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THE BRAND EFFECT OF ECOLOGICAL FARM UNDER THE BACKGROUND OF «INTERNET +»

***Abstract**: With the development of economy and the change of people's life style, more and more consumers pay attention to the network information, and consumers' consumption of agricultural products will gradually change from commodity consumption to brand consumption. Due to the lack of connotation and single sales model of most ecological farm brands, the competitive advantage of the brand is not obvious. This paper analyzes the current situation of ecological farm brand construction, and explores the advantages, problems and measures of ecological farm brand construction under the background of "Internet +".*

***Key words**: «Internet +», ecological farm, brand building.*
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Introduction

I. Current situation of brand building of ecological farm in China

Throughout the recent situation of China's agricultural brand construction, the growth of agricultural brand is in a very low position, which is mainly reflected in the small number of agricultural brands, slow growth rate, low content of science and technology, and uneven regional distribution. Although all over the country have issued a series of documents to speed up the brand building of agricultural products, which urge agricultural enterprises and farmers to change their traditional concepts and lay a solid foundation for the establishment of modern production and management concepts and brand awareness. However, in the face of the new situation of increasing market competition and resource and environmental problems at home and abroad, China's traditional agricultural competitive advantage is gradually weakening, and it is urgent to cultivate new competitive advantage of agricultural products.

Brand is the credit and the mark of products. Due to the high input cost of ecological farm, the sales price of ecological farm products is higher than that of ordinary agricultural products. However, due to the lack of brand planning, the quality recognition of ecological farm products is not high, and it is difficult to achieve high quality and good price, establish credibility, and achieve good economic benefits (Liao et al., 2020). Therefore, consumers tend to choose ordinary agricultural products with lower price under the same situation (Feng et al., 2014).

In addition, with the development of economy, the use of the Internet is more and more widely, China has formed a variety of agricultural products marketing channels, the representative models are as follows. One is the direct selling mode of agricultural products. In the backward agricultural products trade center, due to the less supply and demand of agricultural products, the marketing of agricultural products is a direct selling mode dominated by farmers. In this mode, farmers transport their own agricultural products to the market, and then directly provide agricultural products to consumers. The advantage of the first mock exam is that face-to-face transactions between producers and consumers of agricultural products can reduce the circulation cost and loss of agricultural products. The disadvantage is that the production scale and sales scale of agricultural products are relatively small, and the limited profit is difficult to bring substantial growth to the economic income of farmers. The second is the marketing mode based on wholesale market. In this mode, agricultural products are purchased through relevant cooperative organizations, and then enter supermarkets and fairs from the wholesale market of agricultural products origin, and finally reach consumers. This can make use of the resource allocation ability of wholesale market to realize the unified sales of agricultural products. However, in this mode, it also has its disadvantages, that is, it is difficult to supervise the wholesale market of agricultural products, which leads to uneven quality of agricultural products, and the information asymmetry of China's agricultural products wholesale market is not conducive to the exchange and sharing of information. Third, e-commerce oriented marketing mode. With the rapid development of information technology and Internet technology, relying on advanced information technology to promote the continuous development of rural e-commerce, it plays an increasingly important role in the marketing channels of agricultural products, provides more opportunities, and greatly promotes agricultural production and rural economic development (Zhang, 2019).

However, the sales channel and marketing mode of ecological farm are relatively single, lack of professional exhibition and marketing platform and brand publicity of ecological agricultural products, and fail to make full use of various sales channels such as online and offline sales. It is difficult to open up the market and solve its own sales problems only by relying on its own strength.

II. Marketing strategy of agricultural products e-commerce

A.Product marketing strategy

The marketing activities of agricultural products are marketing strategies based on products, which need to combine the basic characteristics of agricultural products and carry out multi-directional marketing management on the brand, packaging, product mix and other contents, so as to ensure the guiding role of agricultural products marketing. First, in the process of brand marketing, consumers should establish a familiar brand name, and through the network media, mass media and other publicity, so that its brand into a wide range of public vision, and the product innovation, shaping and improve their own brand image, enhance the value of brand marketing strategy. Second, on the product packaging, we should also form cooperation with the brand, show the core characteristics of the product, and improve the popularity of the product. Three is on the combination of the product, the product classification, product culture, make consumers understand and familiar with its functions, in a short time differences due to different crops, in the process of manage the season, also want to form a variety of sales model, and according to the seasonal conditions of fruits, vegetables, innovation introduced specific new agricultural products, To ensure the effectiveness of agricultural products network marketing state.（Wen, 2017）

B. Price marketing strategy

In the process of e-commerce marketing, a certain price marketing strategy can be used as an incentive for consumers to better guide them to the market environment, so as to ensure the guiding effect of the overall marketing strategy on market traffic. The implementation method can adopt the way of penetration pricing to complete the adjustment of specific price marketing strategy.

C. Channel marketing strategy

In the network environment, most of the marketing channels of agricultural products show that the market is scattered, the products are highly technical, the quality is different, the shelf life is short, and the management mode is not suitable. In this regard, it is necessary to develop specific e-commerce sales channels, and on the basis of their own development characteristics, establish specific patterns to ensure the integrity of channel marketing. In this regard, we can try to form a "platform + cooperatives + growers" business model. In this development mode, we first affirmed the original development mode of traditional agriculture, and played a positive role in forming the content of unified management of agricultural products, so that agricultural products can basically guarantee the mass supply of the market under the condition of low production risk, and form a certain scale under the management mode of cooperatives, so as to attract consumers, Optimize channel marketing to provide established support(Xu et al., 2018).

D. Promotion marketing strategy

The e-commerce of agricultural products also needs to be promoted through advertising. In the specific working mode, we need to maximize the use of network characteristics, and constantly strengthen their influence in the consumer group on the basis of improving the market awareness. For example, through the first to optimize the construction of their own public websites, expand the external marketing conditions, complete their own media publicity work, and expand the network popularity of products and brands. Meanwhile, in the process of marketing activities, it can also form a standardized public relations promotion. On the basis of establishing contact with relevant units or organizations such as government, customer organization, bank, etc., a better information system can be formed, and on the basis of participating in social activities and supporting public welfare behaviors, brand awareness can be expanded to complete the publicity work of characteristic agricultural products.

III. The advantages of ecological farm brand construction under the background of "Internet +"

A. Reduce the cost of brand promotion

As people change the way of life, more and more consumers focus on network information, the farmer can use the Internet and the combination of ecological agriculture, to trill, public, popular platform as a carrier, their circle of friends (Cheng, 2018), by Posting pictures, video, live broadcast, the mission of the natural environment, ecological farm planting experience, theme activities, Let the ecological farm become "web celebrity land", improve consumers want to experience the fun in the ecological farm, so as to increase the customer flow. Using the Internet to publicize ecological farms can reduce the cost of brand publicity of ecological farms.

B. Promote technological upgrading

"Internet + technology" can be used to promote the informatization development of ecological farms. Internet technology can promote agricultural informatization management through constant monitoring on the Internet and analysis and prediction with big data (Liu et al.,2017). The realization of precision agriculture, reduce unit cost, improve output, further improve operational efficiency, and help agricultural development to lay a solid foundation for agricultural brand construction. "Internet + agriculture" can not only generate huge demand for technical services such as data collection and information platform construction, but also open a larger space for agricultural products sales. The sales volume of agricultural products has been greatly improved, the ecological agriculture has realized the information management, and the efficient operation of the industrial chain has made the agricultural brand construction develop rapidly under the role of "Internet +".

C. Enhance brand reputation

Consumers get to know the information of ecological farms through the Internet and judge the standards of ecological farms from the comments of netizens, which is conducive to further improving the brand reputation of ecological farms, and brand reputation will gradually become the main orientation of consumers. In the case of the quality and safety of agricultural products, consumers trust ecological farms with brands more. Further promoting the construction of ecological farm brands is conducive to promoting standardized agricultural production, promoting the overall improvement of the quality and safety level of agricultural products, and meeting the needs of the continuous transformation and upgrading of the consumption structure of agricultural products.

IV.Problems existing in the brand construction of ecological farms under the background of "Internet +"

A. Lack of brand awareness

Many farms in China lack a certain awareness of brand marketing and do not carry out effective publicity for their own culture and resources. As a result, their brand competitive advantage is not obvious and their marketing strategy is single, leading to low influence of farms (Gao, 2019). On the Internet platform, because the farmer did not apply for the patent of the farm brand, the products of the farm appeared on the platform with some fake products with the same name, product packaging and specifications, which easily led to the wrong choice of consumers. (Sun, 2020), so that consumers are at a loss, which will hinder the sale of the farm's characteristic products on the e-commerce platform.

B. Internet infrastructure is inadequate

On the one hand, the information infrastructure in remote areas is still poor, and the network coverage and signal strength in rural areas are still very inadequate (Han et al., 2018). The network infrastructure needs to be improved. On the other hand, farmers do not have a comprehensive grasp of Internet technology, which has a certain negative impact on the sale of agricultural products and the brand construction of ecological farms.

C. Lack of Internet market supervision

Internet consumption has a large network security hidden danger, there are a variety of cheating methods on the Internet, a little careless may point into the phishing site. Therefore, these phishing software and phishing sites greatly threaten the network transactions. It affects consumer shopping, reduces product sales, and at the same time reduces product sales, which hinders the sound development of ecological farm brand construction.

D. Imperfect supply chain construction

Under the influence of the "Internet +" era, a perfect supply chain system is the guarantee for the realization of farm brands in the network marketing. The realization of farm brand marketing requires the establishment of an integrated chain of farmers, logistics, processing and sales, and the continuous improvement of the supply chain and the formulation of standard standards. As agricultural products enter the Internet marketing field relatively late compared with other products, this is determined by the particularity of agricultural products. As an essential commodity for people's survival, agricultural products are used to offline purchase. However, in recent years, the network marketing market of agricultural products is expanding, and people's demand for green, safe and characteristic brand products is increasing. The emergence of "Internet + Agriculture" mode provides an opportunity for the marketing of farms and agricultural products. However, this is both an opportunity and a challenge. People have more stringent requirements for brands, which require high-quality, high-standard products, high-speed transportation, and high-level service. Therefore, it is urgent to establish a perfect ecological farm supply chain. There are many problems in the current supply chain of ecological farm marketing, which cannot meet the needs of the development of Internet marketing. Such as logistics technology to be improved, the link between the link is not close.

V. The measures

A. Establish brand awareness and build brand image

To improve farmer brand awareness, we should fully realize the importance of farm brand, pay attention to green, safety and health, and make use of our own advantages to launch quality products to attract consumers. Especially according to the environment to ecological agriculture, so that the concept of green, environmental protection. Not only that, with quality as the center, to ensure food safety, build a good brand image. Change the traditional brand consciousness, pay attention to the brand connotation, increase the added value, avoid reducing the market competitiveness.

B.Improve the construction of Internet infrastructure

To improve the rural broadband coverage, the government should provide support, select the appropriate broadband access technology and integrate and optimize the existing network resources according to the operators' judgment on the rural market. In addition, to strengthen the construction of logistics, the government should actively guide the effective integration of rural transportation and storage resources, improve road construction, and provide better measures for online sales. In addition, the government should strengthen the farmers' Internet knowledge publicity and technical training.

C. Strengthen the supervision of Internet market

The government strengthen the supervision of the Internet market and create a secure Internet platform order, make the farmers reasonable planning, develop a broader market, through the network platform to realize ecological farm products distribution promotion, display sales, use of network platform application universality can be more convenient for the connection of customer demand with running a farm.

D. Extend industrial chain development

The Internet era needs win-win cooperation. The development of a single industry does not meet the characteristics and requirements of the times. In the process of brand marketing of agricultural products, we must pay attention to the upstream and downstream industry chain to achieve the effect of brand agglomeration. On this basis, ecological farm should also pay attention to the rational use of agricultural science and technology. Especially for agricultural products, it is particularly important. In order to make the farm bigger and stronger, and improve its brand marketing, it is necessary to integrate with advanced agricultural technology, continuously cultivate new varieties and use new technology to improve product quality and output. Using Internet cloud platform analysis and big data processing technology to input, analyze and sort out the test variety data, and finally cultivate products that meet the market demand and the needs of consumers. Using the characteristics of openness and integration of the Internet, we can integrate resources with other industries, carry out deep processing and development of agricultural products, continuously improve the added value of products, and realize the brand marketing value of farm sales channels.

VI. Conclusion

Ecological farm brand marketing has entered the Internet era. Under the background of the Internet era, the market competition of agricultural products is increasingly encouraging. If you want to get a place in it, building brand agricultural products is the main way. Brand marketing has become the key to maintain the lasting vitality of agricultural products. It can be seen that brand marketing plays an important role in the future development of agricultural products market. The development of ecological farm brand is an important way to optimize the agricultural industrial structure, achieve agricultural efficiency and increase farmers' income. Develop valuable brand of ecological farm, use the Internet, multi-channel propaganda farm, let consumers more transparent understanding of ecological farm, promote the development of agricultural products. Establish the brand image of ecological farm and take the road of brand development. Accelerate the process of China's agricultural brand power.

