, әлеуметтік педагог, олигофренолог мамандар бірлесе отырып жұмыс жасайды.

Арнайы мектеп, жалпы мектептің тәрбиелік міндеттері бірдей. Арнайы мектептің тәрбиелік проблемаларына оқушының жеке ерекшеліктері, кемістіктері күрделеніп, әлеуметтік, экономикалық, мәдениеттік жағынан жанұя, кемістіктің құрамы, жас ерекшеліктері, тәрбиешілердің арнайы білімдерінің жоқтығы жатады.

Сондықтан тәрбие процесі мұғалім мен тәрбиешінің жұмысына байланысты. сондықтан біз, яғни келешек ұрпақтың мақсаты – мүмкіндігі шектеулі бала – болашақта қандай адам болатыны педагог пен тәрбиешінің жұмысына байланысты. Ұжым тұлғаның мінезіне толығымен әсерін тигізеді. Л.С.Выготскийдің айтуы бойынша «Ең бастысы – адам ұжымда қалыптасады, сол себептен бала ұжымын тәрбиелеу басты міндет болып табылады». Тәрбие процесін жүргізу үстінде тұлғаның жағымды жақтарын айқындау қажет және де есту мүшелері зақымданған балалардың қалыпты қызметке сүйене отырып, түзету жұмыстарын жүргізу керек.

Қазіргі уақытта арнайы түзету мектептерінде, жалпы мектептегідей сынып жетекшісі оқытады және тәрбиелейді. Сынып жетекшісі – өзінің сыныбына тәрбие жұмысын қалыптастыру болып табылады. Арнайы мектеп оқушылары қозғыш болып келеді. Мұғалімдерді тыңдамай, жан-жағына алаңдап, қасындағы жолдасына жұмыс жасауына мүмкіндік бермей, кедергі келтіреді. Осы себептен арнайы мектепте тәрбие мазмұнының рөлі аса зор. Мұғалім оқушыға тек бір жақты қарамай, оның мінез-құлқына, кемістігіне, дәрежесіне, денсаулығына аса зор мән беруі қажет. Кейбір есту қабілеті зақымданған балалар қарапайым нәрсені орындаудан бас тартады. Мұндай кезде мұғалімнің талап қойғыштығы болуы керек. Балаға бас салып ұрыспай, оған түсіндіру, дұрыс жолға бағыт беруі тиіс.

Церебралды органикалық негізде пайда болған ПДК балалардың таным әрекеттері бұзылған, ойлау, зейін т.б. жеткіліксіз деңгейде, баяу қимылдайды, бір істен екінші іске ауысуы да жай, төмен. Тіпті оңға-солға бағдарлану, жазу, қағаз бетінде бағдарлану да қиынға соғады. Мектеп жасына дейінгі балаларды арнайы оқытудың және тәрбиелеудің негізгі міндеті ақыл-есі кем балаларды мектепке дайындау барысында олардың дене, ақыл-ой және адамгершілік даму мүмкіндігін барынша қамтамасыз ету. Біздің елімізде арнайы м.д. мекемелерінің жүйеленген жүйесі құрылған.

Қорыта айтқанда дамуында ауытуы бар балармен түзету жұмыстарын жасау үлкен еңбек пен қажымас қайратты талап етеді. Түзету жұмысын жүргізетін маман жан – жақты білімді бала психологиясын терең зерттеген сонымен қатар барлық түзету жұмыстарын жүргізетін саланы жақсы білетін болуы қажет. «Бала елдің болашағы» сол себепті дамуында ауытқуы бар балалармен жұмыс жасау олардың жағдайын сәл де болса өзгерту әрбір маманның парызы.

## **THE ROLE OF MANUAL AND DIET THERAPY IN COMPLEX TREATMENT OF STRESS, DEPRESSION AND THEIR EFFECTS**

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Stress is a concept linking medicine and psychology. Modern man is subject to various emotional upheavals, feelings and disappointments. A stressful factor can be any change in a person's habitual life activity: a break in relationships, problems at work, uncertainty about the future, a fast pace of life and a constant lack of time - all this can lead to loss of balance. Many of those who have been emotionally attacked or have a surge in their own or other people's emotions lose their vitality and become depressed, which is extremely dangerous for health. Sleep, hormonal functions, cell self-regulation mechanisms, organs and systems are disturbed, neuroses begin, food is destabilized, stress hormones are produced (cortisol, norepinephrine, adrenaline); there is an increased production of glucose, cholesterol, fatty acids; pressure and heart rate increases. It causes hypertension, endocrine disorders, obesity, diabetes, loss of bone strength, cell destruction and immune status. The brain constantly senses a signal about the need to eat sweet high-calorie foods as a source of joy hormones (serotonin, endorphin). Although it may appear the opposite clinical picture, leading to a lack of appetite, physical exhaustion, muscle clamps.

A person is a hostage of stressful situations that cannot be avoided. It is necessary to state the fact that any stressful conditions are often accompanied by headaches and incessant anxiety resulting in a tonus of different muscle groups. Following anxiety, fear and panic develop, pathological psychosomatic states appear, and pain syndromes requiring emergency care. Therefore, it is important to detect the problem in time and start treating stress before it destroys the body.



It is believed that in the early stages it is possible to overcome anxiety and stress without medical treatment, resorting to methods of relieving emotional and muscular tension. To do this, contact the specialists in nutrition and manual therapy.

The nutritionist will make recommendations on changing the diet or improving it, filling it with foods that stimulate the production of joy hormones and do not add extra calories that can lead to fat deposits and cause diabetes. Perhaps a proposal to increase the amount of biologically active substances (vitamins of group B, tryptophan and glycine) contained in the complexes of dietary dietary supplements to the basic diet or functional foods (drinks) based on extracts of St. John's wort, mint, lemon balm, hops, passiflora, able to effectively conduct regulation of the body during the effects of stress and depression.

A visit to a specialist in manual therapy, which use psycho-regulatory techniques will become especially necessary as an addition to the general plan for the comprehensive rehabilitation of disorders caused by the effects of stress and depression on the mind and body. The specialist will conduct a confidential conversation and examination, during which he will identify the affected areas and select individual approaches to relaxation.

Relaxation is the effect on the body, during which the tone of skeletal muscles and mental stress are reduced. Combined therapy, developed by us for the treatment of post-stress syndromes through relaxation, involves the use of respiratory and relaxation training, autogenic training, manual techniques, including the management of skeletal muscle tone and the effect on biologically active points, etc. During the session, the patient reduces muscular tension, stabilizes the heart rate, which minimizes the negative impact of stress on the physiology.

The methodology is also based on the recommendations of Swedish scientists, who prove that the symptoms of depression are reduced under the influence of the therapeutic massage, after which there is an improvement in the mood of all those participating in the scientific experiment. It is proved that massage has a calming effect on the hormonal system, thereby reducing the level of stress hormones - cortisol and adrenaline.

The manual techniques used in our program involve almost all body systems. With their help, so-called muscle clamps are removed - the result of chronic stress. With the help of massage, a loyal effect on the endocrine system occurs, after which the patient receives long-awaited peace and harmony.

For complete relief of the symptoms of anxiety and neurosis, 10 sessions (1 course) of rehabilitation therapy are recommended. In severe depressive cases or with constant nervous stress, it is necessary to take at least 3-5 such courses per year. Wherein use a purely individual approach to solving the problem without side effects.

## **ОЦІНКА СТАНУ СИСТЕМИ ЗГОРТАННЯ КРОВІ ТА ПЕРСОНАЛІЗАЦІЇ ЛІКУВАННЯ У ПАЦІЄНТІВ В РАНЬОМУ ПІСЛЯОПЕРАЦІЙНОМУ ПЕРІОДІ ПІСЛЯ ІМПЛАНТАЦІЇ LVAD**

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**Вступ.** Робота присвячена вивченню на базі Сілезького Центру Хвороб Серця та дослідженню системи згортання крові та корекції її показників пацієнтам з імплантованими пристроями LVAD, як можливості забезпечити виживання пацієнтів з важкими формами СН до пресадики серця, що дуже актуально для України, де є складна ситуація з цим питанням.

Метою дослідження є вивчення кореляцій результатів проведеної персоналізованої цільової антикоагулянтної терапії пацієнтів в період 14 днів після імплантації систем POLVAD, що дозволяє відтворювати подібний до фізіологічного пульсовий кровотік та LVAD безперервно-потоків HeartMateIII/HeartWare, та ускладненнями, що виникли за період лікування.

**Матеріали та Методи.** Отримувана хворими антикоагулянтна цільова моно і комбінована терапія здійснювалась слідуєчими препаратами: Гепарином(6-11Од\кг\год.), Аспірином(75-150мг.), Клопідогрелем(75-150мг.), Варфарином (1,5-7мг.), Надропарином Са(0,3-0,6мл/2р./д.),Фондапаринуксом Na(2,5-5 мг./2р./д.). До основних, нехірургічних, несприятливих подій і ускладнень з LVAD належать ускладнення кровотечі, тромбоз приладу, ішемічні та геморагічні інсульти, порушення функції нирок, мультиорганна недостатність і інфекції, які були основними причинами смерті в деяких випадках. Проводилась оцінка результатів клінічних, біохімічних, та аналізів системи згортання крові відповідно до призначеної терапії та клінічного стану пацієнтів. Порівнювались параметричні показники вимірювальних та стежачих приладів, кількість ускладнень, їх характер для виявлення кореляцій між видами цільової антикоагулянтної терапії та подіями, що мали місце у пацієнтів під час лікування.

**Результати.** Дослідження десяти хворих показало, що за підтримки – POLVAD склала від 102 до 156 днів. Результати – трансплантовані 3, померло 3. Тривалість підтримки – LVAD склала від 20 до 78 днів. Результати – трансплантовані 8, померло 2. Досліджено кореляційну залежність між цільовою монотерапією гепарином та варфарином та геморагічними ускладненнями. Робота показала перевагу альтернативної цільової антикоагулянтної терапії над класичною моделлю монотерапії гепарином та варфарином.

**Висновок.** Данна робота дозволить запровадити в Україні протоколи післяопераційного ведення хворих з імплантованими системами LVAD, що надають єдину альтернативу для хворих з тяжкими формами СН. Питання конфлікту інтересів авторами не передбачається.

## **CLINICAL PRESENTATION AND BRAINSTEM AUDITORY EVOKED POTENTIAL AND MRI FINDINGS IN CHIARI MALFORMATION I AS DIRECT INDICATION FOR SURGICAL TREATMENT**

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**Introduction.** Chiari malformation I is congenital development anomaly of craniovertebral junction characterized by downward displacement of cerebellar tonsils below the foramen magnum resulted in various clinical presentation from ordinary headache to altered CSF and swallowing disorders, gait ataxia. Despite clinical signs and symptoms, MRI and CT is the most appropriate and informative imaging study that is used for diagnosing of Chiari malformations worldwide and more than 5 mm tonsillar herniation below the foramen magnum on MRI defines Chiari malformation type one. CSF flow analysis through foramen magnum with phase-contrast cine MRI helps distinguish symptomatic CM-I from asymptomatic downward displacement of cerebellar tonsil and gives relevant response to surgical decompression. There are many studies about CM-I worldwide but in Uzbekistan it is still considered as one of challenging issue due to presence of many symptomatic patients who need surgical intervention.

The objective of study is to analyze both the most important symptoms of clinical presentation and MRI findings as well as findings of brainstem auditory evoked potential (BAEP) as an indication for surgical treatment.

**Materials and methods.** This study was conducted on 26 patients' data that underwent surgical treatment at Republican Specialized Scientific Practical Medical Center of Neurosurgery in Tashkent, Uzbekistan. Study period was from January to December 2017. All patients selected randomly to assess and analyze their clinical presentation and MRI as well as findings as an indication for posterior fossa decompression with or without duraplasty.

**Results.** The ages of the patients were 9-60, with the mean of 36 years old. A vast majority of patients were women (77%) whereas on the contrast few men suffered from CM-I (23%). Some clinical presentation patients experienced were assessed and they were numbness, excessive sweating, neck pain and pain in occipital region, headache, dizziness, and weakness, loss of temperature sensation, cerebellar ataxia, swallowing disorders and other. The most common symptoms were numbness in upper limb (88%), excessive sweating (62%), pain in occipital region (96%), weakness of arms (62%), headache (84%), dizziness (62%) and cerebellar ataxia, irritability, temperature sensation disorders, sleeping disorder, heartbeat which were 39%, 27%, 12% respectively. In 87% cases we observed more than 5 mm (average 12 mm) tonsillar herniation on MRI. Data regarding brainstem auditory evoked potential (BAEP) also showed significant changes mostly signs of irritation at the level of upper olive, (including Pons, medulla oblongata) bilaterally with delayed conduction (73%) and that could be main reason to perform surgery. In 69% cases we observed CM-I associated

with syringomyelia in cervical-thoracic region and only cervical region 46%, 23% respectively. In a single case we identified trigeminal neuralgia, seizures. One over 40 year-old female patient died from breathing disorders due to brain stem edema during a week after foramen magnum decompression with duraplasty including resection of 24 mm cerebellar tonsil. Surgical tactics were both decompressive surgery with duraplasty (53%) and without duraplasty (23%). In all cases C1 partial laminectomy had been performed.

Conclusion. MRI findings, BAEP signs and clinical presentation analyzed on this study gave us main point to choose optimal methods of treatment. The most importantly, significant changes on MRI, BAEP with or without clinical presentation can be direct indication for surgical treatment. Posterior fossa decompression following duraplasty is best option to decrease preoperative signs and symptoms and improve quality of life of patient with Chiari malformation type one in the presence of syringomyelia or without it.

### **EFFICIENCY OF THE OPTIMIZATION PROCESS IN THE SERVICE CHILDREN'S ANESTHESIOLOGY AND REANIMATOLOGY**

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Optimization of the structure of the medical service has become one of the main vectors of the new stage of health system reform in recent years. Its goal is to increase the cost-effectiveness of the medical infrastructure of Uzbekistan, bringing it into line with the real needs of public health. At the beginning of this stage, the state of the service of pediatric anesthesiology and resuscitation (DAR) in the country, especially at the level of the district level, was unsatisfactory. Specialized departments were low-powered, the level of assistance provided was low, there was a serious shortage of medical personnel, primarily medical, lack of modern equipment, insufficient workload of specialists and complex equipment due to low population appealability. It should be understood that most of these shortcomings mutually induced each other, that is, low patient turnover led to specialists and equipment downtime and, accordingly, dequalification of doctors, both surgeons and anesthesiology and intensive care specialists, and this, in turn, further reduced appealability of patients. The centralization of specialized services, that is, their unification to the level of regional children's multidisciplinary medical centers, made it possible, if not completely solve the listed problems, then to substantially mitigate them. Due to the concentration of children's anesthesiology and reanimation beds in the regional multi-disciplinary children's medical centers, their total number in the country increased from 116 (an average of 10.61) in 2002 to 197 (an average of 17.9), i.e. by 69%. The equipment of DAR departments (calculated in points according to the methodology approved in 2012 by the II-Congress of anesthesiologists and resuscitators of Russia and accepted as acceptable within not less than 55%), averaging 42.2% in 2002, grew in 2015 in the Oblast Children's Multipurpose medical centers to 74.2%, and in the regional branches of the National Center of Emergency Medical Practices - up to

80.2%. The shortage of DAR doctors decreased on average from 24.5% in 2002. up to 12.7% in 2015.

Another important positive result of the optimization was an increase in the load on the departments of DAR and each individual specialist. If in 2002 in regional hospitals for 1 DAR per year there were no more than 3 endotracheal anesthesia per year, and in Regional hospitals an average of 9.8, in 2015 this figure was already 15.2 inhalation anesthesia for 1 doctor DAR per year . This situation undoubtedly favors the improvement of the professionalism of doctors, the increase of the technological level of not only DAR, but also of pediatric surgeons, allowing them to increase the number, volume and complexity of interventions performed. This is evidenced by the increase in the number of prolonged mechanical ventilation for each DAR during the year on average from 6.9 in 2002 to 16.9 in 2015.

## **СРАВНИТЕЛЬНЫЙ АНАЛИЗ КЛИНИЧЕСКОГО ТЕЧЕНИЯ ТОШНОТЫ И РВОТЫ ИНДУЦИРОВАННОЙ БЕРЕМЕННОСТИ**

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Целью исследования явилось определение особенностей клинического течения тошноты и рвоты индуцированной беременности (ТРБ).

Материал и методы. Обследовано две группы беременных женщин. В основную группу настоящего исследования вошли 270 женщин с индуцированной беременностью, тошнотой и рвотой первого триместра. Группа сравнения была составлена путем выборки 114 женщин с нормальной беременностью, обратившихся в нашу клинику на 4-12 неделе срока гестации с жалобами на тошноту и рвоту. Средний возраст обследованных пациенток основной группы составил  $26,5 \pm 3,7$  лет, группы сравнения  $28,4 \pm 2,4$ . Особенности жалоб и общего состояния беременных изучены дифференцированно в зависимости от выраженности симптомов ТРБ и согласно классификации PUQE-24.

Результаты. В обеих группах большинство женщин жаловались на чувство тошноты и боли в животе длительностью от 4 до 6 часов в сутки, однако, в основной группе их было достоверно больше (45,9% против 31,6%,  $P < 0,05$ ).

Отличными были жалобы женщин с индуцированной беременностью на постепенное усиление симптомов и боязнь развития тяжелых осложнений. Также, значительная часть женщин основной группы (93 (78,8%)) отмечали появление тошноты или боли в животе ежедневно в утренние часы, что не наблюдалось у беременных группы сравнения.

При сравнении двух групп по частоте рвоты за последние 24 часа, в большинстве случаев наблюдалась рвота частотой 5-6 раз в сутки, 45,6% (n=123) и 39,5% (n=45) соответственно. Жалоба на рвоту больше 7 раз в сутки зарегистрирована у 57 (21%) женщин основной группы и 8 (7%) женщин в группе сравнения, что говорит о более высокой частоте тяжелой ТРБ при индуцированной беременности по сравнению с физиологической ( $P<0,05$ ). В тоже время в группе сравнения можно было наблюдать относительно большее количество женщин с частотой рвоты 1-2 (29,9%) и 3-4 раза (21%) в сутки, и у 3 (2,6%) женщин с физиологической беременностью вовсе не наблюдалось рвоты. Все указанные случаи были отнесены в категорию умеренной степени тяжести ТРБ по PUQE-24.

Особенностью жалоб женщин с индуцированной беременностью являлось указание ими на то, что рвота наблюдалась сразу же после чувства тошноты или боли в животе и преимущественно в первой половине дня.

В отношении категории PUQE-24 «частота позывов, которые не привели к рвоте в течение последних 24 часов», наблюдалась достоверная разница между группами. Так, если в группе сравнения преобладали женщины с частотой позывов 1-2 раза в сутки (39,5%), то в основной группе этот показатель составил всего 3,7% ( $P<0,05$ ).

Частота позывов на рвоту более 7 раз отмечена у 105 (38,9%) женщин с индуцированной беременностью и в 5 (4,4%) случаях физиологической беременности, что ещё раз подтверждает более тяжелое течение ТРБ первого триместра в основной группе пациентов.

