ЭКОНОМИКА И НАУКА В СОВРЕМЕННОМ МИРЕ. РАЗВИТИЕ НОВЫХ ВОЗМОЖНОСТЕЙ

Институт управления и социально-экономического развития, Центр профессионального менеджмента "Академия бизнеса", Центр поддержки научных исследований WORLDLY KNOWLEDGE Узбекистана провели международную научно-практическую конференцию

10 января 2025

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УДК 004.02:004.5:004.9
ББК 73+65.9+60.5
   Э43

Э43   ЭКОНОМИКА И НАУКА В СОВРЕМЕННОМ МИРЕ. РАЗВИТИЕ НОВЫХ ВОЗМОЖНОСТЕЙ: материалы международной научно-практической (10 января 2025г., Узбекистан, Андижан) Отв. ред. Саломов Ш.Н. – Издательство ЦПМ «Академия Бизнеса», Саратов 2025. – 102с.

Сборник содержит научные статьи и тезисы ученых Российской Федерации, Узбекистана и других стран. Излагается теория, методология и практика научных исследований в области информационных технологий, экономики, образования, социологии.

Для специалистов в сфере управления, научных работников, преподавателей, аспирантов, студентов вузов и всех лиц, интересующихся рассматриваемыми проблемами.

Материалы сборника размещаются в научной электронной библиотеке с постатейной разметкой на основании договора № 1412-11/2013К от 14. 11. 2013.

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THE IMPORTANCE OF INTERACTIVE WHITEBOARD IN COMPUTER SCIENCE LESSONS

Abstract. This article focuses on the significance of interactive whiteboards in computer science lessons. Interactive whiteboards are modern educational tools that enhance the teaching and learning process by providing a dynamic and engaging environment. They enable the integration of multimedia resources, facilitate collaborative activities, and improve students' understanding of complex concepts in computer science.

Keywords: Computer, method, monitor, technology.

INTRODUCTION

An interactive whiteboard is a new generation multimedia tool, and who, if not a computer science teacher, can use new technologies in teaching? Using an interactive whiteboard in computer science lessons will allow teaching to be conducted at a fundamentally new qualitative level, using all the advantages of modern computer technologies [10]. Today, it is simply ridiculous and ineffective for a computer science teacher to explain with chalk in hand how Word, Excel or any other program works. Working on the board with an electronic marker, a teacher can quickly and clearly demonstrate a particular technique for working with a program to the entire class at once, rather than explaining the same thing to everyone at their computer.

MATERIALS AND METHODS

An interactive whiteboard is a "mix" of a computer and a regular whiteboard. With the help of special markers, you can display pictures, maps, diagrams, create and move objects, use video and animation, highlight important points with color, and work with any computer programs. Moreover, an interactive whiteboard also has the functions of a regular whiteboard. The role of the usual chalk is performed by an electronic marker. You can simply write on it with a marker, and erase the inscriptions with an "eraser" [10].

An interactive whiteboard is only a tool that can become a good assistant. [5]. The effectiveness of working with a whiteboard largely depends on the teacher himself, on how he uses these or those of its capabilities.

Interactive whiteboards can be used both when working in a large audience and in small groups. With their help, you can diversify the learning process: a teacher can give a lecture using text, audio and video materials, DVD, CD-ROM and Internet resources at the same time. You can write and make notes on top of all documents, diagrams and web pages using the "Pen" tool.

RESULTS AND DISCUSSION

Any information displayed on the interactive whiteboard can be printed, saved, emailed, and posted on a website.

Interactive whiteboards come with software. Its capabilities vary depending on the manufacturer. Some programs allow you to work with text and objects on the board, save information, and convert written text into printed text. Others include summary materials and offer special features for working in the classroom.

Working with interactive whiteboards involves simple but creative use of materials. Files or pages can be prepared in advance and linked to other resources that will be available in class. When developing lessons using an interactive whiteboard in computer science classes, I most often use software called SmartNotebook, since this program contains a large set of additional tools for the teacher.

On the interactive whiteboard, you can easily move objects and texts, add comments to texts, pictures and diagrams, highlight key areas and add colors. In addition, texts, pictures or graphs can be hidden and then shown at key moments in the lecture. All this happens at the board in front of the whole class, which undoubtedly attracts everyone's attention [7]. Pre-prepared texts, tables, diagrams, pictures, music, maps, thematic CD-ROMs, as well as adding hyperlinks to multimedia files and Internet resources set a brisk pace for the lesson: you do not have to spend a lot of time writing text on a regular board or moving from the screen to the keyboard.

All diagrams, charts, and graphs can be adjusted directly on the screen using the Pen, Eraser, and Selection tools, and notes can be saved for future lessons. Files from previous lessons can always be opened and the material covered can be repeated [8].

Teaching with interactive whiteboards differs significantly from traditional teaching methods, although the basics for successfully conducting a lesson are the same. The structure of a lesson using interactive devices can change [6]. And in some cases, an interactive whiteboard can become an indispensable assistant, for example, in the so-called inductive teaching method, when students come to certain conclusions by sorting the information they receive.

During a lesson, you can classify the material in different ways using the various capabilities of the board: move objects, work with color, while involving students in the process, who can then work independently in small groups. Sometimes, you can draw students' attention to the board again so that they share their thoughts and discuss them before continuing to work. However, it is important to understand that the effect of using interactive technologies largely depends on the teacher himself, on how he uses certain capabilities of the board.

The interactive whiteboard is a valuable tool for whole-class learning. It is a visual resource that helps present new material in a lively and engaging way. It allows information to be presented using a variety of multimedia resources,

allowing teachers and students to comment on the material and explore it in as much detail as possible. It can simplify the explanation of diagrams and help to understand a complex problem.

When I work with the interactive whiteboard, I try to make the presentation of ideas exciting and dynamic. The whiteboard allows students to interact with new material and is also a valuable tool for explaining abstract ideas and concepts. Having used the interactive whiteboard for three years now, I have found that interactive whiteboards make lessons engaging for both the teacher and students by using a variety of dynamic resources and improving motivation.

CONCLUSION

I believe that the main purpose of the interactive whiteboard in teaching computer science is to develop students' cognitive activity by optimizing the learning process, increasing its clarity and content. In addition, I would like to note the social role. Children cannot respect an outdated teacher. Increasing information competence, including through working with an interactive whiteboard, increases the teacher's chances of overcoming this outdatedness. I believe that today it is impossible to teach children living in a world of high technology to teachers who do not possess these technologies.

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PEDAGOGICAL, PSYCHOLOGICAL FACTORS FOR THE FORMATION OF MOTIVATION FOR A HEALTHY LIFESTYLE IN SCHOOL TEACHERS

Abstract: *This article analyzes the pedagogical and psychological aspects of developing and maintaining a healthy lifestyle among school teachers. The importance of a healthy lifestyle in teachers' professional activities, factors influencing its formation, and motivational mechanisms are studied. The research resulted in the development of effective methods and recommendations for forming a healthy lifestyle.*

Keywords: *healthy lifestyle, teacher health, motivation, pedagogical-psychological factors, professional activity*

INTRODUCTION

The formation of a healthy lifestyle among teachers has become an increasingly critical concern in contemporary educational systems worldwide. The demanding nature of the teaching profession exposes educators to significant physical and psychological challenges that can substantially impact their well-being. Modern teachers face an unprecedented combination of traditional and emerging stressors, including increased workload, administrative responsibilities, technological adaptation, and the need to maintain high educational standards while managing diverse student needs [1]. The significance of promoting healthy lifestyle practices among teachers extends beyond individual health benefits, directly influencing educational quality and student outcomes.

Research has consistently demonstrated that teachers' well-being significantly impacts their professional effectiveness, classroom management abilities, and capacity to create positive learning environments. Furthermore, teachers serve as role models for their students, making their adoption of healthy lifestyle practices particularly influential in shaping young people's attitudes toward health and wellness. The contemporary understanding of teacher health encompasses not only physical well-being but also mental, emotional, and social dimensions, necessitating a comprehensive approach to lifestyle modification and health promotion within educational settings.

METHODOLOGY AND LITERATURE REVIEW

The systematic review of literature on healthy lifestyle motivation among school teachers reveals a rich body of research spanning multiple disciplines, including education, psychology, and public health. The analysis encompasses both theoretical frameworks and empirical studies from international and local

contexts, providing a comprehensive understanding of the factors influencing teachers' health behaviors and motivational patterns.

Recent studies by Petrov and Ivanov [2] present compelling evidence regarding the relationship between occupational stress and teacher health outcomes. Their research, conducted across multiple educational institutions, identifies key stressors in the teaching profession and proposes evidence-based strategies for stress management. The study particularly emphasizes the importance of preventive measures and early intervention in maintaining teacher well-being.

Smith's [3] influential work provides a theoretical foundation for understanding the psychological aspects of healthy lifestyle adoption among educators. Through extensive analysis of motivational factors, Smith demonstrates how personal beliefs, self-efficacy, and environmental support systems interact to influence health-related behaviors. This research has been particularly valuable in understanding the cognitive processes that drive sustainable lifestyle changes among teaching professionals.

In the local context, Rakhimov's [4] comprehensive study offers valuable insights into cultural and institutional factors affecting teacher health in the educational system. The research presents innovative approaches to strengthening both physical and mental health among educators, taking into account specific challenges faced by teachers in contemporary educational settings. Rakhimov's work is particularly noteworthy for its practical recommendations and culturally sensitive approach to health promotion.

Karimova [5] contributes significantly to the understanding of socio-psychological factors in teacher health promotion. Her research examines the complex interplay between professional demands, personal health practices, and institutional support systems. Through detailed analysis of teacher experiences and health outcomes, Karimova identifies critical factors that either facilitate or hinder the adoption of healthy lifestyle practices in educational settings.

The literature review reveals a growing consensus on the importance of comprehensive approaches to teacher health promotion. These studies collectively emphasize the need for multi-level interventions that address both individual and institutional factors affecting teacher well-being. The research also highlights significant gaps in current understanding, particularly regarding the long-term effectiveness of various health promotion strategies and the role of technology in supporting healthy lifestyle practices among educators.

RESULTS AND DISCUSSION

The comprehensive analysis of literature reveals several significant findings regarding the formation of healthy lifestyle motivation among school teachers. The research indicates that the relationship between teachers' health practices and their professional effectiveness is more complex and multifaceted than previously understood. Johnson's [6] extensive research demonstrates that teacher health directly correlates with educational outcomes, showing that educators who

maintain healthy lifestyle practices consistently demonstrate higher levels of classroom engagement, better stress management, and more effective teaching methodologies.

The examination of motivational factors reveals a sophisticated interplay between internal and external drivers. Internal motivation factors, including personal health values, self-awareness, and individual health goals, form the foundation of sustainable lifestyle changes. External motivation factors, such as workplace environment, administrative support systems, and institutional health promotion policies, play a crucial role in reinforcing and maintaining healthy behaviors [7]. The research suggests that the most effective approach to promoting teacher health combines both internal and external motivational elements.

Recent studies have highlighted the critical importance of institutional support in facilitating healthy lifestyle choices. Educational institutions that implement comprehensive health promotion programs, including flexible scheduling, access to fitness facilities, and stress management resources, report significantly higher rates of teacher participation in health-promoting activities. Sokolov's [8] research particularly emphasizes the necessity of adopting an integrated approach to teacher health, incorporating physical activity, nutrition education, mental health support, and work-life balance strategies.

Furthermore, the research identifies several key barriers to maintaining healthy lifestyle practices among teachers. These include time constraints, work-related stress, limited access to health resources, and insufficient institutional support. Understanding these barriers is crucial for developing effective interventions and support systems. The literature suggests that successful health promotion programs must address these obstacles through systematic, institution-wide approaches that consider both individual needs and organizational constraints.

CONCLUSION

The development of healthy lifestyle practices among educators represents a complex and multifaceted challenge that requires careful consideration of both pedagogical and psychological dimensions. The evidence gathered through this research demonstrates that successful implementation of healthy lifestyle practices depends on a sophisticated interplay of personal motivation, institutional support, and systematic approach to health promotion. Teacher well-being emerges as a critical factor not only in personal health outcomes but also in the broader context of educational quality and student achievement. The research highlights the essential role of school leadership in creating supportive environments that facilitate healthy choices and promote work-life balance.

Moving forward, educational institutions must recognize that investing in teacher health is fundamentally an investment in educational quality. This understanding should inform policy development, resource allocation, and institutional priorities, ensuring that teacher well-being becomes an integral part

of educational planning and development. The implementation of comprehensive health promotion programs, coupled with sustained institutional support and recognition of individual health needs, presents the most promising path forward in creating healthier, more effective educational environments.

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UDC 66.001

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APPLICATION OF DIGITAL TECHNOLOGIES IN THE AGRO-INDUSTRY INDUSTRY

Abstract. *This article examines the possibilities of increasing the efficiency of agricultural production through the use of digital technologies in the agro-industrial sector. The ways in which agricultural producers can use digital technologies and effectively manage them are described scientifically and practically.*

Keywords: *agro-industrial complex, digital technologies, mobile technology, artificial intelligence, smart agriculture, food security.*

Digital technologies, including the Internet, mobile technologies and devices, data analytics, artificial intelligence, digital services and applications, are changing agriculture and the food system. Examples abound at different stages of the agri-food production chain: automation of agricultural machinery allows precise adjustment of inputs and reduces the need for manual labor; remote satellite data and on-site sensors increase the accuracy and reduce the cost of monitoring crop growth and land or water quality and tracking technologies and digital services logistics allow optimize hats supplies agro-food products, also will provide reliable information to consumers.

Digital technologies can also help governments improve the efficiency and effectiveness of existing policies and programs and develop better ones. For example, free, high-quality satellite imagery is significantly reducing the costs of monitoring many agricultural activities. This could allow governments to move toward more targeted policies that pay (or penalize) farmers based on observed environmental outcomes. Beyond monitoring compliance with environmental policies, digital technologies can automate administrative processes in agriculture and expand public services, such as advisory or consulting services.

Nakonets, sifrovie technologies can support trade in agricultural and food products products, connecting suppliers from private sectors with new rinkami and providing governments with new ways to monitor and enforce standards, and ensuring faster and more efficient border procedures required for perishable products.

These technological advances can help create more resilient, productive and sustainable agricultural and food systems that better meet the needs of needs consumers. These vigodi arise how directly - for check adoption of technologies

by sector participants (including service providers) and indirectly through the adoption of technologies by governments to implement more effective policies.

In recent years, the introduction of sifro technologies into precision farming has led to adjustments in the way farmers process crops and manage their fields. need to bit expert, what will see, how technology changed concept "smart" agriculture, making it more profitable, efficient, safe and simple. Among other technologies, farmers chose five that they consider the best:

Software security GIS And rural farm GPS

Satellite images

Drone And other aerial photographs

Agricultural software security And online data

Merging data sets.

As a result, modern farms are receiving significant benefits from the ever-evolving digital agriculture. These benefits include reduced consumption of water, nutrients and fertilizers, reduced negative impact on the surrounding ecosystem, reduced chemical runoff into local groundwater and rivers, increased efficiency, reduced hay, and much more. Thus, the business becomes profitable, smart and sustainable.

Since fields are location dependent, GIS software becomes an incredibly useful tool in terms of precision agriculture. Using the software GIS, farmers can display current and future changes in precipitation, temperature, yield, healthy plants. This also allows used applications on basis GPS in combination with intellectual machines for optimizations applications fertilizers and pesticides; considering that farmers no need to cultivate the whole field, and by identifying specific areas, they can achieve savings in money, effort and time. Another big advantage of GIS-based farming is the use of satellites and drones to collect aerial data on vegetation, soil conditions, weather and terrain. Such data greatly improves the accuracy of decision making.

Forecasting crop yields and monitoring fields in near real time with the ability to detect various threats using satellite data has never been easier.

With the help of drones, farmers have the opportunity to determine the biomass of their crops with high accuracy, height plants, availability weeds and water saturation on certain areas poly. They provide more quality and precise data with more high resolution by comparison with satellites. When they operate locally, they provide hay information even faster than scouts. Drones are also considered unrivaled helpers in the fight against insects; invasion is prevented by applying insecticide to danger zone with the help of drones, while is decreasing probability direct impacts, leading to chemical poisoning. Despite although drones are easy to use and can collect large amounts of data in a short time, their constant use still poses problems, since they are not cheap. Drones are practically useless where mapping or monitoring of large areas is required, and it is better to supplement the technology with satellite monitoring among already mapped areas where specific areas need to be rechecked.

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EXPLANATION OF TERMS IN ENGLISH-UZBEK TRANSLATIONS

Abstract

This article is devoted to the interpretation of terms in translation from English into Uzbek. The importance of how terms are translated into Uzbek during the translation process and their clear and correct understanding is analyzed. The correct translation of English terms into Uzbek is important in scientific, technical, legal and other fields, since incorrect translation can lead to unexpected errors and misunderstandings. The article considers the interpretation of English terms into Uzbek, methods for ensuring the clarity and consistency of terminology in various fields. It also analyzes the methodological approaches necessary to improve the quality of translation, and the importance of clear interpretation of terms in scientific and applied research.

Keywords: English-uzbek translation, terminology, translation methods, interpretation of terms, scientific translation, mistranslation, translation errors, translation methodology

Introduction: Interpretation of terms in the field of translation is a complex process that takes into account not only linguistic, but also cultural, scientific and technical aspects. When translating from English to Uzbek, it is very important to use accurate and correct terminology, especially in the scientific, technical, legal and economic fields. Serious errors can occur as a result of misunderstanding or incorrect translation in translation, which causes inconvenience in scientific and practical activities.

In the translation process, it is necessary to know how to interpret English terms correctly and appropriately into Uzbek, to improve the quality of the translation and to prevent misunderstandings. In this regard, various translation methods, approaches appropriate to the field and context, as well as the specific features of terminology should be taken into account. This article discusses how to translate English terms into Uzbek in an explanatory manner, the problems that arise in this process, and their solutions.

Main Part: There are a number of important factors in the interpretation of terms in English-Uzbek translation. The main task of the translator is to express the meaning of the terms in a clear and understandable way. The main stages of this process can be analyzed as follows:

Accuracy and consistency of terminology: When translating English terms into Uzbek, the main attention should be paid to preserving the exact meaning of the terms. Terms used in each field have a clear definition, and their translation

often requires specific field knowledge. For this, translators must be well versed in the characteristics of the field.

Translation methods: The explanatory translation of English terms into Uzbek often includes transliteration, adaptation, and direct translation methods. Sometimes English terms are replaced with an existing equivalent in Uzbek, and sometimes a new term needs to be introduced.

Adaptation to the field and context: The translation of terms varies depending on the field and context. For example, in scientific and technical fields, accurate and correct translation of terms is carried out through existing equivalents in Uzbek or new terms. In legal and economic fields, sometimes it is necessary to explain terms and concepts instead of directly translating English terms into Uzbek.

Mistranslation and its consequences: In some cases, incorrect translation or misunderstanding of English terms can lead to loss of originality, misunderstandings and errors. For example, incorrect translation in technical or scientific fields can lead to incorrect scientific information, legal errors or confusion in international relations.

The most common problems encountered in the explanatory translation of English terms into Uzbek include:

Lack of existing equivalents of terms: Some English terms may not have direct equivalents in Uzbek. In such cases, it is necessary to create new terms or explain existing concepts.

Industry-specific terminology: Terms in different industries differ from each other, and in-depth knowledge of the industry is required to translate these terms correctly and appropriately into Uzbek.

Importance of context: The translation of terms can change depending on the context. Therefore, translators should always study the terms, fully understand their meaning, and perform explanatory translation based on the requirements of the industry.

Conclusion: The process of interpreting terms in English-Uzbek translation is of great importance in solving important tasks not only in linguistics, but also in the fields of culture, science, technology, law and economics. Translators must preserve their precise meaning, take into account the field and context in order to interpret English terms into Uzbek. Correct use of terminology increases the quality of translation and reduces misunderstandings. Also, interpreting English terms into Uzbek helps to improve the quality of global communication and communication in scientific and technical fields.

Translators must know their field, apply the right methodological approaches and be careful in the process of creating new terms. Thus, accurate and precise translation of English terms into Uzbek not only increases the quality of translation, but also ensures the continuous exchange of accurate information and concepts in a wide range of practical areas.