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ANALYSIS OF DERIVED WORDS ACCORDING TO THE MODEL "ARABIC STEM + AFFIXOID ساز- -SĀZ" IN "HAYRAT AL-ABROR"

Abstract*: In this article, were analyzed structurally and semantically the words which were formed based on the model "Arabic stem + affixoid* ساز *- -sāz" in the poem"Hayrat al-abror" by Alisher Navoi. They are* **'ayšsāz, bazlsāz, ġāliyasāz, jilvasāz, naġmasāz, naqšsāz, sajdasāz, vāsiṭasāz***. From the considered words bazlsāz "giving a gift", jilvāsāz "shining," "spreading the light" sājdasāz "performing worship," vāsiṭāsāz "making smth. as tool" were not found in dictionaries. We can conclude that the poet formed them on the basis of the "Arabic stem + affixoid* ساز *- -sāz" model to use in his works.*

Key words*: Alisher Navoi, "Hayrat al-abror", Arabic stem, Persian affixoid, model, meaning, stem of the present tense of the verb, compound word, derivative word, compound derivative word.*

Language*: English*

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Introduction

Throughout history, between Central Asia and Iran long since had got economic, political, cultural, literary and other relations. At the time of the development and wide distribution of the new Persian language, the contact of the existing languages with the Persian language were increased in these areas (1, p. 259-262). In many countries of Central Asia, Persian was used as a literary language, and in some cases as a state language. So, we can say that there were many poets, scientists, scholars, writers in this area who learned Persian and knew it as native speaker.

In the works of the great master of the word, Alisher Navoi, who skillfully mastered the pearls of the necklace, may be observed that he perfectly knew both Persian and Arabic. Many researches can be found on the language of his delightful and charming masterpieces, including the studies devoted to this theme of such scientists as I. Sultan, Kh. Sulaymon, P. Shamsiev, A. Rustamov, A. Kayumov, S. Ganieva, A. Kuranbekov, M. Imamnazarov, K. Sadikov, A. Karimov, B. Bafoev, B. Khasanov and others.

Such research is detailed in this article: has been analyzed the words that formed by the model "Arabic stem + affixoid ساز - -sāz" in the poem "Hayrat al-abror" by Alisher Navoi.

The words that come across in Navoi's works has been studied in several groups and with showing their amount in the research of B. Bafoev. Including the third group of arabic + persian forms with 1270 words.

In B. Bafoev's research (7, p. 29), the words encountered in the works of Navoi were divided into several groups and studied with the enumeration. Including Arabic + Persian words formed the third group, which indicated the presence of 1270 words. In this group there are words consisting of two stems or stem and derivator, as well as the first stem is Arabic. As mentioned, the Arabic stem and Persian stem in this group are presented in a compound form, and some of them are not classified as a compound word or a derivative (with affix or affixoid). As an example, words such as *abirafshon*, *abyazposh*, *aduvvash*, *ibodatgoh*, *dahshatangez*, *ijozatnoma* are indicated, most of which are made with the help affixoids.

In addition, in the above-mentioned scientific research, it was noted that author neologism, that is, the words built by the poet, constitute 258 units, 97 of which are found in "Khamsa". Including *aybgoy, angushtxoy, adamgom, araqrez, atrfizoy, afsonapardoz, ashkrezon, aqlkush, afloksoz* and others (7, p. 36). Need to say, that the most of the examples cited by B. Bafoev are words that are built with Persian affixoids.

There are a number of researches of Iranian, Russian and Uzbek scientists about the content of Persian vocabulary, word-formation, including affixoids in the Modern Persian language. Including the scientific works of I. Kalbasi (16, p. 145), L.C. Peysikov (24, p. 96), Y.A. Rubinchik (28, p. 148), S.A. Aliev (4), Y.L. Gladkova (14, p. 14-21), A. Kuranbekov and N. Nuriddinov (26, p. 20), A. Nishanbaeva (22, p. 157-160), N. Nuriddinov 23, p. 161-164), H. Mirzahmedova (19, p. 116-118), B. Djafarov (12, p. 389-392) and others.

It was observed that there were several studies on the word formation in the classical Persian period, as well as on the composition of the word in the works of the poets. For example, there are given the word building of the adjectives with affixation in "Shahnama" by Firdavsi in the A. Kutbizade's research (13, p. 183-199), the word building of the nouns by suffixes in the "Shahnama" in the scientific research of O. Kasimov (18), the compound, derivative and compound derivative words in "Divan" by Hafiz are listed and the statistics of their frequency in the study of S. Sadiki-sure and I. Kalbasi (29, p. 5-22).

In the above works, the information about the noun and verbal affixoids, which were used to build words in the Middle Ages, is not found. In most researches have been studied only compound words and words, which were derivate with affixes. Some of the affixoids are studied as a component of compound words and some of them as affixes. However, affixoids should be studied as separate word-building tools. As Sh. Rakhmatullaev quoted "Affixoid is an original lexical unit, which has the property of joining to several lexemes" (27, p. 116).

As B. Bafoev mentioned, the present forms of Persian-Tajik infinitives, which are very common in the Navoi language, are considered to be as affixoids for the Persian-Tajik language (7, p. 13). When added to the old Uzbek language words, they are considered to be as suffixes for Uzbek language. But as noted by Sh. Rahmatullaev, in Tajik linguistics, such part is equated to lexeme, and in Uzbek linguistics it is accepted as affix and considered to be affixoid (27, p. 116). Affixoid performs function of constructing lexemes. In this way, the present form of the verb ساز- sāz will be analyzed as affixoid in this study.

In "The frequency dictionary of the poem "Hayrat al-abror" (25), 12 words were encountered in the model "stem + ساز- -sāz persian affixoid": ʻayšsāz, bazlsāz, baxyasāz, čārasāz, ġāliyasāz, jilvasāz, naġmasāz, naqšsāz, navāsāz, nayraŋsāz, sajdasāz, vāsiṭasāz. Of these, 8 words, namely ***ʻayšsāz, bazlsāz, ġāliyasāz, jilvasāz, naġmasāz, naqšsāz, sajdasāz, vāsiṭasāz,*** were formed by adding affixoid ساز- -sāz to Arabic words, while the rest of them are added to Persian morpheme (21, p.149-154).

In the context of the above-mentioned words, Persian affixoid ساز- -sāz is the present form of the verb: ساختن sāxtan – 1) "to build"; 2) "to straighten"; 3) "to create"; 4) "to discover"; 5) "to set"; 6) "to establish"; 7) "to arrange"; 8) "to fix"; 9) "to spoil"; 10) "to arm"; 11) "to cook"; 12) "to compose" (masterpiece); 13) "to take action" 14) "to falsify" (20, p. 1786). The aforementioned affixoid is used in the composition of the word with the meaning of "doer" and "creator".

The main part.

As a result of the research, it was observed that words like ʻayšsāz, bazlsāz, ġāliyasāz, jilvasāz, naġmasāz, naqšsāz, sajdasāz, vāsiṭasāz were used in Alisher Navoi's poem "Hayrat al-abror" in the model construction "Arabic stem + Persian affixoid ساز- -sāz". We can look at some examples of the analyzed verses below, referring to the concordance of the poem "Hayrat al-abror"[1]:

Gāh viṣāl ičra bolub **__ʼayšsāz__**,
Gāh firāq ōtiġa aylab gudāz, (17/26)

The "ʼayšsāz" word in this verse is made with the model "Arabic stem + Persian affixoid ساز- -sāz", and the word "ʼayš" is from Arabic word عَيْش (1) "life"; 2) "bread", "food", "feed" (6, p. 92)). In the dictionary of A. Dehkhuda (10, p. 14533), the word "ʼayšsāz" means "crazy, lighthearted". In the dictionary under the editorship of E.I. Fazilov (2, p. 72), the meaning "crazy, entertainment maker" is given. In B. Hasanov and A. Karimov's dictionaries, this word is not observed. In the quoted verse, the word "ʼayšsāz" is attributed to the soul, which is used in the meaning of *"merry-making"*.

Another example:

Ev egasi teŋriġa aylab niyāz,
Dēdi hamānā ki šahi **__ʼayšsāz__**, (59/33)

In this verse, "ʼayšsāz" is attributed to the King, which is used in the sense of *"entertaining"*.

Next example:

Bolmaq agar kop esa ham **__bazlsāz__**,

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[1] *After that the verses will be cited from the poem "Hayrat al-abror": the first number is chapter and the second is number of verse.*

Bergali ’ār aylamamak bolsa az. (46/70)

In this verse, “bazlsāz” is derived from the model of “Arabic stem + Persian affixoid ساز- -sāz”, and the word “bazl” is from Arabic word بَذْل (“submission”; “sacrifice”; “generosity”; “present”, “gift” (2, p. 51)). This word does not exist in the dictionaries we investigated. But in the dictionary of Dehkhuda, the Arabic script بذل کردن is quoted from the verb “to bestow”, “to give a gift” (8, p. 3876). Y. Gladkova (14, p. 17) cites that affixoid ساز- -sāz can be used instead of کن- -kon (the present form of the verb کردن kardan “to do”). Therefore, we can state that, this word was used with the meaning of *“bestowing”, “giving gift”*, and that this word was created by Alisher Navoi on the basis of the model.

Another example:

Ḥusnlari ’išva yu nāz aylaban,

’Aṭrlarin **ġāliyasāz** aylaban. (54/10)

The quoted verse “ġāliyasāz” is derived from the model “Arabic stem + Persian affixoid ساز- -sāz” and the word “ġāliya” is from Arabic غالِيَةٌ (“fragrance”; “aromatic grease” (6, p. 109)). In the dictionary of A. Dehkhuda (10, p. 14612) there are meanings of the word “ġāliyasāz” as “scented”, “ghaliya (a mixture of musk and amber) maker”. This word was not observed in dictionaries of B. Hasanov, A. Karimov and dictionary under the editorship of E. I. Fazilov. In this verse “ġāliyasāz” means “ghaliya (a mixture of musk and amber) diffuser”.

Another example:

Ul mahi šabgard bolub **ĵilvasāz**,

Ĵilvagahī barča šabistāni rāz.(11/17)

The word “ĵilvasāz” in this verse is made with the model “Arabic stem + Persian affixoid ساز- -sāz”, and the word “ĵilva” is from Arabic جَلْوَةٌ (“glitter”, “elegant”; “opening the curtain of the bed (in the room of newly wed coupe)” (5, p. 125)). In the dictionary under the editorship of E. I. Fazilov (2, p. 577), this word is used as “glittering”; “capturing attraction others”; “dancing”, while in the dictionary of B. Hasanov (15, p. 90) the meaning is “glittering”. In A. Karimov’s dictionary (17, p. 104) it is used in the meaning of “glittering”, “seen bright”. This word was not encountered in the dictionary of A. Dehkhuda, but جلوه کردن jelve kardan was given as the verb “to flirt”, “to walk diligently”. As already mentioned above, instead of affixoid ساز- -sāz, can be used affixoid کن- -kon. Therefore, we can say that this word was used in relation to the moon meaning *“shining”, “light-emitting”,* and this word was created by Alisher Navoi on the basis of the model.

Next example:

Gar yel agar suv boluban **naġmasāz**,

Sāni’ ila har birigā ozga rāz. (18/78)

The word “naġmasāz” in this verse is made in the model “Arabic stem + Persian affixoid ساز- -sāz”, and the word “naġma” is from the Arabic language نَغمَةٌ (“melody”, “tone”; tone (in music)” (6, p. 354)). In the dictionary of A. Dehkhuda (11, p. 19996) word “naġmasāz” means “singer”, “musician”, in the dictionary of B. Hasanov (15, p. 203) it means “musician”, in the dictionary under the editorship of E. I. Fazilov (3, p. 450) the meaning is “musician”, “singer”. In A. Karimov’s dictionary this word was not found. In the abovementioned verse, the word “naġmasāz” came in the meaning of *“singing”* and was attributed to wind and water.

Another example:

Lēk aniŋ naqši kibī dilnavāz,

Čekmadi tā xāmasidur **naqšsāz**. (21/3)

The word “naqšsāz” in this verse is made in the model “Arabic stem + Persian affixoid ساز- -sāz”, and the word “naqš” is the Arabic word نقْش (“embroiding”, “decoration”; “carving writing”, “carving” (6, p. 363)). In the dictionary of A. Dehkhuda (11, p. 20043) are given the meanings “embroider”, “painter”, in the dictionary of B. Hasanov (25, p. 202) – “embroider”, in the dictionary under the editorship of E. I. Fazilov (3, p. 448) – “embroider”, “embroidery”, “decorator”, “painter”. In Karimov’s dictionary this word was not found. In this verse, “naqšsāz” is used in the meaning of *“drawing”* in relation to the so-called “Khoma” (pen).

Next example:

Boldi muṣallāni salib **saĵdasāz**,

Har qadam aylab iki rak’at namāz. (25/3)

In this verse, “saĵdasāz” is derived from the model of “Arabic stem + Persian affixoid ساز- -sāz”. The word “saĵda” is the Arabic word سجدَةٌ (“bow”; “worship”, “pray” (5, p. 336)). This word does not exist in the dictionaries which we have analyzed. But in the dictionary of A. Dehkhuda سجده کردن sajde kardan is quoted as: “to worship (put the forehead on the ground)”, “to attribute” (9, p. 11884). As already mentioned above, affixoid ساز- -sāz can be used alternatively to the affixoid کن- -kon. Therefore, we can say that, this word was used in relation to Ibrahim Adham in the meaning of *“the worshiper”*, and this word was created by Alisher Navoi on the basis of the model.