## CLINICAL VARIATIONS OF ABDOMINAL AORTIC ANEURYSM

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**Abstract:** To date, vascular disease rank first (more than 50%) among the causes of mortality in Ukraine. Atherosclerotic vascular involvement, being the most frequent etiological factor of abdominal aortic aneurysm, in the absence of timely diagnosis and treatment, causes severe complications, early disability and death. Clinical and functional diversity of abdominal aortic aneurysm causes difficulties in diagnosing, defining different

therapeutic approaches, methods of operation and protection of visceral organs and spinal cord. The article analyzes various clinical manifestations of abdominal aortic aneurysms in 264 patients who underwent surgical treatment at the State Facility V.T Zaycev Institute of General and Urgent Surgery from 2010 to 2018.

From 2010 to 2018, 264 patients with abdominal aortic aneurysms were surgically treated at the State Facility V.T Zaycev Institute of General and Urgent Surgery. Patients were divided by gender, age, and etiology of the disease. All patients were also divided into 4 groups depending on the nature and severity of clinical manifestations.

Conclusions:

1. According to our data, asymptomatic AAA occurs quite often and in our study they accounted for one fifth (19.7%) of all patients who were operated. There is a need for screening among people with risk factors, for timely diagnosis and surgical treatment of pathology, prevention of complications, including lethal ones.

2. One fourth of all patients (25.76%) were patients with oligosymptomatic aneurysms of the abdominal aorta requiring additional diagnosis.

3. Almost half of the patients, 118 (44.69%) who were admitted to the clinic, were patients with typical symptoms of AAA and correct diagnosis did not cause difficulties.

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## **ABOUT LEXICAL-SEMANTIC GROUPS OF SUBSTANTIVIZED ADJECTIVES IN THE HISTORY OF LANGUAGE**

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Substantivation is presented as a dynamically changing, developing process. In the article models of substantivized adjectives in the Russian Language of XV-XVII centuries are described. Also the conclusions are made about semantics, grammar and functioning of different models of substantivates (the designations of persons, charters and duties appeared to be the most numerous). The question of lexicographical representation of substantivized adjectives is also discussed.

Different researchers interpret the heterogeneous phenomenon of substantivization from different points of view, which complement one another. The relation of substantivization to the diachronic-synchronic demarcation of the material is interesting. One side, none of the researchers deny the activity of the substantization processes in the modern language, and E.A.Zemskaya especially emphasizes that this is a regular transition, in addition, marks among the morphological and syntactic methods the method of synchronous word formation.

On the other side, substantization is a rather ancient method of word formation, and in this sense it is interesting to study the process in the history of language in continuity and at the same time originality.

Concerning the antiquity of the process of substantialization, the point of view of E.I.Ayupova seems convincing: it is only legitimate to speak of substantivization after the collapse of the most ancient name syncretism.

Exploring the materials of the monuments of the XI-XVII centuries. on the subject of the history of Russian word formation, Y.S.Azarh writes, that the oldest substantives are entities with the meaning of a face (by origin, adjectives are masculine or plural). In the book-church texts, substantive adjectives appear rather early in the form of the middle gender, more often the plural, in most cases - tracing paper from Greek.

Substantivization is an evolving process, and the number of substantivates in a language grows with time. In the old Russian language there are different models.

1. The most numerous in the language of the XV-XVII centuries, there is still a group of substantivates with a face value, but the semantics of these formations is somewhat different than in the old Russian. For example, a non-productive group of wife's husband's designations – substantiated adjectives in the form of feminine (deacon's, queen).

In the monuments of everyday and business language XV – XVII centuries. most often there are substantivaty, by education adjectives in the form of the masculine or plural, the names of the person on the basis of characteristic. A certain external (toothless, bearded, hunchback, armless, belly-headed) or internal prominent feature (rich, stupid (stupid), intelligent, wise, lazy) can be characteristic.

The language of the monuments of the old Russian language is characterized by substantivaty - the names of the person, indicating the property status by characterizing any sign associated with this (always disastrous) social position: naked, naked, barefoot. Substantivization of such adjectives occurs in the form of a plural, since this is a designation of a group of population.

Another group of substantivates that denote a group of populations (substantization also occurs in the form of a plural), these are the names of a person not so much by property as by social status: large, medium, smaller.

It was possible and more narrow social semantics - in this case substantivaty meant position not in society, but in the family. So, substantively in the form of the masculine singular, big means 'the head of the family, the owner of the house: in the plural form, big, older mean adults.

Especially it should be said about the group of substantivaty – designations of persons for professional occupations: okolnichy, soloist, clerk, stirrup, near, etc.). There are many such words in the modern language (fireman, manager, etc.). Observing the functioning of such nouns in the language of the monuments of the XVI-XVII centuries allows us to see the various stages of substantivization of these lexemes. Thus, the word "stirrups" is known in the language of this period as a full adjective (in combinations of a step yard, step orders) and when referring to a profession, it is used mainly in phrases (step groom, step arrows).

The word neighbor was in the "more advanced" stage of substantivization, being actively used in the language of the XVI-XVII centuries both as an adjective and as a substantive noun, including with the meaning of the profession – approximate to a ruler who has the right to access.

2. In several (unproductive) groups of substantivates, another supporting-semantic component (not a human) is restored, substantivization here is also of elliptical origin. These are, firstly, substantivaty - the names of God (Higher, Most High, Almighty, Highest), formed in the form of a single masculine gender from adjectives, which are often used epithets of God, and used in monuments of various genre and stylistic affiliations. Secondly, these are substantivaty, denoting animals (greyhounds, ravens, ravens).

In general, by the example of the most numerous group of substantivates – indications of a person, groups, active and in modern language, one can observe the mechanism of substantivation itself: first of all elliptic (in most cases it is easy to restore the omitted words person, people), but in some cases analogous.

Grammatically, the masculine form is used to refer to a person, more often the singular form, in exceptional cases the feminine form. U.B.Smirnov notes that "substantive adjectives that are not masculine are very heterogeneous in semantic terms and can refer to both people and various inanimate entities", while "the results of the substantivization of masculine adjectives are predictable and unambiguous: the semantic component 'man' is always present in the substantivate".

The linguistic reality is such that substantization is a historical process that unites heterogeneous phenomena, having its own specifics at each historical stage.

## HISTORICAL ASPECTS OF FRENCH HORN TRANSFORMATION

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In the process of the historical development of world performing arts, the evolution of the French horn can be divided into three periods: the period of the ancient hunting horn, the period of natural horn, the period of the valve horn. During these periods, many forms of perfection of horn performance and techniques have been processed.

In the period of the ancient hunting horn instruments were simple and small, made from the horn of an animal, tree or metal.

Hunting (forest) horns had a long, rolled metal stem with a wide bell. The air intake hole was not a special mouthpiece, but only the narrow end of the horn tube. With such a design, it was very difficult to produce sound, so only one single sound – signal – was reproduced on the instrument. Their task was to organize the tone coordination and to understand general acoustic regularities for them. A peculiarity was that the length of the stem of the instrument formed its main tone.

Only since the middle of the XVIII century there were serious constructive and performing changes, the hunting horn took almost modern appearance and received the name “simple horn” or “natural horn”. The period of natural horn has begun.

The natural horn did not perform all the necessary technical functions, because it had no mechanism that allowed playing all the sounds of the chromatic scale. The design of the natural horn allowed playing only natural sounds, from 2nd to 16th, which made things difficult.

The issue of improving the horn has become especially acute. Thus, in 1753, the invention was made by the music master I. Verner and a virtuoso horn player, the artist of the court orchestra in Dresden A. Gampel. They took the high pitched B-alto horn as a basis, cut the channel of the main pipe inside it, and inserted additional U-shaped pipes called “inventions” in the curved inwardly circles, parallel to each other. With the advent of such an invention horn, there was no need to make instruments of all pitches. One horn had a set of variable inventions of different sizes, with which the musician could change the pitch of his instrument within a fairly wide range from As-basso to C-alto.

The performer was able to quickly and relatively easily change the pitch of the instrument – to change one natural scale to another. But the advent of the invention horn did not completely solve the problem of horn’s “naturalness”. One still could not play the chromatic scale throughout the whole register with one instrument. There was need to increase the number of sounds that could be performed on the natural horn.

A. Gampel has discovered a fancy way to increase the number of sounds on the horn. He lowered the bell of the horn and put his hand in it. Thus, the sounds of the natural scale can be lowered or raised to half a ton or even to a whole tone by inserting right hand into the bell. The pitch of the horn has changed and this has led to the appearance of a new horn technique with the use of “closed” sounds, and this has made it possible to perform full scale.

The imperfection of the horn design, which resulted in unsatisfactory intonation, required the possession of a special type of equipment, which made it possible to adjust the purity of the pitch.

In about 1750, the St. Petersburg master of musical instruments Keibel created the first complete chromaticization of horn. He perfected the horn with the system of valves, which

joined to the corresponding openings of the instrument pipe. This design of the instrument gave the opportunity to get a complete chromatic scale. Since then, the period of the existence of the valve horn begins.

The considered periods do not contradict each other and show the evolution more of technical kind than artistic. Each period is a unique phenomenon with its inimitable features and aspects.

## SOME FEATURES OF THE "LOG" COMPONENT WORDS

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The Greek origin "logos" are used at the beginning or end of the words. Greek: "λογο – logo", "λογος – logos" (μονόλογο – monólogo, πρόλογος – prólogos); English: "logue" and "logist" (prólogo, philologist); German: "log", "loge" (katalóg, ideólogo), French "logien", "logien" (épilogue, géologie, théologien), Spanish and Italian: "logo" (zoólogo), Turkish, Romanian, Slovenian: "log" (mikrobiyolog, arheológ), Azerbaijan and Russian: "loq" and "лог" (**zoolog**, **зо́лог** – **zoólog**).

The "log" component is used as a suffix in some languages. But isn't used a suffix in Azerbaijani. Because, the root of the word must also exist as word and should be used. The root of the "log" component words doesn't mean separately.

The «log» don't stress Greek, English, French, Spanish, Italian language. But "log" stress German, Romanian and Slovenian. The "log" component words to express the meaning of professional in the Russian language "log" don't stress: архе́лог etc. This words don't meaning of professional, "log" is pronounced stress: моноло́г, катало́г, диало́г, проло́г, эпило́г. The stress of the "log" components words in the Azerbaijani language dictionaries is also noted as Russian language. But that's not true. Because, the «log» don't stress in Azerbaijani. First, it is audible observed in the speech of people. Second, if we increase these words ("log" components words) unstressed suffixes (-dır<sup>4</sup> etc.), we now that "log" isn't stress: 1. Bu monolóqdur. 2. Bu monóloqdur. The pronunciation in the first sentence "monolóqdur" is incorrect. But second sentence "monóloqdur" is correct.

The "log" component words to express the meaning of professional in the English language stress falls before the "log": geólogist etc. These words don't meaning of professional stress falls first syllable: catálogo etc. There is a difference writing of these words. First group words is written "logue" (mónologue), second group words is written "logist" (zoólogist).

This feature also belongs to the German language. These words don't meaning of professional written "log": monológ etc. But meaning of professional written "loge": geológe etc. "log" is stress in this words.

The "logy" is written in other languages: βιολογία – biología (Greek), arqueología (Spanish), archeologia (Italian), archäologie (German), idéologie (French), arheologie (Romanian), biólogy (English), arheologija (Slovenian), arkeoloji (Turkish), **kardiologiya** (Azerbaijani) археоло́гия – arheologiya (Russian).

The «loq» don't stress in Azerbaijani. But when the "loq" and -iya work together in the word, the "log" accepts the stress: zoológiya etc. Also q - g replacement in these words: geoloq - geologiya etc.

The "log" component is not only process at the end of words. It is process at the beginning of some words and don't accept the stress: λογοπεδικός - logopedikos (Greek), logopedist (English), logopäde (German), logopédiste (French), logopedista (Spanish), logopedista (Italian), logoped (Romanian), logopedist (Slovenian), loqoped (Turkish), loqoped (Azerbaijan), логопед – logoped (Russian).

Some "log" component words in Azerbaijani can also be used in "loji": bioloji etc. Let's see this words in other languages: βιολογικά (Greek), biological (English), biológico (Spanish), biologisch (German), biologique (French), biologico (Italian), biologic (Romanian), biološko (Slovenian), biyolojik (Turkish), биологический (Russian).

Stress fall final syllable in these words in Azerbaijani: geoloji etc.

## ALTERNATIVENESS AND SYNONYMY INTERACTION IN ENGLISH

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Interaction is one of the main philosophical categories, reflecting the influence processes of various objects on each other, their mutual conditionality and a state modification or mutual transition, as well as generating one object by another. Being not only an universal form of communication, phenomena of objective reality, but also a form of thoughts communication, which are the reflection of objects and phenomena in a human mind, interaction takes a worthy place in describing various processes of the social, informational and linguistic nature.

In linguistics, the language facts are considered from the perspective of a linguistic interaction of synchrony and diachrony, a system and the environment, paradigmatics and syntagmatics, an expression and a content, implicitness and explicitness, a form and a function, invariance and variability, universality and specificity, as well as taking into account the extra-linguistic interaction of the language, thinking and reality.

The alternativeness, as a need to choose between the mutually exclusive opportunities due to the variety of reasons for its occurrence, acts as a conceptual category generalized by human thinking, which reflects a current norm of consciousness that is typical for human existence, and at the same time relies on a set of means of the language actualization. The leading units for the alternativeness expression are the semantics unions of the same name, when implemented in a certain context, the value of alternativeness is subject to semantic variation, manifested in emergence of the various types of the alternative relations.

Synonymy is a type of semantic relations of the linguistic units, consisting in a complete or partial coincidence of their meanings. The basis of synonymy, like any other linguistic categories, is the actually existing identity and difference of the same reality phenomena in their dialectical unity, indirectly refracted through a prism of consciousness. The synonymy phenomenon extends to the lexical, phraseological and syntactic levels of the language.

The most important semantic functions of synonyms - substitution and specification - determine their use in explanatory and clarifying constructions, where the explanatory (clarified) and the clarification (clarification) are composed components joined by the alternative semantic unions, which is a manifestation of the interaction between the categories of alternativeness and synonymy, which results in the explanatory and clarifying varieties of the alternative relationships.

The structure of the composed constructions of alternative semantics in the English language includes semantic, stylistic, semantic-syntactic and contextual synonyms of various structural types. In addition to lexical synonyms, alternative semantics unions are capable to combine semantically homogeneous and heterogeneous syntactic synonyms - functionally identical constructions reflecting differences in the reproduction of the same reality situation, which due to its dynamism and complexity, cannot be fully displayed once.

The joint actualization of the synonyms in a speech, carried out by means of the alternative relations, is due to a tendency to redundancy, caused by a desire of an addresser to increase the reliability of a message transmission. A realization of differentiating features of the synonymous units in a single context serves to achieve a desired semantic or stylistic effect.

## **ZUSAMMENARBEIT VON KIRCHE UND STAAT IN UMSETZUNG CHRISTLICHE ETHIK IN UKRAINE BILDUNGSPERSONAL**

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benannt nach S.Z. Gzhytskyj

Christliche Ethik als integraler Bestandteil der Philosophie des Christentums und seiner Kirche wird in der gegenwärtigen Gesellschaft dazu berufen, das Problem der geistigen und moralischen Erziehung von Kindern und Jugendlichen zu lösen und ihm die wahren Maßstäbe für das Verständnis der ewigen Glückseligkeit und Mittel ihres Verständnisses aufzuzeigen. Die Probleme des Lehrens der christlichen Ethik in den Bildungseinrichtungen der Ukraine sind in der heutigen schwierigen Zeit der Sicherheit, der wirtschaftlichen und moralischen Prüfung des ukrainischen Staates im Gemeinwesen der europäischen Staaten von Bedeutung.

Interkonfessionelle Probleme des Lehrens christlicher Ethik in ukrainischen Sekundarschulen und höheren Schulen werden berücksichtigt. Die konfessionelle Vielfalt des Verständnisses der christlichen Ethik vom Standpunkt der orthodoxen, katholischen und protestantischen Kirchen ist angezeigt. Die gemeinsamen Positionen aller Konfessionen beim Unterrichten dieses Themas werden hervorgehoben. Gemeinsames Programm für dieses

Thema zu unterrichten und von Vertretern verschiedener christlicher Konfessionen zugelassen, nämlich Die Ukrainische griechisch-katholische Kirche, Die Ukrainisch-Orthodoxe Kirche (Moskauer Patriarchat), Die Ukrainisch-Orthodoxe Kirche – Kiewer Patriarchat, Die Ukrainische Autonome Orthodoxe Kirche, Die römisch-katholische Kirche in Ukraine, Christian Evangelische Kirche Ukraine, Ukrainisch Christian Evangelische Kirche, Die Ukrainische Lutherische Kirche, Evangelisch-Christian Baptist Kirche, Siebenten-Tags-Adventisten.

## **SAMED MANSUR'S FELETONS IN THE "SHEYPUR" JOURNAL**

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*Azerbaijan, Baku*

*Administration of the Presidium of Azerbaijan National Academy of Science*

Literature and press played an important role in the development of the national democratic movement in the Azerbaijan Democratic Republic. So that the literature and press fought for approval of the national existence of Azerbaijan in accordance with the political ideological purpose of the Republic.

At the time of the Republic, satire held a special place. Intelligent and journalists criticize the shortcomings of this era through satirical publications. One of such satirical publications was the "Sheypur" journal. Its first issue was published on October 5, 1918. M.T.Sidgi was the editor of the "Sheypur" and publisher was Samed Mansur's. "Sheypur" propagates the ideals of the Azerbaijan Democratic Republic, as well as the difficulties and obstacles facing the state building process.

Mohammed Tagi Sidgi, Jafar Jabarli, Salman Mumtaz, Amin Abid and others' articles reflected the vividness of the era in the journal.

Samed Mansur wrote articles in the magazine with "Pampuşalı" and "Kenarçı Pampuşalı" signatures. He wrote about the actual social, political, economic and cultural problems of his era in his feletons. He knew more clearly the literary aesthetic point of view, the seriousness of the literature and the clichés of laughter. Therefore, his feletons are dominated by a magnificent spirit, heart. The author has "Altı ay" ("Six months"), "Qramafon" ("Gramophone"), "Barışirlar" ("Reconciled"), "Əsgərlik" ("Military"), "Bir gün" ("One day") and other feleton and articles. He wrote and analyzed the deficiencies and difficulties of the period in these articles. Writer also demonstrated the ability to overcome these problems.

Part of his feletons published in "Sheypur" journal included "Selected Works" ("Seçilmiş əsərləri"). The feletons in his "Selected Works" ("Seçilmiş əsərləri") differed from the originality.

In our view, feletons and articles written by Samed Mansur from the epoch of that time will always live.

## FUNCTIONAL PECULIARITIES IN SCIENTIFIC TEXT

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The relevance of this work is determined by the fact that now it is the English scientific text (ST) that is of great interest for the study of various functional aspects of language and speech. This is explained by the fact that the impact of science is now decisive for our entire life, and English is increasingly becoming the international language of scientific communication.

The purpose of this research is to study the functional characteristics of ST and to identify the nature of the gradation of the components of the modal-semantic field and the degree of reliability of ST.

The two most important functions of the language of science are the functions of communication and influence, the complex dialectical unity of which constitutes the essence of the communicative function (the function of communication or communication) in the broad sense of the word.

The main function of the language, as the researchers note, is the informative function (representative, denotative, or cognitive) associated with the subject of the message. The language mark is especially well prepared and equipped precisely for the function of representation; this is most relevant to the language of science.