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ORGANIZATION OF FINANCING INVESTMENT PROJECTS

Annotation. *The article explores specific aspects of financing investment projects. Also, the financing processes of investment projects are covered in detail.*

Key words. *Investment, investment projects, project financing.*
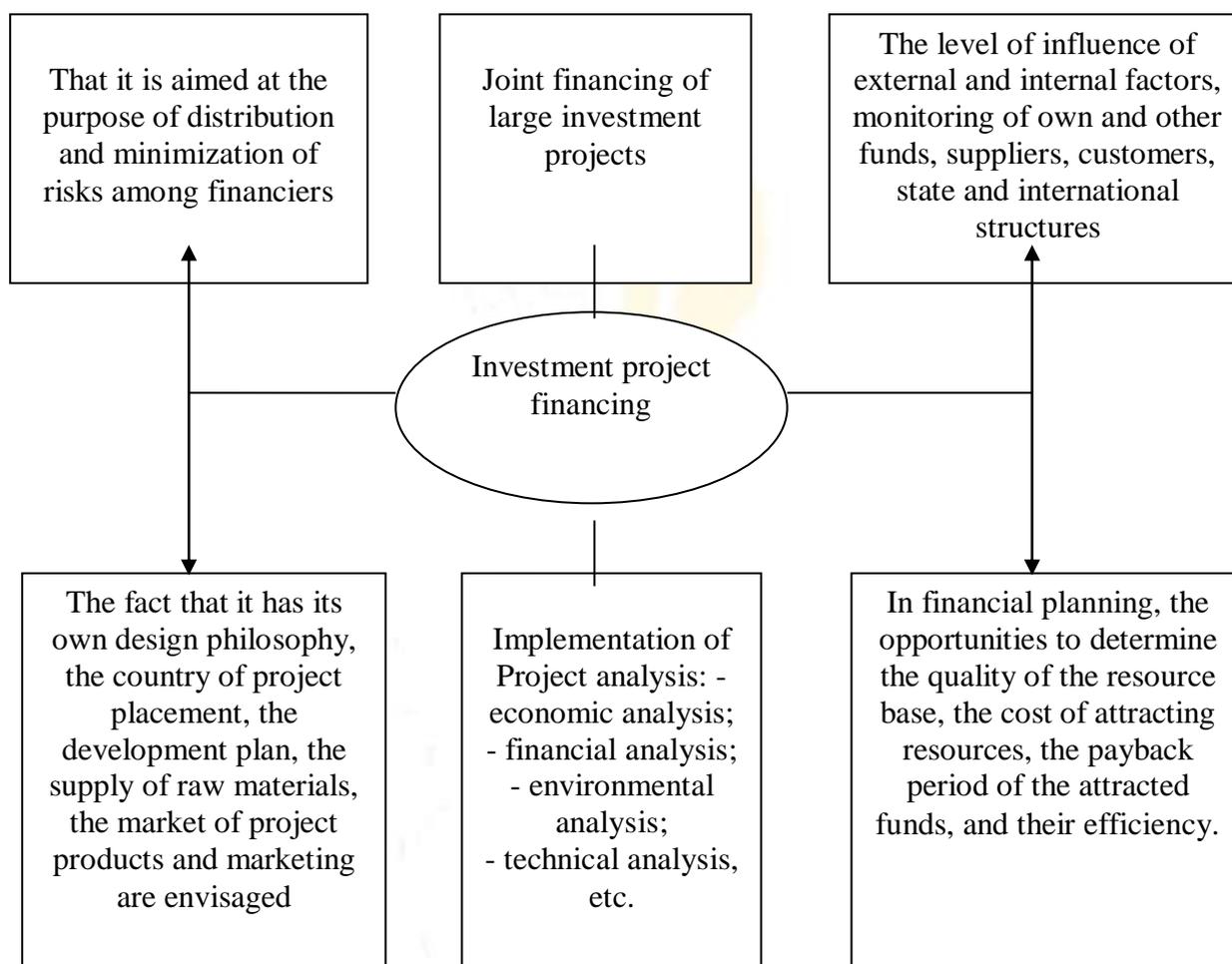
In the conditions of modernization of the economy, the development of financing of investment projects in priority sectors of the economy is of particular importance. Its role in the development of the real sector of the economy, in many ways, comes from the features of financing investment projects, stages of implementation.

"Risk-sharing and minimization among financiers is carried out on the basis of project financing aimed at implementing projects. Such financing is based on the quality of the resource base, determining the value of attracting resources, ensuring the effective use and repayment of funds being attracted, their duration, and evaluating their efficiency. Moreover, it allows for determining the influence of external and internal factors, monitoring third-party investments, suppliers, clients, state, and international structures. The financing of investment projects fundamentally differs from corporate financing and lending, as it is implemented through a financing plan that considers both internal and external resource sources and combines various funds."

"The importance of financing investment projects in the real sector of the economy is directly related to the analytical work carried out in project financing. Project financing includes project analysis, which also considers syndicated loan repayment analysis. In addition, it evaluates the cost of attracting resources, resource utilization periods, the placement and repayment periods of the attracted funds, profitability levels, and determines the impact of internal and external factors on their quality."

The importance of financing investment projects in countries with a transitional economy provides opportunities for each creditor to solve serious problems by lowering individual credit risks. Project financing will have a special system of tracking the implementation of the project. It provides for the use of its funds, borrowed funds, investments of others, monitoring the activities of suppliers, customers, international structures. Monitoring also covers the current activities of the participants in the investment process, the initial financing structure, the usefulness of the calculations, the schedule for the repayment of syndicated loans and the conditions for the disconnection of debt.

That it is aimed at the purpose of distribution and minimization of risks among financiers	Joint financing of large investment projects	The level of influence of external and internal factors, monitoring of own and other funds, suppliers, customers, state and international structures

Investment project financing

The fact that it has its own design philosophy, the country of project placement, the development plan, the supply of raw materials, the market of project products and marketing are envisaged	Implementation of Project analysis: - economic analysis; - financial analysis; - environmental analysis; - technical analysis, etc.	In financial planning, the opportunities to determine the quality of the resource base, the cost of attracting resources, the payback period of the attracted funds, and their efficiency.

Figure 1. Features of financing investment projects [1]

Project financing has a special mechanism for financing investments, assessment and analysis of resource sources, specific principles and methods of financing, own conditions for financing a syndicated loan, as well as methods of Project Management. Such financing is carried out by the formation of debts and the issuance of sub-letters on the basis of sub-bonds. The basis of project financing is the complex financial relations of participants on the basis of the commonality of corporate interests.

Financing of investment projects usually involves financing large expenditures in various regions of the world with the aim of organizing joint ventures, branches of which. In this case, the financing of projects is carried out separately from the main activity, by raising large funds to finance expenses. With the help of such a mechanism of project financing, the risks in lending are minimized. In project financing, the debt is not given directly to the initiator of the project, but to an institution controlled by the participants in the syndicated loan,

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[1] Muallif tomonidan tayyorlandi

which, in turn, transfers the funds to a subsidiary or joint venture responsible for the implementation of the project. The consolidated lending institution usually makes advance payments at the expense of future delivery of the product on the result of the project. This product is purchased by another enterprise of the parent company from the financial institution under the contract.

Thus, attracting a syndicated loan in project financing creates complex mutual obligations and, ultimately, direct obligations of the parent company or one of its main subsidiaries. In this: the participants in the syndicated loan agree on the mutual distribution of risks in cases where there is a lack of material guarantees to cover the debt and take on a fixed part of the risks associated with the implementation of the project. The corporate interest Party is not liable for debt with its other assets.   Knowledge of the tasks of participants, various owners of funds who have the opportunity to participate in project financing of investments in the implementation of the project is an important factor that contributes to the effective consolidation of funds into the project and promotes high results.

There are different methods and sources of financing for investment projects in world practice, and each state uses these methods, depending on its economic and investment policy, the degree of validity of the market mechanism.

In order to organize the financing of investment projects in the required order, a special responsible person – project manager-is appointed by the bank. The project manager takes responsibility for the implementation of the project and its monitoring.

Loans for project financing are provided only if the project meets the bank's request with economic, financial, technical and environmental indicators. The borrower enterprise as a legal entity must be established in the desired order and must be subject to state registration.

The project manager should try to increase the share of the debtor's own funds contributed to the project in order to reduce the risks of the bank and distribute it fairly between the debtor and the bank. In this case, the share of the debtor's own funds in the total cost of the project should not be less than 30% of the cost of the project. The financial position of the debtor should be at the level of demand, there should be no risk of bankruptcy or other court-related processes that negatively affect the effective implementation of the project in its activities.

Financing of the project is carried out with the aim of creating or purchasing the main funds of the borrower and establishing working capital associated with the investment.

Project financing can be divided into two types, depending on the financing procedure based on the experience of world practice [2]:
- parallel financing;
- -step-by-step financing.

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[2] Karimov N.G'., Angelidi M.S. Investitsiyalarni loyihaviy moliyalashtirish tizimida sindikat asosida kreditlashtirish (savollar va javoblar). T.: TMI, 2005. – B.17.

First round financing is also called "collaborative financing" in practice. For the implementation of investment projects of high importance in this, several credit institutions allocate borrowed funds. Step-by-step financing requires the need to participate in a bank with a high reputation.

In conclusion, the role and importance of financing investment projects in the real sector of the economy is, above all, the fact that it has a special system of Project analysis and implementation and monitoring, minimizing risks on the project, ultimately allowing successful implementation of investment projects.

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TEACHING ENGLISH TO PRESCHOOL CHILDREN AGED 5-7 YEARS

Abstract. *This article examines the specifics of teaching English to preschool children. Having analyzed the specifics of teaching students of this age group (lack of long concentration and short perseverance), the methods and techniques that are most effective in working with this category of students were examined. The most effective of these are the game form of teaching, the bonus accumulation system, the visualization of the material being studied, the association method, the immersion method, and various game forms. In the article, these methods and techniques are examined in more detail.*

Keywords: *teaching English, preschool age, teaching methods, teaching techniques, competence.*

INTRODUCTION

Preschool age is a very important period in the development of a person's personality. Therefore, the stage of preschool education attracts the attention of specialists in various fields. If we consider the tasks of modern education as a whole, we can note that recently the priorities have shifted from the aspect of developing skills, abilities and acquiring knowledge to acquiring various competencies: social, socio-cultural, communicative, etc. [1]. Preschool age is also a period of flourishing cognitive development, the formation of assessment and self-esteem, the development of cognitive, volitional, emotional self-regulation. In preschool age, the foundations of the future personality are formed: a stable structure of motives is formed, new social needs arise, the need for peer recognition, a new type of motivation appears, the basis for voluntary behavior [2].

MATERIALS AND METHODS

Currently, one of the most popular is foreign language communicative competence.

According to E. P. Abdurazyakova, it is the mastery of communication techniques at a certain level, the acquisition of relevant norms and stereotypes of behavior is the result of learning. This competence is also closely related to the cognitive and emotional development of students and includes components that represent basic foreign language competencies (speech, language, socio-cultural, compensatory and educational-cognitive), and which are characterized by a certain set of knowledge, skills and abilities [3].

It is advisable to begin developing this competence at an early stage, when the child is able to productively assimilate new material.

ЭКОНОМИКА И НАУКА В СОВРЕМЕННОМ МИРЕ. РАЗВИТИЕ НОВЫХ ВОЗМОЖНОСТЕЙ

According to E. N. Protasova, by about 5 years of age, the system of the native language is sufficiently well mastered, and, as a result, the child's attitude to the new language is already conscious. Modern realities show that early teaching of a foreign language helps to create the opportunity to arouse interest in the linguistic and cultural diversity and richness of the world, respect for the languages and cultures of other peoples. According to the point of view of I. A. Zimnyaya, a foreign language, like a native language, ensures social, intellectual and personal functions of a person [2].

RESULTS AND DISCUSSION

At the same time, teachers disagree on the age at which English language teaching should begin. I. L. Sholpo believes that it is productive to begin teaching at the age of five, since four-year-old children learn the material more slowly, are still too emotional, find it more difficult to concentrate, and do not have sufficient command of their native language. Three-year-old children also cannot consciously study and become familiar with a foreign language, since they are just beginning to develop speech skills and develop a vocabulary in their native language. We consider it important to emphasize the fact that three-year-old children are in close contact with their parents and their absence often causes stress in children, which can hinder high-quality familiarization with the language. But we cannot ignore the fact that everything is individual, and there can be exceptions everywhere [3]. So, during the first 4 years of a person's life, 50% of cognitive abilities are laid down, by the age of 7-8, basic skills are formed. Starting from the age of 8-10, any abilities need to be developed through training. The older you are, the more time you will need to devote and the more effort you will need to invest. Therefore, the best option for teaching English to children is to start at the age of 5.

An important point in learning a language at an early age is that the child is not afraid and is not embarrassed to make mistakes, which cannot be said about adults. It is difficult for them to overcome the speech barrier. Many want and can speak, but are embarrassed.

The most important thing in teaching preschool children is the interest of the students. It is necessary to structure classes in such a way that children do not lose interest over time, since due to age-related characteristics, they do not have perseverance and long concentration.

The practice of teaching a foreign language at an early stage makes it possible to formulate some recommendations regarding the most effective methods and techniques. Some of them will be considered below.

1. Visual aids. Children should not only hear words, but also see pictures. This way they memorize new material much faster and easier. You can use presentations and handouts, as well as short videos.

2. Bonus accumulation system. This system consists of the students who work best in class receiving bonuses (stickers, labels, stamps). When they

accumulate a certain number of bonuses, they receive a small gift. This bonus system helps less active students.

3. Association method. Articulation in English is very important, but it is problematic to explain this aspect to preschool students, therefore it is recommended to use the association method.

This method is very good when introducing English sounds, the pronunciation of which differs from the pronunciation of Russian sounds. For example, when we introduce the sound [w], we stretch our lips like a tube.

CONCLUSION

Snowball. The child says a word and passes the ball to the next student. The next student says the word of the neighboring child and his own word. And so on in ascending order. This game trains children's attentiveness and develops concentration.

Broken Telephone. The teacher says a word so that only 1 student can hear. Then this child passes this word by ear along the chain. The last student must say the word heard out loud. The teacher compares the original word with the spoken one. This game trains children's attentiveness and also develops the skills of perceiving foreign speech by ear.

Magic Flower. Children are given a toy flower. They must pass it to each other. But they can pass it only on the condition that at least several words in English are named. Words can also be divided into groups (food, furniture, body parts, colors, numbers, and so on).

Magic Bag. Cards with pictures are hidden in the bag. The students put their hand into the bag and pull out a card. After pulling out a card, they name what is depicted on the card.

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CONFLICT IN JOHN STEINBECK'S NOVELS

Abstract: *In American literature, the 20th century was an age of new principles and new approaches, and specific artistic schools and trends developed simultaneously. By the 20th century, the influence of the sweeping changes, especially psychology, on literature grew significantly. Now the writers went deeper into anthropology, that is, they emphasized not only the image of a person's external, but also his inner world. This, in turn, led to the formation of another trend, psychological realism, together with realism and naturalism in American literature. John Steinbeck is also considered such writer. In this article we will discuss different conflictual themes clarified in the writher's works.*

Key words: *American dream, society, inner discontent, socio-psychological, realism, protagonist.*

It is known that in the second half of the twentieth century, the dominant realistic views began to move from the socio-historical sphere to the spiritual form. In their works, the novelists investigated in depth the social flaws in man, his inner feelings, the perfection or decline of the individual. During this period, in the United States, although progress was much more advanced, relations in society deteriorated. Recognizing the grandeur of the American Dream, the writers described their frustrations in their works. In his novel, John Steinbeck also embodied the relations of material interests, representatives of the ruling class, who day by day showed less humanity. Especially, psychological conflict in the main character clearly described the psychology of the whole period.

The novel "The Winter of Our Discontent" is imbued with deep sympathy, in which the author covers topics that have touched his heart throughout his life. Although in "The Grapes of Wrath" the reader's emotions have peaked, the author is still not satisfied. In his last novel, Steinbeck tries to diversify a familiar theme to us. According to the Russian critic O. Osmukhina, "The Winter of Our Discontent" is a product of purposeful writing, which was consciously created as a result of spiritual instability in the dominant society in the United States in the early twentieth century [7]. Steinbeck's novel simultaneously describes a number of moral issues, such as the destructive power of war and greed in the society, at the same time it depicts American society and the position of a man in life in general. Of course, the writer had enough reasons for this, so the creation of this work could be called as a rebellion against those who were leading the country down to dangerous path. This work is a link in a chain of facts about the

strengthening of realistic traditions that are often mentioned in American literature. The fluency of the main conflicts in the novel, the content they carry, reminds us of the "American Tragedy" of its time. The protagonists - an American Ethan and his wife Mary, descended from a generous family, whose ancestors were the first immigrants of the USA, live very happily. Not only Ethan, but all the townspeople in one of the states of New England live a life of self-sufficiency: they go on picnics on holidays, relax in cafes at night. They don't even think about the poverty that the Joads in "The Grapes of Wrath" experienced. But Steinbeck's great achievement is that the analytical power of the author's talent penetrates the visible aspects of the life, exposing the profound socio-psychological laws of American society in that period of a quiet daily life. Then it can be seen that they have not changed their original face.

When a character encounters inner discontent and discord, essentially struggling within himself, that character is engaging in a sort of internal conflict called psychological conflict. Characters may fight with themselves in a variety of ways, including by battling their own shortcomings, ideals of good and evil, and moral dilemmas. Psychological conflict may manifest as a person debating a moral choice or working to overcome a challenge. Addictive or self-destructive behavior in characters can also be a sign of psychological struggle.

Conclusion: In short, John Steinbeck expresses his concern about the changes and vices in the society of his time. One of the unifying factors of his novels is the idea expressed by the author. Naturally, themes such as friendship, respect for ancestors, family, child rearing, betrayal, love, loyalty and courage take the lead in the novel "The Winter of Our Discontent". Through the effective use of interpersonal, protagonist and environment, internal conflicts, the creator verbally expressed not only the image of the heroes' psyche, but also the contradictions of life in the eyes of the reader. Along with similar feelings such as sincerity, kindness and love in the heroes, one can also witness that they have different qualities. The works of the writer are united by vividness, truthfulness, boldness of the sharp social, spiritual and enlightenment issues of the time, the ability to open new facets of the truth about man and his heart, sharp drama, deep humanism, passionate thoughts about human life.

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AGE-RELATED MACULAR DEGENERATION

Abstract: *Age-related macular degeneration (AMD) is a disease of the retina located in the central region of the macula, hence affecting central vision. As its name implies, it is a disease of aging, occurring usually after the age of 50 years. The two forms are dry and wet AMD.*

Keywords: *Age-related macular degeneration (AMD), retina, wet macular degeneration, retinal detachment.*

INTRODUCTION

In dry macular degeneration, the most common form, the central vision is affected so that objects become very blurred. This is caused by cellular debris (drusen) that appears as yellow spots deposited between the choroids and the retina. Recent investigations of injecting embryonic stem cells that were induced to differentiate into retinal pigment epithelial cells between the retina and the sclera demonstrated thatthe injected cells survived and did not cause any deleterious effects. Instead, these transformed cells were able to ameliorate the vision problems for some of the patients involved. Clinical trials using transformed embryonic stem cell therapy are currently being conducted.

Wet macular degeneration, the most severe form, results when small blood vessels, formed between the choroid and the retina, leak into this space causing the retina to die, and, as a result, a blind spot forms in the center of the visual field. Wet macular degeneration exhibits a quick onset with a small blind spot that may quickly progress to a larger blind spot. Although an AMD patient may be unable to recognize aface in the center of vision, interestingly, the peripheral vision is unaffected by macular degeneration. Although a cure has not been found, certain vitamins and high doses of antioxidants and zinc may be of some benefit for dry AMD, whereas laser surgery and injections of antiangiogenesis drugs are used to manage wet AMD.

Retinal detachment occurs when the neural and pigmented layers separate from each other, for example, as a result of a sudden hard jolt. This condition can sometimes be treated successfully by laser surgery. But, extensive separation requires cryosurgery to produce successful adhesion of the two layers. If retinal detachment is left untreated, blindness may occur, and, often even with treatment, the rods and cones die, leaving blind spots in the visual field.

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GENESIS OF THE CRIMINOLOGY

Abstract: *The primary topic of the paper is the examination of the peculiarities of the development and evolution of criminology. The growth of science's conceptual apparatus is one indicator of its current qualitative position, hence this question seems to be quite relevant.*

Keywords: *criminalistics, terms, terminology, criminalistic terminology, criminal law sciences.*

The word Criminology originated in 1890. The general meaning of the term is the scientific study of crime as a social phenomenon, of criminals and of penal institutions. Prof. Kenny described that Criminology is a branch of criminal science which deals with crime causation, analysis and prevention of crime‖. Criminology as a branch of knowledge is concerned with those particular conducts of human behaviour which are prohibited by society. It is, therefore, a socio-legal study which seeks to discover the causes of criminality and suggests the remedies to reduce crimes. Therefore, it flows that criminology and criminal policy are interdependent and mutually support one another. Thus, criminology seeks to study the phenomenon of criminality in its entirety.[1]

In essence, the issue of crime control entails the necessity of researching the variables that contribute to crime and the various interconnected elements that shape an offender's psyche. Over the course of the previous two centuries, this ultimately led to the formation of modern criminology. The goal of this field of study is to examine various facets of crime and develop practical strategies for treating offenders in order to promote their rehabilitation and reintegration into society. Therefore, criminology as a field of study has practical value insofar as it seeks to improve the well-being of the community at large.