Another verse:

Ḥaẓrati ’izzatqa niyāz aylaban,

Tuḥfalarin **vāsiṭasāz** aylaban. (20/64)

In the verse quoted, the word “vāsiṭasāz” is derived from “Arabic stem + Persian affixoid ساز- -sāz”, and the word “vāsiṭa” is the Arabic word واسطَةٌ (“tool”; “remedy”, “method”; “the largest central Pearl (in coral necklace)” (6, p. 426). In the dictionaries we have analyzed, this word was not given. In this verse, the word “vāsiṭasāz” is used in the meaning of *“indirecting”*. This word is a word created by Alisher Navoi on the basis of the model.

Conclusion.

The following conclusions were made on the analysis of the words made in the model “Arabic stem + Persian affixoid ساز- -sāz” in Alisher Navoi’s poem “Hayrat al-abror” of “Khamsa”:

1. As a result of the research, it was observed that words like *’ayšsāz, bazlsāz, ġāliyasāz, jilvasāz, naġmasāz, naqšsāz, sajdasāz, vāsiṭasāz* were used in Alisher Navoi’s poem “Hayrat al-abror” with the model “Arabic stem + Persian affixoid ساز- -sāz”.

2. Persian affixoid ساز- -sāz is used in the composition of the word in the meaning of *“doer”* and *“creator”*.

3. Among the analyzed words *bazlsāz* “bestowing”, “give gift”, *jilvasāz* “glittering”, “shining”, *sajdasāz* “the worshiper”, *vāsiṭasāz* “inderecting” were not found in the observed dictionaries. So we can say that Navoi created them on the basis of the model “Arabic stem + Persian affixoid ساز- -sāz”.

4. In some Persian words کن- -kon (the present form of the verb کردن kardan “to do”) can fulfill the meaning of the affixoid ساز- -sāz. Such case was observed in some words analyzed in the poem.

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QR – Issue **QR – Article**

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SUPPORT AND DEVELOPMENT OF INNOVATIVE CLUSTERS IN THE PRODUCTION OF BUILDING MATERIALS IN UZBEKISTAN

***Abstract**: This article is based on analysis of the construction materials industry and its importance in the Republic of Uzbekistan, and additionally it provides potential recommendations for improvement on the basis of an innovation cluster.*

***Key words**: construction economics, investment, building materials, manufacturing, clusters, innovation, regional development.*

***Language**: English*

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Introduction

Nowadays, our country pays great attention to the implementation of market relations and practices that have been experienced in international practice, and playing an important role in the development of country economy. One of them is known as “clusters” which are currently being established and developed in many sectors of our economy comprising textiles, light industry, agriculture and construction materials manufacturing industry. As noted in the Address of the President of the Republic of Uzbekistan Shavkat Mirziyoyev to the Oliy Majlis on December 29, 2020: “From now on, each village or mahalla will be developed based on its direction and growth points. To this end, I propose to create a regional infrastructure development fund worth 3 trillion Uzbek sum on the next year. The fund will be used to co-finance infrastructure projects based on suggestions from local councils. Furthermore, 100 techno parks, small industrial zones, regional clusters and logistics centers will be established in 84 districts and cities to further increase the industrial potential” [1]. In this regard, it is important to support and develop the organization of innovative cluster approaches in the building materials industry. So, what is a "cluster" used as a new term in Uzbek? Several definitions of the concept of "cluster" have been shown on the researchers' analysis.

The term "cluster" is a French word, which in Uzbek means “bond”, “group”, "and “gathering”. The theory of “cluster” is based on the views of Alfred Marshall in his article named as “Principles of Economics”, written in the late XIX century, on the integration of specialized industries in individual regions. In the development of ‘cluster theory’ we can see the achievements of four important American, British, Scandinavian and Russian scientific schools [2].

Among the American scientists on the term cluster are M. Porter “Theory of Competitiveness”, M. Enright, S. Rezenfeld, P. Maskell and M. Lorentsen "The Concept of Regional Clusters", A. Marshall "Theory of industrial zones", P.Bekatin Theories of Italian industrial districts », M. Storper created theories «Ideal regional cluster». Theories of these scientists emphasize that clusters have highly effective in increasing competitive advantage among the manufacturers that they are a system integrated with the activities of educational, scientific, technological, economic and other service entities in the region [3].

According to British scientists J. Dunning, K. Briman and J. Humphrey, clusters are institutional theories that define the basis of the economy as a system of interacting institutions. According to Scandinavian scientists B.O. Lundval, B. Johnson, B. Asheim and A. Isaacson, the evolutionary development of a cluster goes through a number of stages, that is, from its emergence to its end [4].

In addition, Russian scientists A.A. Ugryumov, A.B. Voronin, A.A. Voronin and H. Asaul studied the role of clusters in the development of the building complex and building materials industry [5].

Uzbekistan has created a solid foundation for the modernization of the construction industry, the development of an innovative system, large-scale research in chemistry, energy, biology, education, medicine, electronics, agricultural sciences and other areas.

Currently many literature, scientific manual papers and scientific articles related to the problems of the construction materials industry are being published by our country's scientists. Among them, A.Sh. Bekmurodov, B.B. Berkinov, N.G. Yuldashev, B.K. Goyibnazarov, Sh.N. Zaynutdinov and R.I. Nurimbetov's [6] research works can be exampled. The researches of these authors comprise of great scientific importance, and additionally they have made a significant contribution to the development of modern methods and techniques for the production of building materials in our country.

However, the research conducted by these scientists does not pay enough attention to the issues of improving manufacturing in the building materials industry on the basis of innovative clusters.

Main part

In the development of the economy and development of manufacturing the construction materials industry, at the present time, the most optimal way is considered the implementation of innovative clusters. The practical application of innovative clusters will require highly competitive industries to establish partnerships with relevant sectors rather than separately.

As a result, the construction materials industry is developing in our industry, and the production of modern, competitive building materials is accelerating. In turn, the state should contribute to the development of all clusters in the country. In this regard, a new direction known as" clusters" is being functioned and formed in our country. As a result of the establishment and development of innovative clusters on the building materials industry, it triggered the optimal development of industry in the country, the growth of investment and economic recovery of the country [7]. In this regard, the indicators of brick material, which is one of the products of construction materials, by regions are given in Table 1 below.

Here are the indicators of brick production in the regions for 2013-2019, the table shows that the highest in Tashkent region in 2019 was 331.9 million units, in Bukhara region - 144.7 million units, and in Khorezm region - 103.6 million units [8]. The lowest production rate was 33.2 million bricks in Sirdarya region, 39.4 million bricks in Samarkand region and 47.0 million pieces in Tashkent.

Table 1. Production of building bricks in 2013-2019 (million units)*

	2013	2014	2015	2016	2017	2018	2019
Republic of Uzbekistan	***1388,6***	***1267,4***	***1322,0***	***1487,1***	***1567,2***	***1758,5***	***1254,5***
Andijan region	59,4	67,1	59,6	74,4	62,1	84,6	53,7
Bukhara region	151,3	152,2	221,4	162,3	147,4	135,3	144,7
Jizzakh region	27,8	28,1	27,1	27,7	28,5	50,7	48,8
Kashkadarya region	193,7	59,0	49,6	84,3	116,4	96,7	78,9
Navai region	125,7	136,4	132,5	151,9	158,5	115,6	63,7
Namangan region	65,4	62,8	74,2	82,3	83,0	100,5	63,7
Samarkand region	62,1	60,3	58,1	66,4	68,5	64,2	39,4
Surkhandarya region	63,4	62,3	64,6	74,2	87,6	111,0	81,2
Syrdarya region	22,1	25,7	23,7	30,5	27,4	42,7	33,2
Tashkent	300,6	289,4	259,2	363,8	385,9	517,6	331,9
Fergana region	95,0	55,7	83,7	105,2	96,8	121,9	97,7
Khorezm region	115,1	121,0	138,9	139,6	167,5	160,3	103,6
Tashkent region	54,5	72,3	55,4	56,1	56,8	53,1	47,0
Republic of Karakalpakhstan	52,5	75,1	74,0	68,4	80,8	104,2	66,8

**Source: compiled by the author on the basis of data from the Statistics Committee of the Republic of Uzbekistan*

The most important indicators of the development of the material and technical base of construction in the form of the dynamics of production of building materials (Table 2). It should be noted that significant results have been achieved in the country, as the production of many materials has grown significantly compared to last year, new types of materials have been mastered, production technology has been updated, for example, most of the cement produced [9]. This allows you to significantly reduce energy consumption. In general, analyzing the above indicators, we can say that there is a stable positive trend.

Table 2. Dynamics of production of basic building materials*

	2015	2016	2017	2018	2019
Cement (thousand tons)	7052,0	7061,0	7639.7	8459,8	8645,9
Slate (million conditional tiles)	417,3	420,8	407,3	356,6	405,5
Building bricks (million pieces)	1350,6	1388,6	1267,4	1322,9	1487,1
Window (thousand square meters)	80013,2	82444,8	5825,5	7226,0	7283,0

**Source: compiled by the author on the basis of data from the Statistics Committee of the Republic of Uzbekistan*

A distinctive feature of the industrial stage after the development of society is the acceleration of the innovation process and the modernization of the economy. Currently, the fourth technical revolution is taking place, with the rapid development and application of ICT, digital technologies in industry 4.0 and all areas of industrial activity [10].

Conclusion

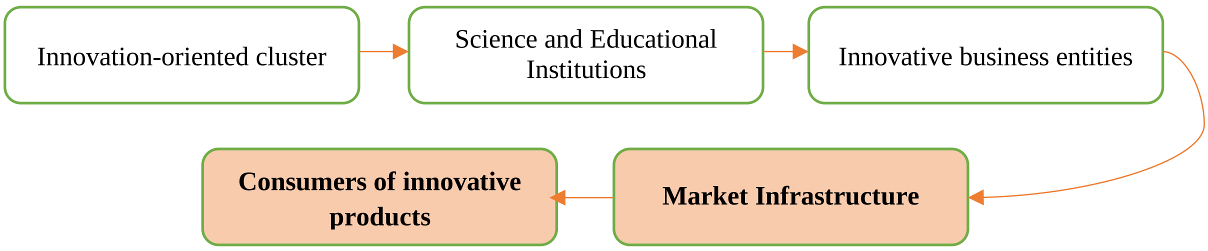
During this period, the construction sector plays an important and priority role in the modernization of the national economy. This direction is designed to ensure the effective execution of tasks at one of the most difficult stages of the investment and construction process.

Builders are mastering new construction technologies, using new building materials, products and structures, updating the material and technical base of construction and the fleet of existing construction equipment using modern financing methods.

The development of the construction industry is influenced by various external and internal factors, the composition and strength of which change over time.

The study of these factors allows for the purposeful and rational influence on the development of construction, as an important link in the national economy.

Based on the above, the scheme of the organizational and economic model of the innovation-oriented cluster is given (pic.1).



Pic.1. Scheme of the organizational and economic model of the innovation-oriented cluster is given.

The peculiarities of the formation of innovative clusters in the building materials industry include:

- the areas where the resources of enterprises are interconnected;
- the need to consider the regions in the organization of innovation clusters;
- associated with the acceleration of innovative processes that require the use of new methods of management;
- a cluster approach to the organization and management of a group of economic entities in one industry, especially the organization of innovative clusters, will allow for sustainable development of the country;
- the cluster has its own life cycle as an organizational formation and goes through several stages. In addition, support for the organization of innovation clusters predetermines the formation of a number of elements in the form of innovative potential of enterprises (industries), as well as others.

In conclusion, the establishment, support and development of innovative clusters in the construction materials industry of Uzbekistan has a significant impact on increasing manufacturing capacity and improving the quality of building materials in the country, meeting domestic demand for construction materials, and additionally growing of employment rate.

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PLACE OF ADVERTISING TEXT IN TEXT TYPOLOGY

***Abstract**: The article discusses various classifications and typologies of texts, in which the place of advertising texts is determined for their detailed study.*
***Key words**: text, advertising, advertising texts, classification of texts, typology of texts.*
***Language**: Russian*
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***Scopus ASCC**: 1203.*

МЕСТО РЕКЛАМНОГО ТЕКСТА В ТИПОЛОГИИ ТЕКСТА

***Аннотация**: В статье рассматриваются различные классификации и типологии текстов, в которых определяется место рекламных текстов для подробного их изучения.*
***Ключевые слова**: текст, реклама, рекламные тексты, классификация текстов, типология текстов.*

Введение

Каждый текст, будь то это сочинение, доклад, электронное письмо, рассказ или рекламный текст, по своему уникален. Но они также обладает некоторыми функциями, которые присущи только данному типу текстов. Исходя из этого их можно разделить на группы, хотя слово «группы» звучит слишком обширно.

Например в литературном и лингвистическом областях, исходя из художественных жанров в литературе и из сфер общения в лингвистической классификации текстов, выработаны свои классификации текстов. В литературе различают лирику (песня, гимн, соната и т.д.), эпику (роман, рассказ, новелла и т.д.) и драматургию (комедия, трагедия и т.д.), а в стилистике научный, официально-деловой, публицистический и разговорно-бытовой стили соответственно. Мы не будем вдаваться в подробности классификации данных текстов, так как объектом нашего исследования являются рекламные тексты, которые считаются потребительскими.

Основная часть

Говоря о прагмалингвистическом анализе рекламных текстов невозможно не упомянуть теорию речевых актов.