The second important function of the language of science is impact. First of all, the impact is associated with the communicative function. In contrast to the subject-practical and cognitive activity, the purpose of speech communication activity is not to change the product of the activity, but to influence the communication partner, that is, it manifests itself primarily social in nature. Impact is a complex function that integrates all functions that are updated in the text.

The main type of influence in ST should be considered persuasion. It is precisely in the desire to convince the reader that the pragmatic attitude of the author of a scientific text consists, and when speaking of the influence function of a scientific text, scientists usually mean exactly the function of persuasion. Other components of the impact function (order, suggestion, advice, etc.) are completely uncharacteristic for ST. Persuasion is associated primarily with the communicative function of the language, always carried out consciously and directed to the addressee of ST.

The purpose of any speech influence, including persuasion, is to induce the recipient of information to a certain understanding of certain things, namely, to the understanding that the author wants. In this case, it would be natural to assume that the author of a scientific text seeks to convince the addressee of the truth of the information provided. If we ignore the conditions of sincerity, then the question of the truth of information in the ST will be associated only with the question of knowing the speaker of what is actually happening, that is, the question of the correspondence of the utterance to the reality from the point of view of the speaker. Consequently, the truth in our understanding of the term is always subjective and



consistent with the concept of knowledge. In this regard, it seems legitimate to speak not about the reader's conviction of the truth of the transmitted information as the goal of the persuasion, but about the conviction of its authenticity, since authenticity (unlike truth) can be differently evaluated by the speaker.

In our study, we do not set ourselves the goal of establishing the correspondence of the content of STs to objective scientific truth; we will be interested only in the attitude of the author himself to the content of the statement. In the language, the assessment of the credibility of the message is related to the category of modality.

## STRING QUARTET: FROM CONCEPT TO PHENOMENON

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The string quartet arose on the basis of home music-making and has passed more than two hundred years of historical development. As a result, it assimilated the dominant characteristics of chamber-concert instrumentalism.

A. Sokhor was using Aristotle's concept of dividing the art into three main classes: the epic, the lyric poetry, and the drama. He then notices that this division can be applied to the music as well. V. Zuckerman defines genre as a type of music piece with the inherent contextual features, the specific true-life purpose and style of performance. He believes the choosing the performing means stands as the fundamental attribute for classification of genres. Therefore, he suggests the following four genre groups: the theatrical, the concert, the mass-social and the ceremonial.

M. Starcheus relates an epic, a lyric poetry and a drama with a description, an observation and an experiment respectively, where each of these forms of understanding the reality is a special, historically developing sphere of human culture with a very high level of specialization, its own historical memory and immanent laws of functioning.

While retaining and accumulating various features, each of the genre types may undergo some unusual stylistic changes in the history of musical thinking. Talking about the classification of genres in terms of the purpose of performance, M. Aranovsiy identifies two major classes: music for contemplation and music for accompanying non-music events. The genre of quartet emerged as a correlation to the symphony; it absorbed some features of the sonata-symphonic cycle, taking into account the possibilities of the string ensemble and, at the same time, developed some characteristics inherent only to itself.

Based on previous studies, several types of quartet models can be distinguished: 1) quartets built on the principles of the sonata-symphonic cycle; 2) suite type quartets; 3) one-movement quartets with programme principles.

After summarizing the observations concerning the general issues of the nature and specifics of genre, and projecting them onto the issues of the string quartet genre, we can notice the most significant features peculiar to this type of chamber-instrumental ensemble:

- 1) from the point of view of content, the quartet is a *lyrical* genre, due to its chamber-like nature;
- 2) music pieces for such an ensemble of string instruments can be attributed to *the music of contemplation*, since in most cases they are aimed at creating an exceptional atmosphere and a certain mood among the listeners;

- 3) the string quartet belongs to composite genres, since it assumes a cyclical form, parts of which represent smaller structural units;
- 4) in the quartet cycles for two violins, viola and cello, there is no stable number of parts and the semantic functions assigned to them;
- 5) among all the characteristics of the string quartet that form the type of genre, the number of its performers remains the most stable one.

Therefore, the string quartet stands among the most intellectually complex and developed in the system of chamber-instrumental genre, placing high artistic demands on both the composer and the performer. It is impossible to imagine this genre existing without an audience, which absorbed the traditions of both “academic” and “amateur” music-making, and which required to have an in-depth “close” listening to a music piece.

The string quartet in its historical evolution has emerged as a cumulative phenomenon that is able to generalize and differentiate the stable and mobile components of musical thinking.

## *Life Sciences & Earth Sciences*

- *Agronomy & Crop Science*
- *Animal Behavior & Ethology*
- *Animal Husbandry*
- *Atmospheric Sciences*
- *Biochemistry*
- *Biodiversity & Conservation Biology*
- *Bioinformatics & Computational Biology*
- *Biophysics*
- *Biotechnology*
- *Birds*
- *Botany*
- *Cell Biology*
- *Developmental Biology & Embryology*
- *Environmental & Geological Engineering*
- *Environmental Sciences*
- *Evolutionary Biology*
- *Ecology*
- *Food Science & Technology*
- *Forests & Forestry*
- *Geochemistry & Mineralogy*
- *Geology*
- *Hydrology & Water Resources*
- *Insects & Arthropods*
- *Life Sciences & Earth Sciences (general)*
- *Marine Sciences & Fisheries*
- *Microbiology*
- *Molecular Biology*
- *Mycology*
- *Oceanography*
- *Paleontology*
- *Pest Control & Pesticides*
- *Plant Pathology*
- *Proteomics, Peptides & Aminoacids*
- *Soil Sciences*
- *Sustainable Development*
- *Sustainable Energy*
- *Virology*
- *Wood Science & Technology*
- *Zoology*

## FOOD SAFETY IN THE REPUBLIC OF UZBEKISTAN

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Questions of maintenance of the population of Republic of Uzbekistan (RUz) the foodstuffs mainly own forces essential problems. The government of RUz accepts a number of the measures, directed on an agriculture all-around development, to regulation of commodity streams of the foodstuffs and raw materials. Food market the RUz should provide population access to the foodstuffs in necessary quantity and assortment. Formation of effective economic communications between a commodity producer and the consumer, creation of necessary conditions for sale of production of domestic commodity producers, and system perfection товародвижения remain one of primary factors of a sustainable development of food market the RUz and maintenance of its food safety of the country. As have shown researches, depending on the relation to food safety all countries of the world probably to divide into following groups: focused for the foodstuffs import, focused for the foodstuffs export, providing home market at the expense of own manufacture. The RUz annually exports food production on \$5 mld., thus given indicator within last three years has grown more than three times. If in 2013 year the RUz exported to 80 states more than 180 kinds of various fruit-and-vegetable productions today our republic is one of world leaders on export of such cultures, as an apricot, plum, grapes, a nut, and cabbage and so on. Also volumes of cultivation of these agricultural crops for the last few years have grown. So, vegetables in seven times, fruits and fruit in five times, melon and water melon in eight times, grapes in eight times. In the RUz many zones of high-yielding intensive gardening, system of drip irrigation are created. Only the program accepted in expired year on the further development of wine growing provides increase in the area of vineyards in 1.3 times, manufacture of the grain has increased from 1 million tons to more 7.8 million tons, having transformed the RUz one of the exporter of wheat. If earlier the RUz delivered 5 million tons of wheat now the RUz not only has achieved grain independence, but exports wheat to the next states. The volume of output of agricultural production in the RUz has increased in whole more than in 2 times. Despite increase in population the RUz almost on 10 million persons, or over 30 %, has increased counting on soul of the population meat consumption in 1.3 time, milk and dairy products in 1.6 time, a potato in 1.7 times, vegetables more than in 2 times, fruit almost in 4 times.

Now in the RUz it is annually made about 16 million tons of fruit-and-vegetable production, and, manufacture about 300 kgs of vegetables, 75 kgs of potato and 44 kgs of grapes is per capita provided that approximately three times exceeds optimum norms of consumption. Food programmed in the RUz has allowed solving key problems of maintenance with the high-grade and balanced food of the population of the country. Creation of a reserve of the currency resources necessary for import of the missing foodstuffs and raw materials at the expense of expansion of export of production of agriculture and perfection of its structure. Along with maintenance of food independence the RUz, the potential of agrarian sphere allows to bring an attention to the question on its export orientation. For achievement of reliability of food safety the share of own manufacture in food resources should make 80-85 %. Mutual relations of the market of the foodstuffs of the

country with the world market are necessary for building taking into account the world market of the goods made in the conditions of having high level of export orientation.

Taking into account an economic situation in the country, for achievement of a strategic target of food maintenance some stages is required. Parameters can be calculated on the nearest period within rational use of resource potential that will provide balance of the market of the foodstuffs on national and regional levels basically at the expense of own manufacture. The further escalating of volumes of the foodstuffs will demand a concrete definition of strategic levels of food safety, mechanisms of their achievement, working out of priorities of an agrarian policy, calculation of means and sources of their covering, acceptance of measures of the state character on stage-by-stage realization of strategy.

## **MAKING THE TRANSITION TO RATIONAL CONSUMPTION AND PRODUCTION PATTERNS**

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In the conditions of limited natural resources, it is necessary to introduce new models of economic growth that ensure close interaction between the economy, the natural environment and society. According to the Global Development Agenda for the period up to 2030 adopted by the 193 UN member states at the Summit on Sustainable Development in September 2015, an inclusive transformational economy based on sustainable production and consumption structures is an important factor in providing new dynamics. development. At the same time, the implementation of the 17 Sustainable Development Goals (hereinafter referred to as SDGs) adopted at this summit requires a systematic approach to the "green" transformation of the economy and monitoring.

Sustainable consumption and production implies stimulating the efficiency of resource and energy use; building sustainable infrastructure; providing access to basic social services; ensuring green and decent jobs and a higher quality of life for all. The implementation of this program helps to fulfill overall development plans, reduce future economic, environmental and social costs, increase economic competitiveness and reduce poverty.

Sustainable consumption and production implies Sustainable consumption and production is aimed at "doing more and better with less money", increasing the net benefit from economic activity to maintain well-being by reducing resource use, reducing degradation and pollution throughout the life cycle. while improving the quality of life. This requires the participation of various stakeholders, including entrepreneurs, consumers, politicians, researchers, academics, retailers, the media, development cooperation agencies, and others.

It also requires a systematic approach and cooperation between participants in the supply chain - from the manufacturer to the end user. The program involves the involvement of consumers through educational and educational initiatives on sustainable consumption and lifestyle; provision of sufficient information to consumers through standardization and labeling; organization of public procurement based on the principles of sustainability and so on.

All states, regardless of their natural resource potential and geopolitical location, face the challenges of exhaustion of limited natural resources and climate change. The response to these challenges necessitates the introduction of new models of economic growth, based on ensuring close interaction between the economy, the natural environment and the quality of life of the population. The implementation of such models contributes to the adoption of effective managerial decisions for sustainable development of the economies of the states.

It is expected that the green transformation of the economy will affect on: creation of less resource-intensive sectors of the economy, new markets and jobs; introduction of modern energy-

efficient technologies, innovative activity; increasing labor productivity and business competitiveness through efficient use of energy, resources and minimizing waste.

## **ABOUT THE PESTS OF JUGLANS REGIA IN SOME REGIONS OF THE SOUTH-EAST REGION OF THE GREATER CAUCASUS**

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One of the main and important issues of modern social development is the production and protection of the safe food products.

The solution of these issues is to improve the varieties of agricultural crops, to apply effective fertilizer norms in the fields, to use modern technologies and to take agrotechnical measures on time as well as to define the composition of pest organisms, to investigate their economic significance and to develop scientific bases for efficient ways of fighting them .

Along with other fruit plants, the cultivation of spruce fruits is especially noticeable in recent years in our Republic.

The *Juglans regia* belonging to the group of spruce fruits is widely spread not only in our republic, but also worldwide, praised by the people of the ancient times due to the high nutritional value of the fruits and the odor to the indispensable raw material in the furniture industry and sown areas have been expanded.

It should be noted with regret that the extensive scientific research has not been carried out on pests of this useful plant in our country.

For this purpose, expeditions to the *Juglans regia* fields have been arranged in the Shamakhi, Gabala, Oguz, Sheki, Zagatala, Balakan regions of Azerbaijan by 2017, and pests damaging its vegetative and generic organs have been collected.

During the analysis of the collected materials, it was determined that the following pests detrimental to certain organs of have been found in the *Juglans regia* fields.

Coleoptera or *Morimus verecundus* Fald., *Polyphylla olivieri* Gast, *Epicometis senicula* Men., *E.hirta* Poda and *Aqriotes lineatus* L. are more commonly encountered. While the imagoes of these insects damage the flowers, buds and fruits, their larvae are largely inhabited by underground parts of the plant, damaging their roots and underground parts.

Among the Lepidoptera group the *Cydia pomonella*, *Hyphantria cunea*, *Malacosoma neustria* L. and *Operophtera brumata* L. cause serious damage to the plant's shoots, flowers, fruits and even leaves.

Coccinea family of Homoptera group is mainly found. Among them *Diaspidiotus perniciosus* Comst., *Pseudaulacaspis pentagona*, *Lepidosaphes ulmi* and *Chrysomphalus dictyospermi* Morg. is more prevalent and by placing all the surface organs of the plant,

squeezing its juice, covers the entire surface of the leaves and causes damage to the photosynthesis.

Species belonging to insects in the gardens dominate the other two groups. Thus, 38.46% of the total number of pests is insects or Coleoptera, 30.77% are butterflies or Lepidoptera, and 30.77% of the population is Homoptera. It should be noted that, regardless of the group, during mass growth, each species is a pest that can seriously damage productivity.

It should be noted that the formation of the fauna of the pests in the gardens occurs in different ways.

The fauna of the pest in the newly built gardens is formed through the sowing materials themselves. That is, the species that spend the winter in the egg stage (mainly coccus, aphids, etc.) put their eggs on the inconspicuous parts of those plants and seedlings moving from one place to another, as the sowing plants, transfer those eggs to new areas.

Therefore, these plants, which have been transferred from one site to another, should undergo serious surveillance.

The fauna of the insect pests in the *Juglans regia* gardens is also formed at the expense of polyphaine pests (for example, fall webworm, *Malacosoma neustria* L., *Cydia pomonella*, etc.) that pass through the wild-end fruit trees. Bearing in mind that these pests are polyph, special attention should be paid to the area selection of new *Juglans regia* gardens. Sometimes, in the walnut gardens, the fauna of fall webworm and *Lymantria dispar* L. and other pests is formed via the wind.

Therefore, above listed factors should be taken into consideration upon laying new walnut gardens.

## **JUICE PRODUCTION WASTE- EXCELLENT RAW MATERIALS FOR OBTAINING A HIGH-QUALITY PLANT SORBENT FOR METALS EXTRACTION**

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During the processing of fruits for juices, a large amount of waste in the form of push-ups (rind with pulp) are obtained, that is thrown by the roadside, or into natural water, which on one hand is uneconomical, and on the other hand violates the environmental protection.

We propose a new method for pectin isolation by combined, waste-free, environmentally friendly technology, which combines classical methods with membrane technology - electrodialysis and ultrafiltration.

We developed technology for obtaining plant sorbent-pectate- $\text{Na}^+$  and used it for obtaining metals. It is obtained water soluble complexes of citrus polysaccharides and d-metals  $\text{Co}^{+2}$ ,  $\text{Cu}^{+2}$ ,  $\text{Fe}^{+2}$ ,  $\text{Mn}^{+2}$ ,  $\text{Ni}^{+2}$ ,  $\text{Zn}^{+2}$ . It is established complex-making conditions and boundary concentrations of metals.

From juice production waste by combined membrane technology based on electromembrane and baromembrane processes obtained new plant sorbent-pectates sodium - pectin- $\text{Na}^+$  sorbent and polymetal complexes with d -metals:  $\text{Ni}^{2+}$ ,  $\text{Fe}^{2+}$ ,  $\text{Co}^{2+}$ ,  $\text{Zn}^{2+}$ ,  $\text{Cd}^{2+}$ ,  $\text{Cu}^{2+}$ .

The sorbent we proposed has ability to work in two direction:

- To clarify food products (wine, wine materials and juice), natural and industrial waste waters contaminated with heavy metals;
- For prophylactic purposes, it will have ability to extract toxic biogenic elements from organism;

It is developed technology for obtaining 100% salinity, fully deetherificated pectate- $\text{Na}^+$  sorbent with high ion-exchange and complex-making ability. It is obtained metal-complexes with biogenic d-metals-microelements ( $\text{Co}^{2+}$ ,  $\text{Cu}^{2+}$ ,  $\text{Fe}^{2+}$ ,  $\text{Mn}^{2+}$ ,  $\text{Ni}^{2+}$ ,  $\text{Zn}^{2+}$ .) in water soluble and insoluble form.

Set the threshold concentration of heavy metals - 0.009-0.02 N and efficiency of the process of substitution of sodium ions in the sorbent on the investigated metals, accounting for 25%.

By IR spectroscopy is defined and proven composition, structure, solubility and complex-making ability of pectin -  $\text{Na}^+$  sorbent with metals including biogenic and heavy metals.

Obtaining pectin and pectin- $\text{Na}^+$  sorbent by processing wastes and using them for extraction of heavy metals will solved important ecological, economic and social problems:

- Obtained pectin- $\text{Na}^+$  sorbent and water-soluble and insoluble forms of polymetal complexes is used for correction of technological processes such as dimetallization - detoxication of water, natural and industrial waste waters to get optimal technological modes for demineralization of wine and wine materials;
- Extraction of metals from industrial juices, natural and galvanic production waste waters will be possible by sorbent obtained on the basis of pectin;
- Pectin- $\text{Na}^+$  sorbent can be used as a regulatory of blood mineral composition ( $\text{K}^+$ ,  $\text{Na}^+$ ,  $\text{Zn}^{2+}$ ,  $\text{Fe}^{2+}$  etc.) and for anemia patients for increasing erythrocytes and hemoglobin in blood;
- Pectin- $\text{Na}^+$  sorbent obtained from it can be used in pharmaceutical industry to make medical preparations: against absorption of radionuclides and their decorporation, regulatory of digestive tract, for extraction of heavy metals from organism and other preparations;
- If water-soluble polymetal complexes are used, they will be fastly involved in metabolism processes in organism and will act against anemia, regulate immunity and restore resistance of organism.



## STUDY OF MOLD FUNGI IN VEGETABLE FEEDS OF YAKUTIA

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The Republic of Sakha (Yakutia) belongs to the Far North of Russia. Depending on the weather conditions of Yakutia (from the end of September to the end of the month of May), the stall period for keeping cattle lasts almost 9 months. Therefore, indicators of the livestock industry (dairy, meat productivity) are directly dependent on the sanitary quality of harvested vegetable feed. The climatic conditions of Yakutia are distinguished by their severity, extremely low temperatures, short dry summers, which make it difficult to prepare high-quality fodder in the required volumes. As a result, vegetable feed by 50-60% do not meet the standards and are most often contaminated with mold fungi and their mycotoxins.

Mycological studies of feed allow at the initial stage to identify and predict the occurrence of diseases of animals of mycological nature, such as mycoses and mycotoxicosis. Over the past 5 years, mycological studies of samples of fodder of plant origin (hay of natural forage lands, haylage, seeded cereal, grazing grass, hay, haymaking grass, oat silage) have allocated 118 isolates of microscopic fungi classified in 11 species, 6 genera (*Mucor*, *Rhizopus*, *Aspergillus*, *Fusarium*, *Alternaria*, *Stachybotrys*) and 2 classes: *Phycomycetes*, *Deuteromycetes*.