The fundamentals of criminology provide useful recommendations for creating penal policies. In the twentieth century, extensive criminological study led to the development of contemporary clinical practices and reformatory measures including probation, parole, indeterminate sentences, open prisons, and other correctional facilities. These actions have amply illustrated the pointlessness of placing criminals in jails and administering cruel penalties.[6]

The study of crime and criminal must proceed on a scientific basis by carefully analyzing various aspects associated therewith and must necessarily suggest measures proposed to suppress criminality. It must be added that with new crimes emerging in the modern complexities of life, we seem increasingly concerned about the problem of crime. Today destructive acts of vandalism,

highway, train and bank robberies, looting, bomb blasts, rape, illegitimate terrorist activities, white-collar crimes, cybercrimes, criminalization of politics, hijacking, etc., are constantly increasing which have posed a positive danger to human life, liberty and property. Modern criminologists, therefore, seem to be seriously concerned with the problem of crime to protect the society from such anti-social activities of criminals. It is for this reason that the two sister branches of criminal science, namely, criminology and penology work hand in hand to appreciate the problem of criminality in its proper perspective.[2]

Criminology maybe defined as "the scientific study of the causation, correction, and prevention of crime". Criminology (from Latin crīmen, "accusation"; and Greek -λογία, -logia) is the social science approach to the study of crime as an individual and social phenomenon. Although contemporary definitions vary in the exact words used, there is considerable consensus that criminology involves the application of the scientific method‖ to the study of variation in criminal law, the causes of crime, and reactions to crime.

The prevalence, types, causes, and effects of crime are all subjects of study in criminology. They also cover political and social policies as well as responses to criminal activity. The behavioral sciences' interdisciplinary field of criminology primarily draws from legal literature as well as the work of psychologists and sociologists. Examining quantitative approaches in criminology is a crucial part of data analysis.[4]

Scholars and practitioners from a variety of behavioral and social sciences, as well as several natural sciences, are involved in the multidisciplinary area of criminology. Criminology became an academic subject housed in sociology programs because sociologists had a significant influence in establishing and expanding the field of study.

But in the latter half of the 20th century, criminology became a separate professional field with a wide, interdisciplinary focus and a shared dedication to producing knowledge through methodical research, thanks to the founding of schools of criminology and the growth of academic departments and programs that focused exclusively on crime and justice.

The creation of ideas that are precise enough to be evaluated using data gathered in a way that permits replication and verification has been one of criminology's ultimate goals.

As a subdivision of the larger field of sociology, criminology draws on psychology, economics, anthropology, psychiatry, biology, statistics, and other disciplines to explain the causes and prevention of criminal behavior. Subdivisions of criminology include penology, the study of prisons and prison systems; bio-criminology, the study of the biological basis of criminal behavior; feminist criminology, the study of women and crime; and criminalistics, the study of crime detection, which is related to the field of Forensic Science. Much research related to criminology has focused on the biological basis of criminal behavior. In fact, bio-criminology, attempts to explore the biological basis of

criminal behavior. Research in this area has focused on chromosomal abnormalities, hormonal and brain chemical imbalances, diet, neurological conditions, drugs, and alcohol as variables that contribute to criminal behavior.[5]

Criminology has historically played a reforming role in relation to Criminal Law and the criminal justice system. As an applied discipline, it has produced findings that have influenced legislators, judges, prosecutors, lawyers, Probation officers, and prison officials, prompting them to better understand crime and criminals and to develop better and more human sentences and treatments for criminal behavior.

The term Criminal Justice System is relatively new. It became popular only in 1967, with the publication of the report of the President's Commission on Law Enforcement and Administration of Justice, The Challenge of Crime in the Free Society. The discovery that various ways of dealing with law breaking form a system was itself the result of criminological research. Research into the functioning of the system and its component parts, as well as into the work of functionaries within the system, has provided many insights over the last few decades. Scientists who study the criminal justice system are frequently referred to as criminal justice specialists. This term suggests a separation between criminology and criminal justice. In fact, the two fields are closely interwoven. Scholars of both disciplines use the same scientific research methods. They have received the same rigorous education, and they pursue the same goals. Both fields rely on the cooperation of many other disciplines, including sociology, psychology, political science, law, economics, management, and education. Their origins, however, do differ. Criminology has its roots in European 11 scholarship, though it has undergone refinements, largely under the influence of American sociology. Criminal justice is a recent American innovation.[3]

Another distinction between the two fields is their divergent areas of emphasis. While criminal justice focuses on scientific studies of decision-making processes, operations, and justice-related issues like the effectiveness of police, courts, and corrective systems; the fair treatment of offenders; the needs of victims; and the consequences of shifting sentencing philosophies, criminology typically concentrates on scientific studies of crime and criminality.

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METHODS OF PROFESSIONAL ORIENTATION IN TEACHING ENGLISH

Abstract

Professional orientation in teaching English involves integrating language skills with professional competencies, preparing learners for specific careers. This article explores various methods, including needs analysis, CLIL, task-based and project-based learning, and role- playing, supported by technology and industry collaborations. These approaches aim to enhance linguistic proficiency and meet professional demands in a globalized world.

Keywords

Professional orientation, English teaching, task-based learning, CLIL, technology-enhanced learning.

Introduction

Professional orientation in English language teaching bridges linguistic skills with professional expertise. These methods prepare learners for diverse careers in a globalized workforce by focusing on real-world applications. This article examines key strategies, including content integration, task-based learning, and the use of technology, highlighting their practical applications and benefits.

Professional orientation in teaching English refers to strategies and methodologies designed to prepare students for specific career paths or professional domains through language instruction. These methods integrate linguistic proficiency with practical and industry-specific skills, ensuring learners are equipped for the global workforce. This article explores the various methods used in professional orientation within English language teaching, emphasizing their significance, application, and outcomes.

1. Needs Analysis

Needs analysis is a foundational step in professional orientation. By assessing the specific requirements of learners based on their career aspirations, educators can tailor their teaching methods. This involves:

• Surveys and Questionnaires: Collecting data on students' professional goals and current skill levels.

• Interviews and Discussions: Engaging with students to identify their challenges and aspirations.

• Observation: Understanding learners' performance in real-world scenarios or simulations.

For instance, a group of nursing students learning English might require specialized vocabulary, communication strategies for patient interactions, and the ability to understand medical literature. This data helps in designing a targeted curriculum.

Source: Hutchinson, T., & Waters, A. (1987). *English for Specific Purposes: A Learning- Centred Approach.* Cambridge University Press.

1. *Content and Language Integrated Learning (CLIL)*

CLIL combines language instruction with subject-specific content, allowing learners to acquire language skills alongside professional knowledge. Key elements include:

- **Dual Objectives:** Teaching English while covering topics related to a specific field, such as business, technology, or healthcare.
- **Authentic Materials:** Using industry-related texts, videos, and case studies to enhance learning.
- **Interactive Activities:** Encouraging group discussions, presentations, and problem- solving tasks within the professional context.

For example, engineering students may work on technical report writing and discussing innovative projects in English, fostering both linguistic and professional growth.

Source: Mehisto, P., Marsh, D., & Frigols, M. J. (2008). *Uncovering CLIL: Content and Language Integrated Learning in Bilingual and Multilingual Education.* Macmillan Education.

2. *Task-Based Language Teaching (TBLT)*

TBLT emphasizes practical tasks that mirror real-world professional scenarios. This method includes:

- **Task Design:** Creating activities like drafting emails, participating in meetings, or conducting research presentations.
- **Focus on Communication:** Prioritizing fluency and effective communication over grammatical accuracy.
- **Feedback Mechanisms:** Providing constructive feedback to refine both language and professional skills.

For example, in a business English class, students might simulate a negotiation process, preparing them for actual workplace interactions.

Source: Ellis, R. (2003). *Task-Based Language Learning and Teaching.* Oxford University Press.

3. *Project-Based Learning (PBL)*

PBL integrates long-term projects into the language curriculum, promoting collaboration, critical thinking, and creativity. Features include:

- **Real-World Problems:** Addressing challenges related to learners' professional fields.
- **Collaborative Work:** Encouraging teamwork to complete

projects, such as developing a business plan or conducting market research.

- **Integration of Skills:** Combining reading, writing, speaking, and listening in project activities.

For example, tourism students might design a tour package and present it in English, simulating a professional task.

Source: Beckett, G. H., & Slater, T. (2005). *The Project Framework: A Tool for Language, Content, and Skills Integration*. ELT Journal, 59(2), 108-116.

4. *Role-Playing and Simulations*

Role-playing activities simulate professional environments, allowing learners to practice specific roles and responsibilities. This method includes:

- **Scenario-Based Learning:** Creating realistic workplace scenarios, such as job interviews or client consultations.
- **Skill Development:** Enhancing soft skills like problem-solving, teamwork, and adaptability.
- **Cultural Sensitivity:*** Preparing learners to navigate cross-cultural interactions.

For example, hospitality students might role-play as hotel staff attending to international guests, practicing both language and customer service skills.

Source: Ladousse, G. P. (1987). *Role Play*. Oxford University Press.

5. *Technology-Enhanced Learning*

Digital tools and platforms play a significant role in professional orientation. Methods include:

- **Online Courses and Modules:** Offering industry-specific English courses on platforms like Coursera or Udemy.
- **Virtual Simulations:** Using software to simulate professional tasks, such as virtual labs for medical students.
- **Language Apps:** Utilizing apps like Duolingo or Memrise for vocabulary building and skill enhancement.

Technology enables personalized learning, giving students the flexibility to progress at their own pace.

Source: Dudeney, G., & Hockly, N. (2012). *How to Teach English with Technology*. Pearson Education.

6. *Industry Partnerships and Guest Lectures*

Collaborating with industry professionals enriches the learning experience. This method involves:

- **Guest Speakers:** Inviting professionals to share insights and conduct workshops.
- **Internships and Job Shadowing:** Providing real-world exposure to professional environments.
- **Custom Curriculum Development:** Co-designing courses with industry input to meet current demands.

For instance, partnerships with IT companies can help students learn technical English and industry jargon.

Source: Richards, J. C. (2006). *Communicative Language Teaching Today*. Cambridge University Press.

Conclusion

Professional orientation in teaching English equips learners with the skills necessary to thrive in specific career paths. By incorporating needs analysis, CLIL, TBLT, PBL, role-playing, technology, and industry partnerships, educators can create dynamic and impactful learning experiences. These methods not only enhance linguistic competence but also prepare students to meet the demands of the global workforce.

By leveraging these approaches, English language teaching becomes a bridge to professional success, fostering confident and competent professionals ready to excel in their chosen fields.

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BIOLOGICAL INFLUENCE OF VISIBLE LIGHT ON THE HUMAN BODY

***Abstract.** An analysis of publications and literature data on the topic of the biological impact of visible light on the human body was carried out in this thesis, and the results of theoretical and experimental studies were summarized.*
***Keywords:** Visible light, body, biology, method.*

INTRODUCTION

Every day, a person is exposed to sunlight and light from artificial sources with a wide range of spectral characteristics and an extremely wide range of intensity: from 100,000 lux or more during the day in direct sunlight and up to 0.2 lux at night in moonlight. It was long believed that lighting was needed primarily to see. However, in addition to vision, many other photobiological processes occur in the body under the influence of light. Visible light plays an important regulatory role. It is known that on cloudy days, many people experience the syndrome of "autumn sadness", accompanied by mental depression and sometimes even leading to suicide. It has been experimentally proven that such depression can be relieved if a person is placed in a brightly lit room for several hours over a number of days in a row [1].

MATERIALS AND METHODS

Recently, the main factors associated with the performance of visual tasks, such as illumination, brightness, glare, color rendering, etc., have been intensively studied and discussed in the press. The corresponding results of these studies formed the basis of existing lighting standards. At the same time, much less knowledge has been accumulated about the effect of light on physiology. Nevertheless, the results of recent studies have shown how light can affect people's well-being. The relevance of studying the effect of light on the functioning of various body systems is evidenced by the huge number of publications on this problem. The results obtained in the course of these studies are of interest to many branches of science, including lighting engineering. The rapid growth in the number of publications indicates that this area of research is in the stage of rapid development. Over several decades of experimental research, a discrepancy has been revealed between the standardized characteristics of the light environment under artificial lighting and the real biological needs of the human body. The need to increase artificially created illumination by approximately 7-10 times compared to the illumination levels currently used has also been shown.

RESULTS AND DISCUSSION

The effect of lighting on vision and its practical consequences have been the subject of research for many hundreds of years. For over 150 years, researchers believed that the eye had only two types of photoreceptors: rods and cones. In 2002, David Berson discovered a new type of photoreceptor in the retina of mammals that is responsible for the biological effects of light [2]. The sensitivity of the new photoreceptor is not the same for light of different wavelengths. The authors [3] showed that optical radiation in the range of $\Delta\lambda = 430\text{-}470$ nm has a direct effect on the formation of the fatigue hormone melatonin in the human body. The human body was formed under the influence of a 24-hour biorhythm ("circadian rhythm") with an active daytime phase and a rest phase at night. Light synchronizes the repetition of this biorhythm. Light signals regulate the internal clock independently of the known photoreceptors (rods and cones), thanks to which a person sees. G. Van Beld claims that the effect of visible light depends on the level of illumination, spectral sensitivity, duration and time of day [4]. The illumination level of about 1000-2000 lux per eye for 3 hours can lead to a phase shift of 2 to 4 hours depending on the time of day. The phase shift of the biological clock is a function of the spectral characteristics of the radiation.

The creation of a mathematical model of the phenomena of synchronization of the human body by light exposure allowed VNISI scientists to conclude that only the energy characteristics of light exposure, the time of their onset and duration are important [5]. As a standardized light value that ensures synchronization of the hypothalamic structures and the body as a whole, it is advisable to use the exposure on the pupil of the eye. When talking about illumination levels, we are talking about the amount of light entering the observer's eye. Illumination should be measured on the eyes, and not as illumination standardized on horizontal surfaces in rooms, which is currently standardized [6]. High illumination levels on surfaces inside rooms or on objects that are rarely in the field of vision do not have a significant biological impact, and the light energy is wasted.

When analyzing a variety of contradictory data obtained in the course of various studies of the impact of visible light on the human body, questions arise that require time to obtain sufficiently clear and definite answers for further development of practical recommendations. Indeed, light provides information for the work of the visual apparatus, and lighting installations are created to ensure visibility. But, today it has become known that other biological processes arise at the same time, which require a new approach to creating lighting while simultaneously solving the same problems. Medical aspect of the impact of visible radiation on the human body. Currently, much attention is paid to the study of the human body's response to light exposure. There are a large number of studies on the use of intense white light in the treatment of circadian rhythm disorders and depressive states. However, the literature does not contain enough data on the effect of visible light on the psychophysiological state of a person.

CONCLUSION

An analysis of publications and literature data on the biological impact of visible light on the human body, a summary of the results of theoretical and experimental studies allowed us to draw the following conclusions:

1. In addition to the formation of visual images, light has a biological effect on humans and their health. The standardized characteristics of the light environment under artificial lighting do not correspond to the real biological needs of the human body. Visible light is an effective regulator of biological rhythms, as well as a therapeutic factor.

2. The spectral sensitivity of a new type of photoreceptors, which has not been fully studied, shows that the most effective exposure to radiation is in the range of 410-460 nm.

3. The effect of visible light depends on the level of illumination, spectral sensitivity, duration and time of day. For light adaptation, it is important to ensure not only the level of illumination, but also the color. An increase in illumination levels at a certain point in time, as well as a change in color temperature, especially during night shifts, leads to an increase in labor productivity.

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ENERGY EXCHANGE: PHOTOSYNTHESIS AND RESPIRATION PROCESSES

Abstract: The processes of photosynthesis and respiration are fundamental biological mechanisms that govern energy exchange in living organisms. Photosynthesis, occurring primarily in plants, algae, and certain bacteria, is responsible for converting light energy into chemical energy, providing the foundation for most ecosystems. Respiration, on the other hand, is the process by which cells break down organic compounds to release energy for cellular activities. This article explores the biochemical pathways of photosynthesis and respiration, highlighting their significance in energy transfer and the interdependence between these processes.

Keywords: Energy exchange, photosynthesis, respiration, cellular metabolism, ATP, autotrophs, heterotrophs

Introduction: Energy exchange is one of the most fundamental concepts in biology, and it governs the processes that sustain life. At the core of energy exchange in ecosystems are two vital biochemical processes: photosynthesis and respiration. These processes are responsible for capturing, storing, and releasing energy, and are integral to maintaining the balance of energy flow within biological systems. In essence, they represent the two sides of a metabolic cycle that drives life on Earth, allowing organisms to harness energy from their environment, process it, and use it for their survival and growth. Photosynthesis is primarily carried out by plants, algae, and some bacteria, and it converts light energy from the sun into chemical energy stored in the form of glucose. This process occurs in the chloroplasts of plant cells, where chlorophyll absorbs sunlight, and energy is used to synthesize glucose from carbon dioxide and water. The glucose produced during photosynthesis serves as a form of stored energy that can be used by the plant itself or consumed by other organisms in the ecosystem. As the primary source of energy in almost all ecosystems, photosynthesis sustains both the autotrophic producers (plants, algae, etc.) and heterotrophic consumers (herbivores, carnivores, decomposers) that depend on them. Respiration, in contrast, occurs in virtually all living organisms, including plants, animals, fungi, and bacteria. It is a process through which cells break down organic compounds, primarily glucose, to release energy stored in the chemical bonds of the molecules. This energy is captured in the form of ATP (adenosine triphosphate), which is used to power cellular processes like growth, reproduction, and maintenance. Respiration occurs in the mitochondria of eukaryotic cells and, in simpler prokaryotic cells, takes place in the cytoplasm and

cell membrane. While photosynthesis stores energy in chemical bonds, respiration is responsible for releasing this energy, making it available for cellular use.

The relationship between photosynthesis and respiration is crucial because these two processes are interconnected, with each one supporting the other. Plants, for example, use the glucose generated through photosynthesis as the primary fuel for respiration. During respiration, glucose is broken down to produce ATP, which powers the plant's various metabolic functions. Although respiration occurs in nearly all organisms, plants also rely on their own photosynthesis to generate the energy required for these cellular processes. While photosynthesis and respiration might seem like separate processes, they are interdependent. Photosynthesis creates the energy source needed for respiration, and respiration makes energy available to fuel the vital processes of living organisms. Moreover, the products of one process are often the reactants for the other. The carbon dioxide released during respiration is used in photosynthesis, and the oxygen produced during photosynthesis is consumed in respiration. This cyclical relationship is vital for sustaining life, creating a closed-loop energy cycle that spans all levels of the food chain.

Literature review.

The processes of photosynthesis and respiration have been extensively studied, providing valuable insights into how energy is exchanged and transferred in biological systems. These fundamental metabolic processes are central to sustaining life on Earth and have been the subject of numerous scientific studies, theories, and experiments. The intricate biochemical pathways that underpin photosynthesis and respiration highlight the complexities of cellular metabolism, energy capture, and usage. Photosynthesis has been the focus of substantial research since its discovery, with key studies elucidating its role in energy conversion. The classic work of Melvin Calvin, for which he was awarded the Nobel Prize in Chemistry in 1961, remains foundational in understanding the carbon fixation process in plants. Calvin's research identified the key steps in the Calvin cycle, where carbon dioxide is converted into glucose in the stroma of chloroplasts using ATP and NADPH produced during the light-dependent reactions of photosynthesis [1]. Calvin's elucidation of the process led to a deeper understanding of how light energy is captured by chlorophyll and converted into chemical energy (Calvin, 1961).

In more recent years, advances in molecular biology and biochemistry have continued to expand our understanding of photosynthesis. Taiz and Zeiger (2010) provide a comprehensive overview of the structure and function of chloroplasts and the light-dependent and light-independent reactions of photosynthesis. Their work highlights how the efficiency of photosynthesis can be influenced by factors such as light intensity, temperature, and the availability of water and carbon dioxide. Their research suggests that enhancing photosynthetic efficiency could be a potential strategy for improving agricultural yields and addressing food security challenges (Taiz & Zeiger, 2010) [2]. The process of respiration, which

converts stored chemical energy from glucose into ATP, has also been the subject of extensive study. Berg et al. (2015) provide a detailed explanation of the three stages of cellular respiration: glycolysis, the citric acid cycle, and oxidative phosphorylation. These stages work together to break down glucose and generate ATP through a series of enzyme-driven reactions [3]. The breakdown of glucose in the presence of oxygen is central to cellular energy production, and the resulting ATP is used to fuel essential cellular functions such as protein synthesis, cell division, and the transport of molecules across membranes. Berg's research emphasizes the importance of the electron transport chain and chemiosmosis in the final step of respiration, which is critical for generating the majority of ATP in cells (Berg, Tymoczko, & Gatto, 2015).