Одним из видных представителей теории речевых актов является философ Дж. Остин, которой читал в 1952-1954 гг. лекции в оксфордском университете под названием «Words and deeds» («Слова и действия»). В своих работах он отталкивался от мысли, что если язык служит только для отображения вещей или фактов, то оно может быть правдой или неправдой [1]. Например, в статье пишут, что ширина реки составляет 30 метров. Люди, заинтересованные этой рекой, могут подтвердить или опровергнуть данный факт. Но Дж. Остин указал на некоторые выражения, правдивость или лживость которых нельзя подтвердить. Например:

Я объявляю собрание открытым.

Я завещаю часть моих земель моим правнукам.

Нельзя сказать являются эти выражения правдой или ложью. О них можно судить только после того, когда их совершит или не совершит говорящий. Даже при не совершении сказанного, невозможно назвать это ложью. Здесь нужно говорить об успешности или не успешности сказанного. За счет этого вышеуказанные выражения обретают также другое свойство [1]. Для их совершения полагается наличие определенных обстоятельств: наличие земель и правнуков, начало собрания и наличие его участников. Выражения, как в примере с шириной реки, Дж. Остин назвал констативами, а выражения, присутствующие в примерах с собранием и завещанием он назвал перформативами, т.е. словами-действиями. Одно из ключевых понятий, которое ввели Дж. Остин и Дж. Серль, считается теория речевых актов. Согласно ей, во время речевого выражения происходят одновременные речевые акты. В локутивном акте происходит само выражение слов или предложений. В иллокутивном акте выражению придаётся интенция, цель. А перлокутивный акт – это последствия/воздействие на слушателя/адресата выражения [1].

Из всех троих речевых актов особенно выделяют перлокутивный акт, намеренное воздействие: предупреждением можно напугать или известить, обещанием успокоить, требованием заставить кого-то что-то сделать. Речевые акты происходят по общепринятым договоренностям. Партнеры по коммуникации знают по каким правилам и при каких условиях нужно осуществить определенный речевой акт. Только благодаря им адресат может узнать цель высказывания или текста отправителя.

Весьма интересный подход к описанию перлокутивного представлен в работах Николь Сауэр, которая изучает рекламные тексты в перлокутивном аспекте. Она предлагает понятие «стратегии», чтобы лучше описать комплексность речевых актов. По ее мнению, под стратегией нужно понимать план действий, в котором с учетом конкретной цели выбираются те действия, успех которых является самым вероятным. Данную стратегию можно применить при анализе рекламных текстов. Известно, что в процессе рекламирования преследуется главная цель, продажа товаров или услуг. Но для ее достижения служат также подцели: вызывание внимания, беседа, убеждение и т.д. Только после достижения подцелей, конечная цель может быть достигнута. В данной стратегии нужно сделать упор на комплексность речевых актов, их взаимосвязанность и взаимопомощь.

Теория речевых актов служит также для того, чтобы определить место рекламных объявлений в классификации и типологии текстов. Здесь следует различать классификацию и типологию текстов. Первая происходит по индуктивному методу, тексты объединяются в классы по наличию или отсутствию в них интралингвистических и экстралингвистических признаков. Вторая по дедуктивному методу, в созданную теоритическую типологию текстов включаются соответствующие тексты.

Немецкий лингвист К. Бринкер выделяет общебытовую и лингвистическую классификацию текстов [3]. В своей теории он основывается на исследования другого видного ученого М. Димтера [4] и утверждает, что знание о видах текста считается языковой и коммуникативной компетенции, которую люди приобретают в процессе социализации в обществе.

Общебытовая классификации текстов является обширной и многослойной. Примером может послужить прогноз погоды, который можно подразделить по назначению на общегражданский и авиационный, а по продолжительности на сверх краткосрочный (до 12 часов), краткосрочный (от 12 до 72 часов), среднесрочный (от 3 до 10 суток), с расширенным сроком (от 10 суток до одного месяца), долгосрочный (свыше 30 суток и до 2 лет). М. Димтер пришел к выводу, что для типологии общебытовых текстов решающими являются три критерия, а именно коммуникативная ситуация, функция текста и его содержание [4]. Если речь идет о таких текстах как сообщение, комментарий, поручение, указ, то здесь нужно говорить о функции текста. Его отправитель побуждает с помощью коммуникативной функции текста получателя на какое-либо действия. Категория «содержание текста» обуславливается тем, что они описывают отдельную область деятельности. К ним относятся прогноз погоды, рецепт врача, спортивные новости и т.д. Но нужно сказать, что эти тексты владеют определенными функциями. Например, текст «рецепт врача» с одной стороны ссылается на область медицины, но с другой стороны на указания или советы врача, которые побуждают больного пропить определенные лекарства. Здесь доминирует, по мнению Димтера, функция текста над его темой. В третьей категории текстов определяющим считается коммуникативная ситуация и к ней относятся письмо, телевизионная программа, статья, разговор по телефону и т.д. В них главный акцент ставится на способы донесения текста их получателям (телевидение, радио, интернет). Интересным в этом плане является наименования этих текстов. Они связаны с функцией и содержанием текста. В качестве примера можно указать такие виды текстов как телевизионные новости или новости по радио.

После рассмотрения категорий общебытовых текстов Димтера, нужно определить место объекта нашего исследования в его теории, то есть рекламного текста. Исходя из концепции Димтера можно было бы сказать, что рекламные тексты относятся к первой категорий, так как их главная функция подразумевает побудить человека совершить покупку или воспользоваться услугой. Но ведь рекламируемые товары или услуги относятся к разным областям. Значит, они также принадлежат ко второй категории. И нельзя представить рекламу без телевидения, радио, интернета и печатных издательств, что приводит нас к выводу, что она также относятся к третьей категории.

Таким образом, категория общебытовых текстов определяется их функциональными, тематическими и ситуативными признаками. При этом функции текста отводится главная роль, так как она может присутствовать во всех вышеперечисленных категориях и является одним из главных признаков текстуальности.

Рассмотрим типологию текстов в лингвистическом аспекте. В нем выделяются два направления: системно-языковое и коммуникативно-ориентированное. В первом виде описание типов текстов основывается на структурных признаках. Во втором направлении их типология базируется на ситуативных и коммуникативно- функциональных аспектах. По мнению К. Бринкера первому направлению не удалось определить точную типологию, кроме тех случаев, когда текст разделяется на научный и ненаучные виды [3, с.136].

Большого успеха добилось коммуникативно-ориентированное направление. Исходя из определения, что типология текстов исторически развивалась в языковой общности и считаются конвенциональными (договоренными), их можно соответственно описать при помощи типичными для них контекстуальными, коммуникативно-функциональными и структурными связями. Это облегчает продукцию и восприятие разного рода текстов. Такие тексты как новости, прогноз погоды, рецепты могут показаться в структурном построении штампованными или конвенциональными, другие его типы как научно-популярные статьи или рекламные тексты разнообразными. Это разнообразие является для общества также конвенциональным и считается одним из вариантов данного типа. Но не у каждого текста можно определить его признаки, которые были бы присуще только данному типу. Нижеследующее иерархия различения видов текстов Бринкера в лингвистическом аспекте, которая построена на основе типологии общебытовых текстов, поможет определить место нашего объекта исследования [3].

Исходя из функции текстов он их разделяет на следующие типы:

1) информативные тексты, которые сообщают, информируют, уведомляют и т.д. Данный класс характеризуют радио- теленовости, медицинские заключения и др.

2) аппелятивные тексты, смысл которых передают такие глаголы как побуждать, приказывать, советовать и т.д. К ним относятся рекламные тексты, инструкции, рецепты и др.

3) тексты с функцией возложения обязанностей, которым присущи глаголы обещать, клясться, обязывать и др. Сюда относятся договоры, клятвы и т.д.

4) контактные тексты, служащие для установлений и поддержания личных контактов. К данному классу принадлежат соболезнования, открытки, поздравительные письма и др.

5) декларативные тексты, создающие новую реальность. К ним можно причислить завещания, назначению и др.

Опираясь на коммуникативную форму (монолог или диалог, место или время, письменный или устный текст, личный, официальный или общественный текст) он определяет контекстуальные признаки текста. Рекламные тексты и ролики, в свою очередь, относятся к общественной области, являются монологическими, по времени и месту дистанционными, письменными (газеты, журналы) или устными (теле- и радиореклама).

Для описания структурных признаков текста Бринкер использует тему текста и виды ее изложения. Оно бывает дескриптивным/описательным, нарративным/повествовательным, экспозиторным/объяснительным и агрументативным/убеждающим.

Заключение

Подытоживая теорию Бринкера можно сказать, что рекламные объявления, обладая аппелятивными функциями, являются короткими, заключенными в себя текстами, которые издаются или транслируются в средствах массовой информации, информируя потенциальных клиентов о продуктах или об услугах, с целью убедить и побудить их к покупке или использованию услуг.

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THE USE OF ARTISTIC ANTHROPONYMS IN THE POEMS OF ALISHER NAVOI

***Abstract**: This article analyzes the artistic anthroponyms used in the works of the great poet Alisher Navoi, their time and place of use with examples.*

***Key words**: onomastics, anthroponymy, anthroponym, lexical system, nationality, lexical opportunity.*

***Language**: English*

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Introduction

Anthroponymy is a branch of onomastics that studies the characteristics of human names. Anthroponyms have their place in the vocabulary and have structural features. As mentioned above, each onomastic system is further subdivided into smaller systems. In particular, anthroponyms, which belong to the system of famous horses, in turn are divided into other subsystems. These are:

1. Names;
2. Surnames;
3. Father's names;
4. Nicknames.

Names can provide specific information about their object. This information comes in 3 forms:

1) linguistic;
2) speech;
3) encyclopedic.

The main part

As a linguistic unit (linguistic) they name individuals, distinguish individuals from each other. In verbal information it expresses the speaker's attitude to the name. , is based on the semantics of attractiveness. Names reflect nationality. Names have the color of obsolescence or novelty. The phenomenon of polysemy (A.V. Superanskaya) is quite common. For example: Alpomish - Hakimbek; Majnun - Qays, Alexander - Iskandar, Sulaymon - Solomon. It seems that anthroponyms are, first of all, words, part of the richness of language. However, they also have a number of unique features. For example:

Qachonkim zohir etsang “tanzi’-ul-mulk” ,
Sikandarning bo’lub mag’lubi **Doro**. (G’.S. 5-g’azal)

In this poem, the anthroponym Iskandar is given as Sikandar.. In some places, there is a similar phenomenon of sound exchange.

Rafiqing toyir andoqkim **Sulaymon** oldida hudhud,
Buroqing soyir anjum shohi ustinda sipehroso (G’.S. 7-g’azal)

Well-known linguist VN Nikonov says: "Anthroponymy is happy with the existence of inseparable practical and theoretical tasks." That is why the interest in anthroponyms and their study has an ancient history. A number of anthroponymic studies have been created over the centuries. The result was the study of human names, anthroponymy. International onomastic conferences have been held in this field. In particular, the All-Union Onomastic Conferences Ulyanovsk (1967), Gorky (1969), Bukhara (1974), Khiva (1991) and others. Russian linguists A.M. Sobolevsky, V.N. Nikonov, A.V. Superanskaya, S.I. Zinin and others were engaged in anthroponymy..N.A.Baskakov, G.F. Sattorov, T. Jonuzakov, R. Kungurov, J.Mukhtorov, E. Begmatov, D. Abdurahmanov, E. Kilichev, I. Khudoynazarov and others conducted research in Turkology, including Uzbek linguistics. In particular, E. Begmatov in 1965 defended his dissertation on "Anthroponymy of the Uzbek language", and I. Khudoynazarov on "The role of anthroponyms in the language dictionary system and their semantic methodological features" (1998). In 2000, N. Husanov defended his doctoral dissertation on "Lexical and semantic features of anthroponyms in the language of written monuments of the XV century."

The successful defense of two PhD and one doctoral dissertations, which emerged after the Uzbek language was granted the status of the state language, shows that anthroponymic research is extremely relevant and its comprehensive study is a modern requirement. The step of independent Uzbekistan on a new path of social, economic and political development requires further improvement of the onomastic, including anthroponymic system. People believed that naming a baby would have a profound effect on his life, destiny and happiness. Such perceptions have to do with the misconception that a name is the essence of a person, that a name is like a person. For this reason, there are various beliefs about the existence of "characteristic and non-characteristic" names in people's minds. The various manifestations of this belief are evident in the names of different national onomastics and in the custom of naming a child. For example, in caracas, the name of a person who dies is not given to a newborn baby. It is also no coincidence that golds choose the names of good people as names for their children. It is believed that a good name makes a person happy and a good name in a child. A bad name brings misfortune, illness, death and disaster. V.N.Vasilyev, P.P.Shimkevich, Y.L. Layants, D.K. Zelenins collected interesting material.

Alisher Navoi's ghazal "Zihi husnung…" consists of artistic anthroponyms from beginning to end. It should be noted that the ghazal composition of the names of the heroes of a work based on a historical figure or an artistic fabric creates the art of "talmeh"..