The dominant position in the contamination of feed belongs to the genus *Aspergillus* (72% of the total number of isolates), representatives of the genus *Mucor* (24.6%) are also widely distributed. Less common representatives of the genera *Rhizopus* (1.7%), *Fusarium* (1.7%), *Stachybotrys* (1.7%) and *Alternaria* (0.85%). 64.3% of the detected micromycetes are of the toxicizing species capable of synthesizing mycotoxins (aflatoxin, ochratoxin, sterigmatocystin, roridin, allergic toxin, aspergillilic and penicillilic acids).

According to literary data, the lipolytic and proteolytic activity of fungi from the genera *Aspergillus*, *Penicillium* and *Fusarium* is known. Primarily, under the influence of mushrooms, fats change, then carbohydrates and proteins, the feed loses its nutritional properties and the nutritional value decreases. This fact is confirmed by the results of the study of biochemical parameters of vegetable feed, seeded with mold fungi. At the same time, there was a decrease in fat indicators by 66.1%, compared to the indicators of GOST and by 57.6% from the indicators of the good-quality variant of the feed; decrease in protein indices - by 40.1% and 47.4%; ash - by 17.8% and 44.5%; fodder units - by 5.3% and 23.4%.

The solution to the problem of contamination of feed by mold-forming fungi and their metabolites is widespread use of preservatives in the conditions of Yakutia. For example, according to the conducted experiments, it is recommended to use the preparation "Sakhabactisubtil", based on natural antagonist microbes of *Bacillus subtilis*, isolated from the frozen soils of Yakutia during silage and haylage making.

## **THE REAGENT-FREE, ECO-PURE TECHNOLOGY FOR PURIFICATION OF NATURAL WATERS FROM HEAVY METALS**

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The Black Sea coast is one of the most beautiful places in the world. More than 170 million people live in the Black Sea basin, and the sewage of 17 countries flows directly into the sea coastal waters without any prior rectification. The basic sources of the sea chemical contamination are large industrial cities, ports and also ships. Large quantities of contaminating substances are carried into the sea with river waters.

At present various metallurgic and galvanic industries annually discharge into the sea and the environment large quantities of heavy and ferrous metals that are not only valuable and scarce but in some instances also highly toxic substances. Waste galvanic solutions, besides metal ions, contain various acids, alkalis, salts, detergents, oils, cellulose industry wastage – ammonium chloride and other noxious components damaging the ecological situation. Waste means the industrial loss, its low profitability and inefficiency, therefore it is important to develop technologies for waste processing and valuable material recycling into industry. On the other hand, river and sea water contamination creates the acute potable water deficit in the world.

By the application of reagent-free, eco-pure electrodialysis method to the salt solutions artesian and sea water we show the feasibility of the composite technology development for the manufacture of a number of products and the sea water rectification from galvanic/cellulose industry sewage.

Technological modes for these procedures on 12 electrodialysis schemes with the use of ion-exchange and bipolar membranes have been researched and developed. The most effective seven schemes have been chosen. These schemes allow to simultaneously achieve several objectives within a single production cycle:

- We clarified sea water contaminated with galvanic sewage from heavy metals, we produced concentrated solutions of their salts for recycling into galvanic industry;
- We desalinated artesian and sea water, simultaneously produced fresh water, salt concentrate and a high quality acid and alkali in electrode chambers;
- We used the obtained acid and alkali for the high quality pectin and P vitamin production without adding up any other reagents.

Each of the developed technologies for each of the above objectives can have a particular industrial implementation where there are the same objectives to be achieved. It is feasible, cost-saving, and moreover it does not create any new ecologic problems but it solves the existing ones. The major feature is that all the set objectives are achieved in a single technologic cycle without an impute of any chemical reagents.

## **ECO-PHYSICAL BASIS OF SUSTAINABLE DEVELOPMENT POLICY**

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The definition of eco-physical basis of a sustainable development was based on the analogies reveal between the mankind development on various levels of system-territorial integrality and the ecological processes dynamics of “different physics”. There were esteemed ethnogenesis conceptions by L. Gumelev, ecosystem self-adjustment by V. Dolnik, demographic transition by S. Kapitsa, cities dynamics by G. Forester. It was identified that the basis of ethno-, eco-, demo- and urbanistic system is an integral self-replicating thermodynamical model, which can exert in course of consistent shift of phases and phases transit. Development phases shift is stipulated by the alternating change of an attitude between the demography capacity parameters and the population quantity on certain territory. The categories “ethnic homeostasis”, “stable population” and “urban territories balance” depict the core of “ecological balance” phenomenon, under the condition of self-adjusting interaction of the population and environment. The sustainable development is a fluctuating process in a normal changes spectrum, which depends on population-environment ecosystem development phase.

An estimation of urbanization process in the ecological space of population displacement, starting from separate cities and ethnoses to the whole mankind, illustrated certain parallels between the ecological and physical interactions. It is discovered that the ecosystem self-adjustment mechanism defines the urban territories development as an ecological city planning system. In this aspect, land invasion becomes a goal-directed and predicted process, which undergoes management influence. This process has the goals with certain parameters – sustainable development in the ecological balance spectrum. This balance is described in terms of a proportion 1:1, between the population quantity and the environment (with a permissible variation 10% in spectrum). The proportion 1:1 is a

fundamental dimensionless constant of strong interaction in physics. Weak interaction is observed during demographical transition, when a human life-time synchronization and a duplication of mankind leads to malfunction of growth and hazard of “radioactive” disintegration of complicated structures. As to the gravitation. Gravitational inhomogeneities, which have given an impulse to the stars and planetary systems creation, competed with each other. Just like that the cities compete for the territories invasion. Attractiveness – as a some kind of “magnetism” of territory in the ecological aspect reflects itself in a growth of quantity (in a natural or mechanical way). An exhaustion of growth possibilities “rejects” the population and leads to quantity reduce. The defined analogies give evidences that:

- urban ecosystems are only metastable, it is only enough to support their integrity and overcome the tendency of stochastic disintegration. They should exist in an oscillatory regime. It may give a chance to slow down an accelerating process of development and coordinate growth rates of all components;

- in the ecosystem context, urbanization phenomenon expresses its “super gravitation”, which is reflected by means of ecological influence onto four fundamental physical interactions (strong, weak, electromagnetic and gravitational).

The definition of urbanization eco-physical basis (more than a half of world population lives in cities) will give a chance to form scientifically validate policy of sustainable cities, regions and countries development.

### **THE IMPACT OF SOIL PH ON THE PROCESS OF THEIR SELF-CLEANING WHEN CONTAMINATED WITH CRUDE OIL**

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The likelihood of soil contamination in Azerbaijan is primarily due to the fact that the country has been for many decades oil-producing in the South Caucasus region, oil and oil products are transported in various ways - by road, rail, and trunk pipeline systems through the country's landscapes, the soil cover is diverse. In addition, the soils are polluted directly in the territories of the oil-producing enterprises themselves, as well as numerous gas stations that operate throughout the country.

Taking into account the diversity of different soil types and subtypes in Azerbaijan, which are characterized by wide variability of f / x-indicators (Morphogenetic soil profiles, 2004), we conducted studies to determine the significance of the abiogenic factor - soil pH for the self-purification rate of different soil types: chestnut, gray-brown and yellow earth if contaminated with crude oil and petroleum products.

Research results showed that soil pH as an abiogenic factor, with all other conditions being equal, determines the intensity of soil self-cleaning processes. The most

intensive process of decomposition in the soil of crude oil took place in chestnut soil with a pH of 7.2. The self-cleaning ability of soils in the event of contamination with crude oil, depending on pH, can be arranged in descending order:

Chestnut (pH 7.2) > gray-brown (pH 8.2) > yellow earth (pH 5.9)

The data obtained give grounds to predict that in case of contamination of yellow earth soils, their self-purification capacity will be extremely insufficient and prompt action will be required to accelerate the natural self-purification processes of these soils in order to prevent the degradation of their physico-chemical and biological properties and their accelerated biorehabilitation using modern methods of remediation. In acidic yellow earth soils, this factor is crucial in the decomposition of petroleum and petroleum products. Therefore, to create a pH that is optimal for their biodegradation, acidic soils can be subjected to liming.

## **NATURAL METHODS OF SURFACE RUNOFF TREATMENT**

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The pollution of water bodies, from diffusion sources, is the crucial element in decreasing quality of water ecosystems. A surface runoff, from urbanized and agricultural areas, is a major issue in silting and pollution of water bodies. Solving this problem is not clear and easy because of specifics of surface runoff formation and entering the wastewater (storm or melt) to water bodies, and because formation of such kind of water has a huge difference from a municipal or production waste water.

The relevant issue for today is to develop methods of minimizing effects from surface runoff on water bodies and take into account factors of formation condition and climate change.

For today, natural methods of surface runoff treatment, with landscape and geographical conditions of water basin area considerations, are spreading around the world.

Short filtration dams, filled with crushed stone with moderate vegetation on a surface, are used for interception of pollution from surface runoff. The surface of filtration dam, with rubble and drainage for stormwater drain, is covered by vegetation. Several continuous dams are used for a most contaminated part of a surface runoff, each of them has their own purpose and it is increase the efficiency of stormwater treatment.

The use of "rain gardens" or bioswales (mulds) is one of the new approaches which solve the problem of surface runoff treatment. These constructions are small, compact, artificial depressions with various shapes and sizes, and similar to landscape design elements and therefore not very highlighted in the urbanized area. The method of surface water

treatment, that we offer, has modified elements from "rain gardens" and aims to localize, detain and treat a surface runoff.

These constructions are located around the reservoir on the way of the surface runoff flow, then intercepts and treats due to natural biochemical processes in dams and bioswales itself, or transferred to the underground flow, where natural processes of groundwater treatment of contaminated waters also present. Using natural processes of soil filtration is a major point in these structures. Main advantages of these methods are small sizes (the possibility of designing and installing in to already built-up areas) and as a treatment system - the localization and reduction of the surface runoff flow (due to filtration) into the sewer drainage or water body.

The use of filtering nozzles from basalt crumb, limestone, wood sawdust and polyurethane granules, as additional elements of rainwater treatment, will improve the treatment process and the filtration rate in bioswales (mulds). Experimental tests have shown that the use of granules of polyurethane as a nozzle in stormwater treatment columns increase the treatment efficiency from suspended solids by 98%, COD by 83.5%, oils by 96%, and total dissolved solids (TDS) by 8.3%. A common sawdust use also shown significant results in treatment from organic compounds - 86% and oils - almost 99%.

Improvement of surface runoff treatment methods is an urgent issue, and it is aimed to reduce the negative impact of the environment and especially on water bodies.

## *Physics & Mathematics*

- *Acoustics & Sound*
- *Algebra*
- *Astronomy & Astrophysics*
- *Biophysics*
- *Computational Mathematics*
- *Condensed Matter Physics & Semiconductors*
- *Discrete Mathematics*
- *Electromagnetism*
- *Fluid Mechanics*
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- *High Energy & Nuclear Physics*
- *Mathematical Analysis*
- *Mathematical Optimization*
- *Mathematical Physics*
- *Nonlinear Science*
- *Optics & Photonics*
- *Physics & Mathematics (general)*
- *Plasma & Fusion*
- *Probability & Statistics with Applications*
- *Pure & Applied Mathematics*
- *Quantum Mechanics*
- *Spectroscopy & Molecular Physics*
- *Thermal Sciences*

# DISTANCE BETWEEN THE WIENER PROCESS AND INTEGRALS WITH RESPECT TO FRACTIONAL BROWNIAN MOTION

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Fractional Brownian motion is a generalization of ordinary Brownian motion and is used to simulate natural phenomena, technical and economic phenomena such as changes in weather and climate fluctuations, fluctuations in financial markets, hydromechanical and meteorological processes. A natural question arises on whether or not a fractional Brownian motion can be approximated in some metrics with the help of integrals with respect to a Wiener process of nonrandom integrands. Conversely, can a Wiener process be approximated with the help of integrals with respect to a fractional Brownian motion of nonrandom integrands? The problem on the approximation of a fractional Brownian motion is solved. Now we study an approximation of a Wiener process with the help of integrals with respect to fractional Brownian motion of nonrandom functions.

Let  $B^H = \{B_t^H, t \geq 0\}$  be a fractional Brownian motion with Hurst index  $H \in (0,1)$ . It means that  $B^H$  is a Gaussian process with zero mean and covariance function  $EB_t^H B_s^H = \frac{1}{2}(t^{2H} + s^{2H} - |t-s|^{2H})$ . It is well known that a fractional Brownian motion is neither a semimartingale nor a Markov process unless  $H = \frac{1}{2}$ . We study the case when Hurst index satisfies  $H \in (\frac{1}{2}, 1)$ .

It is shown by Norros, Valkeila and Virtamo (1999) that the fractional Brownian motion  $\{B_t^H, t \in [0, T]\}$  can be represented as  $B_t^H = \int_0^t z(t,s) dW_s$ , where  $\{W_t, t \in [0, T]\}$  is a Wiener process,  $z(t,s) = (H - \frac{1}{2}) \cdot c_H s^{1/2-H} \int_s^t u^{H-1/2} (u-s)^{H-3/2} du$  is the Volterra kernel,

$c_H = \left( \frac{2H \cdot \Gamma(\frac{3}{2} - H)}{\Gamma(H + \frac{1}{2}) \Gamma(2 - 2H)} \right)^{1/2}$  is a constant and  $\Gamma(x)$ ,  $x > 0$  is Gamma function.

The best uniform approximation of Wiener process in the space  $L_\infty([0, T]; L_2(\Omega))$  by integrals of the form  $\int_0^t f(s) dB_s^H$ , where  $\{B_t^H, t \in [0, T]\}$  is fractional Brownian motion,  $f$  is



a function  $f(s) = k \cdot s^\alpha, k > 0 \quad s \in [0, T]$ ,  $\alpha = H - \frac{1}{2}$ ,  $H$  is Hurst index of fractional Brownian motion, is established. Also, new inequality for the Gamma function is obtained as

a byproduct: for any  $\alpha \in \left(0, \frac{1}{2}\right)$   $\frac{(\Gamma(1-\alpha))^3}{\Gamma(1-2\alpha)} < \frac{2(2\alpha+1)^2 \Gamma(2\alpha)}{3(4\alpha+1)\Gamma(3\alpha)}$ .

## *Social Sciences*

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## TEACHERS' ATTITUDE TOWARDS INCLUSIVE EDUCATION PRACTICES

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It has been more than 40 years now how the educators are discussing the importance of the shift of the education towards inclusive in the world. More and more research has been done in the area to acknowledge that the most significant factor that contributes to a successful implementation of inclusive practices internationally is teachers' attitudes. This study mainly presents a comparison of European dimension studies and policies that are being implemented in Kazakhstan in terms of inclusive education practices that are currently being implemented in Kazakhstan. Inclusive education is treated differently depending on cultural, geographical (Ainscow, 2005; Boyle et al., 2012), economic, political (Ungar 2010; Kozleski et al., 2007; Malinen et al., 2013) and historical (Artiles & Dyson, 2005) backgrounds, that is why it is significant to research the context of Kazakhstan due to the lack of any studies in this area yet. Based on the literature review, the following research questions were formulated:

- What are the teachers' attitudes towards inclusion practices?
- Is there any relationship between gender and teacher attitudes toward inclusion practices?
- Is there a relationship between teacher's experience working with special needs learners and attitude to inclusion practices?
- To what extent do teacher attitudes toward inclusion practices differ based on the school structure (i.e. elementary school, high school or Primary to Grade 12)?

As teachers' attitudes is one of the most disputable issue around inclusive education a quantitative research has been chosen to analyze the opinion of 164 teachers in one secondary school. The online survey was sent out via emails to collect the data based on voluntary participation. The aim was to check the hypothesis if any of the factors identified internationally affect opinion of teachers in Kazakhstan. As a result, the factors as age (Lindsay, 2007), gender (Amravidies et al, 2000) and their professional experience (Štemberger, 2017) influencing the opinions became dependent variables in the survey analysis. However, according to the results of 61 collected responds, most of the variables appeared to be insignificant. These results are contradictory to the international studies that shows that teachers in Kazakhstan are more likely to support inclusive education as a policy, but are not ready to accept the initiative in their classrooms. The results of Likert-type survey analyzed by SPSS also showed that women are more likely to accept the inclusion principles in their classes than men in the same school.

## **THE SIGNIFICANCE OF THE MEANS OF UKRAINIAN FOLK PEDAGOGIC IN EDUCATING TEENAGERS OF NOBLE ATTITUDE TOWARDS WOMEN**

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In today's renewed society, the problems of the cultivation of life, the formation of the spirituality of the individual, its culture, constructive behavior, self-awareness and responsibility become of particular importance. The most favorable period of life for the realization of moral qualities of a person is adolescence, since at this stage the attitude towards the outside world, people, including women, to themselves, is assimilated moral standards of conduct.

Throughout the centuries, the Ukrainian people have defined a system of knowledge, ideas, principles, traditions, means that have always been productive in shaping common human and national-cultural values. This unique experience has been summarized and singled out in the direction of pedagogical science - folk pedagogy - which describes the rich experience of education, formed over the centuries, which helps educators to bring the child to national traditions, customs, norms of behavior.

The aim is to analyze the importance of the means of Ukrainian folk pedagogy in educating adolescents of a noble attitude towards women in a modern educational institution.

The essence of folk pedagogy, according to its researchers, consists in the totality and interconnection of concepts, views, ideas, experiences in the theory and practice of national education (G. Vashchenko, O. Dukhnovich, V. Kuz, S. Rusova, M. Stelmakhovich, V. Sokhomlynsky and others). The practice of folk upbringing involves the formation in each person of moral evaluations from the standpoint of good and justice arising from the popular notion of morality: the moral one who is chaste, noble, virtuous, righteous. These include such concepts as human dignity, honor, humanity, collectivism, nobility as an important personality trait.

All basic means and methods of national education are complex, solving simultaneously several pedagogical tasks. Among researchers of folk pedagogy there is no consensus on the means of national education. In the context of our pedagogical research, we use the classification proposed by M. Stelmakhovich. All means of folk pedagogy, he divides into three blocks: folklore, game, tradition. Each of them consists of interconnected elements. So, for example, any folk tradition includes elements of the game, songs, and any game can not pass without the use of small genres of folklore: mirilki, prymovki, etc.

Turning to the concept of a noble attitude towards a woman, which for centuries was fixed among the most important requirements, it should be noted that in general, the issue of "man - woman" in folk pedagogy is the most difficult in both social and psychological and pedagogical aspects.

Folk pedagogy has put forward such ideals of a man and woman who deserve the highest rating. And the ideal of a man is often served through the prism of women's dreams, and the ideal of a woman - from the point of view of a man. A woman dreams that her husband honors, protects and respects her, was strong and beautiful, intelligent and sincere, hardworking, good owner, took care of the family, loved and raised children, did not drink or walk.

The level of attitude towards a woman determines the maturity of a society, and our concern for mothers - its moral height or vice versa - is corruption and moral poverty. People say: "Unlucky and the family where the woman is sad". And the welfare of the family depends on the mother-woman - her inner world, a smile, a warm look. No wonder the ancient folk wisdom says: raising a boy, raising a husband, raising a girl, bringing up a nation.