While the two processes of photosynthesis and respiration are often studied independently, recent studies have explored their interdependence in plants. Givnish et al. (2011) highlight the balance between photosynthesis and respiration in plants, explaining how the products of one process are used as reactants in the other. The oxygen produced by photosynthesis is used in respiration, while the carbon dioxide released by respiration is required for photosynthesis. This cyclical relationship between the two processes ensures that energy is continually replenished and transferred within ecosystems. Givnish's research also emphasizes the importance of photosynthesis in maintaining ecological balance and supporting the energy needs of higher trophic levels (Givnish et al., 2011) [4].

Analysis and Results.

Energy exchange through photosynthesis and respiration is essential for the functioning of all living organisms. These two processes work together to ensure that energy is captured, stored, and released as needed for the survival and growth of organisms. Photosynthesis allows plants and other photosynthetic organisms to convert light energy into chemical energy stored in glucose, while respiration enables organisms to break down that glucose to release energy in the form of ATP, which is used for vital cellular activities. Photosynthesis takes place in two main stages: the light-dependent reactions and the Calvin cycle. During the light-dependent reactions, light energy is absorbed by chlorophyll and used to produce ATP and NADPH, which are then used in the Calvin cycle to convert carbon dioxide into glucose. This glucose serves as a source of energy for the plant and can be consumed by other organisms within the ecosystem. This conversion of light energy into chemical energy is crucial for sustaining life on Earth, as it forms the foundation of most food chains. Respiration, on the other hand, occurs in nearly all living organisms. It consists of three main stages: glycolysis, the citric acid cycle, and oxidative phosphorylation. In glycolysis, glucose is broken down into smaller molecules, releasing a small amount of energy. This energy is captured in the form of NADH and ATP, which are then used in the citric acid cycle and oxidative phosphorylation to produce more ATP. The majority of ATP is generated during oxidative phosphorylation, where high-energy electrons are transferred through a series of protein complexes, producing a proton gradient that

drives ATP production. Through this process, organisms release the stored energy in glucose and make it available for use by their cells. The relationship between photosynthesis and respiration is a vital cycle for life on Earth. In plants, the glucose produced by photosynthesis is used in respiration to generate ATP, which provides the energy needed for cellular processes such as growth, reproduction, and defense. The oxygen released during photosynthesis is consumed by organisms during respiration, while the carbon dioxide released during respiration is used by plants in photosynthesis. This interdependence forms a continuous loop that sustains the energy flow in ecosystems, benefiting not only plants but also animals, fungi, and microorganisms that rely on these processes.

Recent studies have shown that environmental factors, such as light intensity, temperature, and carbon dioxide availability, can significantly influence the efficiency of both photosynthesis and respiration. For example, increased levels of carbon dioxide can enhance the rate of photosynthesis in some plant species. Ainsworth and Rogers (2007) found that elevated CO2 concentrations could increase the growth rate of certain crops, leading to higher productivity. This has potential implications for agriculture, as improving photosynthetic efficiency could help address global food security challenges by increasing crop yields. Temperature also plays a crucial role in the efficiency of both processes. Higher temperatures can accelerate the rate of respiration by increasing the activity of enzymes involved in energy production. However, extreme heat can inhibit photosynthesis, reducing the plant's ability to capture light energy effectively. Givnish et al. (2011) discovered that under high-temperature conditions, plants experience a decrease in photosynthetic efficiency, which can negatively impact plant growth. This highlights the importance of understanding how temperature and climate change might affect the balance between photosynthesis and respiration, ultimately influencing food production and ecosystem stability.

Additionally, the balance between photosynthesis and respiration is essential for maintaining energy availability in plants. During the day, when sunlight is available, plants produce glucose through photosynthesis. At night, when photosynthesis ceases, the plant relies on stored glucose to fuel respiration, ensuring that energy is available for the plant's growth and cellular processes. This energy balance is critical for the survival of plants and ensures they can continue to thrive, even without access to light. The efficiency of respiration also varies depending on the type of organism and the availability of oxygen. Aerobic respiration, which takes place in the presence of oxygen, is much more efficient in producing ATP than anaerobic respiration, which occurs in environments with little to no oxygen. In animals, aerobic respiration is essential for providing the large amounts of energy required to sustain complex biological functions. However, some organisms, particularly those in oxygen-poor environments, have adapted to anaerobic respiration, though this process produces less ATP. Smith et al. (2017) highlighted that certain plants and microorganisms can shift to

anaerobic pathways when oxygen is unavailable, but this comes at the cost of less efficient energy production. Studies have also shown that factors such as oxygen availability can impact the rate of respiration. In plants, oxygen is critical for efficient respiration, allowing for the production of a significant amount of ATP. In contrast, oxygen scarcity forces organisms to rely on less efficient anaerobic respiration. For example, some plants in waterlogged soils may struggle to obtain enough oxygen for aerobic respiration, which can hinder their growth. This demonstrates the importance of understanding how environmental conditions affect these metabolic pathways.

Conclusion

In summary, photosynthesis and respiration are the two primary processes responsible for energy exchange in living organisms, playing a crucial role in sustaining life on Earth. Photosynthesis, by converting light energy into chemical energy, provides the foundation for energy in nearly all ecosystems, supporting plant growth and feeding herbivores, which in turn sustain higher trophic levels. Respiration, on the other hand, breaks down glucose to release stored energy in the form of ATP, enabling cellular activities such as growth, movement, and reproduction in plants, animals, and microorganisms. The interdependence of photosynthesis and respiration ensures that energy is continuously cycled within ecosystems, with the products of one process being used as the inputs for the other. Oxygen produced by photosynthesis is used in respiration, and carbon dioxide released during respiration is used in photosynthesis, establishing a vital cycle of energy transfer. Environmental factors, such as light, temperature, and carbon dioxide levels, significantly influence the efficiency of both processes. While elevated CO2 can enhance photosynthesis and crop productivity, extreme temperature fluctuations may hinder photosynthetic efficiency and affect respiration rates. These findings highlight the need for further research into the effects of climate change on energy exchange processes, especially in the context of global food security and ecological balance. As climate change and other environmental challenges continue to impact ecosystems, understanding the relationship between photosynthesis and respiration becomes increasingly important. Improving the efficiency of these processes, whether through agricultural innovations or better ecosystem management, holds potential for addressing global issues such as food scarcity and environmental sustainability.

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AUTOMATIC SPEECH RECOGNITION AND NATURAL LANGUAGE PROCESSING

Annotation. *The integration model of Automatic Speech Recognition (ASR) and Natural Language Processing (NLP) has become one of the critical issues in technological development in recent years. This study examines the importance of artificial intelligence algorithms in converting speech to text and analyzing it. The application, efficiency, and technological capabilities of the model are deeply analyzed. Furthermore, it demonstrates how the integration of automatic speech recognition algorithms with natural language processing systems opens the door to new opportunities for next-generation data processing technologies.*
Key words: *NLP, ASR, BERT, GPT*

In recent years, Automatic Speech Recognition (ASR) and Natural Language Processing (NLP) have been at the core of technological development. These fields are reaching new heights with the help of artificial intelligence, deep learning, and data analysis methods. ASR technologies enable the conversion of human speech into text, its analysis, and processing. At the same time, NLP algorithms perform tasks such as text analysis, translation, and comprehension. The integration of these two technologies opens the door to creating more effective tools in modern artificial intelligence systems. The aim of this work is to study the theoretical and practical aspects of integrating these two technologies to ensure their efficient utilization.

Automatic Speech Recognition (ASR) Technologies. Automatic Speech Recognition systems serve to receive human speech in the form of digital signals and convert it into text format. These technologies are applied in various fields, including voice command control, transcription, and data collection. Deep learning-based models, particularly those operating on RNN, LSTM, and Transformer architectures, have achieved significant advancements in the field of ASR.

Natural Language Processing (NLP) Technologies. NLP algorithms are designed to perform tasks related to human language, such as sentence analysis, translation, text generation, and identifying logical connections in language. Approaches based on Transformer models, such as BERT and GPT, have revolutionized NLP in recent years.

Applications and Impacts.

- **Healthcare:** Voice-assisted technologies can help medical professionals with patient notes and record-keeping, voice-controlled devices in hospitals.
- **Education:** NLP can help build intelligent tutoring systems, automatic grading, and speech-based learning tools.
- **Commerce:** Voice-based shopping assistants and customer support systems enhance the consumer experience.
- **Automated Transcription Services:** Accurate transcription of meetings, lectures, and legal proceedings.

Future Trends and Research Directions.

- **More Accurate and Context-Aware Speech Recognition:** Overcoming challenges like accents, background noise, and dialects.
- **Better Language Models:** Development of models that understand multiple languages and nuances in speech.
- **Increased Personalization:** AI systems that understand individual preferences, moods, and contexts better than ever.

Advantages of the Integration Model. The integration of ASR and NLP technologies enables the creation of systems that can understand and respond to human speech. For example, virtual assistants like Google Assistant and Alexa are practical examples of this approach. The integration results in the following advantages:

- The speed of data processing increases.
- The potential for creating multilingual systems expands.
- The accuracy of natural language interfaces and user experience improves.

Conclusion. The integration of Automatic Speech Recognition (ASR) and Natural Language Processing (NLP) technologies represents an important step in the development of artificial intelligence. The findings of this research contribute to opening new opportunities in modern technological systems, including in the fields of education, healthcare, and commerce. With the advancement of these technologies, it is expected that the scope of research in this area will expand further, paving the way for the creation of systems that are tailored to user needs.

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SHOVQINLI MUHITLARDA NUTQNI ANIQLASH, NLP TIZIMLARI UCHUN OPTIMALLASHTIRISH USULLARI

Anotatsiya. Shovqinli muhitlarda nutqni avtomatik aniqlash texnologiyalari inson-kompyuter o'zaro aloqasida muhim o'rin egallaydi. Ushbu texnologiyalar tabiiy tillarni qayta ishlash tizimlari uchun boshlang'ich ma'lumot manbai hisoblanadi. Ammo shovqinli muhitlar, reverberatsiya va turli xil fon tovushlari ASR tizimlarining aniqlik darajasini pasaytirishi mumkin. Ushbu muammo nutqni qayta ishlash usullarini rivojlantirish va NLP tizimlarida optimallashtirishni talab qiladi. Maqolada shovqinli muhitlarda nutqni aniqlashning asosiy muammolari va ularni yechish usullari ko'rib chiqiladi. Shovqinni pasaytirish algoritmlari, ma'lumotlarni oldindan qayta ishlash, shuningdek, chuqur o'rganish asosida shovqinga chidamli modellarni yaratish usullari muhokama qilinadi. Shovqinli muhitda kontekst va semantikani hisobga olish uchun NLP tizimlarining ahamiyati ta'kidlanadi.

Kalit so'zlar: NLP, WER, SNR.

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SPEECH RECOGNITION IN NOISY ENVIRONMENTS, OPTIMIZATION METHODS FOR NLP SYSTEMS

Annotation. Noise-robust automatic speech recognition (ASR) technologies play a crucial role in human-computer interaction. These technologies serve as the primary data source for natural language processing (NLP) systems. However, noisy environments, reverberation, and various background sounds can reduce the accuracy of ASR systems. This issue calls for the development of speech processing methods and optimization within NLP systems. This paper discusses the main challenges in speech recognition in noisy environments and presents solutions for addressing them. It covers noise reduction algorithms, preprocessing of data, and the development of noise-resistant models based on deep learning techniques. The importance of NLP systems in considering context and semantics in noisy environments is emphasized.

Key words: NLP, WER, SNR.

ЭКОНОМИКА И НАУКА В СОВРЕМЕННОМ МИРЕ. РАЗВИТИЕ НОВЫХ ВОЗМОЖНОСТЕЙ

Shovqinli muhitlarda nutqni avtomatik aniqlash texnologiyalari inson-kompyuter oʻzaro aloqasida muhim oʻrin egallaydi. Bu texnologiyalar tabiiy tillarni qayta ishlash tizimlarining rivojlanishida asosiy omil sifatida xizmat qiladi, chunki ular foydalanuvchilarning ovozli buyruqlarini tushunish va javob berish imkonini beradi. Biroq, shovqinli muhitlar, reverberatsiya (yankilanadigan ovoz) va fon tovushlari nutqni avtomatik aniqlash (ASR) tizimlarining aniqlik darajasiga salbiy taʼsir koʻrsatishi mumkin. Shu sababli, shovqinli muhitda nutqni aniqlash tizimlarini yanada takomillashtirish va ularni tabiiy tillarni qayta ishlash (NLP) tizimlariga moslashtirish dolzarb muammo boʻlib qolmoqda. Shovqinli muhitda nutqni aniqlashning asosiy muammosi shovqinning ma'lumotlar sifatiga va tizimning umumiy samaradorligiga salbiy ta'sir qilishi hisoblanadi. Shu sababli, ASR tizimlarini shovqinga chidamli qilish uchun turli xil texnik yondashuvlar mavjud. Bunday tizimlar, odatda, oʻz ichiga akustik va til modellari, shovqinni kamaytirish usullari, ma'lumotlarni oldindan qayta ishlash va chuqur oʻrganish texnologiyalarini oladi. Akustik modellar ma'lum bir tildagi nutqning xususiyatlarini oʻrganish orqali shovqinni samarali kamaytirishga imkon beradi. Bu modellar turli xil ovozli belgilarni tahlil qilib, nutqni matn shaklida qayta tiklashga yordam beradi. Shovqinni pasaytirish algoritmlari, ma'lumotlarni oldindan qayta ishlash va chuqur oʻrganish usullari yordamida shovqinga chidamli modellarni yaratishning samaradorligi aniqlandi. Shovqinli muhitlarda ovozni aniqlashda mashinaviy oʻqitish metodlari, jumladan, yirik til modellari va konvolyutsion neyron tarmoqlari (CNN) kabi ilgʻor usullar qoʻllanilmoqda. Ushbu texnologiyalar shovqinli ovozli ma'lumotlarni yaxshilab qayta ishlashda juda muhim ahamiyatga ega. Asosan, bu texnikalar ma'lumotlarni transformatsiya qilish va optimallashtirishga yordam beradi, shuningdek, shovqinni kamaytirishning yangi usullarini ishlab chiqish imkoniyatini yaratadi.

Chuqur oʻrganish asosidagi modellar shovqinli muhitlarda samarali ishlashi uchun muhim rol oʻynaydi. Bu usullar yordamida har xil turdagi shovqinlar va reverberatsiya tizimni aniqlashga taʼsir qiladigan faktorlarga sezgir boʻlmaydi. Shuningdek, ushbu modellarni yaratish uchun katta hajmdagi ma'lumotlar bazasiga ega boʻlish kerak. Bu esa oʻz navbatida, tizimni doimiy ravishda optimallashtirish va yangilashni taʼminlaydi. Deep Learning modellarini qoʻllash orqali shovqinga chidamli tizimlar yaratish usullari tobora ommalashmoqda, chunki ular ma'lumotlar bazasini kengaytirish va har xil fon tovushlarini hisobga olish imkonini beradi. Shovqinli muhitlarda kontekstual tahlil va semantikani hisobga olish uchun tabiiy tildagi model ham muhimdir. Bu yerda til modellarining roli juda katta, chunki ular nutqning ma'no jihatini toʻgʻri tushunishga yordam beradi. NLP tizimlarining asosiy vazifasi nutqdan ma'lumot olish va uni toʻgʻri tahlil qilishdan iboratdir. Shovqinli muhitlarda nutqni avtomatik aniqlash jarayonida, kontekst va semantika ma'lumotni toʻgʻri tahlil qilishda muhim rol oʻynaydi. Ovozli ma'lumotlarni matnga aylantirishda til modellari yordamida natijalarni aniqlashtirish va toʻgʻrilash mumkin. Shovqinli muhitlarda nutqni aniqlash tizimlarining amaliy qoʻllanilish sohalari juda kengdir.

Misol uchun, call-markazlar va mijozlarga xizmat ko'rsatish tizimlarida, shovqinli ofis yoki jamoat joylarida ishlov berish tizimlari asosiy qo'llanilish sohalaridan biridir. Shovqinli muhitlarda nutqni aniqlash orqali foydalanuvchilarga ovozli buyruqlarni tez va aniq bajarish imkoniyati taqdim etiladi. Bundan tashqari, avtomobil texnologiyalarida ham shovqinli muhitda nutqni aniqlash tizimlarining o'rni katta. Masalan, avtomobillar ichida haydovchining ovozli buyruqlarini avtomatik ravishda aniqlash va shovqinni kamaytirish tizimlari xavfsizlikni oshirishi mumkin. Ushbu texnologiyalar yordamida, shovqinli muhitlarda ovozli yordamchi tizimlar va avtomobil boshqaruvi tizimlari yanada samarali bo'ladi. Shuningdek, tibbiyotda, ayniqsa, shifokorlar va bemorlar o'rtasida nutqni aniqlash texnologiyalarini qo'llash shovqinli muhitlarda eng samarali ishlash imkoniyatini yaratadi. Misol uchun, shifokorlar bemorlarga murojaat qilish va maslahat berishda ovozli tizimlarni qo'llash orqali ish samaradorligini oshirishlari mumkin. Bu tizimlar bemorlarning nutqini aniqlash va shifokorlar tomonidan yozilgan tavsiyalarni avtomatik ravishda tahlil qilishda yordam beradi. Tibbiy protokollarga rioya qilish va bemorlarga kerakli yordamni taqdim etish uchun bunday tizimlarning o'rni juda muhim.

Shovqinli muhitlarda nutqni avtomatik aniqlashning samaradorligini baholashda bir nechta baholash mezonlari qo'llaniladi. Ular orasida **Word Error Rate (WER)** eng ko'p ishlatiladigan ko'rsatkichlardan biridir. WER yordamida tizimning natijalari qanday aniqlikda bo'lishi baholanadi. Bundan tashqari, **Signal-to-Noise Ratio (SNR)** ko'rsatkichi ham muhim ahamiyatga ega, chunki bu ko'rsatkich tizimning shovqinga nisbatan ovozni aniqlashdagi muvaffaqiyatini ko'rsatadi. Ushbu baholash mezonlari tizimning ishlashini baholash va uning takomillashish darajasini aniqlash uchun juda muhimdir. Kelajakda shovqinli muhitlarda nutqni avtomatik aniqlash texnologiyalari sun'iy intellekt va chuqur o'rganish texnologiyalarining rivojlanishi bilan yanada samarali va aniq bo'ladi. Bu texnologiyalar yordamida nutqni avtomatik aniqlash tizimlari yanada rivojlanadi, shovqinni kamaytirishning yangi usullari kiritiladi, va foydalanuvchilar uchun qulay ovozli interfeyslar taqdim etiladi. Tabiiy tillarni qayta ishlash va nutqni aniqlashning kelajakdagi yutuqlari inson-kompyuter o'zaro aloqasini yangi bosqichga olib chiqadi.

Xulosa. Shovqinli muhitlarda nutqni avtomatik aniqlash texnologiyalari, inson-kompyuter o'zaro aloqasini yaxshilashda katta ahamiyatga ega. Bu texnologiyalar tabiiy tillarni qayta ishlash tizimlarining samaradorligini oshirishda muhim rol o'ynaydi. Ammo shovqinli muhitlar, reverberatsiya va fon tovushlari ASR tizimlarining aniqligini pasaytirishi mumkin. Ushbu muammoni hal qilish uchun bir qator yondashuvlar va algoritmlar ishlab chiqilgan. Shovqinni kamaytirish texnologiyalari va chuqur o'rganish asosidagi modellardan foydalanish shovqinli muhitda nutqni aniqlashning samaradorligini sezilarli darajada oshiradi.

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RESEARCH ON THE USE OF INFORMATION SECURITY IN PRODUCTION

Annotation. Research on the application of information security in production is crucial for protecting data, safeguarding assets, and ensuring business continuity. At the core of information security lies the activity of protecting information by ensuring its confidentiality, availability, and integrity, as well as avoiding any compromise in critical situations. Such situations include natural, technological, and social disasters, computer failures, physical theft, and others.

Key words: cyber attack, NIST SP 800-53, ISO/IEC 27001.