Ne ishga bo'ldi beorom ko'zgu aksidek **Majnun,**
Yuzi ko'zgusida aksingni gar ko'rguzmadi **Laylo.**
Nedin yuz gul ochar ishq o'tidin bulbul kibi **Vomiq,**
Yuzungdan gar uzori bog'ida gul ochmadi **Uzro?**
Kalomingni agar **Shirin** labida qilmading muzmor,
Nedin bas la'l o'lur **Farhod**ning qon yoshidin xoro?
Jamoling partavidin sham o'ti gar gulsiton ermas,
Nedin parvona o'tichra o'zin solur **Xaliloso?**
Malohat birla tuzdun sarvqadlar qomatin, ya'ni
Ki mundoq zeb birla ul alifni aylading zebo.

Navoi uses both talmeh and metaphor in the following verse.

Sharafdin bo'lg'on ermishsen Sulaymon
Mening birla unutma ahdi paymon.

In this verse, Shirin likens Farhod to Suleiman, referring to Farhad's friendship with wild animals and birds, and points to the fact that Suleiman in the legends rules over all animals. worldview, language features, art of language use, artistic skills, system of symbols, etc. should be analyzed together. Only then can the philological essence of the work be revealed.

Alisher Navoi makes great use of lexical opportunities in the representation of art. It is a general idea that the Shari'a and the teachings are a gradual, integral, continuous logical process that requires each other to build a perfect society and bring up a perfect human being. That is why we need to inform schoolchildren about the inner meanings of Alisher Navoi in his poems. Since the ghazals belong to the pen of Alisher Navoi, the great artist of the old Uzbek language, it is necessary to see in these ghazals the most characteristic phonetic, lexical, morphological, syntactic features of the old Uzbek language. We have seen such peculiarities one by one above. Alisher Navoi knew deeply the phonetic possibilities of the old Uzbek language. In his work "Muhokamat ul-lug'atayn" the great thinker also spoke about the phonetic features of the old Uzbek language, acknowledging the convenience of composing and rhyming poems, and the length and brevity of the vowels in the language are very important. emphasizes the compatibility. Our great ancestors were Uzbeks like Lutfi, Navoi, Bobur, Mashrab; Representatives of Tajik literature, such as Hafiz, Saadi, and Jami, used in their ghazals and epics not only the apparent meanings of the word, but also the symbolic meanings. Many words in their works, such as yor, mahbuba, suyukli, ashiq, gul, bulbul, tikan, saqi, rind, wine, may, mayxana, have different meanings based on the religion of Islam and mystical philosophy. , to point to the one and only Allah, served to express the qualities of the cause of the creation of the wajibul-wujud, that is, the being, through symbolic examples[1].

Navoiy nafs zulmotig'a qolmish,
Sen o'lmay **Xizri** rah chiqmoq ne yoro
Qiyomatda gunohin avf etarga
Rasulingni shafi' et, kirdigoro. (G'.S.5-g'azal)

These poems by Alisher Navoi are a perfect work of art, which reflects the important aspects of the language, ideology and artistic features of the Navoi period.

Conclusion

Therefore, when studying the works of Alisher Navoi in high school and high school, we should not limit ourselves to language, literature, content or form. The deeper we study the work, the more we will enjoy the treasures of Alisher Navoi's works.

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THEORETICAL AND METHODOLOGICAL BASIS OF INCREASING INNOVATIVE THINKING IN STUDENTS

Abstract: *In this state the role of modern interactive methods in the development of creative thinking, increasing the requirements for the use of interactive methods, innovative technologies, pedagogical and informational technologies in the educational process.*

Key words: *creative thinking, communication, interactive methods, independent thinking, teaching and educational purpose, the science, technique, texnology.*

Language: *English*

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Introduction

The development of the country, its socio-economic, national and cultural development, as well as the development of innovative thinking skills in determining its prospects and future are invaluable in the development of global education. Today, the UN World Declaration on Higher Education in the 21st Century, the UNESCO educational programs and the Balanya Declaration, adopted with the aim of creating an integrated higher education system in Europe, play an important role in improving the quality of higher education. The forward-looking report of the United Nations Educational, Scientific and Cultural Organization (UNESCO) “UNESCO: Horizons 2020” in 1998 provided a new perspective on the image of the higher education system, culture and policies for the training of teachers, especially students. Particular attention is paid to the new strategy of preparation for innovation, based on skills development. This directly creates the basis for improving the quality and competitiveness of education.

The main part

Currently, students of higher educational institutions are preparing for innovative activities around the world, their fuller manifestation of the skills of innovative thinking, individual creative activity, increasing intellectual potential, innovative issues of knowledge, skills and abilities acquired in the learning process. The problems of focusing on a solution occupy a special place. The successful solution of these tasks requires an integrated approach to improving the higher education system, defining goals and objectives, improving the content of students' innovative thinking skills in accordance with the new requirements of the innovative higher education system.

Particular attention is paid to increasing the innovative activity of students of higher educational institutions in accordance with international requirements, expanding opportunities for developing innovative thinking skills based on the best world practices, and developing pedagogical mechanisms for the effective use of information and communication technologies. Emphasizing the need to further improve the country's education system, develop new, modern teaching methods, including pedagogical and information and communication technologies, the President of the Republic of

Uzbekistan said: "We all know that today's high technologies are the time of innovation ...»[1]

As a result, students will develop innovative thinking skills based on best practices, the education system will continue to improve on the basis of world standards, and the quality of personnel will quickly adapt to a competitive environment.

Resolution of the President of the Republic of Uzbekistan dated April 20, 2017 No. 2909 "On measures to further develop the higher education system", July 27, 2017 "On the participation of industries and sectors of the economy in improving the quality of higher education." Education "Resolution No. PP-3151 of November 1, 2017" On measures to further strengthen the infrastructure of scientific institutions and the development of innovative activities "Resolution No. PP-3365 of November 29, 2017 Decree of the President of the Republic of Uzbekistan dated February 7, 2017" On the strategy further development of the Republic of Uzbekistan "PF - 5264" On the establishment of the Ministry of Innovative Development of the Republic of Uzbekistan "Decree of the President of the Republic of Uzbekistan No. PF -4947 dated November 30, 2017" On the activities of the Ministry of Innovative Development of the Republic of Uzbekistan. This dissertation, to a certain extent, serves to implement the tasks set in Resolution No. PQ-3416 and other regulations related to this activity.

An innovative approach involves not only the creation of a new creative product, but also effective thinking and its development during its implementation. Each student who sets a goal and looks for ways to achieve it is based to some extent on their own worldview, thinking, thinking, imagination and understanding, as well as on needs that represent personal or social interests. At the same time, his goals, desires, aspirations, interests and needs are revealed, and, most importantly, these tools are considered important factors in the development of innovative thinking skills. It is based on the integration of education with science and production in the development and improvement of students' innovative thinking skills. Involving them in real innovative thinking (in the process of writing master classes, seminars, conferences, open laboratories, term papers and theses) brings educational activities as close as possible to the future career direction, which leads to their adaptation throughout their careers. In the educational process, which is carried out directly in higher education, it is important to focus on the integrated use of new innovative educational technologies.

The pedagogical process takes place in the pedagogical system. The pedagogical system consists of several components (student, teacher, student, goal, results, learning content, teaching aids, methods, techniques and technologies of the educational process). The relationship between

The formation and development of innovative thinking skills among students is mainly carried out in the educational process. The effectiveness of this process is determined by the reliance on the sound system. Because through a systematic, planned, targeted, organizational and integrative approach, students develop and improve the ability to think innovatively. As a result of this process, the possibilities for the implementation of the assigned tasks will be expanded.

Comprehensive organization of lectures, seminars, round tables, events, trainings, conferences, excursions, self-study, teaching practice, coursework and diploma works in the organization of pedagogical processes for the development and improvement of innovative thinking skills among students as a system, it is necessary to ensure their interdependence and interconnection ...

Conclusion

Systematic and effective organization of pedagogical processes in a certain sequence, ensuring their interconnectedness and interdependence, as well as the study of interdependence in the content of the topics studied in it, a report, it is advisable to pay attention to the consistency of the topics studied in seminars and the possibility of parallel study of topics when determining the topics that students will study on their own.

The proposed project concludes that the interdependence and interdependence of educational, independent work processes is important for the development and improvement of students' innovative thinking skills.

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AESTHETIC EDUCATION AS A FACTOR OF PROFESSIONAL TRAINING OF PRESCHOOL TEACHERS IN A PEDAGOGICAL UNIVERSITY

Abstract: *The article deals with the issues of aesthetic education of children in preschool institutions, the development of an eco-aesthetic attitude to the environment and nature, respect, a sense of responsibility for them. The questions of aesthetic education, its content, stages and components are disclosed.*

Key words: *preschool education, aesthetic attitude, attitude to the environment, introducing the nature to a child, the child's personality, protecting the environment, observing the nature.*

Language: English

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Introduction

Changes in the development of Uzbekistan, restructuring of society affected its spiritual appearance. At all times, the greatness of the countryк was the cultural and spiritual potential of the country. Uzbekistan needs spiritual renewal, one of the paths of which is through culture, aesthetic upbringing and education of teachers. Improving the professional training of future educators and teachers requires a qualitative renewal of pedagogical education, updating the formation of aesthetic culture.

Spiritual development of a person, including aesthetic upbringing and education, begins at an early age and continues throughout life. Preschool age is a sensitive period of the formation of the value orientations of the personality, its aesthetic development, the identification of abilities and the creation of conditions for their development. At preschool age, a child first gets acquainted with the spiritual values of society, culture and art. An important place in this process is given to the aesthetic education of children. The aesthetic environment, the culture of preschool institutions, the level of moral and aesthetic culture of preschool teachers have an active impact on the personality of the child, on his spiritual world. The success of the implementation of aesthetic education of preschoolers largely depends on the level of professional training of teachers. Only an aesthetically educated teacher will be able to carry out the aesthetic development of a child's personality, the formation of his creative abilities.

The main part

An analysis of the modern practice of higher and secondary vocational schools shows the existence of a contradiction between the requirements of society for professional training, the level of aesthetic culture of the teacher and the shortcomings of the system of its formation in pedagogical educational institutions. This is manifested in the low level of general culture, the lack of the necessary both artistic and aesthetic and methodological knowledge and skills for organizing the aesthetic education of children.

The process of updating the paradigm of pedagogical education based on the principles of fundamentality, universality, variability, integrativity, continuity of humanism, spirituality, cultural congruity is currently an urgent need and demand of society.

Issues of aesthetic education and upbringing are reflected in the research of philosophers, art historians, culturologists, psychologists, and teachers.

The problem of aesthetic education at different age stages of human development is studied by many teachers: in the field of preschool and school education.

The analysis of scientific research shows that various aspects of the professional and artistic and aesthetic training of future teachers, specialists in preschool education are being studied. The technologies proposed in them cannot fully solve the problem of aesthetic upbringing and education, the formation of aesthetic culture in a future teacher of preschool education in the process of professional training at a pedagogical university. It should be noted that the issues of training students of preschool education faculties, their aesthetic training in the conditions of a pedagogical university and college are not sufficiently reflected in scientific research.

Thus, a contradiction arose, on the one hand, there was a need to deepen aesthetic training, the formation of aesthetic culture among students of the faculty of preschool education as a condition for its development in preschool children, and on the other hand, the problems of aesthetic education were not sufficiently developed in the theory and practice of pedagogical education. in the professional training of future specialists in preschool education at a pedagogical university.

The developed and experimentally tested system of aesthetic upbringing and education in the context of the professional training of a preschool teacher serves as the basis for finding new solutions in the modern practice of higher education for preschool education specialists. Of practical value are the developed and tested curricula, programs, manuals, integrated courses, new specializations of aesthetic content, forms of independent work of students (workbook, art diary), which can be widely used in the professional training of pedagogical personnel.

In modern society, the role of aesthetic education in the spiritual development of the individual is increasing, in this regard, the requirements for the professional training of teachers, their level of general and aesthetic culture, the needs of society and educational institutions for highly qualified personnel are increasing, which confirms the need to update the paradigm of pedagogical education, filling it with new content that ensures the development of creative principles in future teachers who are able to effectively carry out the aesthetic education of children. Aesthetic education is becoming an important component of the professional training of a preschool teacher.

In our study, it is theoretically substantiated that aesthetic education is an independent category in science, that the formation of aesthetic culture must be considered as one of the tasks of aesthetic education of a person, in particular a teacher.

The historical and theoretical analysis of the emergence and development of ideas of aesthetic education, the formation of professional pedagogical education in Uzbekistan, the training of pedagogical personnel for preschool education establishes the need to take into account traditions (spiritual development of the teacher's personality, deep humanitarian and artistic knowledge, a combination of humanitarian, general developmental training with psychological its pedagogical training, active creative activity of students in extracurricular activities, etc.) of pedagogical education, international experience, modern trends in the field of education in updating the structure and content of professional training of preschool teachers.

The development of pedagogical education in modern Uzbekistan is based on the principles of fundamentality, universality, integration, continuity, creativity, artistry, variability, cultural consistency, spirituality. Developing in our research the content, forms and methods of aesthetic education of preschool teachers, we came to the conclusion that it is necessary to rely on the processes of integration, differentiation, diversification, which are reflected in the structure, content, selection of specialties and qualifications of specialists.

Increasing the effectiveness of training preschool specialists requires variability in the choice of specialties and qualifications by educational institutions, the presentation of independence to pedagogical universities in their determination, based on the state's needs for teaching staff and taking into account the requirements of the region in these personnel.