Therefore, under the education of adolescents of a noble attitude towards women by means of folk pedagogy, we can understand the formation of a special value active active integral position, which combines the moral, intellectual, aesthetic sphere of the spiritual world of the individual, as well as the culture of its external behavior in relation to a woman, using various forms of work with attraction of adolescents to the means of Ukrainian folk pedagogy.

## **ARCHITECTURAL-SPATIAL FORMATING AS A REFLECTION OF SOCIAL AND POLITICAL NEEDS**

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Formation of a separate building takes part in the creation of an architectural and spatial organization. Therefore, it reflects a social order for the quality and character of aesthetic expression. The type of city space and the techniques of its organization allow you to see, read, communicate visually and emotionally with an architectural structure from different places, at different distances, under a certain angle. The way of perceiving an architectural object and assessing its aesthetic qualities reflect the needs of a person historically formed by this time. Thus, estimation of aesthetic qualities only in the form and facade structure of an architectural building is insufficient without taking into account the features of visual perception.

Formation of a separate structure, its functional purpose and structure undergo historical changes during the development of society. The specifics of the functional use of space, the principles of spatial organization of the architectural buildings, characteristic of a certain historical epoch, certain places and times in the history of mankind, constructive systems and materials, features of natural climatic conditions and local traditions that have been formed over centuries are influenced to the shape of an architectural building. The form of the building reflects the socio-ideological order in the form of a choice of directions of shaping, style and color decision, composition of the architectural and spatial construction of a city-planning ensemble, that is, in the form of methods of architectural and spatial organization of the environment.

Consequently, the purpose of the study was to determine the causes of socio-political nature, affecting the formation of an architectural building and the organization of space around it. In this case, the object of the study were features of the frontal and spatial organization of the building and compositional and aesthetic organization of the architectural environment, and the subject of the study is the essence of the appearance and composition of the buildings, which reflects the public and state needs in the architectural and spatial

organization of the environment. The method of scientific research is based on a comparative analysis of the socio-political status and the specifics of the formation of the architectural and spatial organization of the environment, taking into account parallelism in the space-time dimension.

The exterior of buildings - separate and from many houses - in general forms the space around us, which must correspond to our notions of beauty, our aesthetic ideal, contemplation which gives us pleasure. As research has shown, architecture at the same time should correspond, on the one hand, to the needs of society in a beautifully formed space, which corresponds to social representations, on the other, to be the embodiment of state ideas, the bearer of ideology of this state. Socium and the state are consumers of the same object of the architectural space of the city, but the state "orders" the scenario of organization of space by means of architecture (it plans, finances, through executive bodies controls execution), the society consumes it as a related to its consciousness and ideas about the aesthetic ideal. In turn, the environment that is created on the basis of certain signs affects the consciousness of people, consolidating the state-ideological program in their minds. Consequently, the construction of an artificial environment depends entirely from the needs of the state and society, which is formed in certain political and economic conditions.

## **HEALTH PRESERVING COMPETENCE OF THE FUTURE TEACHER OF ELEMENTARY SCHOOL AS A COMPONENT OF HIS PROFESSIONAL COMPETENCE**

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The need for a critical reviewing of the scientific and theoretical foundations of the system of education, their focus on the formation of spiritual needs, healthy habits, physical strengthening and preservation of schoolchildren's health necessitates actualization of scientific research on the study and development of the problem of the protection and preservation of the health of students of general educational institutions of Ukraine. One of the components of the system of professional competence of the teacher, the importance of which is due to changes in education, caused by the development of healthcare-saving technologies, is a health-saving competence.

Health-preserving competence of the future teacher of elementary school is a complex of systematic knowledge and ideas about positive and negative changes in the state of both their own health and the health of other people; ability to form an effective program for preserving the health of students in the educational process; the competence to create a health-saving educational environment; having methods for organizing activities that prevent health problems and aim at healthcare; possession of educational technologies that save students' health; studying the effectiveness of the educational process in healthcare, as well as the ability to organize work and implement the preventive measures and healthcare.

Health-preserving in the modern educational environment should be considered as an exceptionally holistic process, which has its own laws, principles and features. It is extremely

necessary to develop comprehensive standards of health-preserving for primary school students, which will combine unequal components that will function according to certain principles and rules.

We consider that the main recommended directions of pedagogical activity for the formation of the health-preserving competence of future teachers of elementary school are focusing on the value of own health and health of others; providing knowledge about the basic laws of health and the ways of its preserving; mastering the methods of visual diagnostics; knowledge of existing methods of improving physical qualities and ability to control their development through the muscle testing; creating conditions for students to master the behavioral patterns that preserve health.

Based on the above stated, we can single out the following pedagogical conditions aimed at the ensuring of the effective influence on the formation of health-preserving competences of elementary school teachers:

- 1) awareness by future elementary school teachers the importance of a healthy lifestyle and basic healthcare-preserving professional competences;
- 2) implementation of innovative methods of formation the healthcare-preserving competence;
- 3) providing interactive health-preserving educational and professional work and means its evaluation and improvement of cognitive independence of students in mastering health-preserving competence;
- 4) proficient organization of the subject-spatial environment for mastering the necessary life skills, which will promote the comprehensive physical, general-social, mental and spiritual health of primary school students.

Learning the rules of keeping a healthy lifestyle, namely, the formation of readiness of the future teachers for the health-preserving activity still remains the main factor of health promotion. For today, this is the most relevant and significant issue, because it has long been known that it is better not to prevent the development of the disease than to treat it.

The implementation of the formation of health-preserving competence in work with elementary school students involves the ability of future elementary school teachers to teach children gradually: the necessary knowledge about the preservation and further gradual strengthening of their own health, understanding the factors helpful to the development of a healthy lifestyle, awareness of the importance of the constant keeping to the healthy way of life, mastering the theoretical foundations of life skills that will contribute to the further general physical, social and mental and spiritual health.

Thus, we have come to the conclusion that health-preserving competence is a complicated process of receiving knowledge, improvement skills and abilities, gaining experience in preserving health, which shows itself in the ability to lead a healthy lifestyle and is directly related to the increase in motor activity and the conscious formation of health culture.

In a view of the above mentioned facts, it is necessary now to introduce the new educational standards into the system of higher pedagogical education, to confirm the new approaches to the formation of active, responsible, comprehensively thinking and highly educated future elementary school teachers who would have a high level of personal health culture. It will positively influence the formation of proficient health-preserving competences of future elementary school teachers and will contribute to the dynamic improvement of the quality of the domestic education on the international scientific level today.

## USE OF PROJECT TECHNOLOGY OF LEARNING IN THE PREPARATION OF THE FUTURE TEACHER

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In the recent years, under the influence of development of pedagogical science, in the context of humanization and democratization of the educational process, methods of activating educational-cognitive actions of students, in particular the method of projects, are actively used in higher educational institutions. The peculiarities of the project technology include the functioning of the system of didactic tools, which includes content, methods, techniques and creates conditions for educational projecting in the educational process with the help of structural and organizational requirements.

Educational projecting requires from students searching activity, which seeks to find and develop effective ways of creating projects, as a result of such activity, as well as, in the future, their public defense, as approbation of such a result and the final analysis of the results, generalizations and implementation into the practice.

To successfully realize the goals and objectives of the project technology for the future teachers, it is necessary to create conditions for: organization of independent, active and productive creative activity of the participants of the educational process; use in this process of various types of methods and forms of active cognitive and practical activity; stimulation of the formation of creative activity of the future pedagogues; establishment of democratic, subject-subjective contacts between a teacher and a student.

Consequently, the use of the project technology of learning provides solving by students certain problem that requires, on the one hand, professional-oriented focus on the proper types of management activity, and, on the other hand, envisages the necessity of integration of knowledge from different spheres.



## **ETHNOCULTURAL FORMATION OF THE FUTURE PRIMARY SCHOOL TEACHER BY MEANS OF FOLK DECORATIVE-APPLIED ARTS**

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Updating the content of primary school teachers' professional training requires solving a number of problems of the formation and development of the teacher who is aware of his / her professional responsibility, is a person of culture, and not only a source of information, actively influences the spiritual development of those whom he / she teaches and educates. Therefore, in higher pedagogical educational institutions, training of the teacher-creator, teacher-educator, able to go beyond the curriculum, become for the pupils a peculiar example of the national culture and spiritual traditions of the nation becomes the dominant element of the educational process.

One of the important means of implementing modern approaches in the educating and upbringing of students aimed at developing a creative personality, forming the spirituality, ethno-cultural identity, national self-consciousness is based on the national origins, traditional culture and the art of the Ukrainian people. The main task of reforming pedagogical higher educational institutions is to update the content in accordance with the current level of development of domestic and world science and culture. It is necessary to realize deeply that the national ideas and ideals, culture and traditions of the nation should be the basis for the preparation of modern teachers for the New Ukrainian School. The important role in this belongs to the folk decorative-applied arts.

Ethno-cultural formation of the future primary school teachers will be successful not only through the assimilation of the certain system of knowledge about Ukraine, its historical and cultural heritage, but also through the "immersion", thorough assimilation of traditions and canons, and the practice of folk art. At the same time they will develop not only intellectual, but also emotional, spiritual, moral, artistic-aesthetic and creative spheres of personality.

Consequently, the leading role in the process of ethno-cultural formation of the personality belongs to the folk decorative-applied arts, the works of which accompany a person throughout the life and they become spiritual environment for everyone to different extent, in which the worldview, artistic-aesthetic ideals, spiritual-moral values, labor qualities, ethno-cultural formation of personality takes place.

Scientific-theoretical researches and practical experience of the teachers of the Department of Fine, Decorative-Applied Arts and Labor Training of Khmelnytskyi Humanitarian-Pedagogical Academy give grounds to assert that the effective means of humanization of the content of higher pedagogical education, formation of national identity and the ethno-cultural formation of students are creative artistic-labor activity in the sphere of folk decorative-applied arts. Upgrading the content, improving the traditional and using innovative forms and methods of artistic-labor training of the future primary school teachers, first of all through their involvement to self-expression in artistic-decorative creativity, provides an opportunity to reveal the creative potential and enrich the ethno-cultural experience of the future pedagogues.

Many years of practice shows that when creating and implementing the new content and corresponding pedagogical conditions, folk decorative-applied art becomes, on the one hand, the effective means of preparing future teachers for the organization of creative artistic-labor activity in primary school, and on the other hand - the effective way of their ethno-cultural formation. In the process of learning, students master the historical origins, study the role of folk creative work, artistic crafts and trades in the spiritual-material life of the people, they are inculcated with love to various types of traditional decorative-applied arts, they develop-aesthetic assessments and considerations, develop creative abilities, aesthetic perception of the surrounding world, they acquire skills and abilities of making and decorating traditional products from various materials.

The studies have shown that the interest and enthusiasm for folk decorative-applied arts is the important prerequisite for the expression and development of students' creative abilities. The main components of this process are cognition and creativity. The students show activity both in expressing their own aesthetic experiences and results of reflection, and directly in the realization of creative potential in the form of the self-designed and made decorative-applied product.

When teaching students, the teachers of the department seek that the cognitive and emotional components of the perception of folk decorative-applied arts are quickly reflected in the students' creative activity, and the fulfillment of their practical tasks has caused the need to appeal to new, deeper layers of this kind of folk creativity.

In this regard, the pedagogical community should realize the axiological and pedagogical significance of the national decorative-applied arts, which, based on the foundations of the people's worldview, recreates the emotional-aesthetic, artistic, creative, moral, intellectual, labor experience of Ukrainians, their culture and spirituality. Therefore, the study of this kind of art in the pedagogical institution of higher education should become the solid foundation for the preservation of the national genotype, culture and spirituality, the reliable means of forming the new generation of modern teachers for the New Ukrainian School.

## **COMMENTS ON EXPRESSIVENESS, INTENSITY AND EMOTIONALITY**

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Language is a social phenomenon that develops and develops in relation to human life. Any change in society will first of all be reflected in the language. He arranges for a change in the way he speaks and provides the basis for progress in speech. It also calls for the study of national, cultural, spiritual, literary, and historical processes that understand the identity of the people of Leon.

Scientists of the world and Uzbek linguists have suggested important scientific and theoretical views on the study of the theoretical foundations of linguistics, the specificity of the categories of expressiveness, intensity and emotionality in research.

As you know, "expressiveness" is derived from the word "expressio", which means "meaningful, expressive, impressive" and means a clear expression of human intuition and thoughts.

V.N. Telia describes the expressiveness as follows: "Expression of emotional and qualitative assessment, social reactions", and "Expressiveness is an increase in quality or quantity in general."

According to A.R. Arnold, "Expressiveness is a powerful intensification of the content of the text."

Initially, the term "expressiveness" was used to describe the word, and then the term "expression" refers to such terms as "expression or meaning," ie clarity, clarity, sensitivity, meaning, subtlety. Today, the term "expressiveness" is used primarily in terms of rendering, illustration, expression, sensitivity, valuation.

Tilshunos B.A. Serebrennikov, in his view, emphasizes that the meaning of the expressiveness concept is not broader in size and is not parallel to the sense of sound and expression that does not have the same consistency with the structure. According to the scientist, "Expressiveness is always a misinterpretation of everything."

When referring to an authoritative encyclopedic dictionary, emotion is also a physiological and psychological state of a person and is treated as subject matter, subject-specific, neuro-physiological reaction.

According to E.M. Galkina, "Expressiveness is an increase in sensitivity or an increase in the effectiveness of the thought expressed."

The term "expressive" is understood by the researchers as a subspecies of various realities, such as common, differential, zincrithism, and perceptions.

On the other hand, researchers express the concept of multi-component "phenomenon", which is expressed in all aspects of language, text, and speech. It is clear from this that all the above-mentioned scientific and theoretical views substantiate deeper and more detailed experience.

"Expressiveness may appear in a speech as a result of the functional factor, but it can also be expressed as an element of the language system."

This category, in turn, is expressed in the linguistic use of words in the linguistic context, the replacement of words in the vocabulary, models of word forms, artistic expression, and artistic images.

European scientist Sadeh explains the expressiveness: "Expressiveness, of course, is within the framework of semantics."

The expressiveness category is interpreted by the concept of "intensity" in linguistic literature. Expressiveness can be seen as a component of the word's semantics.

Scholar D.Teshabaeva describes experience as follows: "Expressiveness means that such units are understood to mean that the speaker or the writer expresses his / her attitude towards the content of the talk or the interviewer's emotions, such as emotionality, evaluation, image, intensity."

"There is a special emotional phrase in the language, but there is no expressive lexicon." The expressive component is semantic and extends the meaning of the word with special meaning dyes.

It has been suggested that expressiveness is linguistic as semantic components such as intensity, emotivity, image, visual means, evaluation, and functional-stylistic. The combination of these components varies with different types of expressivity. The number of

concatenation lines is subordinate to a formal logic-mathematical calculation, but the actual functioning of the express units is virtually infinite as there are a number of components in the expression of expressive semantics. Moreover, "... expressive semantics will not only come from semicology instruments."

Structural means of language are also involved in expressing communication."

Intensity, image, emotionality, evaluation, and expressiveness are viewed as an event.

Based on the above-mentioned explicit, intensive, and emotional categories, we can summarize the theoretical concepts available in the world linguistics as follows:

exponential, intensity and emotional categories;

the motive for exploiting the expressives is the emotional emotions;

intensity and expressiveness in any language have its own expression characteristics;

intensity is a part of expressiveness and intensity is important in expressing expressiveness;

The role of emotional states and perceptions in the expression of intensity, intensity and emotionally significant role is crucial;

the intensity of exposure increases with the help of an instrument that generates an unstable level of intensity.

In addition to the theoretical viewpoints of linguists in terms of expressiveness, intensity and emotionality, the researchers were given the following definition on the basis of the characteristics of these categories:

"Expressiveness is the expression of the meaning of the word with the meaning of the dots, increasing the power of the idea, the clear vision of the person's perception and vision."

"Emotionalism is a mental and speaking category that is supported by a variety of linguistic means related to human emotion."

Emotions are manifested in different ways. Emotional, emotionally sensitive emotionally and physiological states are interconnected, and emotions, or emotions, appear to be different. It also includes a mental and speaking category that cognitivizes itself.

It is obvious that the knowledge of cognition is the process of the emergence and enrichment of human knowledge in the mind. Cognitive linguistics is based on cognitology. He cites the cognitive aspect of the tongue. Indeed, the meaning of expressing, expressiveness, intensity, emotionality, the concept of cognitive linguistics, microconcept, macroconcept, frame, scenario, prototype, slot, gestalt, is significant.

## **FORMATION OF NATIONAL CONSCIOUSNESS OF PRE-SCHOOL CHILDREN BY MEANS OF DECORATIVE-APPLIED ARTS**

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Pre-school childhood is the initial period of formation of personality, when the foundations of character, attitude towards the world of people, to himself or herself are formed, moral norms of behavior are assimilated. One of the first moral needs is the need for communication. It is assimilated in the process of interaction with adults, who find the right content and means of communication.

It is the pre-school age that is the beginning of the formation of the personality, the child is filled with the foundations of moral, aesthetic, physical, labor, intellectual education. During this period, the great role also belongs to the education of national consciousness, the cultivation of patriotism, love for people, respect for the best national traditions. The pre-school educational institution should become that moral environment for children, in which the tasks of formation of conscious personality will be realized purposefully.

Important factors in moral education are historical memory, traditions of the family and the kin, because every person carries inside the collective memory of generations. A toy is an ancient kind of folk art, a sample of national culture. It is not obsessive, without excessive didacticism, revealing the world to the child, forming the active multi-faceted attitude to it, activating creative possibilities. The process of familiarizing children with folk toys is very relevant in our time.

By expounding the mechanisms of moral education of pre-school children, modern scientists emphasize the objective nature of the interrelation of moral ideas, moral feelings, moral actions.

The toy is one of the most ancient types of decorative-applied art that decorates our life, enriches our soul and heart. It is the toy that forms the interest of children of pre-school age in various professions, the history of the native land, its folk art, respect for people, work, develops creative imagination, fantasy, educates labor skills and aesthetic taste.

Through the folk toy, people give their love and affection to the child, their merriment and laugh, their thoughts and knowledge, their skills - this is the great power of influence on the child. The roots of the folk toy are very deep, in its history there are still many secrets. The first masters were the parents, who, by their skill and creative imagination, produced a lot of amusements to their descendants, as well as masters-professionals, paying special attention to the toys, making them from clay, wood, straw, cheese, dough, and sugar. Some masters decorated their products with carvings and paintings.

In our time there appeared dolls of collections and souvenirs, made by folk masters and professional artists. They are moulded of clay, carved out of wood, decorated with paintings and cloth, or braided with straw, linen, threads, made of fabric and embroidered.

It is necessary to analyze deeply the aesthetic creativity of the people in the toy, because the national toy is a part of this creative work, and therefore - the share of the whole nation.

So, the Ukrainian folk toy originates from ancient times. For many centuries it has been developing, refined, and diversified. In our time, it plays a role in familiarizing children

with the spiritual heritage of each nation, acquaints with the characteristic features of each region of our country. The folk toy passed the important and thorny path, and today it deserves to be recognized and known by the children.

Multidimensionality of the folk toy is characterized by the fact that it acts as a means of pedagogical action: the element of the children's game, a means of education and training, formation of the national consciousness of children.

Our research made it possible to determine methodological recommendations that will ensure the effectiveness of the process of forming the national consciousness of children of pre-school age.