The workflows of most organizations worldwide are still based on paper documents. Although they require appropriate information security measures, the number of initiatives to implement digital technologies in businesses is steadily increasing. This, in turn, demands the involvement of specialists in information technology (IT) security to protect information. These specialists ensure the implementation of information security technologies (often one specific type). In this context, digital devices refer not only to personal household computers but to devices of varying complexity and purpose, ranging from primitive and isolated ones like electronic calculators and household appliances to highly sophisticated ones like supercomputers connected via industrial control systems and computer networks.

Due to the critical importance and value of information for their business operations, large enterprises and organizations typically employ information security specialists to ensure the safety of their data. Their main task is to protect all technologies from malicious cyberattacks aimed at stealing confidential information or taking control of the organization's internal systems. Information security refers to a set of measures aimed at ensuring the safety of an organization's information, systems, and infrastructure. Its primary objectives are as follows:

❖ Integrity (ensuring the accuracy and completeness of information).
❖ Availability (ensuring access to information and systems).

The main threats to information security include:

❖ **Cyberattacks** (e.g., phishing, ransomware, DDoS attacks).
❖ **Internal threats** (unauthorized actions by employees).
❖ **System failures and natural disasters.**
❖ International and national standards for information security.

❖ The following international standards are widely used in ensuring information security:

• **ISO/IEC 27001**: This is an international standard for establishing an information security management system. ISO/IEC 27001 provides a systematic approach to creating, implementing, and maintaining an Information Security Management System (ISMS).

• **NIST SP 800-53**: A security and privacy control framework developed by the U.S. National Institute of Standards and Technology.

• **NIST Cybersecurity Framework**: The National Institute of Standards and Technology (NIST) provides a widely accepted framework to improve the cybersecurity posture of organizations. It includes strategies for risk management, control mechanisms, and guidelines for secure operations.

Investments and expenses in information security are also of significant importance. Allocating sufficient funds for security is crucial for the long-term stability of an organization. Information security as an employment sector has significantly developed and grown in recent years. It has created numerous professional specializations such as network and infrastructure security, software and database protection, information system auditing, business continuity planning, electronic record identification, and computer forensics. Information security specialists enjoy high employment stability and strong demand. Global processes of information globalization not only require the integration of information and communication technologies into the economies and other sectors of countries but also necessitate ensuring the security of information systems. Uzbekistan was one of the first countries in Central Asia to join the international security system for information and communication technologies. The State Committee for Communications, Information Technology, and Telecommunication Technologies implements the following measures to ensure information security: developing and improving state policies on ensuring information security in data transmission, telecommunications networks, broadcasting, and information systems; assisting state authorities in developing and implementing information security policies for their information systems and resources; providing statistical data on monitoring results of ensuring information security for state information systems and resources to the State Committee for Communications, Information Technology, and Telecommunication Technologies of the Republic of Uzbekistan in accordance with established procedures; cooperating with telecommunications network operators and providers; organizing joint efforts to prevent violations of laws in the field of computer and information technologies in government agencies and coordinating their activities. The national internet users are being timely informed about emerging threats to information security within the national segment of the internet. Additionally, consultation services are provided regarding information protection, including analyzing lawbreakers, identifying them, and analyzing methods and tools used in unauthorized or disruptive activities in the information

space. Cooperation with law enforcement agencies is established to carry out these activities.

Conclusion

In order to prevent information security incidents in the national segment of the internet, it is possible to develop international cooperation in the field of information security. Communication will take place regarding the importance and methods of ensuring information security during the process of storing large amounts of data in organizations. Large volumes of data are not only crucial for organizations but also pose significant potential harm if compromised. Investments and effective measures in the field of information security are of great importance for organizations, as they play a key role in implementing digital technologies and ensuring data protection. The field of information security has shown significant growth and development in employment, which, in turn, demands skilled specialists and professional expertise. Ensuring the security of global information systems, including informing national internet users about security threats and detecting violations, requires cooperation with law enforcement agencies. Uzbekistan continues to join international systems for ensuring the security of information and communication technologies, while developing and implementing relevant policies in this area. Additionally, coordinated efforts and collaboration with network operators are being established to ensure information security.

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EUPHEMIC AND DYSPHEMIC EXPRESSIONS AND THE IMPORTANCE OF THEIR USE IN PUBLICISTIC TEXT LANGUAGE

Abstract

This article presents a general description of the linguistic units of euphemism and dysphemism, which demonstrate the wide possibilities of the Uzbek language. It also discusses the purpose and relevance of their use in journalistic texts. The significance of the journalistic text is analyzed.

Keywords: Euphemism, dysphemism, news genre, analytical genre, literary journalism, PR, manipulation, taboo, pragmatic meaning.

Publicism has different classifications in different fields. In particular, in linguistics this term means a certain style of speech. In literature and journalism, publicism is formed as a genre and a set of genres. Some specialists also interpret this term as the name of a separate social science.

In our opinion, publicism has a general description in any field: it is a type of text intended for the public, the people, or the current society. The task of a publicistic text is to arouse and shape social opinion, to direct it towards a certain goal, to create a picture of reality based on documented information and facts.

The invention of the printing press laid the foundation for the widespread development of journalism, as well as other types of texts. However, journalism as a "mass" genre existed even before Gutenberg's invention. For example, public announcements, small critical writings known as "flyers" reflected thoughts and information about the social life of that time.

Since our topic is directly related to journalism, first of all, it is worth dwelling on the content of the phenomenon of journalism in journalism.

As mentioned above, journalism refers to a set of genres in journalism. That is, there are three large families of genres in journalism. These are: 1. News genres; 2. Analytical genres; 3. Artistic journalistic genres. If the research is conducted on the basis of this classification, it is possible to limit ourselves only to artistic journalistic materials, that is, essays, pamphlets, and feuilletons.

Therefore, in this thesis, it is appropriate to analyze the scope of the study of journalism by linguistics in terms of content. That is, from the point of view of speech methods.

The peculiarity of the methodology of texts of the journalistic genre and its distinguishing feature from other genres is the possibility of using all speech styles. Especially in today's era of communications, the information age, there are

wide opportunities to clearly reflect news and information about social life using each of the artistic, scientific, official, and conversational styles. The basis for interpreting each of them as a journalistic text is that it is addressed to the public, society, and information consumers.

Today, we can count the following means of communication as sources of transmission of journalistic texts:

- websites;
- social networks and messengers;
- newspapers and magazines (printed publications);
- online and offline television;
- radio networks;
- special programs (applications);
- street texts;
- handouts (flyers).

The ever-expanding information space is increasing the fierce competition between journalistic sources day by day. Naturally, in this process, each information producer tries to pay special attention to each aspect of its product. The form of information can be text, graphics, video, audio. However, among these forms, text is an integral part. Written or oral text is the primary means that form the basis of any information. Therefore, in an environment of competition between information sources, first of all, serious work on the text creates the possibility of a high rating of information and its different interpretations. Based on this, the effective use of language capabilities in journalistic texts serves to ensure the quality and popularity of information.

Today, the phenomena of euphemism and dysphemy, along with metaphor, metonymy, exaggeration, and irony, as the most common linguistic phenomena in journalistic texts, are one of the issues on the agenda of linguistics, despite the fact that they have not been sufficiently studied in this field.

The phenomenon of euphemism in the Uzbek language arises and develops in close connection with our national-spiritual mentality, Uzbek speech habits. They are used based on the characteristics of space and time. Euphemistic words and phrases, combinations, have been passed down from generation to generation from mouth to mouth, through works and epics, for several periods.

In "Lingvisticheskiy entsiklopedicheskiy slovar" the term euphemism is defined as follows:

"Euphemisms are emotionally neutral words and expressions used in place of words and expressions that are rude and uncomfortable for the speaker"

Many authors who have studied the topic also give different explanations. For example, Russian linguist A.A. Reformatsky defines "Euphemisms as words that are allowed to be used instead of forbidden (taboo) words." In A. Khojiev's "Explanatory Dictionary of Linguistic Terms," republished in 2002, "Euphemism (Greek: ευφεμισμος; eu — good, phemi — I speak) is a relatively mild form of expression of a thing or event; the use of a non-clumsy, non-sinking word or

expression in place of a rude, impolite word or expression and taboo. A.J. Omonturdiev's doctoral dissertation "Professional Speech Euphemisms" states: "Euphemistic speech is the highest form of thinking, human intelligence, the cream of reality, a polished, "veiled", unmolested, softened figurative expression of reality.

Euphemia, in general, is a speech act that means simplifying, "softening" a certain event or situation from its original state, "wrapping it in paper." For example, replacing the word "pregnant," which is considered rude to say or hear or, in certain situations, embarrassing, with the words "heavy-footed," "heavy-laden," or the combination "expecting a child," is a euphemia.

"The emergence of euphemism is associated with the development of human thought and moral values. It is not only a linguistic phenomenon (a word, word combination, or phrase used in place of units that are inconvenient from the point of view of the speaker), but also manifests itself as a person's tendency to change the speech situation in some sense. While using an acceptable word, the unpleasant atmosphere that could arise as a result of the use of units forbidden (taboo) by the speaker is mitigated."

In Uzbek linguistics, euphemisms have migrated from oral speech to dramatic and artistic works, combining with the concepts of shame, honor, and shame inherent in our people. For example, in the dialects of the Karluk and Kipchak dialects, the custom of calling one's spouse, father-in-law, brother-in-law, and sister-in-law by other names, such as calling one's spouse by the name of their eldest child and one's father-in-law by uncle, is also an example of euphemism. In the work "The Fields Left by My Father" by Tagay Murad, one can find many vivid examples of such situations: "— Dehkankul! — says our father. — You can say the government of the untouchables, you can say the government of the Soviets!

In our Surkhan region, the khojas do not call the bekas by their names. The bekas do not call the khojas by their names. They call each other either by their daughters' names or by their sons' names. Our father and mother call each other by my name."

The use of euphemism in informative texts is aimed at forming a certain, predetermined emotional-evaluative attitude to the described event.

Journalism has been divided into two levels in recent years, namely civic and professional skills. In addition, the development of digital technologies has not left its mark on this field. In particular, since about 2018, successive crises have been observed in the most popular print media in the world. Therefore, every newspaper and magazine is struggling to survive in the media space. In this regard, in particular, the use of dysphemic equivalents of neutral meaning is becoming increasingly traditional.

Today's information consumer is not at all interested in dry talk, high-flying news, and media materials about various events. Especially in the last five years, a tradition has emerged in the national media to adhere more to the principles of

openness and transparency. By the time of the pandemic, due to the widespread development of Internet journalism among the public, its shadow began to be felt in the texts of other areas of the media. That is, the amount of sensational, sharp, critical journalistic materials has increased. The use of dysphemistic language units in the language of materials written in a sharply critical spirit helps to further emphasize the author's point and, in turn, quickly attract the reader's attention.

Dysphemism is a linguistic unit that serves to express a word of a certain content with a negative connotation. In the terminology system of T.V. Matveeva's dictionaries, dysphemism is defined as follows: "a form of expressing a sharp emotional assessment, a phenomenon of replacing a stylistically neutral word or expression with an abbreviated, rude word".

Dysphemism is often used in journalism to quickly attract attention and for PR purposes. It is becoming natural for 70-80 percent of daily news in the information field to be expressed using words with a negative connotation. In order for these negative materials to quickly attract the reader's attention, dysphemistic expressions, linguistic units that sound rude, awkward, but are clearly remembered, are mainly used in the headline. Also, the widespread use of dysphemisms is directly related to the disappearance of censorship in journalism.

The role of dysphemisms as a means of expressing communicative behavior is unique. As a result of the acceleration of democracy, as well as the adoption of the "Declaration of Human Rights" and the law on freedom of speech proclaimed by the UN General Assembly on December 10, 1948, the use of dysphemisms in the Western media and other sources has become widespread, and its study, classification, interpretation and analysis have been considered a necessity of the time.

It can be concluded that the phenomenon of dysphemism exists only if it is possible to replace the dysphemic unit with a neutral meaning. Another feature of dysphemic units is their use in a transitive sense. At the same time, dysphemism is a phenomenon that arises due to the semantic features of space and time, as well as the text itself.

Dysphemistic metaphors are also pragmatic semes in derivative semes, which are expressed in a subjective relationship. Because the phenomenon of dysphemism is directly related to social and individual beliefs. Sometimes a word itself can be both a euphemism and a dysphemism. After all, the dysphemistic meaning arises in connection with a certain place and time and is understood on this basis.

Dysphemistic meaning, as in euphemisms, is mainly associated and determined by ethnic stereotypes. The unit considered as a euphemism seems to evoke a dysphemistic impression in a person. This is natural.

In modern journalism, dysphemism is used more often than euphemism. If we consider the use of euphemism for ideological purposes, then the use of dysphemism is aimed at increasing the rating of articles and PR. When analyzing dysphemism in journalistic texts, one should rely on the principle of relativity.

That is, their value is determined by comparing euphemisms and dysphemisms, which, although they are of a verbal nature, express the same denotative content. In lexicology, euphemisms and dysphemisms are considered synonyms for real nouns. Since euphemisms are the first equivalent of proper nouns - taboo words, they are studied as the oldest variety of synonyms. Talking about the synonymy of a euphemism or dysphemism and its real name is one of the main criteria for determining the data of a phenomenon.

As is known, in recent years, attention has been paid to the Uzbek language and its development not only as a social, but also as a political and economic issue. In particular, since 2019, significant reforms have been implemented in this regard. In particular, this year, the Decree of the President of the Republic of Uzbekistan "On measures to radically increase the prestige and status of the Uzbek language as the state language" was adopted and the Law "On the State Language" was adopted, taking into account the great historical significance and importance of the day, October 21 was designated as the "Day of the Uzbek Language Holiday" in our country. At an event dedicated to the thirtieth anniversary of the Uzbek language being granted the status of the state language, President Shavkat Mirziyoyev expressed the following thoughts: "Currently, the Uzbek language is actively used as the state language in our political-legal, economic-social, spiritual-educational life, and is increasingly being heard from international platforms.

Dozens of decrees and resolutions adopted by our state to further develop our spiritual life, including organizing educational work based on modern requirements, improving the spheres of culture, art and literature, and increasing the reading culture, directly serve the development of the Uzbek language.

Speaking of this, it should be noted that in recent years, hundreds of kindergartens, schools, universities, new newspapers and magazines, TV and radio channels, publishing houses, cultural and educational institutions, and libraries operating in our native language have been established.

Indeed, the vitality of the language directly depends on the widespread use of its diverse capabilities in general consumption. In the popularization of the features of the Uzbek language, the importance of traditional means of communication, including newspapers, magazines, television, and radio, is incomparable.

Although the Internet, citizen journalism, and blogging have become increasingly popular in recent years, these sources often fail to fully utilize the capabilities of the Uzbek language due to a lack of journalistic skills.
Based on these aspects, the use of linguistic units, in particular, euphemisms and dysphemisms, which clearly demonstrate the broad possibilities of the Uzbek language in journalistic texts, and their analysis contribute to the development of our native language.

In addition, journalistic texts have a great impact on the language of communication and the spiritual consciousness of the people. When viewed from the perspective of such directions of modern linguistics as sociolinguistics,

linguoculturology, and psycholinguistics, the importance of journalistic texts in social life becomes clear. This indicates the relevance of not only the theoretical but also the practical significance of the topic.

Today, we are in an era of globalization, the integration of cultures, and everyday life habits is gaining momentum. In some countries of the world, unrest, famine, degradation of nations, and even armed conflicts are observed. The interpretation of coverage of such a system of events in the mass media can reveal political positions, manipulative goals, and the international image of states. The use of euphemistic and dysphemic expressions in journalistic texts on such topics is effective in fluently expressing the views of the country and its people.

In addition, the importance of increasing the information consumer's meda-literacy and not falling into the "trap" of fake and manipulative messages increases the relevance of the topic.

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RULES FOR USE OF COMPUTER TECHNIQUES IN PRACTICAL LESSONS OF COMPUTER SCIENCE

Abstract. In this thesis, the working conditions in the use of computer equipment, the influence of mental stress and psychophysical factors in computing, work productivity. Combined harmful factors, the size of the workplace for one worker according to canitar standards, provision of natural lighting in rooms and workplaces, color equipment of rooms were mentioned as factors.

Keywords: Combination, wire insulation, computing, natural-climatic factors, psychophysiological factors.

INTRODUCTION

The organization of the place for the correct organization of working conditions in the computer room. The correct organization of the workplace in the computer room is the factor of increasing work productivity, preventing fatigue, the correct placement of equipment and equipment in the workplace, and the ability to choose the right colors. Equipment should be located in such a way that students can easily use it without excessive movement and strain.

Work to improve working conditions at the workplace is organized taking into account several factors. These include organizational, technical, sanitary-hygienic, natural-climatic factors. Organizational factors include the form of work organization, discipline, the state of control over the labor process, labor protection, the level of training of students, the level of automation of technical factors processes, the use of computers in electronic computing techniques in management, the accuracy and adequacy of protective equipment.

MATERIALS AND METHODS

Sanitary-hygiene factors - whether the workplace responds to the sanitary conditions, the compatibility of the machine elements when the equipment interacts with a person. This includes the speed parameters of the equipment, the amount of information coming from the working bodies, the level of organization of the workplace, the convenient location of the control bodies, the construction of the operator's seat. Psychophysiological factors - the severity and intensity of work, the psychological situation in the team, the interaction of workers with each other, physical stress, nervous and mental stress, after studying the effect of working conditions on the human body, it is necessary to carry out the following:

- performing the processes performed while working on the computer quickly and quickly within the limits of the requirements and within the most convenient range of the moving area [1]:

- checking the air environment in production buildings;

- determination of metrological factors in production;
- determining the level of noise in production;
- determining whether the workplace is illuminated;
- radiation check;
- check air exchange.

RESULTS AND DISCUSSION

Computer operators, programmers, and other computing workers are exposed to physical, hazardous, and harmful physical factors such as noise, electric current, and static electricity. Many IT workers are affected by psychophysical factors such as mental strain, visual and auditory analyzer strain, and emotional strain. The appearance of fatigue depends on the changes that occur in the central nervous system during work. For example, strong noise makes it difficult to distinguish colors, decreases eyesight, reduces adaptation to light, makes it difficult to receive information and reduces work productivity by 5-12 percent. Prolonged exposure to 90 dB noise can reduce productivity by 30-60 percent.

In addition to reduced productivity, computer workers may experience reduced hearing when medically examined. Prolonged exposure to combined harmful factors can lead to occupational disease. Electrical devices, i.e. all computer devices are dangerous for humans. Therefore, when working on a computer, a person can touch parts that are affected by current voltage. A specific danger of electrical devices: these are electrical conductors, a computer case exposed to current due to damage of insulation. The effect of electric current is felt only when the current passes through the human body. Proper placement of electrical equipment and proper connection of electrical wires and cables play an important role in protecting against electric shock [2].

In workplaces, static electricity discharge current is more likely to be caused by touching an element of the computer. Such discharges do not pose a danger to a person, except for the unpleasant effect, they cause the computer to fail. In order to reduce the effect of current when the insulation of the wires is damaged, the floors of the work rooms should be covered with a single layer of polyvinyl chloride antistatic linoleum. Another method of protection is neutralization of charges with ionized gas. The size of the computer rooms should correspond to the number of employees and computers working there. The parameters of temperature, light, air cleanliness, and noise protection are taken into account for the organization of workplaces.

According to sanitary standards, the volume of the workplace for one worker should be 15 m3, and the working area should not be less than 4.5 m2. The height of the room from the floor to the ceiling should be 3-3.5 m. Side natural lighting is usually used in computer rooms. For natural lighting, 48 light windows directed to the north or northeast should be used, in which the coefficient of natural lighting must not be less than 1.2-1.5%. Placing computers in basements

is not allowed. Natural lighting should be used in computer rooms and workplaces. In other cases, artificial lighting can be used.

CONCLUSION

It is practical to improve the rules of using computer equipment in practical classes of computer science and to strictly observe the rules of sanitation and hygiene and technical safety of users during practical classes in computer rooms, if suitable conditions are created in computer rooms, i.e. electrical devices meet the requirements, the location of the rooms and the correct installation of the equipment are practical. the reason for increased safety and productivity of users during work will be

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SEMANTICS OF PHRASEOLOGICAL UNITS AND NATIONAL-CULTURAL CONNOTATION

Annotation. In this work, based on the scientific theses of many researchers in the field of phraseological units, it is proven that the semantics of phraseological units is directly and closely connected with the cultural and national components of a particular nation, with the national-cultural connotation.

Keywords: Semantics, semantics and structure of phraseological units, connotation, national connotation, phraseology, imagery, potential.