The urgency of revising the state educational standard of higher professional education has been established; the need to change the structure, content of pedagogical education, based on the characteristics of the pedagogical profession, traditions and experience of university education, the specifics of pedagogical activity at different levels of education, trends in social development.

Our research confirms, based on specific material introduced into the pedagogical process of training preschool specialists, that it is important to ensure the continuity of the levels of professional education in teacher training; important in the training of a teacher is to ensure the continuity of the levels of professional education; the need to create a state professional education, taking into account the peculiarities of training specialists at each level, avoiding blurring the boundaries of secondary and higher professional education, while maintaining the independence and characteristics of professional training of each of them.

The study discloses the possibility of building public vocational education on an integrated basis, its new structure is substantiated, which is aimed at improving the quality of training personnel.

The study proves the need to change the content of the State Unitary Enterprise, taking into account the needs of modern pre-school education, deepening aesthetic and humanitarian training of existing standards in the field of pre-school education.

The model of aesthetic preparation of the teacher of pre-school education, including theoretical, practical, methodical, special components, was developed and experimentally verified; The study determines the levels of aesthetic training of the teacher: the optimal, sufficient necessary, which most adequately reflect the requirements for the teacher and the achieved level of its aesthetic and training.

In the process of research, a system for the aesthetic education and education of students of the Faculty of Preschool Education of the Pedagogical University has been developed and tested, which includes the educational and extracurricular activities of students, covers the generalization, psychological and pedagogical, special training of a pre-school profile specialist, all types of educational process, pedagogical practice, a variety of artistic Creative activities of the students themselves in their relationship, based on integration and differentiation processes.

The study substantiates and reveal the possibilities of aesthetic disciplines, all the disciplines of the curriculum, disciplines and courses for the choice, electives, coursework and diploma (qualification) works, pedagogical practice, as well as specialization, additional specialty in the deepening of the content of aesthetic education and education, the formation of common and Aesthetic culture of future pre-school specialists, the development of their creativity, creative abilities through various forms and training methods and education.

The study showed the effectiveness of the use of integrated courses developed and tested during the preparation of specialists, modern methods of teaching aesthetic disciplines, various forms of independent work of students, a flexible combination of educational and extracurricular activities of students of the Faculty of Preschool Education.

Conclusion

Developed in the study and experimentally, a proven model of aesthetic training, aesthetic education has large potential opportunities and can contribute to qualitative changes in the professional training of teachers of pre-school education in the pedagogical university.

The study undoubtedly has not exhausted the problem, discovered new horizons, aspects; Further development require both theoretical and applied questions. Especially relevant development of programs, textbooks and benefits on this issue.

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NEW BIOSTABLE LUBRICATING COMPOSITION FOR LOCOMOTIVE AND INDUSTRIAL DIESEL ENGINES

***Abstract**: It is important to study and apply new modifications of various additives with functional properties used in the creation of lubricating compositions that meet the requirements of M-14B$_2$ motor oil used in locomotive, large-capacity, self-discharging and industrial diesels. Changes in the initial properties and unusability of lubricants due to the effect of various external factors, including microorganisms, during long-term use and storage, make studies on increasing the resistance of oils to biodegradation urgent.*

Biostable properties of lubricants against bacteria (Pseudomonas aeruginosa, Mucobacterium lacticum) and mould (Aspergillus niger, Cladosporium chrysogenum, Penicillium cyclopium) have been defined, a new biostable lubricating composition of 14B$_2$ motor oil has been created with the study of α-phenyl-β-nitroethane and α-furyl-β-nitroethane of special purpose. It was determined that the addition of biocide at the concentration of 0,25% to the composition does not adversely affect other functional properties of the oil.

Key words: *motor oil, additive composition, additives, biodegradation, biocides.*

Language: *English*

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Introduction

M-14B$_2$ motor oil, M-10B$_2$C, M-12By, M-14B$_2$, M-16B$_2$, M-20B$_2$ motor oils used in all types of diesel engines of various purposes belongs to B$_2$ group [1].

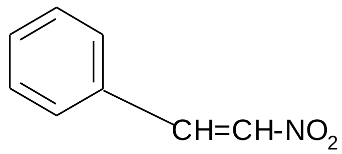
The need for these oils requires the expansion of their production in the XXI century.

It is known that the methods of protecting materials from biodegradation vary depending on the type of oils. The application of biocides is aimed at solving two main issues:- protection of materials from microorganisms; protection of the human body from pathogenic microorganisms [2].

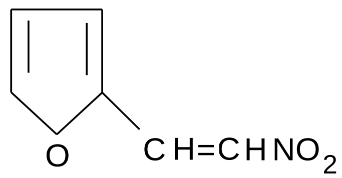
For many years, at the Institute of Chemistry of Additives of ANAS, organic compounds of different composition: heteromethylated oxase- and diazocycloalkanes, adamantane derivatives, heterocyclic amines, N-alkoxymethylpiperidins and N-alkoxymethylperhydropyrimidines have been synthesized, these compounds have been studied as antimicrobial additives and the dependence of their effectiveness on the chemical structure has been determined. The fact that the vast majority of organic compounds known as biocides are insoluble in mineral oils limits their application [1].

It should be noted that the organic compounds in the lubricating compositions, consisting of different functional properties, have oxidation, corrosion, etc. properties, but don't have biostable property. It is known that all types of base oils used in the creation of motor oils are a source of food for microbes and bacteria.

α-Phenyl-β-nitroethane and α-Furyl-β-nitroethane biocides used as the object of the study were tested in accordance with GOST 9.082 and GOST 9.052, together with additives that provide the performance properties of oils of various purposes [3, 4, 5].



α-Phenyl-β-nitroethane



α-Furyl-β-nitroethane

It was determined that additives of different composition and structure do not affect the development of microbes and moulds, so in both cases there is a full development of microorganisms. In this case, the initial indicators of the oil in use change and become unusable. It is possible to prevent the full development of microorganisms in motor oils studied at a concentration of 0,15-0,5% of biocides, the area of destruction of bacteria is 2,5-3,0 cm^2, in some cases the area of destruction of moulds is 3,0-3,5 cm^2.

Oil samples of newly created lubricating compositions M-10B$_2$, M-12By, M-14B$_2$, M-20B$_2$ for locomotives, stationary, self-discharging, etc. diesel engines have been studied with biocides, on the basis of IHP-101 (barium salt of di-(oxyalkylphenyl)-methane and its new modifications, providing the detergent-dispersing properties of M-8 and M-15 Baku base distilled oils and motor oils processed at the Oil Refinery of the Republic of Azerbaijan, AKI series additives (alkylphenols, formaldehyde and calcium salts of condensation products with various amines) calcium salts of condensation products with amines), the results are given (Table 1 , Figure 1,2)[6].

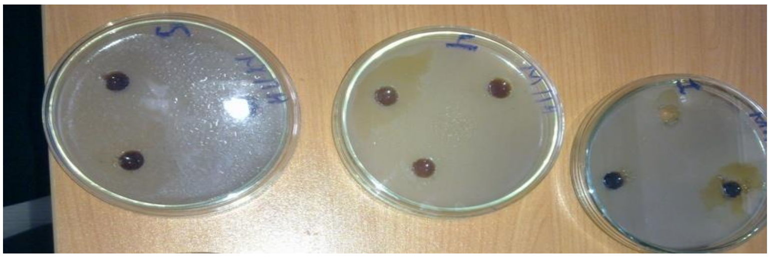
Table 1. Biostability properties of different types of lubricants

Lubricants for locomotive, ship and stationary diesels	Without biocides	Biocides	Concentration, %	Destruction of development area of microorganism, cm^2	
				bacteria	mould

M-10B$_2$	+	α-phenyl-β-nitroethane	0,15 0,25 0,5	1,7 2,0 2,5	1,3 1,6 2,0
	+	α-furyl-β-nitroethane	0,15 0,25 0,5	1,2 1,5 2,0	1,5 2,5 3,0
M-12By	+	α-phenyl-β-nitroethane	0,15 0,25 0,5	1,1 1,3 2,5	2,0 – –
	+	α-furyl-β-nitroethane	0,15 0,25 0,5	1,0 1,2 2,0	2,5 – –
M-14B$_2$	+	α-phenyl-β-nitroethane	0,15 0,25 0,5	1,5 3,0 4,0	1,2 1,5 2,0
	+	α-furyl-β-nitroethane	0,15 0,25 0,5	1,2 2,0 2,5	1,5 2,0 3,0

"– " complete destruction of microorganisms;
" + " complete development of microorganisms

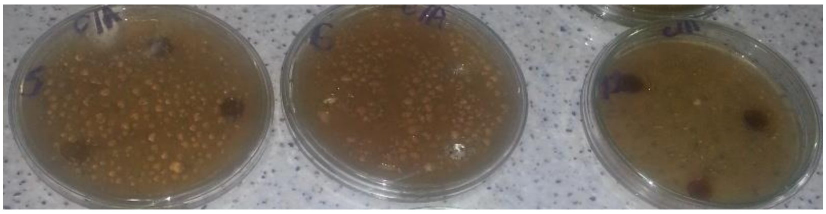
Bacteria



Mould

Fig 1. Test results of M-10B$_2$, M-14B $_2$, M-12BБ lubricating compositions with α-furyl-ß-nitroethane biocide

Bacteria



Mould

Fig. 2. Test results of M-10B$_2$, M-14B$_2$, M-12BБ lubricating compositions with α-phenyl–ß–nitroethane biocide

The positive results of the tests create basis for the use of low-concentration of biocides in lubricants in production process, increasing the service life of the oil by ensuring its biostable property.

The addition of biocide to the composition makes it necessary to determine its effect on the change of important indicators of M-14B$_2$ oil defined in accordance with GOST 12337. Therefore, oxidation (GOST 11063), corrosion (GOST 20502), lubricating properties (GOST 9490) have been determined [7,8,9,10].

Oxidizing properties resist to oxidation at 200^{0}C for 50 hours, the amount of sediment was 0,5-0,6%, corrosion loss in lead plate at 140^{0}C for 25 hours in the presence of copper naphthenate catalyst was 3,5-3,6 g/m^2, lubricating properties: abrasion index I_s 36 mm, ultimate load 548 Pk, N, welding load 1960 Pc, N, diameter of the abrasion trace D_s 0,48, mm 196, N.

Thus, the new biostable lubricating composition of M-14B$_2$ motor oil created with Viscoplex-2-670, AKI-150; C-150 (C-250, C-400), DF-11, α-phenyl-β-nitroethane, Viscoplex-5-309, PMS-200A additives meets all the requirements of M-14B$_2$ oil in accordance with GOST 12337.

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JIF = **1.500**	**SJIF** (Morocco) = **7.184**	**OAJI** (USA) = **0.350**

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QR – Issue **QR – Article**

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ABOUT THE GIVINGS OF PERSIAN BORROWINGS IN EXERCISES AT THE TEXTBOOK OF THE NATIVE LANGUAGES

***Abstract**: This article discusses the use of Persian-Tajik borrowings in textbooks on reading in primary grades of schools with the Uzbek language of instruction.*

***Key words**: language contacts, borrowings, lexical tier, history of language, Renaissance, mutual influence of languages.*

***Language**: English*

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***Scopus ASCC**: 3304.*

Introduction

In his works, Alisher Navoi makes extensive use of the flower, the cocaine and plants that serve it, the objects associated with the flower, as well as the many and varied creatures. At the same time, the great poet not only uses flowers and gulistans in the expression of his goals, but also devotes dozens of his ghazals to the whole. They have dozens of varieties of flowers: *nasrin, nastarin, narcissus, lily, lily, basil, henna, lily, tulip, rose, rhubarb, hazorguncha, saffron, sumanpar; herbs* reminiscent of a flower with a pleasant smell and beautiful appearance*: sunbul, love biscuit; ornamental* trees: *cypress, ar-ar, arguvon, shamshad*, etc. Namely: *guloroy* - decorated with flowers, gulrez - flower-splitter, gulposh - covered with flowers, dressed like a red flower, gulbang - a pleasant voice, nightingale's voice, bouquet - metaphorical sunlight, etc. serves unparalleled excellent. Many of these words are Persian.

Also, most of the above-mentioned expressions were used by the great Navoi in various variants by means of synonymy: gul, chechak, vard, shugufa. However, many of the phrases related to flowers have different meanings using homonymy like: gul (flower), gul (ornament), gul (bloom), gul (beloved), gul (baby), gul (human in general).), gul (measles). The scope of use of the concept of flowers in the works of the great poet is large and wide.

The main part

Words that have been introduced into Uzbek from other languages are called derivations. Words are learned from one language to another as a result of political, social, cultural and other connections between peoples.

The following diagram shows the sources of enrichment of the Uzbek lexicon.

Table 1.

Sources of enrichment of Uzbek lexicon						
Internal source			External source			
Talk about rubbish	Make a word		Borrowings from other languages			
	Morphological method	Syntactic method	From the Arabic language	From Persian-Tajik language	From Russian	From other languages

Synonyms play an important role in the development of our language, which arises on the basis of two different bases: on the basis of the internal capabilities of the language and as a result of borrowing words from another language. Be careful!

Table 2.

From Persian-Tajik language	In the Uzbek language
chorpoya	so'ri
Olov	o't
chopon	to'n
Kissa	cho'ntak
dasta	sop
buqa	novvos
jilt	muqova
oftob	quyosh
osmon	ko'k

We use many Persian-Tajik words in our speech: throne, karakht, badjahl, rooster, happiness, iron, fasting, sage, parta.