1. Selection of Ukrainian folk toys available for perception and reproducing by pre-school children;

2. Use in the educational process of the necessary and accessible amount of systematized information about Ukrainian folklore doll (historical, theoretical, practical aspects);

3. Mastering by children the traditional methods of creating and decorating Ukrainian folk toys;

4. Organization of the process of independent making of toys by the children following the traditions of the Ukrainian people;

5. Availability and pedagogical feasibility of the proposed tasks;

6. Creation on the classes of positive emotional creative interest and enthusiasm.

Thus, the Ukrainian folk toy, as a means of education and upbringing, occupies a special place in the world of childhood. Metaphoricity, imagery of the toy make it a universal means of social adaptation at the certain stage of human development, transmission, assimilation and creative reproduction of the material and spiritual culture of the nation, when all other means are inaccessible.

## ASSESSMENT AS A STUDENT DEVELOPMENT

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Assessment has a huge impact on the development of the child and develops certain qualities of character in it. Formed relations between the teacher and the student throughout the time should be sincere, kind and fair.

The school is a place where the student receives a fundamental education, through which he will build his future. At the same time, the student spends the bulk of his time surrounded by teachers and classmates. Here he learns to live in society.

Evaluating a student, we form his worldview. Step by step, patiently, we teach him to learn. And this is very important. Learn how to choose what you need. To consciously go to your profession is to become a good specialist, to be in demand.

Throughout all the years of work, the teacher accumulates experience with the student. Each of them requires a certain attention and individual approach.

The teacher's kind attitude towards the student is not permissiveness. This is intelligence, responsiveness, nobility, respect. Along with kindness and justice comes trust.

And, if the teacher fairly and objectively assesses the student, substantiates and argues his assessment, the student should or tries to follow the recommendations of the teacher.

It is necessary to be honest and sincere with students. No one feels so false and false in a relationship like children. This is especially true for teenagers. They are always suspicious of adults, they are very worried about each situation. Especially because of the evaluation. They are often embarrassed to say what they think and respond to everyone, fearing to be misunderstood, afraid to make a mistake.

Today, everyone is in a hurry somewhere, busy with different technologies. Today it is not too late to teach children to love, the ability to be happy, responsive. To protect everything that surrounds us, even the smallest, no matter it's material or spiritual. Develop a sense of humor in students. Skill with humor refers to its shortcomings and the developmental assessment of eradicating them.

As a result of research and observation, an individual approach is required when evaluating each student. It is necessary to direct students to the ability to analyze, make synthesis, transfer knowledge. An individual approach to the assessment provides the opportunity to find and develop those talents that the student has.

## **THE DEVELOPMENT MANAGEMENT OF PROFESSIONAL COMPETENCE OF TEACHER**

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Professional competence is an important component in the overall structure of teacher's professionalism. Professional competence is a complex integrative quality of teacher's personality, which includes the possession of teacher's professional knowledge and skills, readiness and ability to realize their potential (knowledge, skills, experience, personal qualities, etc.) for a successful, creative, productive activity through professional and personal self-improvement.

Thus, professional competence implies not only the availability of knowledge, but also requires reliance on theoretical psychological and pedagogical knowledge, practical development of the behavioral component: the style of pedagogical activity and communication, strategies and tactics of professional behavior, methods of teaching tasks in real interaction with the class and with separate disciples. Therefore, the system of development and improvement of professional competence should not equip teacher with psychological and pedagogical knowledge, but also direct him to their correct application in practice.

Taking into account that the professional development of teacher is one way or another connected with education, the continuous development of professional competence in which the intellectual, psychological and professional aspects are interwoven, it is necessary to conduct diagnostics of teachers of different categories on annual basis to determine a range

of problems, priority topics that require different approach for providing methodological assistance.

Therefore, one of the conditions for development of teacher's professional competence is the diagnostic and technological approach. Great attention is paid to selection of diagnostic tools, development of diagnostic cards. Diagnostic card allows you to identify the extent of problems, difficulties that teacher could face, and perform their ranking. As per teacher's individual characteristics, it is expedient to develop a technological card of professional competence development – a matrix in which the goals, methods and forms of work with teacher aimed at development of professional competence are reflected.

The technology of teacher's competence development on basis of diagnostic evaluation of personal and professional potential, individualization of educational activity represents the interrelation of such elements: motivation, aim, the function task, content, methods, form, result, reflection.

It would therefore be useful to develop and use a system of motivation and stimulation of teacher's professional competence development in each educational institution. As some scientists have noted, "you cannot form motivation – you can only initiate and maintain it" (with adequate organizational conditions, with system of incentives and with ensuring the active participation of each teacher in the life of a professional society, etc.). So, in order to initiate teacher's sustainable internal motivation, it is extremely important that the incentive used by school administration is complex, differentiated, flexible and immediate.

Summarizing theoretical achievements and practical experience, we present an algorithm for successful work of psychological service in regards to development of teachers' professional competence in institutions of general secondary education: the identification of the problematic field, reserves and barriers to professional competence growth in pedagogical team; differentiation, building of creative groups; generation of individual trajectories for professional development; contextual learning, which involves constant knowledge and skills testing, setting problems that arises in real practice; reflection which involves the exchange of experience.

## **IMPROVEMENT OF PHONEMIC HEARING IN THE SYSTEM OF EXTERNAL TECHNIQUE OF ACTOR'S SPEECH**

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In our opinion, the integration of contemporary Ukrainian public opinion into European cultural space requires that theater and movies actors as well as masters of the artistic word have a high level of professional education, which depends on the modernization of the teaching skills of the pedagogues. Highly skilled in art field specialists must possess a comprehensive wealth of diverse verbal means that have a significant cultural and educational impact on listeners and viewers.

This causes a need for relevant work on the development of speech hearing, an integral part of which is phonemic hearing, which is subject to professional improvement aiming to expand the phonetic and phonemic components of speech in terms of their functional unity; for compilation of modern approaches to improvement of phonemic hearing



with the purpose of reliable development of its sensory and perceptual levels among the theater and movie actors.

An important component of the development of phonemic hearing is the practice of pronouncing the determined sound among a number of other sounds as well as syllables and words spoken loudly and quietly, high and low, long and short, far or near. Such intonational varieties will shape actors' ability to correctly perceive sounds, distinguish and reproduce them. It should be emphasized that various defects of speech hearing, including the phonemic one, may lead to inexpressive, unclear speech and have negative effect on producing sufficient and necessary sonority. That is why, in our opinion, pedagogues should pay particular attention to the development of scenic speech skills and techniques, ability to hear and review the sound composition of each individual word. Students should be able to distinguish voice timbre, its height and strength, and also learn how to work with syllables and words, namely to determine their mobility, length and accentuation. There are some special features of the actors' speech which may be considered as different significant features of scenic expressiveness. For example, there is a well-known method, when the actor (in one person) performs text material of several characters while combining it with the author's text. In this case, the skilled actor quickly switches from one speech style to another. It is no secret that well-developed phonemic hearing allows correcting for actors various speech defects that can distort not only the artistic, but also the aesthetic quality of the scenic speech.

The formation of knowledge on the external technique of scenic speech occurs on the basis of phonetics, rules of orthoepy and training of breathing and voice. The above-named components are considered as difficult to acquire for professional level of scenic speech due to the possible lack of sufficient level of phonemic hearing among students or actors.

During training exercises on the development of phonemic hearing, the human brain simultaneously coordinates works between vision, hearing, motor activity and articulation. For a more effective implementation of the educational process, it is necessary to employ phonemic exercises in a form of a game. Pedagogues should pay special attention to development of the necessary scenic speech skills and techniques required to hear and review the sound composition of each individual word by future actors.

Various forms of contemporary theater and the development of dramaturgy are related to the need to modernize teaching skills and knowledge in order to enhance the speech culture of future actors in the course of their preparation for independent theatrical life.

## **MANAGEMENT OF SCHOOL HUB: TOWARDS TRANSFORMATION OF UKRAINIAN EDUCATION**

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One of the acute and significant problems of today's Ukraine is the reform of the educational space, which is caused by the introduction of new State standards for primary, basic and complete secondary education in Ukraine. In them is that the content of the educational process is defined and provides qualitative professional support for its implementation.

Poltava region has recently become involved in the process of establishing secondary schools. In September 2016, the first 3 main educational institutions appeared, in 2017 there were 22, and in 2018 – 41. Support schools began to emerge in small towns and villages.

The reaction to the emergence of schools hub in society is different: from absolutely positive, supporting and inspiring, to a fundamentally negative, since the establishment of branches of the reference school is often perceived as a threat to the disappearance of the school itself.

With the change in the structure of the educational institution, the job responsibilities of managers, the development of the institution, the algorithms of documentation, etc. are changing. Directors increasingly experience the influence of society, the public on management activities. Therefore, there is an urgent need to increase the level of managerial competence of the heads of general education institutions in the conditions of decentralization of society, the development of a network of educational districts and the creation of reference schools.

The analysis of sociological and psycho-pedagogical research makes it possible to state that the problem of the development of managerial competence of the heads of the reference schools and their professional interest in the management activity was investigated only partially (M. Bitterová, M. Lorber, G.L. Filerman, K. Trakšelys, P.V. Bredeson, I.L. Potgieter). This negatively affects the activities of Ukrainian basic educational institutions as a whole, and the training of competitive, highly skilled managers in particular.

The aim of the work is to modernize the managerial competencies of the heads of the basic educational institutions for effective management, taking into account the main directions of the state policy in the field of education, its European vector of development, features of socio-economic development of territories in the process of decentralization of power in Ukraine.

Main tasks:

- to develop the professional competence of the heads of the basic educational institutions on the issues of effective management;
- to promote personal and professional development of management personnel on the basis of updating their professional and life experience in accordance with modern requirements of society and local community;
- to substantiate the ways of effective interaction of management with the authorities and communities of different levels, with the board of trustees and bodies of public self-government;
- to motivate management staff to continuous professional development through continuing education through self-education and continuous self-analysis of the results of their management activities.

## **STUDY-TEACHING IN SEMANTIC-LECTUREOLOGY IN GEORGIAN LANGUAGE**

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The study and teaching issues of semantics-lexicology are one of the topical plastics of Georgian language teaching.

The lexicology is taught in grammar, literature and other subjects. It is known that every word has its own meaning, which studies semantics. The importance of language learning is important. Teaching the language of linguistics should be closely linked to each other, which will facilitate the understanding of the student and youth. And this is the main goal - will help to study Georgian language intelligently. This is seen as the purpose of the teaching of the relationship between these sectors.

In the meticulous work, there are different ways of teaching language and methods. The ways of teaching are: induction and deduction, which can't exist without each other. Also, the teaching of the language is used in various theatrical principles: consciousness, visualization, systematization, accessibility, activity, history and so on. These principles apply to different language levels of the Georgian language while studying and studying not using each other, but by linking; On the whole, it helps a great goal - deeply and thoroughly mastery of the language.

Study of Semantic-lexicology is especially relevant and interesting to study the lexicological dialectics, dialectical dialects of dialectic words and the interpretation of the common language lexical foundation.

The lexical system is a chronological adjustment of the meaning of the words of the language and the semantic mathematics, which encompasses elaboration. Which is considered to be one of the defining factor of vocabulary-semantic level differences in the importance of the word in conjunction with the regional moment and the ethnographic area. All this allows us to make a perfect definition and determination of the lexical value of the language of the language, to explain exhaustively many rare words, which are a rich or fundamental vocabulary foundation, and many of them have not yet been discriminated against due to the factors. Not properly qualified.

Dialectic and common literary lexical language is not considered in the linguistic point of view both distinctly separated from each other. We believe that identifying the connection of the words is important for the identification and completion of the perfect semantic volume of the word with defining peculiarities. It is established that the changing unit is the language. The change concerns both the external (formal) as well as the interior (content), the semantic side. Therefore, the characterization of the word is noteworthy as to the study of the structural elements produced by the format and the semantic classification.

## **INNOVATIONS OF MANDATORY NATIONAL HEALTH INSURANCE IN UKRAINE**

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As Ukraine develops its relations with the European community, its focus is increasingly shifting from political issue to economic and, especially, social objectives. Harmonizing the national laws with norms and standards of the European Union is made a top priority of the integration process. Focus on integration in the European Union opens new opportunities for Ukraine to join and enjoy the most progressive attainments in healthcare system.

Ukraine made its first, albeit tentative steps toward promotion of health insurance on 28 December 2014 by adopting the Law of Ukraine - "On Amendments to Certain Legislative Instruments in the Context of Reforming of Compulsory National Social Insurance and Legalizing the Salary Fund", when the Parliament finally combined coverage against temporary disability, and occupational injuries and diseases into a single package. This went without a glitch, since the subjects, the objects and the principles of both social insurance schemes are very similar.

On 1 August 2017, the Social Insurance Fund of Ukraine started working on its tasks. As on 1 October 2017, the Fund covered 2,980,948 individuals (excluding the Autonomous Republic of Crimea and the City of Sevastopol): legal entities - 1,230,185; natural persons - 1,750,702; private insurance carriers - 61. Over 9 months of 2017, the disbursements for welfare amounted to UAH 6.67 bln. (EUR 220 mln.); insurance payments to the victims, including temporary disability benefits due to the victim - UAH 4.48 bln. (EUR 140 mln.).

The Fund used its resources to provide coverage as follows: temporary disability - 63.2% of the amounts paid as welfare; pregnancy and delivery - 36.4%; and funerals - 0.4%. Over 9 months of 2017, medical rehabilitation services were provided to 18,317 of the insured individuals and 1,194 children. Healthcare centers provided treatment and medical rehabilitation services to 9,468 patients with occupational injuries. Drugstores provided drugs and medical aid to 16,566 individuals. Treatment in sanitariums and resorts was provided over the period of report to 4,388 individuals whose needs had to be attended. Under the relevant contracts of prosthetic and orthopedic manufacturers, 2,359 individuals recovering from occupational injuries received technical and other means of rehabilitation over the period of report.

The next stage of reforming of the sphere contemplated herein shall result in adoption of the Law of Ukraine "On Compulsory National Health Insurance", which is expected to outline the legal, organizational and financial basis and functions applicable to the said kind of social insurance, in order to: 1) improve the public health; 2) establish legal, economic and organizational guarantees, to protect the rights of the public for free health services; 3) improve labor conditions and safety thereof; 4) eliminate harmful and hazardous industrial factors, and prevent occupational incidents and diseases; 5) facilitate the efficient development and proper operation of the healthcare system; and 6) facilitate the conditions for the development of free market relations in healthcare system.

## **PROBLEMS OF LEGAL CULTURE IN THE WORKS OF ABU NASRA FARABI AND ITS DEVELOPMENT IN MODERN UZBEKISTAN**

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**Annotation:** The article discusses the idea of the development of culture from the most ancient sources of the East, as well as the teachings of Eastern thinkers. The author has analyzed the ideal, fair state in labor of Farabi and we are talking about justice, about fair laws - fair law, which even today is of great importance in educating the young generation in Uzbekistan.

**Keywords:** fair laws, ideas of a legal state, law, culture.

As we know, today, modern Uzbekistan has chosen the path of progressive development of society, of all spheres of its life, including law, as the idea of the rule of law is supported in the republic.

Also, at present in the Republic, cardinal state-political, socio-economic and legal reforms are being carried out. Building a legal state, forming a civil society requires new approaches to the fundamental problems of legal theory, the development of new moral and legal ideals, and a high legal culture. The formation of the legal basis of modern society requires a revision of the existing system of values, the revival of the moral and legal ideals of the Uzbek people. Today, legal science can develop only based on the spiritual experience of the people, their high legal culture.

The historical development of the legal system of Uzbekistan, as in most Eastern countries, was shaped under the influence of Zoroastrianism and Islamic law. However, it should be noted that the Uzbek legal consciousness is closely related to traditional values, which were transmitted from generation to generation due to the decisive role of the Islamic faith in the life of Uzbek people.

In this regard, this article will analyze the relationship between the Uzbek legal culture and the Muslim value system. As a methodological study of this topic, historical-theoretical approaches are used, which were formed within the framework of the philosophy of law.

Therefore, it is important to pay attention to the fact that it is acceptable and necessary to study the people's historical experience in the field of law;

And also, to realize the practical necessity of reforming modern law, taking into account the best traditions of legal regulation in the history of a people which has the richest heritage.

Thus, the study of the rich experience of legal regulation and the history of legal development provides an opportunity to use the positive experience of previous eras in the formation of a new legal system, in particular the legal system of the Republic of Uzbekistan.

As we know, with historical development, we know that, in the era of the Eastern Renaissance, the philosophy of law occupies a special place, as it essentially has a dual dimension. Being a philosophy, it is designed to concentrate in itself the question of the style of thinking. The methodological core of philosophical and legal reflection is formed for the knowledge of a wide range of manifestations of human essence. The second person of the philosophy of law or its second dimension is addressed to the legal space of society, in which the metamorphoses of the interpenetration of all elements of the social system occur: economics, politics, morality, religion, etc.

The "House of Experts", the so-called "academy", was organized in Urgench, in which the priorities of philosophy, mathematics and medicine were discussed under the leadership of Khorezmshah Mamun. Farabi brought wide acclaim to his comments of the works of Aristotle, in connection with which he was given the honorary name "Aristotle of the East", "Second Teacher" during his lifetime.

In his state-legal doctrine, Farabi puts forward his own original concept of the origin of society: "By nature, each person is structured in such a way that for his own existence and attaining the highest perfection he needs many things that he cannot deliver to himself and It needs a certain community of people, delivering to it individually each and every thing from the aggregate of what it needs.

In addition, each person is in exactly the same position in relation to the other. That is why only through the unification of many people helping each other, where each gives the other a certain amount of what is necessary for his existence, a person can attain the perfection to which he is intended by nature. The activity of each member of such a community in its totality gives each of them everything that he needs for the existence and achievement of perfection, "Farabi states. -state). Societies Farabi classifies into great (unification of all people, nations inhabiting the land), secondary (society of a certain people) and small (association of people into separate cities). Taking the moral categories of good, evil, and attitudes toward labor as the original, he divides the city-states into virtuous, collective, and ignorant.

In virtuous city-states, social life is built on the principles of high morality of people who, by helping each other, achieve true happiness. Studying the goals and building a virtuous state, he also drew attention to the social structure of society. A significant place in the political and legal doctrine of Abu Nasr Farabi is the substantiation of the essence of the virtuous city-state, which lies in its legal nature. He emphasizes the nature of laws promulgated in a virtuous state, reflecting and coordinating the interests of various classes and social groups.

Farabi believes that the first chapter is the one over which absolutely no one has power. And, in fact, he is the ruler of all people and in all parts of the well-organized world. The pledge of his superiority over others is 12 features, among which are both natural and spiritual qualities.