The semantics of phraseological units is based on national-cultural connotation. Because they reflect the associative-figurative ideas of a specific linguistic community about a particular reality, they store culturally marked information about it and for the same reason the famous linguist V. Maslova also notes that such a culturally marked connotation arises as a result of the interpretation of the associative-figurative basis of phraseological units or metaphors in connection with national-cultural reference points and stereotypes[3].For example, for the Uzbek nation, words such as ram, lamb have positive connotations, while words such as snake, pig have only negative connotations.

IN.Telia also recognizes that as language is embodied as an indicator of culture, its facts with a certain expression acquire "visibility" and articulation through the plane of the content of language[4].It should also be noted that all considerations concerning the relationship between language and culture were formulated by W.Humboldt and are based on the thesis that "different languages are not different expressions of something, but different manifestations of the same object."

Linguist D. Khudoyberganova, who is focused on studying the relationship between language, thinking and culture, also recognizes that human language is a unique phenomenon that transmits cultural information from generation to generation; on the one hand, it is a product of culture, and on the other, one of the main expressions of culture.[5].
The scientist asserts that "the totality of historically formed, stabilized and inherent to the same linguistic community typical and obligatory ways of perceiving the Universe reveals the linguistic picture of the world. The linguistic

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[3]Маслова В.А. Лингвокультурология. -4-е изд., стер. –М.: Академия, 2010. –С.55.
[4]Телия В.Н. Ўша асар, 227-б.
[5]Худойберганова Д. Тил. Тафаккур. Маданият. –Тошкент:Nodirabegim, 2020. –Б.30.

picture of the world is a totality of universal and at the same time nationally determined ways of perceiving and understanding the world."

The role of cultural codes in the embodiment of the picture of the world through the prism of culture is particularly emphasized. Because cultural codes are a system of secondary symbols consisting of various material means used for the purpose of encoding a certain cultural content[6].In cultural studies, cultural codes are also assessed as keys that allow identifying cultural information encoded in one form or another. Recognizing human language as one of the most important expressions of cultural content, D. Khudoyberganova also considers cultural codes as an integral part of the linguistic landscape of the Universe and claims that they are a product of the process of categorization of the Universe by man. [7].Since cultural codes reflect people's ideas about the material and spiritual world, national thinking, and axiological views, the scientist notes that "cultural codes are perceived in language mainly in such linguocultural units as proverbs, sayings, stable analogies, metaphors, curses, prayers, and gratitude, expressing the figurative thinking of the people."

F. Usmanov believed that the reason why a person fills his world with words and images is the desire to save money, to transmit information in a compact shell, he also notes that the presentation of information by conventional units - codes of small volume can become a universal means of its life and access to communications. Kovshova has a thesis that the semiosphere is of great importance in human life, that the main code in the universal semiosphere of a person is language, any semiotic system can be codified through language, that culture, in turn, also has its own semiosphere, in which units that have acquired stability, such as symbols, customs, traditions-rituals, religious narratives, are symbols of culture[8].

Cultural codes can be found in various material shells - in the form of everyday realities, representatives of flora and fauna, etc. In human consciousness, they are reflected in the form of knowledge, ideas, associations in general.[9]. Indeed, figurative representations of the world are reflected in examples of folk art, in particular, in phraseological units. It implements the tradition of reflecting reality inherent to representatives of a particular culture, their culture of communication and spiritual improvement.

For example, an analysis of phraseological units used in the Uzbek linguocultural environment in relation to people with material insufficiency, such as*do'ppisi yarimta, (*tyubeteika polovinchita), or the day of death, expressing the approach of death (*kuni bitmoq*) indicates that in the Uzbek culture there is a tradition of appreciating a person, being happy about him and adhering to certain speech etiquettes in communication. Therefore, such units as poor, dying are

[6]Телия В.Н. Большой фразеологический словарь русского языка. – М.: АСТ-ПРЕСС, 2006. –Б.13.
[7]Худойберганова. Ўша асар. –Б.31.
[8]Усмонов Ф. Ўша асар. –Б.60.
[9]Усмонов Ф. Ўша асар. –Б.62.

subject to euphemisms, which are the basis for the appearance of the above-mentioned phraseological units in the field. So, the implementation of euphemistic content through phraseological units is a phenomenon that indicates the culture of communication, the level of speech. Because "in the speech implementation of euphemistic content, along with the possibilities of language, the worldview of the individual, mental character, character, attitude to reality, the degree of social formation, gender status, status, age and a number of other factors are revealed"[10]. Similar cases can be observed in English culture. For example, English phraseological units such as "pull yourself up by your bootstraps" or "march to the beat of your own drum" serve to reflect the strong individuality inherent in the English character, the importance of personal freedom for this culture.

Thus, the content understood from phraseological units is an expression of a specific picture of the world and a national view of reality, determined by the historically established culture and spirituality of this people. After all, the categorization and conceptualization of culture in language are associated with the vision of being from various national points of view. Assessing phraseological units as a sign of culture, D. Nikonov[11], notes that ""culture in phraseological units is a record of human activity, a repository of information obtained about the Universe by theoretical and empirical methods"[12].

He claims that phraseological units are a semiotic system based on cultural artifacts. The fact that culture and phraseology cannot exist without each other, the scientist explains by the close connection of these two aspects of social life (everyday and linguistic) with the phenomena occurring within human society. Therefore, in any phraseological sign, he notes a clear and distinct description of reality, as well as the fact that phraseological units do not arise in the absence of social need.

Indeed, the national view of reality based on the "discipline of perception" formed in a particular society codifies it in its own way. For example, in the Uzbek linguocultural environment, a phraseological unit with the component "belt on the waist (lower back)" is used to denote the symbol of monosyllabicity, courage. Or in American culture it is expressed through reflection in a kind of national "code" and in the phraseological unit blue-collar worker, applied to persons engaged in physical labor, bearing a sign of social belonging[13].These are the hidden connotations of the fact that people who do physical labor sweat and, as a result, dirty their shirt collars, and the blue color is chosen so that the dirt on the collar remains unnoticed. Thus, the basis of phraseological units are national-specific and cultural-historical factors: traditions, customs, various rituals, folk games.

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[10]Қаландаров Ш.Ш. Ўзбек лингвомаданий муҳитида халқ мақоллари эвфемизацияси. Филол.фан.докт....автореф. Фарғона, 2019. –Б.15.

[11]Никонов Д.О. Фразеологизмы с компонентом-технонимом (онтологический аспект) / дисс.канд.филол.наук. Адыгей, 2018.

[12]См.: Никонов Д.О. Ўша асар.

[13]См.: Никонов Д.О. Ўша асар.

V. Telia[14].also evaluates phraseological units as essentially national features and offers an interpretation of national-cultural identity based on cultural categories, because, as has already been noted earlier, since idioms are characterized by figurative motivation associated with the worldview of the people who speak the language, they acquire a national-cultural connotation. It should be noted that before determining the national-cultural component of phraseological units, it is necessary to clarify what should be perceived as a national-cultural feature. In phraseology, two different points of view can be traced on this account: Firstly, the existence of a feature of national-cultural identity in the meaning of realities contained in phraseological units is recognized. This point of view narrows the scope of the study of the issue under consideration. The second direction is completely opposite to the first, which puts forward the idea of including a wide range of linguistic units in the composition of a national-cultural sign.

However, in most cases, the national-cultural originality of phraseological units is also determined by their comparison with other languages, that is, by comparison. Thus, V. Gak assessed linguistic phenomena as a national-cultural integrity, noting that national characteristics are determined by comparing languages[15].With this approach, the national-cultural designation of phraseological units is determined relative to the specifics of the corresponding cultures. However, not all interlingual differences can be an indicator of national identity, but only phraseological units that have culturally conditioned terms. Another principle for determining the national identity of phraseological units goes beyond the comparative, it is associated with the national spirit of native speakers and the national marking of language units. At the same time, the presence of individual nationally marked components in phraseological units is an indicator of their national identity.

This suggests that in each language there may be phraseological units perceived by native speakers only as their own, that is, strictly national. As such nationally marked components, we can distinguish the following:*to do something within the limits of what is permissible, depending on the availability or absence of resources) to take offense, to be offended (to take offense).*

Thus, national character, folklore realities, archaic units associated with folk culture and the like are closely connected with phraseological units. The national spirit is noticeable, for example, in phraseological units with a technonymic component, which contain components reflecting the everyday realities of the Uzbek nation.

D. Nemirov selects phraseological units for the research material that indicate the American character, with the aim of identifying in phraseological

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[14]См.: Телия В.Н. Русская фразеология. Семантический, прагматический и лингвокультурологический аспекты. М.: Школа «Языки русской культуры», 1996.

[15]Гак В.Г. Национально-языковая спецификамеронимических фразеологизмов // Фразеология в контексте культуры. - М.: Языки русской культуры, 1999. – С.260-261.

units the expression of the national spirit and national values[16]. He notes that the English language widely uses the phraseological units the land of the free and the home of the brave, describing the character of Americans, and this unity is used to describe the value of freedom and courage inherent in them and reflected in state symbols, in particular the flag and the anthem. Among them, phraseological units with a technonymic component, such as "The American Way", "the American Dream", "melting pot", are also recognized as symbols indicating the American spirit, culture and values.

Indeed, since phraseological units owe their origin to folk verbal creativity, they inevitably reflect folk culture, spirituality and values. They reflect the figurative, value-based attitude of the native speaker to the Universe. This can also be seen in the example of the analysis of phraseology in English apple-pie order (exemplary order, impeccable discipline). This expression is a symbol of the meaning of order in the linguistic consciousness of native speakers, the emergence of which is explained by the border period in America.

During this period, soldiers were required to keep their quarters in order and cleanliness. On the other hand, the combination Apple-Pie Order is a form used to express the preservation of these areas in perfect condition, which later evolved into a state of expression[17].

For this reason, V. Telia proposed to consider self-expression as a process of metaphorization, synthesizing general knowledge about the denotate, its value landscape and figurative gestalt structures.[18].Because "phraseologisms as signs are not adapted to the function of expressing objects in the Universe of being", therefore its designation is diffuse, it combines signs of different classes"[19]

Based on the above considerations, it can be noted that national-cultural differences in the vision, perception and naming of phenomena of common existence are determined by the direction of the common view of the nation or people. The category of national-psychic activity, which has a national-mental basis in the linguistic depiction of existence, occupies an important place in the categorization, conceptualization and classification of phenomena of existence and their stabilization as a generalized figurative meaning.

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PEDAGOGICAL FEATURES OF STUDYING THE LEVEL OF DIALOGICAL SPEECH FORMATION OF PRIMARY GRADE STUDENTS

Abstract: This article discusses the pedagogical features of studying the level of formation of dialogic speech of primary school students. Approaches to identifying individual capabilities of students in the process of developing dialogic speech and developing their ability to communicate are considered. The effectiveness of developing communicative competence in students through improving methodologies and methods is also analyzed. The study substantiates the importance of a variable approach to developing dialogic communication in the process of primary education.

Keywords: dialogic speech, primary education, communication, variable approach, communicative competence, pedagogical features, methodology, student development.

Improving the methodology for developing children's dialogical speech based on a variant approach is a complex system, which consists of a purposeful activity, a means of activity, and a subject of activity. We distinguish three components of the educational design process: methodological processing of educational material, setting a system of goals for teaching a particular topic and selecting tools appropriate to these goals, taking into account the work carried out in the educational process.

The initial element of the process of developing students' dialogical speech is design activity. Design activity is the activity of a teacher, programmer, psychologist, designer, etc. who is well versed in the methodology of teaching the educational subject. The teacher determines the educational goal, means, and results, taking into account the content and characteristics of the educational subject he teaches [98].

The following forms and methods were used to improve the methodology for developing children's dialogical speech based on a variant approach: "Journey": "Funny Train", "Journey to the City of Laughter", "World of Books", "Space of Mysterious Events"; "Protection": "School of the Future", "My Dream Lesson", "Our Class is an Internet Site", "Message to Generations", "My Favorite Book", "Relay", "Lottery", "Chuchmoma Concert", "Mini-Theater"; "Role Playing Games", "Creative Court", "Space Press Conference" "Dialogue", "Cheerful Starts", "Intellectual Hockey", "What? When? Where?" [223]. In primary education, play is a form of creative activity. In it, the student develops emotionally, intellectually and morally on the basis of knowledge and understanding of social and material existence [20]. Therefore, the dual function

of games makes them have a developmental effect. Elements of game activity are widely used in the educational process. According to the nature of games, educational games are divided into research games, management games. Games related to the educational process create conditions for the correct organization of professional activity in the future in educational subjects and the purposeful formation of the personality. The new knowledge obtained as a result of these conditions helps to correctly organize future professional activity [20]. It is known that education is based on cooperation and acquires a collective character; it is carried out in accordance with the rules of activity specific to the profession and the social rules of the community. In this sense, the didactic and educational significance of education are combined, and the activity of students increases in the form of game activity. The proposed problem task in job-based games stimulates the participants on the basis of purposeful dialogical communication, increases their interest [44].

Games are the main type of activity of children, through which primary school students learn about life, existence, the environment and adapt to it.

The following are considered important for the emergence of a game:

-the emergence of a feeling of satisfaction from communication with game participants;

-naturalness, the emergence of emotional feelings;

-the students' attempts to satisfy their natural needs during the game, etc. [26]. In terms of socio-psychological significance, games mainly perform two tasks;

- acquiring certain social knowledge;

- forming the necessary social rules. Also, when approached from a problem perspective, games develop the creative abilities of the student by activating his creative activity [58].

It is known that the quality and effectiveness of children's games directly depend on the life observations and personal experience of the participants in them. Such qualities as mindfulness, initiative, and willpower are important in this. Therefore, the use of games with various socio-psychological characteristics in the educational process undoubtedly shows its effectiveness [58]. It is precisely on such games that active teaching methods are organized. Each game can last from several minutes to more, and from two to ten students participate in it. For example: games called "business games" or "management" are aimed at developing knowledge and skills. A number of valuable ideas were expressed on the methodology of conducting "business games" [26]. In order to clearly imagine the place of "business games" in active teaching methods (especially for younger school age), we will cite a set of methods. "Business games" serve to train specialists and improve their professional qualities. "Computer business" games are a set of psychological situations in which game participants have the opportunity to be both participants in the game and observers at the same time. In a broad sense, business games are a type of method

that simulates making management decisions in various production situations, and the conditions of this game can be played out among a group of people in a work mode with a computer in a communicative mode [44].

Special pedagogical activities are required to expand the student's development space. The process of teaching the mother tongue in primary school requires the organization of elements of the cognitive-pragmatic method in the context of creative education. This is of great importance in increasing the effectiveness of teaching, improving the quality of preparing young people for life, production and social relations. However, despite this, there are misunderstandings in the field of distinguishing creative education from non-creative education among specialists, as well as school teachers, and shortcomings in distinguishing their differences.

The content of education in the mother tongue in primary school includes:

- speech sounds: vowels and consonants, sonorous and voiceless sounds;

- syllable: stressed and unstressed syllables, open and closed syllables, phonetic analysis of spoken or given words;

- word: word meanings, synonyms, antonyms;

- root word, root, stem, suffix, prefix, analysis of word classes, word-forming suffixes, subject suffixes, words indicating the color of the subject, words indicating the quantity and number of the subject, words indicating action;

- auxiliary and connectives;

- sentence: sentences expressing the meaning of the sign, sentences expressing the meaning of the question, sentences expressing emotion;

- punctuation marks: full stop, question mark, exclamation mark, comma; text; text structure, topic, main

- idea, title, plan, preface, comparison, dialogue, monologue, statement, essay, oral and written creativity, letter, message, greeting card.

In primary school, students master the intellectual activity associated with the development of dialogical speech in their native language, which is related to the fulfillment of logical tasks aimed at enriching thinking and imagination.

In conclusion, it can be said that in the process of primary education, it is important to create various conditions for the organization of dialogical speech of students. For this, determining the requirements of education and, based on these requirements, the organization of education based on the search for its priority directions, the creation of problem situations and a technological approach to education pave the way for the effectiveness of organizing the development of students' speech.

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THE IMPORTANCE OF DEVELOPING DIALOGICAL SPEECH OF PRIMARY GRADE STUDENTS THROUGH A VARIATIVE APPROACH

Abstract: *This article studies the importance of a variational approach in developing dialogic speech of primary school students. The importance of using various methods and techniques, taking into account the personal needs and abilities of students, is emphasized in the process of forming dialogic speech. The study examines the possibilities of effectively developing students' communication skills through a variational approach, forming in them the ability to think independently and freely express their thoughts. It is also substantiated that this method is effective in individualizing the learning process and ensuring interactive communication.*

Keywords: *variational approach, primary school, dialogic speech, communication skills, methodology, interactive education, learning process, personal approach.*

The central problem of pedagogical technology is to ensure the achievement of educational goals through the development of the student's personality. Pedagogical technology is based on such principles as the clear formulation of educational goals, the productivity of education, the presence of feedback, and a guaranteed final result [83]. In the process of computerization of education, it is necessary to act on the basis of this idea when modeling student activity [101].

Creative education in dialogic speech has a wide range of opportunities for the individual development of the student's intellectual potential, an approach to each student based on his or her specific characteristics [20]. In it, the student masters the educational material at his or her own pace, motives, and way of thinking.

The role of the teacher changes according to the specific characteristics of dialogic speech, the main task is to develop the personality of students, direct them to creative search and support them in this area, and organize their creative work [44]. Analysis of the activities of students and teachers shows that as a result of the establishment and widespread introduction of creative education into the education system, the role of the teacher in the educational process and the tasks facing him will change: the teacher's task will be to accustom students to independently draw up a plan for the implementation of their goals, to teach them to implement them [127]. In the process of dialogic speech, the student's creative abilities are developed. In this case, the main task of education is not to memorize rules, but, on the contrary, to develop thinking [20]. Human activity in the study

of phenomena of nature, society and consciousness, as one of the leading principles, was originally based on philosophy. Human knowledge operates in the relationship of subject and object, leading to the formation of interaction as a holistic system. Material things, entering the sphere of influence of human activity, become objects of knowledge. In turn, the object of knowledge, phenomena, 176 have a negative impact on a person in terms of their complexity, difficulty, unfamiliarity, and the work they perform in their activities. The influence of the subject on the object, and the object on the subject, creates a mutual influence. "... therefore, the relationship between the subject and the object in the process of knowledge is not a one-sided influence, but rather a dialectical interaction between them. The socio-historical practice of man lies on the basis of their mutual influence" [113,12]. In philosophical works, the objectivity of human activity - its orientation towards objects and its subjectivity - its activity in the process of knowledge are distinguished as interconnected phenomena. V.V. Kraevsky analyzes analysis and synthesis in the form of operations - methods of human mental activity. Gradually, the word-sign begins to play a major role in the child's thinking. At different stages of human thinking, they differ from each other depending on what signs are used. For example, the difference between a complex (a set of things) and a concept is explained by the commonality in the functional use of the word in the name of the first, that is, complex things [98; 250].

In order to convey the basics of science to students, the studied educational material is didactically processed, that is, the educational elements of the educational material are separated, tasks are developed for them, educational questions are formulated, educational exhibits are prepared, and the sequence of their study is determined [127]. This work is carried out taking into account the characteristics of such types of education as explanatory-demonstrative, problem-based, task-based, differentiated, programmed, algorithmized. Each type of education has a model. Education can be imagined both from the perspective of the teacher and the student, and also in terms of the interaction between the teacher and the student. Educational models are distinguished by imagining education precisely from the perspective of its participants. Educational types are determined according to educational models [103]. When imagining dialogic speech in terms of teaching and learning activities, it is considered as a means of the educational process, the student or group of students as the subject of this process, the subject of creative education [20]. When approaching the design of education from this perspective, the question arises of which educational models are convenient to use or which stages of the models have the widest possibilities for designing [103]. To answer this question, we will consider the content of educational models.

The content of educational models is sufficiently described in didactic literature. The most commonly used model in practice is explanatory-demonstrative learning [127]. This model of learning educational material is

based on the idea of learning knowledge in a ready state. Its model looks like this: preparing students to learn information; explaining knowledge; consolidating information by completing various tasks. In programmed learning, students are prepared to learn one educational element in the educational material; knowledge is explained; knowledge is consolidated; knowledge is controlled, and this process is repeated for each educational element [177]. In problem-based learning, a problem situation is created in the minds of students; ways to solve the problem are sought; the selected method is applied to solve the problem; conclusions are drawn on the problem solved; conclusions are applied in practice and knowledge is consolidated [127]. Task-based learning is also close to problem-based learning in many respects, in which the educational material is presented in the form of a system of tasks; the system of tasks is performed; conclusions are drawn from the completed tasks; the conclusions are applied to various educational situations.

The effectiveness of education depends on the model on which the lesson is organized and on the strict adherence to its laws. It is determined based on the characteristics of the educational material. However, the implementation of the educational process using a computer requires the organization of lessons on the basis of a more general model.