It is known that the Uzbek people have lived with the Iranian-speaking population for a long time, and in this sense, we meet many elements of commonality in their cultural and economic life. We have said above that any change in society is first and foremost reflected in language. This closeness to the way of life of the Uzbek people has affected the Uzbek language. «The Iranian languages that influenced the Uzbek language in ancient times are Sogdian and ancient Khorezm. During the Samanid dynasty (ninth to tenth centuries), Arabic was replaced by "Persian Dari" or Persian, a local language known as Dari, as a literary language. "Persian dari, the language of the Tajiks living in Khorasan, was the basis of the Persian literary language." In general, the influence of the Persian-Tajik language increased during the Samanid rule. As a result, Persian literary language completely supplanted Arabic from poetry and raised it to the level of science, literature and culture, as well as the official state language. As a result, only religious literature was written in Arabic, while secular literature was created in Persian-Tajik, which had a strong influence on the local Turkic languages, especially Uzbek. Cooperation between the two languages is an important factor in the phenomenon of Uzbek-Tajik bilingualism. E. Begmatov calls the phenomenon of Uzbek-Tajik bilingualism contact bilingualism, based on the fact that the Uzbek language differs in some respects from the interaction with other languages. “Such bilingualism is a rare phenomenon in the interaction of languages. Uzbek-Tajik bilingualism has another feature. This is the fact that Uzbek-Tajik bilingualism is a bilingual that has been going on for centuries. In this bilingualism, the interaction of languages is strong and noticeable".

It is known that the interaction of languages takes two forms. The first is in terms of the genetic closeness of languages, and the second is the closeness of languages in which there is no genetic relationship, that is, word acquisition. Russian linguist VN Yarseva concludes: “Socio-historical conditions only determine the direction of influence of one language on another. The results of the interaction between the two languages depend not only on the historical conditions that are a key factor in the development of the language, but also on the specifics of the structure of the language. The Uzbek language was influenced by the Persian-Tajik language in both ways.

In fact, "there are a lot of Tajik words in the modern Uzbek lexicon, and it is the second largest in the Uzbek lexicon after the Turkish words." Of course, these ideas belong to the general lexicon of the Uzbek language.

Another factor that has served as a source for Uzbek sectoral dictionaries is Iranian or Tajik words. This is especially true historically.

The ancestors of the Uzbek and Tajik peoples are one of the most ancient peoples of Central Asia, with high agricultural, water, handicraft, and urban culture, who lived together as indigenous peoples between the two rivers. Among the mastered strata, Persian-Tajik is the second largest language after Uzbek. Scholars have observed that the quantitative ratio of the Persian-Tajik lexical layer is basically the same in dictionaries, but the Tajik language and related words are much more and more actively assimilated than the Arabic lexical layer. Analyzing the lexical layers of the Uzbek dialects in the Oghuz dialect, O. Madrahimov writes: “When describing the lexical layer in this area, we need to mention the following factors.

Tajik words with the same form and meaning in Oguz dialects and literary language.

In the lexicon of literary language there are similarities in meaning, recorded in one form or another, but in the dialect the functional range of such words is much wider, the branches of meaning are much wider. For example: ba: d, ba: dgir, be: navo, jora, mahi, khosh, khush, bodray, sarhovuz, me: rab and b ". Such words are given in annotated, terminological and industry dictionaries.

According to the linguist B. Jorayev, the observation of the dialects of the Upper Kashkadarya city led to the conclusion that the representatives of these dialects from ancient times lived close to the Persian-Tajik peoples and were in close contact with them. In the Tajik language, two words, each of which is independent and has a different meaning, are combined in the dialect and have the same meaning. For example, the word pechcheburush means only baked bread (pechcheburush, nolleddi, eat it), and in Tajik it means to be cut into pieces, slices, pieces and twists: cut, cut, pattern meanings such as.

Persian-Tajik words as a lexical layer, in addition to words and terms that have an independent meaning in the lexicon of Uzbek dialects, compound, even, compound words, suffixes or suffixes in the structure of various expressions and compound units. There are also Uzbeks. For example: goodness, milk, profit, bom boliv, etc.

In addition, the word malaria in the literary language is used in parallel with fever, fever, as well as the Tajik version of the word, varaja dialect.

In short, in Uzbek sectoral dictionaries, words belonging to the Persian-Tajik stratum have a larger volume than other lexical strata. Here are just a few examples of related terms and phrases:

The sectoral dictionaries of the Uzbek language contain a variety of kinship terms, which indicates that the Uzbek people live together with the Tajik people, and that the way of life is the same.

Words denoting kinship, kinship, kinship, brotherhood, brotherhood, uncle, aunt, aunt, uncle, and so on.

Words denoting family, family relations: the eldest son of a dogma, bachchamardum, like a young child, hash, cousin.

It should be noted that the terms related to the Persian-Tajik language are much more than the words created by the Uzbek language with its own capabilities. Observations show that such words are very rich in their layers. *Baba, bova, ba: ba, ena, aya, opa, jezza, chicha, jizde, ata, aka, uka, singil, avsin, agayi* and others.

List of Persian words in elementary school textbooks:

2nd grade textbook: *gul, oshyon, nabira, poda, hafta, toza, chorraha, chehra, xonadon, tog'ora, garov, bozor, dev, to'p, chang, shahar, ruhsor, oshna, navo*

In general, words belonging to the Persian-Tajik language are given and interpreted and widely used in the same way as in Uzbek sectoral dictionaries and annotated dictionaries. Examples: *Andarmon, Andisha, Anjir, Poliz, Barg, Dasturxon, Gavron, Gado, Gavhar, Gajakdor, Gazanda, Galagov,Ganjina, Gap, Garmsel. Garov, Gektar* and others.

Conclusion

In particular, the Uzbek language is enriched on the basis of external sources through Persian, Arabic and Russian words borrowed from other languages. Most of the words related to science, statehood, and law are derived from Arabic, while most of the words related to professions are derived from Persian-Tajik.

Also, if there is a series of consonants at the end of a word, it means that the word is derived from Persian-Tajik. For example, words such as pomegranate, leaf, garden, capital, child, curtain, fasting, Sunday, humility, farmer, happiness, throne, wise are Persian-Tajik words.

We can see that in our language, as a result of borrowing words from the Tajik language, there are both pairs and compound words. For example, a couple of words such as anger, wedding, bitterness, health, as well as a combination of words such as sweet, shelter, neighbor, naked, butcher. We can cite.

It is obvious that the Uzbek lexicon is rich in Persian-Tajik words. These words are firmly entrenched in our language without losing their meaning.

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QR – Issue QR – Article

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ASSOCIATIVE FIELDS OF THE COLLECTIVE AND INDIVIDUAL CONSCIOUS

Abstract: *The problems of associative fields forming have been in the central place in the research of the linguists since the last century. The present article is devoted to revealing the matter of forming the collective and individual associative fields in Uzbek linguistics. The aim is to show the difference between the types of associative fields and the ways of forming them. The methods of free associative experiment and chain associative experiment have been used with participation of 80 respondents, in particular Uzbek language speakers. As the words-stimuli 160 lexemes with the archiseme "art" were given to the respondents. The results of the experiments have shown the differences between the two methods and forming the individual and standard association. The standard associations are enlisted into the associative dictionary under the archiseme "Art".*

Key words: *associative field, associations, word-stimulus, word-reaction, method, free associations, chain association, nucleus, periphery, respondent, individual, collective, art, experiment.*
Language: *English*
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Introduction

This study focused on the types of associative fields, mainly the collective and individual.

In the scientific literature, the concept of the associative field is distinguished by its belonging to an individual person or to the group of people. Associative fields are characterized by the most common associative reactions. It is known that each associative field consists of a nucleus, peripherals at different distances, and rare, occasional reactions, which are distinguished by their individuality and, in some cases, their specificity. In the experiment using the method of free associations the community associative field units are manifested. The experiment conducted by the method of the free associations is a major source in demonstrating the mental equivalents of semantic fields and in uncovering the connections that exist in the minds of language speakers. In describing the meaning of a word, the results of the associative experiment are as important as explanatory dictionaries. The connection between the psychological basis of the association and the semantic components of a word meaning is evident in associative experiments [5].

Along with the experiment of the free associations, the chain associative experiment also has a special place in the study. In doing so, we examined the individual associative field of the individual.

The main part

The associative field does not stand the same, because it is constantly changing, reshaping and replenishing due to the perceptual-cognitive-affective experience accumulated by the person. A number of scholars have expressed their views on this and have tried to scientifically substantiate the variability of the associative field. In particular, A.I. Navalikhina evaluates it as a separate system, emphasizing that the associative field has emergent that is, evolving and constantly changing features. The individual fields of different individuals are so subjective that it is impossible for two identical associative fields to emerge [9]. According to L.N. Churilina, even within one language, there is no similar individual thinking, which repeats the associative reactions [2]. A.I. Navalikhina examines the issues of the associative field from a psycholinguistic point of view and describes the mental dictionary of the person not as a passive resource, but as a constantly changing dynamic functional system [9]. This means that a person's individual lexicon is constantly changing and enriched by the addition of new words. This is due to personal experience, and each person's individual lexicon is formed regularly throughout his or her life.

According to A. Combs, consciousness is a constantly changing process that is defined separately for each individual. A person's mood, memories can affect the mind [7]. In associative experiments, an individual's consciousness is expressed, and in the process of experiment, the person's perceptions emerge accumulated through life experiences. Therefore, the associative field is always changing, dynamic in nature, and is characterized by the fact that as a person's life experience increases, the word-reactions to the word-stimulus change.

The elements of the individual associative field represent the complete set of word-reactions to the word-stimulus, and determine the psychological meaning of the word as belonging to the individual. The individual associative field forms a complex system of individual lexicon, covering the past, present, and future. While the words in a person's individual lexicon is related to the past and present experiences, the future experiences determine the change in the word structure in a person's lexicon and the addition of new words. The associative field therefore gives rise to the synchronous motion of the three times [9]. It can be seen that the associative field has several properties and differs from the semantic field by its constant changeability. Thus, the associative field of a word-stimulus represents the total set of words-reaction.

Associative fields can be different in their types. V.P.Abramov distinguished the following types of the associative fields as general and individual; permanent and temporary; simple and complex; artificial and natural; scientifically based and simple; mandatory and voluntary. The above species are related to each other, and generalizations can be observed between some of them. For example, it is observed that the collective fields are general, but also permanent, natural and mandatory. Individual fields, on the other hand, are temporary, voluntary, in which the associative individual fields are not always the same and changeable, the change of word meanings is formed on the basis of social and communicative relations of language owners [1].

The present paper deals in the study of emergence of the two types of the associative fields as collective and individual. In order to reveal the emergence of the associative fields we used the methods of free association and the method of chain association. Of course, we did not suggest our own methods, as the methods for defining associative fields have been already elaborated. Our aim is to find out which method can reveal the essence of the collective and individual associative fields.

The first experiment was conducted by the use of the method of free associations. This method is used in the fields of psychology, linguistics and psychiatry in solving theoretical and practical problems due to its simplicity and ease. R. Gottsdanker points out that the use of a simple method in the experimental process leads to the positive results, because the more complex the experiment, the more artificial the results, the more uncertainty is introduced into the work, the more ambiguous answers appear outside the given task [4]. Researchers point out that not only the socio-biological and psychological state of the respondents, but also the location of the experiment, the number of subjects, the weather and other similar external conditions should be taken into account. However, in this experiment, only internal factors, i.e. the individual, were considered and external factors were not taken into account.

Students of the Faculty of Philology and Foreign Languages of Fergana State University and people of different ages, profession from outside were selected for the experiments. The total number of participants was 80, all of whom spoke Uzbek.

The students involved to participate in the experiment were given a list of archetypal words for “art” and were asked to write imaginary associations using these words. The total number of words was 160, and they consisted of verbs, nouns, adjectives and adverbs. They were then given 5 seconds to write the associations after each word as they read the words. Some researchers recommend that the experiment should not exceed 20-30 words. However, the main goal was a thorough analysis of the “art” archetypal lexemes; a list of the most frequently used words in the Uzbek language. This process can be observed in the research of E.I.Goroshko and T.A.Yershova [3; 11]. We consider this process to be the most convenient in conducting the experiment, so we also relied on this method of the researcher.

In this experiment, the respondents were advised to respond to the given word with only one word that came to mind. Through this experience, it was possible to observe the verbal connections of the collective associative field. The core layer of the associative fields of archetypal lexemes of the Uzbek language "art" was formed by the most repeated words. The results of this experiment show the formed collective associative field of the speakers of Uzbek language and the associative dictionary under the archeseme of “art”.

The second associative experiment also focused on the individuality of associations, how individual responses are formed, and the study of factors influencing them. The chain associative experiment was used to express the characteristics of individual associations. However, some researchers, as A.A.Leontev and Yu.N. Karaulov, accept this method as a type of the free associative method. The respondents were asked to write down any words that came to mind that corresponded to the words given. They completed the task given within their imagination. 10 people took part in the experiment. The experiment was called a chain associative experiment because it involved not only the reactions of the motivational word, but also the reactions to a series of words besides the word-stimulus.