Determination, courage and courage to commit worthy deeds and avoid manifestations of weakness. The thinker emphasizes that an integral and important part of spiritual culture are the formal properties of intellectual and volitional activity, of which the most important role belongs to law. Being a social system, law is the only socially disciplining system. Al-Farabi puts forward the principle of distribution of common goods. All residents of the state should be endowed with well-being, wealth, honor, position and other benefits to which they can be associated. Each of the townspeople should have a share of these benefits equal to his merits. He analyzes the concept of justice as a legal phenomenon. It would be unfair, he believes, if a city dweller receives less or more than he deserves. So the state should monitor the proper distribution of benefits. Therefore, in a virtuous state there are no beggars, poor. But there may be disabled and sick. For their maintenance of funds should be allocated from state supplies. As far as possible, they need to be involved in doing useful work. The state should take care of protecting what its inhabitants receive and have (from theft, capture) [1, p. 88]. These are some of the state-legal views of Al-Farabi. Such an approach to the state allowed the thinker to argue the idea of law: the law not only delimits interests or creates a compromise between them, the law is feasible only under the condition of individual freedom. Only then will the legal order constitute a system of relations in which all persons of a given society have the greatest freedom of activity and self-determination. Understanding this, in our opinion, is a necessary attribute of a developed sense of justice and a high level of legal culture. The great scholars of Maverannahr in the era of the Eastern Renaissance made a great contribution to the development of the humanities, as they were then called on the basis of Islamic disciplines, in particular fiqh, that is, in the field of law, jurisprudence wrote many works. Worldwide fame in the Islamic world received one.

The culture of human rights is also an integral part of spiritual culture. The concept itself first appeared on the pages of UN information materials in 1989. However, it was not the subject of research in science, there is still no definition of this category in legal literature, although the notion "human rights culture" derives from the idea of II humanizing law. Therefore, the definition of the content of this concept, the selection of the basic structural elements are of particular scientific interest.

In our opinion, "legal culture" and "culture of human rights" are not identical concepts or constituent parts of each other, but are in complex organic unity as integral parts of the spiritual culture of society. At the same time, a culture of human rights is essential for the formation of a legal

culture. Thus, the law itself is an essential factor and method for the realization of human rights and freedoms; therefore, the humanistic nature of legal culture contributes to a more real and effective implementation of human rights. And the culture of human rights is a factor related to the guarantees of human rights. As already mentioned, on the one hand, the culture of human rights is an integral part of the spiritual culture of society, and on the other hand, it penetrates other parts of it, for example, such as "legal culture" and others. Moreover, it is the consideration of legal culture through the prism of rights, freedoms and duties emphasizes the peculiarity of legal culture as one of the ways the person works in the legal sphere. After all, standards of behavior in society, which a person follows, formed in the form of their rights and obligations, that is, legal rights and legal duties serve in society as a system of guidelines regulating the behavior of citizens, their relationships with each other, with the state and society. In order to choose a behavior that meets the inner convictions and interests, as well as the interests and requirements of society, the individual must have sufficient cultural potential. With regard to the legal field, this is a legal culture.

Uzbekistan welcomed the ideas of the UN and created its own system of education in the field of human rights. As is known, on August 29, 1997, the Law "On Education" was adopted and the National Training Program was approved. The Parliament of Uzbekistan adopted a decree "On the national program to improve the legal culture in society" and the Presidential Decree "On June 25, 1997" On improving legal education, raising the level of legal culture of the population, improving the training of lawyers, and improving public opinion research. "

An integral condition for strengthening public confidence in the government, support for ongoing reforms is a growing level of legal culture and the establishment of the rule of law and the rule of law.

Raising legal awareness and legal culture in society is one of the important conditions for ensuring the rule of law and strengthening the rule of law.

In order to shape the legal consciousness of citizens, to bring to them the essence and content of the laws adopted in Uzbekistan, large-scale and systematic measures are being taken. In order to further improve the efficiency of work to improve the legal awareness and legal culture of the population, introduce modern methods of increasing the legal knowledge of citizens in a harmonious combination with social and political transformations, as well as form solid legal immunity to protect the population, especially young people, from harmful information. 2019 of the President of the Republic of Uzbekistan "On the fundamental improvement of the system of raising legal awareness and legal culture in society", where the basic tasks of increasing legal awareness and legal culture in society. As for example, to determine the systemic organization of large-scale legal awareness-raising events based on the conceptual idea "High legal culture is a guarantee of the country's development" to increase legal literacy of all segments of the population, to form a high level of legal awareness and their ability to apply legal knowledge in everyday life and organizations.

Also, to determine that the increase of legal awareness and legal culture in society is organized systematically and interconnectedly on the basis of the principle "personality - family - mahal - educational institution - organization - society".

In conclusion, we would like to note that an important indicator of the development of a culture of human rights in a society is the ability of citizens to defend and protect their rights. And for this there is the richest spiritual heritage of the people ... In this general cultural process, the sphere of legal culture includes successes and achievements in the development of law and the state, in improving the legal and state legal organization of the life of free people. A high level of legal culture is one of the hallmarks of a legal state.

## PROBLEMS OF TEMPLES IN MODERN KYIV

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The history of Kyiv began from the 5th century. Kyiv was an important religious center in Eastern Europe. Eleven religions were in his territory. Local paganism was the first religion. The pagans did not build temples. One pagan temple was in Kyiv. Then the Orthodox appeared in Kyiv. Kyiv princes made Orthodoxy the state religion. The Kyiv prince forced the population to abandon paganism and baptized everyone. Then large Orthodox churches were built in Kyiv. Over time, Jews appeared in the city, and they began to build their synagogues. The Lithuanians seized Kyiv and brought Catholicism. When they tried to force the local population to convert to Catholicism, they created Greek Catholic religion. Then the Armenians came to live in Kyiv and built their Orthodox Armenian church. Then Kyiv was conquered by Russia, which brought its Orthodoxy. Other religions appeared with the development of the city. Diasporas began to form in the city. German Lutherans appeared in the city who built their church. Karaites built their temple. In the city lived Old Believers and Muslims, who also had prayer houses in which they gathered for prayers.

Many temples have not survived since ancient times. Kyiv as a whole was an Orthodox city; so many Orthodox churches were in it. The temples of other religions were also in it.

Most of the churches and temples were destroyed in the 20th century during the time of the USSR. Socialism did not recognize the existence of God, so the temples were not needed. Kyiv became the capital of an independent Ukraine in the 1990s. People could go to church again and believe in God. Therefore, new churches began to be built in Kyiv, and historic churches opened for worship.

All the problems of modern Kyiv in church architecture can be divided into two parts. Old churches are ruins and pieces of structures. Some historical objects remained in Kyiv after the Soviet period. New churches can be divided into three parts. Adapted objects for temples from other public buildings appeared in Kyiv. New objects restored on the foundations of ancient churches in their historical forms are being built in the city. New churches of different religions in modern styles are being built in Kyiv.

Each of these areas has its own problems in the city.

The ruins remain holy to believers, even though they are part of the temple. Historical ruins must be preserved as a monument. Access should be opened to believers and given the opportunity to pray and perform religious rites.

Well-preserved historic churches need to be restored and the lost upper parts completed.

The functions of the temple must be distributed in a building that is adapted to the temple. In addition, the external image of this building should be changed to the characteristic of the temple. Structures of the building must be changed to put the upper part and the dome.



Since historical churches were often rebuilt in Kyiv, the locations of old temples may have foundations of different buildings in one place, located one under another in the ground. Therefore, temples that are restored on the foundations of old churches are not always built identically to the old structure. The spatial composition of the temple has to be changed to show the entire underground part.

New churches have no such problems. However, the experience of building temples is lost, so their architecture requires improvement.

The places of temples, historical ruins, and old churches did not matter in the Soviet period in Kyiv. New churches are built in places where there is a vacant lot among the buildings. Place for the church was not laid in urban areas of the Soviet period. Therefore, the space around the temple, emphasizing the sanctity of this building, is absent. Often the space around the church is built up with residential and public city buildings. The lack of space around the temple is a problem for all churches in Kyiv.

## **THE ACTIVITIES OF STANDING COMMITTEES IN IMPROVING THE COOPERATION OF THE SENATE AND LOCAL COUNCILS**

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### **Annotation**

This article provides information on the standing committees at the local councils of people's deputies and the work done by them and their methodological recommendations for their work in 2007-2008.

It is well known that the cooperation with the local Kengashes of people's deputies in 2005-2006 has become a priority in the work of the Senate of the Oliy Majlis of the Republic of Uzbekistan. In particular, the Senate has been working to improve the activities of the local councils and their standing committees, deputies, and to actively involve them in addressing the most pressing issues of regional socio-economic significance since the start of their activity in 2005 and providing them with practical and methodological assistance. The Senate, the Senate, Senate committees and related committees have received more than 100 documents of software and recommendation. A number of methodological manuals, brochures and books have been published in the form of assistance to local Kengashes of People's Deputies.

Thus, "only in the period of 2010-2014 the Senate committees held 12 joint sessions with local Kengashes of People's Deputies, 7 sittings, 34 conferences, 55 seminars and 51 roundtables. Based on practical experience gained during 2005-2009 on the work of the Senate with local Councils of People's Deputies on the issue of improving the mechanism of cooperations of the Senate with the local Councils of People's Deputies in solving the issues of socio-economic development of the regions, as well as the role of standing committees in organizing effective activity of local Kengashes of People's Deputies and to provide practical and methodological assistance in enhancing the competence of the Oliy Majlis of the

Republic of Uzbekistan the Resolution of the Senate of the Oliy Majlis of the Republic of Uzbekistan dated March 10, 2010, the Senate of the Oliy Majlis of the Republic of Uzbekistan has established the Commission for the Strengthening of the Representative Offices of Local Authorities and approved the Regulation on the Commission.”

This provision consists of 5 chapters, 50 points (item 4 of article 4 of the former version), based on which the preliminary consideration and preparation of the issues submitted to the Standing Committees of the provincial, district, city councils of People’s Deputies on issues considered for consideration by the Kengashes of People’s Deputies laws of the Republic of Uzbekistan, resolutions of the chambers of the Oliy Majlis, resolutions of the chambers of the Oliy Majlis of the Republic of Uzbekistan, decrees and resolutions of the President of Uzbekistan, resolution of the Cabinet of Ministers of the Republic of Uzbekistan, to assist in the implementation of the decisions of the Council, within its powers to carry out control functions.

This provision stipulates the order of sections of the Standing Committees and the main directions of their activities, the organization and competence of the Standing Committees, as separate chapters, as a rule, the establishment of the following Standing Committees: - on the formulation and implementation of local budgets, implementation of economic reforms and development of entrepreneurship; - on legality, law enforcement and security of citizens; - on issues of youth policy and upbringing healthy generation; - industry, transport, construction, municipal services and public services; - on agriculture, water management and ecology; - Regulatory and Deputies’ Ethics.

Power of Standing Committees:

1. Powers of Standing Committees Participations in the formulation of proposals on the agenda of the sessions.
2. Request of documents, written conclusions, report data and other materials from government agencies, enterprises, institutions, organizations, NGOs, citizens’ self-governing bodies, official on issues relevant to them.
3. The right of the heads of state bodies, enterprises, institutions, organizations, non-profit organizations and citizens’ self-governing bodies in the relevant territory to attend their meeting and hear information on their implementation by the Council of People’s Deputies and the recommendations of the Standing Committees.
4. Notify the relevant authorities and organizations of the issues that are being considered.
5. Submission of resolutions or conclusions to the Council of People’s Deputies on the outcome of the preliminary review of the issue assigned to them.
6. At the request of the Council of People’s Deputies, proposal, critical remarks and oversight of the inquiries made by the Council members.

In order to study the activities of the Standing Committees of the Namangan regional and district and city councils of People’s Deputies on the basis of the above Charter and submit relevant recommendations, the regional, district, city councils of People’s Deputies were elected by the chairman of the Regional Council of People’s Deputies of Namangan region I. Najmiddinov on April 18, 2008. The structure of the group of practical methodical assistance in the study and regulation of the work carried out by deputies and their standing committees in 2005-2008 “has been approved. Practical and Methodological Assistance Team has been studied by the Standing Committees in their efforts to find solutions to the existing problems and to assess their efficiency and effectiveness. In particular, the member of this working group, Senator Khakimov Ahmad Hodiievich said: “The Namangan Regional Councils of People’s Deputies consists of six permanent commissions and 74 standing committees in cities and districts. In the first quarter of 2007, it was planned to hold 18 regional and 18 district commissions, in the first quarter of 2007-105 events. 105 events held

by stagion of the commission ornding commissions, 53 are the issues that are the re"" the region. The Standing Committees examined the implementation of the laws of the Republic of Uzbekistan in the first quarter of 2007 in the framework of over 40 monitoring activities. Reports of 22 standing committees were heard."

I have always considered the following recommendations during the 2007-2008 study of comissions for their work: to regulate inform voters about the nature of the newly adopted laws of chairmen of city and district councils of people's deputies;

- Regular review and discussion of the implementation of the law and execution of decisions of the Regional Council of People's Deputies at meeting of standing committees of local councils of people's deputies;
- Submission of proposals to the committees of the Senate and the Senate of the Oliy Majlis on the territorial issues related to the socio – economic development of their territories by standing committees of local councils of people's deputies;
- Submission of proposal to the committees of the Senate and Senate of the Oliy Majlis on the territorial issues associated with the socio-economic development of their territories by standing committees of local councils of people's deputies;
- Hearing the reports of the respective organizations, enterprises and institutions, directed to fulfill the issues raised by the electorate within their competence in accordance with the Charter of the Standing Committees of Local Councils of People's Deputies;
- Conducting round tables and practical workshops with the participations of prominent scientists and experts on the improvement of the standing committees of local Kengashes of People's Deputies have been recommended by the working group.

Based on the above mentioned learning outcomes and recommendations, it can be argued that the standing committees, as one of the organizational and legal forms of the Councils activities, should serve as an important tool of involvement of parliamentarians and citizens in governance, not only to the Councils and local authorities but they have the power to carry out a number of measures independently.

## **STORYTELLING AS AN INSTRUMENT OF TEACHING CRITICAL THINKING TO PRESCHOOL AGE CHILDREN**

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The social changes are so rapid in today's world that affect not only the lifestyle, but also act as certain challenges you have to yourself - knowledge, skills, values that should be consistent with modernity.

In recent decades, information technology has dramatically changed social structure where main asset isn't money, resources or labor, but knowledge, information and intelligence. That's why among other spheres of social life, it's education that drives the development, which gives a new momentum to the all ways of organizing human relations.

Adoption of "high technologies" and "innovations" in education is a problem that unites different researchers: philosophers, educators, culturologists, sociologists,

psychologists etc. However, the pillars of education remained unchanged: studying, development, children's upbringing but in the light of contemporary challenges. Recently media education is of key in the educational structure, because of the rapid development of ICT requires the ability to rapidly and critically react on the changes.

The first teachers who start fostering our children's media culture are parents and educators. Thus for child to build a fairly consistent behavior style in media environments, it's advisable to start with an early childhood so then it wouldn't be understood as a subject or theory, but as a pattern, a rule of conduct or a healthy lifestyle.

Without dwelling on the analysis of the media environment, we are focusing our research on the improvement of media literacy, more specifically, the ability to apply storytelling techniques to the educational activities of preschool education, in order to develop critical thinking.

A fairytale, story, cartoon are media texts that the child learns from an early age. An educator while picking them up aspire to a few goals: media text must be appropriate to their age, presentation should attract and, above all which conclusion child can draw based on seen and heard things.

Methodology of storytelling allows to work with media texts through the RThS model: R - remember (about whom / what is being told in the tale), Th - think (why a hero would do it or could do other than what he did) and S - say your opinion (how it could have been done).

Modern kids are likely to be interested in videos, webgames than just reading a book. But we understand the importance of reading or verbal communication in child's development. Therefore, storytelling will help to present information interesting, and most importantly to good use. That is important that besides of knowing that there was somebody like Ivasyk-Telesyk, children should consider the actions of the hero and learn a lesson from that tale.

Thus the use of storytelling will help to elaborate media texts, and besides the basic knowledge, children will develop critical thinking, which is the main factor in building media-educated personality.

## **ДО 90-РІЧЧЯ ВІД ДНЯ НАРОДЖЕННЯ ПЕРШОГО ПРЕЗИДЕНТА АКАДЕМІЇ ПЕДАГОГІЧНИХ НАУК НЕЗАЛЕЖНОЇ УКРАЇНИ, ДОКТОРА ПЕДАГОГІЧНИХ НАУК, ПРОФЕСОРА МИКОЛИ ДМИТРОВИЧА ЯРМАЧЕНКА**

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Досягнення української науки і практики в галузі вивчення, навчання і виховання дітей з особливими освітніми потребами знаходять широке визнання не тільки в нашій країні, але й далеко, за її межами. Серед видатних діячів, що здійснили глибокий вплив на розвиток спеціальної освіти в Україні, чільне місце належить

Миколі Дмитровичу Ярмаченку – талановитому досліднику розроблення основ спеціальної та загальної педагогіки.

Дослідження особливостей процесу спеціального навчання; розвиток системи середньої спеціальної освіти в Україні – ці та багато інших актуальних проблем були предметом досліджень ученого, ініціювалися та організовувалися ним. Микола Дмитрович був досвідчений організатор спеціальної освіти, дефектологічної науки, директор Інституту педагогіки (понад 21 рік), засновник і перший президент Академії педагогічних наук України, вмілий керівник і наставник практиків і молодих науковців.

Діяльність професора М. Д. Ярмаченка визнана на міжнародному та вітчизняному науково-практичному рівні. Про це свідчить аналіз оцінок його наукової спадщини, представлений відомими діячами науки й освіти. Микола Дмитрович залишив нащадкам велику творчу спадщину, наповнену ідеями, положеннями і висновками щодо актуальних проблем розвитку виховання і навчання дітей з особливими освітніми потребами, які не втратили своєї важливості й сьогодні, в період розвитку нової системи освіти.

Зазначимо основні наукові праці вченого:

- Проблема компенсації глухоти (1976);
- Історія сурдопедагогіки (1975);
- Педагогіка. Підручник для студентів педінститутів та університетів (1986);
- Розвиток народної освіти і педагогічної думки на Україні (XIX - поч. XX ст.) (1991);
- Академія педагогічних наук України (п'ятиріччя становлення і розвитку) (1997);
- Педагогічний словник (2001) та ін.

В пам'яті учнів і співробітників Миколи Дмитрович Ярмаченко залишився Вчителем, наставником і людиною з високою ерудицією і принциповим фахівцем.

## **PEDAGOGICAL MODEL OF FORMATION OF READINESS OF EXPERTS FOR WORK IN THE SYSTEM OF INCLUSIVE EDUCATION**

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Reforms in the field of education in the Republic of Kazakhstan have a humanistic focus, where education of persons with special educational needs takes a special place. Around the world, generally accepted trend of inclusive education, which implies co-education and upbringing of children with special educational needs with children who do not have such restrictions. Inclusive education provides access for all categories of children to quality education, elimination of obstacles of communication with the world and integration into society as a whole.

The State Program for the Development of Education of the Republic of Kazakhstan for 2016-2019 notes that by 2019 the proportion of schools that created the conditions for

inclusive education should be 70% of the total number and accordingly the requirement for training and retraining of general education teachers is put forward.

The social order of society for the training of teachers of educational institutions to work in an inclusive education, the need to include children with special needs educational needs in the secondary school environment and the lack of qualified teachers for the implementation of inclusive education have led to the emergence of a large number of scientific studies on the identification of the influence teacher training programs in higher education institutions on their readiness to implement inclusive education (Forlin C., Chambers D., Pijl S.J.). A significant part of modern foreign studies is devoted to the identification of the list of professional qualities and skills that future teachers need in working with children with special educational needs, while empathy is recognized as the teacher's basic qualities (O'Corman E., Drudy Sh., RO O. Agavelyan, EV Ryazanova, etc. .) pedagogical optimism, humanity (Hoffman E., NM Nazarova, E. Segen), love for children (EK Gracheva, LF Serbina), patience (R. O. Agavelyan, E. K. Gracheva, J. Demore, PI Kovalevsky, LG Orshansky). In the conducted research, the need for the formation of spiritual culture and personal readiness among teachers is affirmed.