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ORGANIC AND MINERAL FORMS OF SELENIUM, THEIR METABOLISM, BIOLOGICAL AVAILABILITY AND ROLE IN THE BODY

Abstract. *The concept of bioavailability of organic and mineral forms of selenium is considered. The influence of the domestic drug selenopyran on the functional activity of the antioxidant-antiradical defense system of the body is described. The role and significance of selenopyran in increasing productivity and nonspecific resistance in animals and poultry is discussed.*

Keywords: *selenium, selenopyran, organic and mineral forms, metabolism, bioavailability, antioxidant properties.*

INTRODUCTION

The problem of selenium metabolism in animals and the closely related problem of the bioavailability of its organic and mineral forms remain not only confusing but also often misinterpreted. It is known that selenium-containing proteins present in the body of vertebrates contain only one selenium-containing amino acid, selenocysteine. In 1980, the leading specialist in selenium metabolism R.A. Sunde (University of Missouri, USA) showed on perfused rat liver that the incorporation of 75Se from selenocysteine into glutathione peroxidase is effectively inhibited by the presence of a 9-fold excess of unlabeled selenite or sodium selenide in the perfusate, while a 100-fold excess of unlabeled selenomethionine was less effective. Based on these experiments, it was concluded that inorganic selenite and selenide are better metabolized and are more preferable as precursors of selenoproteins than selenium from methionine and selenocysteine [1].

MATERIALS AND METHODS

Selenium, which is part of selenite and selenides, is included in the amino acid serine, which then serves as the only direct precursor of selenocysteine, i.e. the body itself is able to synthesize selenocysteine using only the carbon skeleton of serine and mineral selenium. In turn, selenocysteine and selenomethionine are not direct precursors for the synthesis of selenium-containing proteins. Selenite (Se4+) and selenate (Se6+) in the body of higher animals are natural metabolic, and therefore the most accessible precursors of selenium for inclusion in all selenium-containing proteins. In plants and microorganisms, selenium is found mainly in the form of selenomethionine, but can also be found in the form of mineral and other non-metabolizable organic compounds. For example, astragalus is considered one of the best selenium accumulators. They are able to accumulate hundreds of times more of this element than it is contained in the soil and other plants growing in the same areas. The issue of including selenium-concentrating

plants in the composition of dietary selenium supplements was considered, but did not find a positive solution, since these plants contain a large number of mineral (in particular, selenates) and organic forms (mainly in the form of various derivatives of selenocysteine, which are not natural products of the metabolism of this amino acid and are not capable of being included in proteins).

RESULTS AND DISCUSSION

Selenocysteine is not found in plants and microorganisms in practically significant quantities. At the same time, with the participation of methionine tRNA, selenomethionine can be mistakenly included in proteins instead of methionine (they do not acquire any new properties, but simply serve as its carriers). However, the practical significance of this possibility is minimal. Selenomethionine in higher animals can only be included in albumin non-covalently, based on van der Waals forces, electrostatic and hydrophobic interactions, that is, without the formation of a true chemical bond. According to G.F. Combs, a member of the US National Committee on Nutrition, the selenomethionine pool in albumin is estimated at 1-2% of the total selenium content in the body (4-6), since this amino acid performs sorption and transport functions. All known vertebrate selenoproteins contain only selenocysteine; neither a codon nor tRNA has been found for selenomethionine. Moreover, even the selenocysteine consumed by animals does not have metabolic pathways for direct inclusion in selenopeptides: for this, it first undergoes a phase of transformation into mineral selenium, after which selenocysteine is formed through serine, which serves as a precursor.

In animal tissues, there is currently only one known metabolic pathway for all selenium-containing compounds (both organic and mineral) that ultimately results in hydrogen selenide (hydroselenide anion HSe-) — a highly toxic compound that the body gets rid of in two ways. The first (catabolic pathway) involves its sequential enzymatic methylation to trimethylselenonium — the main metabolic product of all selenium-containing compounds. This pathway is reversible only at the first stage of selenium methylation. Consequently, when the conditions of selenium nutrition change, anabolic processes of selenium incorporation into endogenous proteins can begin. Trimethylselenonium is excreted from the body through the kidneys with urine. If there is an excess in the diet, selenium does not have time to turn into trimethylselenonium and is excreted with sweat and through the lungs as dimethyl selenide, giving the secretions a garlic smell, which usually serves as a qualitative criterion for such an excess. In the second case (anabolic pathway), hydrogen selenide undergoes sequential enzymatic transformations. It is activated (phosphorylated) by selenophosphate synthetase. Serine is attached to its specific transport ribonucleic acid to form the corresponding complex, serine-acyl-tRNA-adenylate. Then the activated mineral selenium is enzymatically attached to the serine-tRNA complex. The reaction is catalyzed by the enzyme selenocysteine synthetase. As a result of this reaction, selenocysteine is formed. Only selenocysteine obtained from hydrogen selenide

and serine is capable of being included in selenium-containing proteins in vertebrates.

CONCLUSION

Thus, the domestic drug selenopyran compares favorably with all existing selenium-containing substances. Its metabolism in the body occurs along one of two main pathways. With a selenium deficiency in the diet, the drug can serve as a normal source of mineral selenium. With sufficient selenium nutrition, selenopyran undergoes a complex metabolic pathway of transformations without the release of selenium (with the possibility of recycling at a certain stage), performing the function of an antioxidant.

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УДК 637.621

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СРАВНИТЕЛЬНАЯ ХАРАКТЕРИСТИКА ОКРАСКИ ВОЛОСЯНОГО ПОКРОВА СУРКОВ В 6 И 18 МЕСЯЧНОМ ВОЗРАСТЕ

Аннотация. Окраска волосяного покрова у пушных зверей важный селекционируемый признак. У фермерских сурков выявлена большая возрастная и индивидуальная изменчивость окраски волосяного покрова. В статье приводятся данные о сравнительной характеристике признаков окраски волосяного покрова сурков двух возрастных групп 6-месячных (сеголеток) и 18-месячных (второгодок).

Ключевые слова: сурки, общая окраска, остевой волос, пигментированная вершина, светлое кольцо, темное основание, вуаль.

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COMPARATIVE CHARACTERISTICS OF THE HAIR COLOR OF MARMOTS AT 6 AND 18 MONTHS OF AGE

Abstract. Hair coloring in fur-bearing animals is an important breeding trait. In farm marmots, a large age and individual variability of hair color was revealed. The article provides data on the comparative characteristics of the hair color of marmots of two age groups: 6-month-olds and 18-month-olds.

Keywords: marmots, general coloration, outer hair, pigmented tip, light ring, dark base, veil

Введение. У сурков степных выявлена большая сезонная, географическая, популяционная, а также индивидуальная изменчивость окраски волосяного покрова [1]. Общая окраска опушения сурков представляет собой комбинацию нескольких цветов, поскольку различные

участки волоса по его длине окрашены неодинаково. У кроющих волос (остевых и направляющих) между темноокрашенными вершиной и основанием, в средний части волоса, четко выделяется светлое кольцо [2].

Материалы и методы. Поскольку при визуальном осмотре шкурки сурков второгодок выглядят более темными, чем шкурки сеголеток, была предпринята попытка проанализировать за счет чего создается подобное впечатление. Из пресно-сухих шкурок, полученных после убоя сурков второгодок (от 5 самок и 5 самцов) и сеголеток (3 самок и 3 самцов) были взяты образцы кожи с волосом площадью 0,25 кв. см методике (Б.А. Кузнецов, Б.Ф. Церевитинов, 1958) [3] на огузке, хребте, загривке и боку. Из каждого образца выделяли по 25 штук остевых и направляющих волос и измеряли на стекле, смазанном глицерином их истинную длину с точностью до 1 мм, а также длину цветовых зон: пигментированной вершины, осветленной зоны и пигментированного основания.

Результаты исследований. Направляющие волосы у сеголеток почти во всех случаях (кроме хребта и огузка у самцов) имели различия в соотношении длины пигментированных вершинок к ширине осветленного кольца: от 0,7 до 8,9 %. У второгодок наоборот – длина пигментированных вершинок больше ширины осветленного кольца. Различия соотношений от 1,1 % до 10,1 %. При соотношении количества направляющих волос к остевым, как 1:25, основную роль в формировании окраски играют остевые волосы [4].

Длина пигментированных вершин остевых волос в отношении к общей длине волос у самок сеголеток колебалась в зависимости от участка тела от
15,1 до 17,2 % и у самцов – от 15,8 до 17,4 % (табл. 1). Различия по длине вершин между самками и самцами колебались от 0,3 до 1,3 % и были (за исключением загривка) выше у самцов.

Аналогичная картина наблюдалась и у второгодок, поскольку можно утверждать об отсутствии между самками и самцами отличий по длине вершин волос. Как у самок, так и у самцов, на всех топографических участках тела длина пигментированных вершин волос меньше ширины осветленной зоны. У самок изменчивость по длине вершин колебалась от 29,1 % (на загривке) до 45,4 % (на огузке), у самцов – от 31,5 % (загривок) до 37,3 % (огузок).

В среднем длина темноокрашенных вершин волос у сеголеток составила 16,1 %, ширина светлой зоны – 50,6 % от общей длины волос. Поэтому соотношение длины пигментированной вершины к длине осветленной зоны близко к 1:3.

У второгодок отмечена та же закономерность в соотношении длины вершины и ширины осветленной зоны. У самок изменчивость по длине пигментированных вершин колебалась от 20,6 % (загривок) до 49,2 % (огузок), у самцов по участкам тела 22,8 % и 46,2 %, соответственно.

В среднем длина вершин у второгодок составила 20,2 %, светлой зоны 52,0 %, то есть соотношение длины темноокрашенных вершин к ширине осветленной зоны составило 1:2,6, благодаря чему и создается впечатление более темного тона у второгодок.

Таблица 1. Показатели соотношения цветовых зон остевых волос на разных топографических участках шкурок сурков

Топографический участок	Пол	Возраст	Остевые волосы			
			Общая длина, $\bar{X}\pm S_x$, мм	Соотношение цветовых зон, %		
				вершина	светлое кольцо	основание
Загривок		сеголетки	22,4±0,2	17,2	46,3	36,5
		двухлетки	23,1±0,2	22,3	42,9	34,8
		сеголетки	21,6±0,2	15,8	47,3	36,9
Хребет		двухлетки	24,6±0,2	22,2	45,0	32,8
		сеголетки	23,4±0,1	15,5	46,4	38,1
		двухлетки	23,3±0,1	19,8	45,3	34,9
Бок		сеголетки	23,0±0,2	15,8	47,2	37,0
		двухлетки	25,4±0,2	20,5	50,0	29,5
		сеголетки	21,5±0,2	15,1	51,6	33,3
		двухлетки	21,7±0,2	17,3	52,8	29,9
Огузок		сеголетки	20,6±0,2	15,9	49,6	34,5
		двухлетки	23,1±0,2	23,4	52,8	23,8
		сеголетки	19,5±0,2	16,0	61,4	22,6
		двухлетки	18,7±0,3	17,1	66,3	16,6
		сеголетки	18,9±0,3	17,4	54,7	27,9
		двухлетки	19,1±0,2	18,0	64,2	17,8

Темноокрашенные вершины направляющих и остевых волос определяют общий тон окраски шкурки сурков степных, создавая темную вуаль. Самые длинные пигментированные вершины остевых волос у обеих возрастных групп на загривке и хребте, у сеголеток 3,4 - 3,9 мм, у второгодок 4,6 – 5,5 мм (табл.2). Самые короткие – на боках и огузке (сеголетки 3,2 0 3,3 мм, второгодки 3,2 – 3,7 мм).

Таблица 2- Длина пигментированных вершин остевых волос сурков двух возрастных групп на разных топографических участках тела

Топографический участок шкурки	Пол	Возраст	Остевые волосы			
			Lim, мм	$\bar{X}\pm S_x$, мм	δ, мм	Cv,%
Загривок		сеголетки	2-7	3,9±0,2	1,37	35,4
		двухлетки	2-9	5,2±0,2	1,70	32,6
Хребет		сеголетки	2-8	3,4±0,2	1,44	41,9
		двухлетки	2-9	5,5±0,1	1,57	28,5
		сеголетки	2-7	3,6±0,2	1,31	36,1
		двухлетки	2-10	4,6±0,2	1,76	38,3
Бок		сеголетки	2-8	3,6±0,2	1,56	43,0
		двухлетки	1-10	5,2±0,2	1,78	34,2
		сеголетки	1-6	3,2±0,1	1,11	34,3
		двухлетки	1-9	3,7±0,2	2,12	57,2
Огузок		сеголетки	1-8	3,3±0,2	1,54	46,9
		двухлетки	2-9	3,6±0,2	1,71	47,5
		сеголетки	1-6	3,2±0,2	1,62	51,4
		двухлетки	1-9	3,2±0,2	1,68	52,5
		сеголетки	1-6	3,3±0,2	1,30	39,6
		двухлетки	1-8	3,5±0,1	1,47	42,0

Следует отметить, что на всех топографических участках шкурки (кроме огузка) пигментированные вершины кроющих волос второгодок длиннее на 0,3 – 2,6 мм, чем у сеголеток на соответствующих топографических участках тела. Это указывает на более высокую степень выраженности вуали у второгодок, а, следовательно, и о более темном тоне их опушения (табл. 2).

Изменчивость длины пигментированных вершин остевых волос на разных участках тела достаточно высокая – у сеголеток от 34,3 до 51,4 %, у второгодок – от 28,5 % до 57,2 %.

Заключение. Изменчивость окраски направляющих и остевых волос, позволит проводить целенаправленный отбор фермерских сурков на получение особей желательного типа по общей окраске волосяного покрова.

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УДК 636.934.55

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ИЗМЕНЕНИЯ ДЛИНЫ ЗУБНОГО РЯДА И ШИРИНЫ РЕЗЦОВ СОБОЛЯ В ПРОЦЕССЕ ПРОМЫШЛЕННОГО РАЗВЕДЕНИЯ

***Аннотация.** В статье представлены результаты изучения длины зубного ряда и ширины резцов соболя в процессе его промышленного разведения. Установлено, что в процессе доместикации длина зубного ряда верхней челюсти у самцов и самок соболя достоверно увеличилась. При этом ширина ряда резцов верхней челюсти у самок стала достоверно больше, а у самцов не изменилась.*
__Ключевые слова:__ соболь, соболеводство, доместикация, зубы, череп.

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CHANGES IN THE LENGTH OF THE DENTITION AND WIDTH OF THE INCISORS OF THE SABLE DURING INDUSTRIAL BREEDING

__Abstract.__ The article presents the results of studying the length of the dental row and the width of the incisors of sable in the process of its industrial breeding. It was found that during the process of domestication, the length of the dental row of the upper jaw in males and females of sable increased reliably. At the same time, the width of the row of incisors of the upper jaw in females became reliably larger, and in males it did not change.
__Keywords__: sable, sable breeding, domestication, teeth, skull.

Введение. Соболь (*Martes zibellina*) – ценный пушной зверь, который добывается путём охотничьего промысла, а также разводится в условиях клеточного пушного звероводства. Разводить соболей в клетках начали с 1931 г. в зверосовхозе «Пушкинский». Стадо формировалось путём скрещивания соболей разных природных популяций. За 100 лет разведения зверей в условиях звероводческих хозяйств животные клеточных популяций претерпели значительные изменения, которые затрагивают их

основные хозяйственно ценные признаки – размер тела, качество опушения, окраску [1, 2, 3, 4].

В результате ранее проведённых нами исследований было установлено, что общая конфигурация черепа у соболя изменилась в процессе его промышленного разведения. В современных условиях разведения череп самцов и самок соболя стал длиннее [5]. Цель данной работы – изучить изменения длины зубного ряда и ширины резцов соболя в процессе его промышленного разведения.

Материал и методы. Исследования проводили в ОАО «Племзверосовхоз «Салтыковский» Московской области. Объектом исследования были самцы и самки соболя породы Салтыковская 1. Материалом для исследований были черепа соболей, полученные во время планового убоя в хозяйстве. Снятие промеров проводили при помощи штангенциркуля с точностью 0,1 мм. В ходе исследования определяли длину зубного ряда верхней челюсти, ширину резцов верхней челюсти. Полученные данные обрабатывали при помощи метода вариационной статистики в программе Microsoft Excel (2017).

Результаты исследований. Монахов Г.И. при изучении краниометрических показателей у соболей, которых разводили зверосовхозе «Салтыковский» в 1967 г., установил, что длина зубного ряда верхней челюсти у самцов и самок составляла 32,22±0,16 мм и 28,74±0,15 мм соответственно. Ширина ряда резцов верхней челюсти у изучаемых животных была 8,44±0,11 мм и 7,38±0,06 мм соответственно [6].

Таблица 1. Длина зубного ряда и ширина ряда резцов на верхней челюсти у соболей

Пол	Автор, год	n	Длина зубного ряда верхней челюсти, мм	Ширина ряда резцов верхней челюсти, мм
Самцы	Монахов Г.И., 1967 г.	24	32,22±0,16***	8,44±0,11
	Собственные исследования, 2024 г.	14	34,71±0,33	8,28±0,12
Самки	Монахов Г.И., 1967 г.	25	28,74±0,15***	7,38±0,06***
	Собственные исследования, 2024 г.	16	32,59±0,31	7,98±0,10

Примечание: *** P≥0,999

Полученные данные (табл. 1) свидетельствуют о том, что в процессе промышленного разведения у самцов соболя достоверно увеличилась длина зубного ряда верхней челюсти на 2,49 мм (P≥0,999). Ширина ряда резцов верхней челюсти у соболей сравниваемых групп не имеет достоверной

разницы. Длина зубного ряда верхней челюсти у самок в 2024 г. больше аналогичного показателя у самок в 1967 г. на 3,85 мм (Р≥0,999). Ширина ряда резцов верхней челюсти у самок современного клеточного разведения превышает данный показатель на 0,6 мм у самок, разводимых в 1967 г. (Р≥0,999).

Заключение. В результате проведённых исследований было установлено, что в процессе доместикации длина зубного ряда верхней челюсти у самцов и самок соболя достоверно увеличилась. При этом ширина ряда резцов верхней челюсти у самок стала достоверно больше, а у самцов не изменилась.

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УДК 639.112.9

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РАЗРАБОТКА ТРЕБОВАНИЙ К ОЦЕНКЕ ОКРАСКИ ВОЛОСЯНОГО ПОКРОВА СУРКОВ ПРОМЫШЛЕННОГО РАЗВЕДЕНИЯ

Аннотация. Окраска волосяного покрова пушных зверей является одним из основных хозяйственных признаков. При введении сурков в зоокультуру возникла необходимость разработать «Правила бонитировки (оценки) степных сурков клеточного разведения (Marmota bobac)». В статье приводятся сведения о разработке требований к оценке окраски волосяного покрова сурков. Изучение изменчивости окраски волосяного покрова молодняка сурков позволило оценить все разнообразие этого признака и наметить направление селекции в сторону желательного типа. Сурки желательного типа должны иметь иссиня черного цвета вершины ости, образующие хорошо развитую вуаль в виде темного ремня на спине. Окраска осветленного кольца остевых волос должна соответствовать окраске вершин пуховых волос. Основание пуха темно серое.

Ключевые слова: волосяной покров, окраска, оценка, изменчивость, сурки, остевые волосы, пух

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DEVELOPMENT OF A REQUIRED ASSESSMENT OF HAIR COLORS OF INDUSTRIAL BREEDING MARMOTS

Abstract. The color of the hair of fur-bearing animals is one of the main economic characteristics. When introducing marmots into zoo culture, it became necessary to develop "Rules for the grading (assessment) of cage-bred steppe marmots (Marmota bobac) SNP breeding R-37-98." The article provides information on the development of requirements for assessing the color of the hair

of marmots. Marmots of the desired type should have blue-black tops of the awns, forming a well-developed veil in the form of a dark belt on the back. The color of the bleached ring of guard hairs should match the color of the tops of the down hairs. The base of the down is dark gray.

Keywords: hair, coloring, assessment, variability, marmots, guard hairs, fluff

Введение. Бонитировку сурков проводят один раз в первый год их жизни в период зрелости волосяного покрова (август… сентябрь), перед спячкой [1]. Общеизвестно, что при оценке хозяйственно полезных признаков всех пушных зверей клеточного разведения, желательными являются крупный размер тела и крепкое телосложение, хорошее качество опушения, то есть густой, уравненный по высоте и без дефектов волосяной покров, и окраска, характерная для вида (типа), без нежелательных оттенков.

Материалы и методы. Требования к оценке сурков по хозяйственно полезным признакам разрабатывали соответственно общему направлению этих требований в звероводстве. Так, по тону окраски, сурков подразделяли по аналогии с другими видами пушных зверей на три типа – темный, средний и светлый. Тон окраски у сурков зависит от цвета пигментированных верхушек кроющих волос и интенсивности окраски осветленного кольца остевых и верхушек пуховых волос. Чем сильнее выражена пигментация вершин и осветленной зоны остевых волос, а также вершин пуха, тем темнее общий тон окраски.

У сурков 6-ти месячного возраста в период полного созревания волосяного покрова в сентябре оценивали интенсивность общей окраски, окраску вершин пуховых и остевых волос и светлой зоны остевых волос. Миллиметровой линейкой с заостренным концом измеряли на боковой части зверя с точностью до 1 мм длину цветовых зон волос – темного основания, светлого кольца и пигментированной верхушки. Для определения желательного признака окраски разработали 5 – бальную шкалу.

Результаты и исследований. В популяции «пушкинских» сурков сеголеток большая часть животных среднего тона (62,7%). Зверей с темным и светлым тоном примерно одинаково 18,3 % светлых и 19,0 % темных (табл.).

ЭКОНОМИКА И НАУКА В СОВРЕМЕННОМ МИРЕ. РАЗВИТИЕ НОВЫХ ВОЗМОЖНОСТЕЙ

Таблица - Распределение сурков по интенсивности (тону) общей окраски

Возраст, месяцев	Пол	Интенсивность (тон) окраски					
		Светлый		средний		Темный	
		кол-во, гол.	%	кол-во, гол.	%	кол-во, гол.	%
6	♀	12	20,7	31	53,4	15	25,9
	♂	11	16,7	46	69,7	9	13,6
Всего		23	18,3	77	62,7	24	19,0

У сурков байбаков европейского подвида при клеточном разведении наблюдалась изменчивость основной окраски волосяного покрова, что позволило подразделять их на перламутровых и золотистых [2]. К золотистым отнесли животных с оранжевой подпушью различной интенсивности, к перламутровым – зверей со светло кремовой подпушью. Общая окраска опушения сурков представляет собой комбинацию нескольких цветов, поскольку различные участки волос по их длине окрашены неодинаково. У кроющих волос (остевых и направляющих) между темноокрашенными вершиной и основанием, в средней части волоса, четко выделяется светлое кольцо. Вершины пуховых волос светлые, основание темно-серое.

В среднем за три года в стаде сурков примерно половина животных (47,7%) имели чисто черный цвет пигментированных кончиков кроющих волос, что соответствовало желательному признаку в 5 баллов. 32,1% сурков имели черный цвет (4 балла) и только у 4,5% - вершины волос коричневые и бурые.

Распределение молодняка сурков по окраске светлой зоны остевых волос свидетельствовал о том, что самый большой удельный вес (31,3 и 29,9%) приходится на животных с желтой и светло-желтой окраской (4 и 3 балла). 5 баллов (за ярко-желтую окраску светлой зоны остевых волос) получили 8,6 % молодняка в стаде. В окраске вершин пуховых волос наблюдали картину, сходную с окраской светлой зоны кроющих волос – за три года только 3% животных имели желательную ярко-желтую окраску верхней части подпуши. У основной массы зверей верхушки пуховых волос были светло-желтые и желтые (2-4 балла). Изучение изменчивости сурков по окраске основания подпуши показывает, что этот признак не подвержен большому разнообразию и мало влияет на общее впечатление окраски. Большинство молодняка имело иссиня черную (43,7%) и черную (44%) окраску основания подпуши.

Изучение изменчивости окраски волосяного покрова молодняка сурков (сеголеток) позволило оценить все разнообразие этого признака и наметить направление селекции в сторону желательного типа. Сурки желательного типа должны иметь иссиня черного цвета вершины ости, образующие хорошо развитую вуаль в виде темного ремня на спине.

Окраска осветленного кольца остевых волос должна соответствовать окраске вершин пуховых волос. Основание пуха темно серое [3].

Для того чтобы отделить зверей золотистого типа от перламутрового и использовать эти данные при подборе пар родителей, введена оценка окраски осветленной зоны остевых волос и вершин подпуши в качестве дополнительного признака. Градации шкалы построены таким образом, чтобы при оценке дополнительных признаков можно было четко выделить наиболее желательный окрас, как в золотистом, так и в перламутровом типах. Так, 5 баллов за дополнительный признак, должны получать сурки степные, имеющие ярко оранжевую окраску светлой зоны остевых и вершин пуховых волос, то есть желательный тип среди золотистых, а 1 балл – особи, имеющие светло кремовую окраску осветленной зоны ости и вершин пуховых волос, то есть желательный тип среди перламутровых.

Заключение. Подобный подход к оценке общей окраски сурков позволяет выделять в стаде наиболее ценных животных без учета цветового типа, определить их класс и провести отбор на племя, а оценка дополнительных признаков позволит определить желательный тип среди золотистых и перламутровых особей и использовать эту оценку при подборе родительских пар.

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МАДАНИЯТ ВА САНЪАТ МУАССАСАЛАРИ ҲАМДА ТАШКИЛОТЛАРИНИНГ БОШҚАРИШ УСУЛЛАРИ

Аннотация: Ушбу мақола маданият ва санъат муассасалари ҳамда ташкилотларининг бошқарув усулларини таҳлил қилишга бағишланган. Мақолада ижодий соҳада замонавий ва инновацион ёндашувлар, давлат ҳамда жамоат бошқарувининг аҳамияти таъкидланади. Шунингдек, маданият соҳасида кадрлар малакаларига бўлган талабларни ошириш, маданият муассасаларини ривожлантириш бўйича тавсиялар келтирилган.

Калит сўзлар: маданият, санъат, бошқарув усуллари, маданият муассасалари, жамоат бошқаруви, ижтимоий муносабатлар, молиялаштириш, коммуникацион технологиялар, ижодий жараён.

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MANAGEMENT METHODS OF CULTURAL AND ARTISTIC INSTITUTIONS AND ORGANIZATIONS

Abstract: This article is dedicated to analyzing the management methods of cultural and artistic institutions and organizations. It highlights modern and innovative approaches in the creative field, as well as the importance of government and public administration. The article also provides recommendations for enhancing the requirements for professional qualifications in the cultural sector and the development of cultural institutions.

Keywords: culture, art, management methods, cultural institutions, public administration, social relations, funding, communication technologies, creative processes.

Маданият сиёсатни амалга ошириш давлат ва маҳаллий бошқарув органларининг ижтимоий ҳаёт фаолияти соҳасидаги энг муҳим йўналишларидан биридир. Бошқарув органлари томонидан маданий фаолиятни ташкил этиш ва амалга ошириш масалаларининг қанчалик муваффақиятли ҳал этилиши жамият аъзоларининг маданий эҳтиёжларидан қониқиш даражасига, демак, охир-оқибат уларнинг ҳаёт даражаси ва

сифатига боғлиқ[20]. Маданият ва санъат муассасалари, ташкилотлари ўз ижодий фаолияти билан янги маърифий жамият қуриш ва уни тараққий топтиришда фаол иштирок этиши давр талабидир. Янги Ўзбекистонда маърифатли жамиятни шакллантиришда маданият ва санъат муассасаларидан қуйидаги омилларга алоҳида аҳамият қаратиш лозим:

❖ аҳоли ўртасида ҳуқуқий маданиятни шакллантириш бўйича ҳуқуқий-маърифий тадбирларни халқимизнинг бой тарихи, илмий-маданий мероси, миллий-диний қадриятларини ўргатиш билан уйғун ҳолда ташкил қилиш;

❖ давлат сиёсатининг устувор йўналишлари, кенг кўламли ислоҳотларнинг моҳияти, қабул қилинган қонун ҳужжатлари ва давлат дастурларининг аҳамиятини кенг жамоатчиликка етказиш;

❖ талаба ёшлар ва профессор-ўқитувчиларда Ватанга муҳаббат, унинг тақдирига дахлдорлик, касбга садоқат ҳиссини мустаҳкамлашга қаратилган чора-тадбирларни амалга ошириш, таълим-тарбия жараёнлари ҳамда маънавий-маърифий ишларни кучайтириш;

❖ ушбу йўналишда илмий ва услубий тадқиқотлар самарадорлигини ошириш, ижтимоий-маънавий муҳит барқарорлигини мустаҳкамлашга қаратилган доимий мониторинг тизимини жорий қилиш.

Бу соҳада олиб бораётган кенг миқёсли ишларимизни, хусусан, таълим-тарбия бўйича қабул қилинган умуммиллий дастурларимизни мантиқий якунига етказиш зарур. Албатта, халқаро майдонда муносиб ўрин эгаллаш йўлида замонавий инновацион ғоялар, ишланмалар ва технологияларга асосланган ислоҳотларни амалга ошириш миллий тараққиёт стратегиямизнинг устувор жиҳатидир[21].

Маданият ва санъат соҳасида ташкилот ва муассасаларнинг фаолияти ва асосий вазифалари ҳақида батафсил тўқталиб ўтсак, ҳар қандай ташкилот қуйидаги хусусиятлар билан ажралиб туради:

– ташкилот муайян мақсадларни амалга ошириш учун яратилган;

– ташкилот иерархияга, тузилишга, шунингдек, бошқарув ва умумий мувофиқлаштиришга муҳтож бўлган бўлимлар, сегментлар тўпламига эга;

– ташкилот ижтимоий табақаланишга, яъни, мақом ва лавозим бўйича ходимларнинг ички тақсимотига эга.

Ушбу жиҳатлар асосида ташкилий тартиб ташкилий алоқаларни, ўзаро алоқаларни ва муносабатларни тартибга солувчи нисбатан барқарор мақсадлар, алоқалар, меъёрлар тизими сифатида вужудга келади. Ташкилот ичида одамларнинг иерархик равишда икки гуруҳга бўлиниши мавжуд: бошқариладиган ва бошқарувчилар. Маданият соҳасида турли ташкилотлар фаолият юритади, бошқарув, мувофиқлаштирувчи фаолият (масалан,

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[20] Наточий В. В. Реализация культурной политики на муниципальном уровне: проблемы и перспективы //Азимут научных исследований: экономика и управление. – 2017. – Т. 6. – №. 3 (20). – С. 400-403.

[21] Мирзиёев Ш. Янги Ўзбекистон стратегияси. – Тошкент: "Ўзбекистон". 2021. – 464б. 304

муассаса ёки маданият бўлими) ва маданий манбаларни ишлаб чиқариш ва тарқатиш бўйича фаолият (аксарият маданият муассасалари) ёки маданий хизматларни ишлаб чиқариш ва сотиш учун ҳамроҳлик шартларини таъминлаш (масалан, маданият соҳасидаги фондлар). Ташкилотни бошқаришнинг муҳим элементи бу ташкилий тузилма бўлиб, у бошқарувнинг мақсад ва вазифаларини кўплаб бўлимлар ва ходимлар ўртасида тақсимлаш билан тавсифланади.

Бошқарувнинг ташкилий тузилмаси – бу қатъий бўйсунишда жойлашган ва бошқарув ва бошқариладиган тизимлар ўртасидаги муносабатларни таъминлайдиган бошқарув бўғинлари тўплами. Ташкилий тузилма горизонтал равишда боғланган бўғинлар (ташкилот ичидаги бўлимлар) ва ташкилотнинг вертикал равишда боғланган даражалари (босқичлари) бўлган турли қуйи тизимларнинг ўзаро боғлиқлиги билан тавсифланади.

Маданият нафақат жамият онгининг институтларидан бири сифатида, балки давлат ва жамият ҳаётининг барча соҳаларига таъсир кўрсатувчи маънавий қадриятларнинг яхлит тизими сифатида қаралиши лозим. Шу муносабат билан, маданият соҳасини бошқаришнинг жамоат бошқаруви тизими ҳақида гапириш лозим, чунки фақат давлатнинг ўзи ҳар бир шахсда умумий маданий компетенцияларни шакллантиришни таъминлай олмайди.

“Жамоат бошқаруви” тушунчасининг умум қабул қилинган таърифи мавжуд эмас, аммо олимлар битта нуқтаи назарда келишадилар: жамоат бошқаруви — бу давлат ва маҳаллий органларнинг фуқароларнинг бевосита иштироки билан амалга ошириладиган фаолияти бўлиб, у давлатнинг барқарор ривожланиши, фуқароларнинг ҳуқуқ ва эркинликларини таъминлаш ҳамда уларнинг эҳтиёжларини қондиришга йўналтирилган жамият муносабатларини шакллантириш ва ривожлантиришга қаратилган. Маданият соҳасини жамоат бошқаруви алоҳида қизиқиш уйғотади, чунки у қуйидагиларни очиб беради:

- турли ташкилотларда маданият соҳасидаги бошқарувнинг технологик мазмунини;
- маданият соҳаси билан бошқа бизнес фаолияти соҳалари ўртасидаги ҳамкорлик имкониятлари истиқболларини;
- маданият соҳаси мутахассислари ва ходимларининг малакаси бўйича талабларнинг ортиб боришини.

Маданият соҳасини жамоат бошқарувининг асосий тартибга солувчиси ҳуқуқий тартибга солиш ҳисобланади, чунки давлат бошқаруви жамият ва инсоннинг маданий ривожланишига таъсир кўрсатади[22].

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[22] Глущенко Р. В. Особенности публичного управления в сфере культуры //Вестник Томского государственного университета. – 2014. – №. 380. – С. 150-153.

ЭКОНОМИКА И НАУКА В СОВРЕМЕННОМ МИРЕ. РАЗВИТИЕ НОВЫХ ВОЗМОЖНОСТЕЙ

Маданият соҳасидаги ташкилотларни бошқариш маданият соҳаларининг хилма-хиллиги, маданий фаолиятнинг жавҳалари ва маданият муассасаларининг тузилиши туфайли жуда кўп қиррали ҳисобланади. Маданият соҳасидаги ташкилотнинг ўзига хос хусусиятларини кўриб чиқиш ва унинг фаолиятини таҳлил қилиш имконини берадиган жиҳатлар қаторида мутахассислар қуйидагиларга эътибор беришни таклиф қилишади:

– ташкилот ва ташқи муҳит ўртасидаги муносабатлар;

– бошқарув объекти (ижодий жамоа) ва бошқарув ўртасидаги муносабатлар;

– етакчилик, бошқарув ва хизматни бошқариш элементлари;

– бошқарувда қарор қабул қилиш босқичлари.

Маданият соҳасидаги ташкилотнинг ташқи муҳити маданий фаолият мақсадларини, муассасанинг вазифасини, муайян бозор секторидаги ҳатти-ҳаракатлар стратегиясини аниқлашга сезиларли таъсир кўрсатиши мумкин. Ташкилотларнинг ташқи муҳитининг хусусиятлари унинг динамиклиги, кўп омилли бўлиши (иқтисодий, сиёсий, демографик, бозор ва бошқа омиллар), ноаниқ бўлади. Маданий ташкилотларнинг ташқи муҳитига бевосита таъсир қилиш муҳити (истеъмолчилар, етказиб берувчилар, ҳокимият органлари ва бошқалар) ва билвосита таъсир (макроиқтисодий омиллар, демография ва бошқалар) киради.

Маданият соҳасидаги ташкилотлар турли мулкчилик шакллари, ҳуқуқий шакллар асосида мавжуд бўлиши ва маданий фаолиятнинг бир ёки бир нечта турларини амалга ошириши мумкин. "Маданий фаолият ва маданият ташкилотлари тўғрисида"ги янги қонун лойиҳаси меъёрларига мувофиқ маданий фаолият соҳасидаги давлат сиёсатини рўёбга чиқаришни амалга оширувчи органлар қуйидагилардан иборат:

Ўзбекистон Республикаси Вазирлар Маҳкамаси;

Ўзбекистон Республикаси Маданият вазирлиги;

Ўзбекистон Республикаси Президенти Администрацияси ҳузуридаги Ахборот ва оммавий коммуникациялар агентлиги;

"Ўзбеккино" Миллий агентлиги;

маҳаллий давлат ҳокимияти органлари[23].

Бундай муассасалар кўп тармоқли бўлиб, турли хил маданий хизматлар кўрсатиш имкониятига эга бўлади (ўқув, кўргазма, кутубхона, ахборот, маданий дам олиш ва бошқалар). Маданият соҳасидаги ташкилотларнинг ўхшаш томонлари бор, бу биринчидан, кўпчилик маданият муассасалари фаолиятининг нотижорат характерига, иккинчидан, маданият соҳасидаги ташкилотларни бошқаришнинг икки томонламалиги билан боғлиқ. (муассасанинг иқтисодий ва хўжалик фаолияти, шунингдек, ижтимоий, маданий функцияларни бажариши). Маданият муассасаси

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[23] 2021 йил 20 январь 668-сон "Маданий фаолият ва маданият ташкилотлари тўғрисида"ги ЎРҚ. Манба: https://lex.uz/docs/5230682

ўзини-ўзи маблағ билан таъминлашни ўзидаги ижодий уюшмалар ёрдамида амалга оширади[24].

Маданият соҳасини ривожлантиришда янги аср — ахборот технологиялари, санъатдаги экспериментал янгиликлар ва дам олишнинг янги ижодий шакллари даври эҳтиёжларига жавоб бериш ниҳоятда муҳимдир. Маданият ва санъат соҳасига коммуникацион технологияларни тезроқ жорий этиш зарур, чунки улар соҳага инновацион ёндашувни шакллантириш ва тадбирларни амалга оширишда илмий асосларни таъминлаш имконини беради. Барча шаклларда, болалар санъат мактабларидан тортиб олий таълимдан кейинги босқичгача бўлган бадиий таълимни молиялаштиришга оид янги бўлимларни яратиш талаб этилади.

Ҳудудлар, кичик шаҳарчалар ва қишлоқ жойларида босқичма-босқич технологик жиҳатдан янги маданий-дам олиш марказларини ташкил этиш дастури зарур. Бу марказлар маданият фаолиятининг барча шаклларини ўз ичига олиши керак: саҳна майдончалари, рақамли кинотеатрлар, электрон ресурслар билан жиҳозланган кутубхоналар, мамлакат ва дунёнинг етакчи музейларига интернет-экскурсиялар учун мўлжалланган мультимедиа марказлари.

Бундан ташқари, маданиятни давлат томонидан қўллаб-қувватлашнинг энг кенг тарқалган шаклларидан бири ташкилотлар ва маданият соҳасидаги индивидуал ходимларга ажратиладиган грантлардир. Грант ёрдамининг асосий мақсади — истеъдодли инсонларнинг маданият ва санъат соҳасидан чиқиб кетишининг олдини олишдир. Бунда асосий эътибор грантларнинг ишлатилишини назорат қилиш ва уларнинг самарадорлигини таъминлаш тизимини йўлга қўйишга қаратилиши лозим. Европа мамлакатларида бу борада сезиларли натижаларга эришилган. Масалан, Швецияда индивидуал грантлар алоҳида аҳамиятга эга бўлиб, улар маънавий ижод учун "иқтисодий хавфсизликни" таъминлашга қаратилган. Ушбу грантлар жумласига қуйидагилар киради:

- таниқли маданият арбобларига бериладиган муддатсиз фахрий грантлар;

- таниқли ёзувчиларга ажратиладиган кафолатланган даромад шаклидаги грантлар;

- ёш ёзувчилар учун мўлжалланган беш йиллик грантлар;

- муаллифларнинг жамоат кутубхоналарида уларнинг асарлари ишлатилганлиги учун даромад олиш ҳуқуқини берувчи грантлар.

Швеция грант тизимининг ўзига хослиги шундаки, грант олиш жараёни соддалаштирилган ва грант олувчилар (ташкилотлар ёки шахсий олувчилар) уни ишлатишда тўлиқ эркинликка эга.

Кўплаб мамлакатларда ҳукумат қарши молиялаштириш шарти билан грантлар ҳам ажратади. Европада бундай механизм аввал Буюк Британияда

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[24] Алимасов В. Маданият муассасаларида иқтисодий бошқариш усуллари. – Тошкент. Ўзбекистон Республикаси ФА Қўлёзмалар Институти. 1997. 117 (14) б.

қўлланилиб, кейинчалик қитъа давлатларига тарқалган. Бундай грантлар нафақат маданият ташкилотларининг молиявий аҳволини яхшилашга, балки уларнинг бозор шароитларига мослашишига ҳам ёрдам беради. Бу орқали нодавлат молиявий манбаларни жалб қилиш ва тижорат фаолиятини ривожлантиришга имкон яратилади[25].

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Оглавление

Научное издание

ЭКОНОМИКА И НАУКА В СОВРЕМЕННОМ МИРЕ. РАЗВИТИЕ НОВЫХ ВОЗМОЖНОСТЕЙ