The value of the system of inclusive teaching by teachers is proved by the fact that this system educates the teacher himself: "it affects me, this training also educates me ...", "Working here, I realized that values should not be for the teacher, but for the person himself ...", "For the teacher, this is also a lesson, to work and be close to such children". Analyzing the opinions of teachers, I found out that for a teacher, the most important value should be children, regardless of their capabilities, taking into account, which created favorable and equal conditions for socialization in society and education. For the teacher, the system of inclusive education itself is already a value, since this system stands for equal opportunities for all children. The personality of the learner, regardless of his psycho-physiological capabilities, serves as the highest value and all actions of the teacher should be directed to the growth and development of the child.

## **THEORETICAL ASPECTS OF THE CONCEPT OF REFLECTION**

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Key words: reflexion, pedagogical reflection, reflexive competence, reflexion as a means of professional development.

In modern science, reflection is understood as the process of self-cognition by a subject of his internal mental acts and states. Analysis of psychological and pedagogical literature shows that there is a diversity of points of view on reflection, which are systematized in the scientific directions: philosophical, psychological and pedagogical. At present, the main

emphasis is placed on the understanding of concepts within the phenomenon of reflection, its study at the theoretical, practical and methodological levels, which, in turn, determines the relevance of our study. Reflexion in vocational training should encourage the teacher to strive for self-development; to help the teacher develop his own theory of learning; arm the teacher with the necessary skills to make them more active and in the development of new innovative technologies.

## **METHODS OF RECOVERY AND DEVELOPMENT OF CHILDREN'S SPEECH USING EMWAVE, MIND WAVE MOBILE AND TOMATIS METHODS**

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This paper presents the main provisions of the experimental and innovative methods of speech restoration and development using emWave, Mind Wave Mobile and Tomatis methods. The use of this technique has shown that the process of speech recovery in children with speech development problems occurred more effectively.

The lag of the child's speech development from the age norm (delayed speech development) hinders the formation of interpersonal interaction skills and communication between children. Delay in the development of speech has a significant impact on the development of cognitive processes (thinking, attention, memory, imagination), the general psychological development and the formation of the communicative abilities of the child.

The use of experimental innovative methods for the rehabilitation of people with problems of speech development contributes to a better learning, development of cognitive abilities and interest in classes, stimulates independent cognitive activity, and increases the level of attention and memory. As part of an experimental innovation methodology, instructions were developed, a set of different forms of classes, tasks and exercises were created (for example, working with text in 3G format); at the same time, modern emWave, Mind Wave Mobile, Tomatis neurocomplex hardware and software systems are the means of correction work.

For the first time this technique was applied in work with children diagnosed with autism. The number of autistic children in Ukraine is constantly increasing. According to official statistics from the Ministry of Health of Ukraine, in 5 years the number of autistic patients has increased by 194%. Features of the mental development of these children are manifested in the violation of the development of speech and social communication. The basis of the innovative technique was the use of emWave, Mind Wave Mobile, as well as the Tomatis method.

Mind Wave Mobile is a specially designed device, a sensor of brain activity that allows you to improve brain activity and control special computer programs and games using the "power of thought". Developmental programs for children of different ages help the perception of the information they receive and more efficient learning. Through the use of programs and a special headset improves memory, increases the level of concentration, learning. With the help of emWave, Mind Wave Mobile supports child's goal achievement.

The Tomatis method is a system of audio-local training. Using this method, which acts as a professional teacher, psychologist and speech therapist, a strategy is developed to overcome difficulties in speech disorders and learning. The Tomatis method is based on the principle of creating musical contrasts and applying it, you can develop automatic mechanisms for recognizing changes, which, in turn, increase the level of attention.

Thus, the use of experimental innovative methods of speech restoration and development with the help of emWave, Mind Wave Mobile technologies and the Tomatis method allows to increase the efficiency of remedial work and see the positive dynamics in people with speech problems.

## **ФОРМУВАННЯ ПРОФЕСІЙНОЇ КОМПЕТЕНТНОСТІ У ЗДОБУВАЧІВ ВИЩОЇ ОСВІТИ МЕТАЛУРГІЙНОГО ПРОФІЛЮ**

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Сучасному виробництву все більше потрібні працівники, які володіють широким технічним світоглядом, здатні оперативно реагувати на будь-які зміни в технологічному процесі, спроможні передбачити наслідки цих змін, планувати свої дії, самостійно визначати найбільш раціональні прийоми трудових дій. Усе це вимагає від працівника ґрунтовних знань з відповідного фаху.

Повноцінна підготовка здобувачів вищої освіти металургійного профілю можлива на основі ґрунтовного, фундаментального вивчення циклу технічних дисциплін. Також важливим є те, що майбутні фахівці після закінчення закладу вищої освіти володітимуть технічним, конструктивним мисленням, в яке входить логічне, образно-інтуїтивне, практичне, наукове, естетичне, економічне, екологічне, ергономічне, управлінське і комунікативне, творче мислення, що дозволить бути йому конкурентоздатним на світовому ринку праці.

Впровадження і реалізація компетентнісного підходу в освіту дозволить швидко реагувати на потреби ринку праці, на його вимоги.

Проведений аналіз наукових здобутків з проблеми формування компетентностей здобувачів вищої освіти металургійного профілю, зокрема в процесі вивчення загально-технічних дисциплін, показав, що значну частину праць присвячено лише окремим питанням і напрямам організації цього процесу. Тому на сьогодні формування професійних компетентностей здобувачів вищої освіти металургійного профілю є актуальним питанням, яке має недостатню методичну опрацьованість.

Особливий інтерес для нашого дослідження становлять наукові праці європейських дослідників, які висвітлюють «компетентність», як комбінацію вмінь, знань і цінностей, а «професійна компетентність» визначають як динамічний, «багатофункціональний набір знань, умінь і ставлень», які необхідні людині для самореалізації, саморозвитку, самовдосконалення, працевлаштування [Голубева М. О. Визначення ключових компетентностей майбутніх учителів: європейський досвід / М. О. Голубева, І. В. П'янкоська // Наукові записки. Педагогічні, психологічні науки та



соціальна робота. – К.: Києво-Могилянська академія, 2008. – Т. 84. – 73 с.]. Пометун О. І. «компетентність» розкриває в контексті «результативно-діяльнісної характеристики освіти» [Пометун О. Інтерактивні технології навчання: теорія, практика, досвід / О. Пометун, Л. Пироженко. – К.: А.П.Н., 2002. – 136 с.].

Холодна М. А. до визначення «компетентності» підходить суто з позиції вимог як до когнітивного складника, «різноманітності, структурованості; гнучкості; оперативності й доступності; категоріальний характер знань; володіння не тільки декларативними, але й процедурними та конструктивними знаннями; рефлексії» [Холодная М. А. Психология интеллекта. Парадоксы исследования / М. А. Холодная. – СПб. : Питер, 2002. – 272 с. – (Серия “Мастера психологии”)].

З огляду на сказане слушно зауважити, що компетентність є результатом набуття компетенцій, інтегральною характеристикою особистості. Оскільки будь-яка людина засвоює знання, набуває навички та вміння певної діяльності через виконання певних процедур та операцій, то компетентність є результативно-діяльнісною характеристикою досягнень випускника, сформованою властивістю особистості й визначає той рівень здатності та готовності до професійної діяльності, який на певний момент необхідний і достатній для кваліфікованого досягнення мети.

Цина А. Ю. відзначив, що професійна підготовка здобувачів вищої освіти складається з трьох загальних (родових) її структурних компонентів: змістового, процесуального та результативного аспектів [Цина А. Ю. Стійкість прояву властивостей професійної підготовки майбутніх вчителів технології / А. Ю. Цина // Соціально-педагогічний комплекс регіону: теорія і практика: матеріали Всеукраїнської науково-практичної конференції (Полтава, 21–22 травня 2008 р.). – Полтава: ПДПУ, 2008. – С. 126–133]. Змістовий аспект професійної підготовки здобувачів вищої освіти металургійного профілю пов'язаний із розробкою на підставі визначених Державними освітніми стандартами освітньо-кваліфікаційних характеристик, освітньо-професійних програм, навчальних планів, програм, підручників і навчальних посібників із професійно-орієнтованих дисциплін. Процесуальний аспект передбачає оптимізацію методів й організаційних форм навчання. Результативний аспект характеризується певним рівнем розвитку особистості вчителя, сформованістю її складових компонентів.

На підставі вищезазначеного можемо зробити висновки, що з позицій компетентнісного підходу рівень освіти визначається здатністю фахівця вирішувати проблеми різної складності на основі сформованих ключових компетентностей.

## **COMPETENCE APPROACH TO FOREIGN LANGUAGE TRAINING OF FUTURE SPECIALISTS OF SOCIAL SPHERE**

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Today the demands of educational and professional mobility of specialists determine social requests for high foreign language competence level of future specialists of social sphere. It is defined by the need of social partnership development with international organizations, cooperation with other cultures representatives, permanent knowledge updating

as for effective social activity experience of other countries, increase of competitiveness level and professionalism at labor market. Foreign language competence as a component of professional competence of future specialists determines search of ways of foreign language training improvement, specifies the priorities and directions of professional formation. Social work as a specialty started official functioning in Ukraine only in 90s, so the peculiarities of future specialists of social sphere training is approximately recent scientific problem that predetermines its topicality.

At the same time as any other scientific and pedagogical issue the problem of professional competence formation of social sphere specialists at its every direction or field requires balanced methodical approach, which consists of definite theories, methods and technics of investigation. Foreign language training of social sphere specialists, that has become the topic of our research, includes double grounding. We examine it as a foreign language training philosophy ( methodic foundations of which are thoroughly presented by the theory of communications, the theory of multiculturalism, philosophy of a dialogue ) and social sphere specialists training ( methodic foundations of which are carried out through competence and systematic approaches in pedagogy). It is necessary to distinguish some aspects of the problem of foreign language training of future specialists, in particular: the question of methods of foreign language training; the question of psychology of foreign language intercultural interaction; the development in the sphere of educational technologies of foreign language training; competence foundations of foreign language training of specialists etc.

As for the last position mentioned above, we rely on the list of competences, adopted by the European Council, that include two main groups of competences, which are requisite both for a person and his everyday life needs and a specialist for fulfilment of his professional functions. To the first group belongs ability to create favorable conditions for learning and self-education, work in multicultural and socially heterogeneous environment; ability to cooperate within a group, team; skill to use modern information technology, to enlarge ones knowledge; ability to recognize and solve problems, including conflicts. The second group of competences includes: successful functioning at knowledge sphere skill, ability to think critically, creative and innovative thinking skill etc.

Taking into consideration key competences of a personality, we are considering foreign language training of social sphere specialists through some standards, grounded on the complex of the training principles such as:

1. Social and cultural pluralism, that suggests equality and freedom of thinking and interaction regardless of native or foreign language a person speaks;
2. Linguorelativism, that offers other cultures studying and understanding through foreign languages learning;
3. Social and cultural complementarity, that allows to carry out the statement about mutual cultural complement and axiological development of different social groups, including professional, on the basis of foreign language learning.

Thus integration process in social sphere leads to universalization of demands to both professional qualification of social work university graduates and their foreign language competence. On the basis of scientific theories and author's practice of foreign language training of future specialists of social sphere we consider foreign language training through the following contexts: general social, branch context, social group and individually personal.

## PECULARITIES OF REPETITIONS IN ENGLISH AND UZBEK

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The article is dedicated to analysis of the repetitions, expressed by noun in Uzbek translation of the work "Romeo and Juliet" by W. Shakespeare. In it is considered way of talking of the repetitions in Uzbek translation of original English text is spoken about skill of the translator in process, are researched particularities of their usage.

Key words: translation, original, repetition, translator, research, work, adopted word, dictionary.

In spite of researching of repetition, which meets in literary works, this problem has not found it's unraveling till the end. That is why its research is one of the actual problems of today's modern philology. Especially, the peculiarities of the expression of repetition in original and translation text of literary works need attention of linguist-researchers. As an example we can analyze the repetitions in the tragedy of "Romeo and Juliet" which is written by the great English ancestor and one of the unique members of the world literature William Shakespeare and its Uzbek translation by famous Uzbek poet and translator M. Shaykhzoda.

Conducted observations show that, in the work of "Romeo and Juliet" by Shakespeare there are 331 word repetitions, 38 repetitions of word combinations, 52 sentence repetitions, 5 prepositional repetitions. If we want to represent the participation of parts of speech, the author used 38 verbs, 32 pronouns, 28 adjectives, 7 adverbs, 5 numerals. They participated in the work as repetitions. There are 62 repetitions concerning to noun, so noun is counted as the most active part of speech in this work. It is known that, there is no any language alone itself, languages in the world fill and enrich each other. Just this condition can be observed in the dictionary of English word's vocabulary. In above mentioned work with a row of transparent English words, there are French, Latin and German adopted words which take part as noun repetition in the work.

The main goal of this classification is to specify noun repetitions belonging to what language, reflection of these repetitions' meaning in translation and to work the ways of translation without loss of the meaning of the work. It is very necessary factor for translation. As a result of this full meaning of original work will be understandable for the reader. Let's pay attention to some examples which are expressed by noun repetitions.

Ғам-ғуссали соатларнинг умри ҳам узун,

Ҳозир бундан кетган киши отам эмасми?

Ғам – [а. Қайғу, ҳасрат, ғам-алам] 1 Рухий азоб ҳис-туйғуси, руҳиятдаги шундай ҳолат, қайғу.

2 Кўзланган мақсад, иш ва шу қабилар йўлидаги безовталиқ хатти-ҳаракати, шу ҳақдаги ўй-ҳаёл, ташвиш.

Ғусса – [а. Бўғувчи нарса, ғам-қайғу] Ғам-алам, қайғу. [Ўзбек тилининг изоҳли луғати. 2006.]

In this rhythm two words “ғам” and “ғуцца” are adopted from Arabian origin. The meanings of these words are similar to each other. Translator used from the first meaning of the word “ғам” in dictionary and similar word “ғуцца” according to original. Now, we'll look through it in English original work.

Ay me! Sad hours seem long.

It is known that, according to the place and content every word is used in different meanings. In this line M. Shaykhzoda translated a word “sad” into Uzbek with the help of semantic repetition. We think that, this is right way of translation. W. Shakespeare wrote the work in the measure which consists of 10 syllables. And during the process of translation, translator used the “finger” measure of Uzbek epic poetry consisted of 13 syllables. So, in order to provide measure proportionality in poetry translator used semantic repetition and there is no any changing in meaning, otherwise he could give the meaning fully. Another example for noun repetitions in original which were expressed in translation the same with repetition.

In translation:

Чечак бунда! Энди менинг куёвим ажал.  
Қизим эри, ворисим ҳам ажалдир, ажал.  
Мен ҳам бешак ўлажакман, ҳамма нарсамнинг,  
Мулкимнинг ҳам, умримнинг ҳам вориси – ажал.

The word “ажал” in Uzbek translation is adopted from Arabic origin. This word is described in the book of “Ўзбек тилининг изоҳли луғати” as following:

ажал [а. – вақт оралиғи; белгили муддат] – Ўлим пайти, қазо вақти; ўлим [Ўзбек тилининг изоҳли луғати, 2006.].

In original:

Death is my son-in-law, Death is my heir;  
My daughter he hath wedded: I will die,  
And leave him all, life living all is Death's!

death – noun. 1) the action or fact of dying or being killed.

2) the state of being dead.

3) the end of something [The Oxford English Dictionary, 2000.].

In these examples the proportion of repetitions is almost equal.

In translation of “Romeo and Juliet” translator expressed some nouns with the help of repetition which were written in original work once. The cause of this can be explained by providing the proportion of measure in poetry, devoting emotionality to the expression. Another passage was translated as following:

Капулетти: Шундай қизнинг бўлишига минг лаънат, лаънат!

лаънат [а. – лаънат, қарғиш] – 1 Кечириб бўлмайдиган айби, хатти-ҳаракати, оғир жинояти учун қаттиқ қарғиш, шундай мазмунда айтилган гап-сўзлар.

2 Қаттиқ ғазаб ва нафратли қарғишни ифодалайди. [Ўзбек тилининг изоҳли луғати, 2006.].

If we compare this passage with its original there are some differences in usage of words between them.

Capulet: And that we have a curse in having her.

curse – noun. 1) a solemn appeal to a supernatural power to inflict harm on someone or something.

2) an offensive word or phrase used to express anger or annoyance.

The reader should pay attention to the usage of proper nouns during the process of reading. As it is known, during the translation, in many positions proper nouns are taken from one language into another according to the transcription (otherwise, according to their

reading). Repetitions of proper nouns also meet in this work in the formation of addressy and they are reflected as following:

Энага: Фалак кила олмас экан, Ромео қилди!  
Войдод, войдод, ким ўйлабди? Ромео, войдод!  
In original:  
Nurse: Romeo can,  
Though heaven cannot. O! Romeo, Romeo;  
Who ever would have thought it? Romeo

Proper nouns used repeatedly in original were given also with the help of repetition in translation. There are 9 proper nouns in both languages (in original and in translation also), they are: Romeo, Montague, Benvolio, Capulet, Juliet, Tybalt, and Paris. Among these names proper nouns of Romeo and Juliet meet many times in the formation of addressy during the dialogues in this work. The most interesting facet is that, in English dictionaries which explanations of all English words were given, above mentioned two names were noted. But in fact, explanations of proper nouns are not given in dictionaries.

Romeo – noun. 1) an attractive, passionate male seducer or lover.

2) a code word representing the letter R, used in radio communication.

ORIGIN the hero of Shakespeare's romantic tragedy Romeo and Juliet [The Oxford English Dictionary, 2000.].

This words' entering to the structure of modern English dictionaries straightly depends on Shakespeare's tragedy "Romeo and Juliet" and because of its well-known all over the world. So that, the object of our research – "Romeo and Juliet" was the cause of entering these nouns to the structure of modern English dictionaries.

In many places of Uzbek translation of "Romeo and Juliet" translator was limited with using repetition words or word combinations only once. It is the influence of Russian translation of it. Shaykhzoda effectively used Russian and Azerbaijan translation of "Romeo and Juliet" during the translation process ("Ромео и Джульетта" is the translation of B. Pasternak from English into Russian). But Uzbek translator chose excellently the equivalents of words. It means that, Shaykhzoda was a master of translation. He used many adopted words from different languages as noun repetitions.

Organized researches show that, the great English ancestor and one of the great members of the world literature William Shakespeare, who lived five centuries ago, also used different types of repetition. The main aim of using repetitions is to describe the speech of heroes in the work more expressively. Repetition plays an important stylistic role in giving a stress to the main part of the sentence, describing sensitive condition of the speaker, showing the speaker's emotional-expressive attitude to describing object and expressing length of the process. One of important peculiarities of repetition: many repetitions are used in culmination points of development of events in original work of "Romeo and Juliet" and its translation. It means that, the significance of repetition is endlessly in devoting expressiveness to the utterance. Each repetition reinforces rhythmical aspect of the sentence. It is an important stylistic device in presenting the speech melodiously, efficiently and bewitching and by this way the speech will be received easily by listener.

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