This experiment reflects the characteristics of the individual associative field. Based on the results of the experiments, we tried to distinguish between individual and collective associative field characteristics in the study. While we differentiated between individual and collective associative fields, we shaped the individual associative field according to the chain associative experience. After the participants in the experiment were given a word-stimulus, we placed the words related to that word in the associative field.

It is obvious that factors such as personal experience and age play an important role in the formation of associations. As an individual's personal experience increases, so do associative field reactions. The associative field expands elastically. The collective associative field is formed by summing up the reactions of those who participated in the experiment of the free associations. We placed a large number of repeated reactions in the associative field nucleus, moderately repeated words in the field base, and single reactions in the field periphery. Because the individual associative field is the field of a single person, there will not be the repeated words-reactions. Therefore, we used a logical approach to defining the nucleus and periphery of the individual associative field and tried to express it using the concepts of metadenotate and metadesignat, suggested by Yu.N.Karaulov[6].

The concepts of metadenotate and metadesignat show that the associative connections in the field are interconnected in content. We placed strong associative connections between the word-stimulus and the word-reaction at the core and base of the field and unproven, random associative reactions at the periphery of the field. These unproven and random associations are the weak ones. As strong and weak associations, we meant associative reactions that can and cannot be linked to the meaning of the suggested word-stimulus. It is difficult to relate weak reactions to the core of the field on the basis of semantic connections, and we can only interpret them on the basis of phenomena of inner excitement, affect or ambiguity, and homonymy. However, it can be said that the placement of individual field lexemes in field layers in this way does not fully reflect the consciousness and thinking process of the people being examined.

D. Lutfullaeva emphasizes that associative dictionaries express the attitude of language speakers to national and cultural values and their relevance to the science of cultural studies [8]. The scientist conducted research on the structure and formation of the associative field, indicating the amount of word-reactions given to the word-stimuli "cradle" and "school". In her experiment, the number of respondents was 22, with 281 associative reactions per word. Thus, the researcher included more than 10 associations of each person participating in the experiment into the associative field. In our study, one word-reaction to each given word-stimulus of 80 people who participated in the experiment of the method of free associations was taken into account, and on this basis a collective associative field was formed.

Conclusion

In the chain associative experiment, word-stimuli were distributed to 10 people and they responded until their mind becomes empty. It became clear from this experiment that when more than 10 words were given by the respondents as a word-reaction to the word-stimulus, the associative responses were also given to the next words besides the word-stimulus. Therefore, the words formed in this experiment do not constitute an associative dictionary. We placed the words obtained through this experiment into individual associative field layers. Based on this, we included in the associative dictionary the first associations that came to the minds of the respondents through the method of free associations. Based on the repetition, stereotyped, i.e. standard associations of Uzbek speakers were identified.

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ORTHOGONAL TRANSFORMATION OF A QUADRATIC SHAPE IN THE MAPLE ENVIRONMENT

Abstract: *A mathematical program for converting a quadratic form to a canonical form using an orthogonal transformation in the Maple environment has been developed, which allows the solution process to be carried out with minimal time and a high degree of automation.*

Key words: *Quadratic form, eigenvalues, eigenvectors, normalized vectors, orthogonal transformation.*
Language: *Russian*
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Scopus ASCC: *2600.*

ОРТОГОНАЛЬНОЕ ПРЕОБРАЗОВАНИЕ КВАДРАТИЧНОЙ ФОРМЫ В СРЕДЕ MAPLE

Аннотация: *Разработана математическая программа приведения квадратичной формы к каноническому виду с помощью ортогонального преобразования в среде Maple, которая позволяет с минимальными затратами времени и с высокой степенью автоматизации осуществлять процесс решения.*
Ключевые слова: *Квадратичная форма, собственные значения, собственные векторы, нормированные векторы, ортогональное преобразование.*

Введение

Многочисленные приложения квадратичных форм создают необходимость поиска и разработки менее трудоемких способов в применении результатов теории квадратичных форм, избегая сложный вычислительный процесс. Один из таких способ представляется в использовании современных интерактивных вычислительных систем, которые имеют свое развитие на современном этапе. Такие преимущества, как автоматизация решения, минимальная затрата времени, точный результат, избежание трудоемкости процесса доказывают рациональность их применения в теории квадратичных форм.

Рассмотрим задачу приведения квадратичной формы к каноническому виду посредством ортогонального преобразования в среде Maple. Пусть квадратичная форма от трех переменных имеет вид:

$$f\left(x_1,x_2,x_3\right)=c11x_1^2+c22x_2^2+c33x_3^2+c12x_1x_2+c13x_1x_3+c23x_2x_3$$

Для решения подключаем специализированный пакет линейной алгебры linalg. Вводим коэффициенты формы, квадратичную форму, коэффициенты симметричной матрицы A формы:

```
c11:=_;c12:=_;c13:=_c22:=_;c23:=_;c33:=_;
f1:=c11*X1^2+c12*X1*X2+c13*X1*X3+c22*X2^2+c23*X2*X3+c33*X3^2;
a11:=c11;a12:=c12/2;a13:=c13/2;a21:=a12;a22:=c22;a23:=c23/2;
a31:=a13;a32:=a23;a33:=c33;
```

```
A:=matrix(3,3,[[a11,a12,a13],[a21,a22,a23],[a31,a32,a33]]);
```

Используем команду *eigenvectors*, в результате которой в квадратных скобках будут записаны собственные значения матрицы, их кратности, а также соответствующие собственные векторы:

```
a2:=eigenvectors(A);
```

Для квадратичной формы $f(x_1,x_2,x_3)$ с 3-мя переменными возможны несколько случаев кратности собственных значений:1) кратность равна 1,т.е. собственные значения различны; 2) кратность равна 2-м первого собственного значения и 1 второго собственного значения ; 3) кратность равна 1 первого собственного значения и кратность равна 2 -м второго собственного значения; 4) кратность равна 3-м единственного собственного значения. . Все эти случаи должны быть прописаны в программе. Рассмотрим 1-й случай на примере квадратичной формы:

$$f(x_1,x_2,x_3)=6x_1^2+5x_2^2+7x_3^2-4x_1x_2+4x_1x_3$$

$$A:=\begin{bmatrix} 6 & -2 & 2 \\ -2 & 5 & 0 \\ 2 & 0 & 7 \end{bmatrix}$$

$$a2 := [6, 1, \{[1, -2, -2]\}], [3, 1, \{[-2, -2, 1]\}], [9, 1, \{[-2, 1, -2]\}]$$

Как видно, собственные значения различны и имеют кратность равную 1. Разделяем $a2$ и выделяем в первых двух тройках λ_i, k_i и собственные векторы:

```
a3:=a2[1];lambda1:=a3[1];k1:=a3[2];v1:=a3[3];
a4:=a2[2];lambda2:=a4[1];k2:=a4[2];
```

$$a3 := [6, 1, \{[1, -2, -2]\}]$$
$$\lambda 1 := 6$$
$$k1 := 1$$
$$v1 := \{[1, -2, -2]\}$$
$$a4 := [3, 1, \{[-2, -2, 1]\}]$$
$$\lambda 2 := 3$$
$$k2 := 1$$

Так как в программе необходимо рассмотреть все случаи, то каждый из них запишем в цикле с условным оператором *if.* Для этого в цикле сравниваются значения кратности первого и второго собственных значений. При их равенстве следует, что и кратность третьего собственного значения так же будет равна кратности первого и второго. Тогда собственные векторы симметричной матрицы ортогональны, так как соответствуют различным собственным значениям. И для составления матрицы ортогонального преобразования каждый собственный вектор необходимо нормировать. Далее, записываем каждую координату ортогональных и нормированных векторов, как элемент требуемой матрицы:

```
if (k1=1)and(k2=1) then S1:=v1[1];nS1:=normalize(S1);
q11:=simplify(nS1[1]);q21:=simplify(nS1[2]);;q31:=simplify(nS1[3]);
v2:=a4[3];S2:=v2[1];nS2:=normalize(S2);
q12:=simplify(nS2[1]);q22:=simplify(nS2[2]);;q32:=simplify(nS2[3]);
a5:=a2[3];
lambda3:=a5[1];k3:=a5[2];v3:=a5[3];S3:=v3[1];nS3:=normalize(S3);
q13:=simplify(nS3[1]);q23:=simplify(nS3[2]);;q33:=simplify(nS3[3]);
end if;
```

При нахождении элементов матрицы Q, использована команда *simplify* для упрощения выражений , полученных при нормировании векторов . В результате матрица ортогонального преобразования будет вычислена и проверена на ортогональность командой *orthog*:

$$Q:=\begin{bmatrix} \frac{1}{3} & \frac{-2}{3} & \frac{-2}{3} \\ \frac{-2}{3} & \frac{-2}{3} & \frac{1}{3} \\ \frac{-2}{3} & \frac{1}{3} & \frac{-2}{3} \end{bmatrix}$$

true

Записываем ортогональное преобразование переменных , используя элементы матрицы Q:

sys3:={q11*z1+q12*z2+q13*z3=X1,q21*z1+q22*z2+q23*z3=X2,q31*z1+q32*z2+q33*z3=X3};

Покажем, что для ортогональной матрицы Q справедлива формула $Q^T AQ = D$. Для этого используем команды *transpose* - транспонирование матрицы Q и *multiply*- умножение матриц:

QT:=transpose(Q);
QTA:=multiply(QT,A);
QTAQ:=multiply(QTA,Q);

$$QT := \begin{bmatrix} \frac{-2}{3} & \frac{1}{3} & \frac{-2}{3} \\ \frac{1}{3} & \frac{-2}{3} & \frac{-2}{3} \\ \frac{-2}{3} & \frac{-2}{3} & \frac{1}{3} \end{bmatrix}$$

$$QTA := \begin{bmatrix} -6 & 3 & -6 \\ 2 & -4 & -4 \\ -2 & -2 & 1 \end{bmatrix}$$

$$QTAQ := \begin{bmatrix} 9 & 0 & 0 \\ 0 & 6 & 0 \\ 0 & 0 & 3 \end{bmatrix}$$

Далее, записываем ортогональное преобразование переменных с элементами матрицы Q в виде системы:

sys3:={q11*z1+q12*z2+q13*z3=X1,q21*z1+q22*z2+q23*z3=X2,q31*z1+q32*z2+q33*z3=X3};

$$sys3 := \{-\frac{2\,z1}{3} - \frac{2\,z2}{3} + \frac{z3}{3} = X1, -\frac{2\,z1}{3} + \frac{z2}{3} - \frac{2\,z3}{3} = X3, \frac{z1}{3} - \frac{2\,z2}{3} - \frac{2\,z3}{3} = X2\}$$

И последнее, записываем приведенную квадратичную форму f с новыми переменными, используя условный оператор *if*:

if (k1=1)and(k2=1) then f2:=lambda1*y1^2+lambda2*y2^2+lambda3*y3^2;
end if;

$$f2 := 9\,y1^2 + 3\,y2^2 + 6\,y3^2 .$$

Рассмотрим 2-й случай на примере формы :

$$f(x_1, x_2, x_3) = 8x_1^2 - 7x_2^2 + 7x_3^2 + 8x_1x_2 - 2x_1x_3 + 8x_2x_3$$

Вводим коэффициенты формы и саму квадратичную форму, затем коэффициенты симметричной матрицы A формы, аналогично предыдущему рассмотренному случаю. Используем команду *eigenvectors* и имеем :

$$a2 := [9, 2, \{[-1, 0, 1], [4, 1, 0]\}], [-9, 1, \{[1, -4, 1]\}] .$$

Разделяем $a2$ - выделяем первую квадратную скобку и разделяем эту скобку. Затем во второй скобке собственное значение и его кратность. Так как одному собственному значению соответствуют 2 собственных вектора, которые не являются ортогональными. Поэтому решаем систему с собственным значением λ_1 и находим собственный вектор, затем систему с собственным значением λ_2 и находим соответствующий собственный вектор. Затем находим векторное произведение этих векторов, который и будет собственным вектором, ортогональный собственному вектору с собственным значением λ_1. Таким образом, у собственного значения λ_1 имеется 2 ортогональных собственных вектора:

$$V11 := [-1, 0, 1]$$

$$S2 := [4, 2, 4]$$

Для собственного значения с кратностью 1 поступаем, как в выше рассмотренном случае. В результате имеем, ортогональное преобразование переменных с элементами матрицы Q в виде системы и приведенную квадратичную форму f с новыми переменными:

$$sys3 :=$$

$$\left\{ \frac{z2}{3} - \frac{2\sqrt{2}\,z3}{3} = X2, -\frac{\sqrt{2}\,z1}{2} + \frac{2\,z2}{3} + \frac{\sqrt{2}\,z3}{6} = X1, \frac{\sqrt{2}\,z1}{2} + \frac{2\,z2}{3} + \frac{\sqrt{2}\,z3}{6} = X3 \right\}$$

$$f2 := 9\,z1^2 + 9\,z2^2 - 9\,z3^2$$

Команда *eigenvectors* системы Maple по своему усмотрению записывает тройки с позицией (собственное значение, кратность, собственный вектор).Это означает, что могут иметь, как случай 2) , так и случай 3) при новой загрузке программы. Поэтому, аналогично записываем программу для 3-го случая. Объединяем все случаи в одну программу. В результате программа нахождения ортогонального преобразования будет состоять из циклов в которых осуществляются вычисления для собственных значений с разными кратностями. Более того, в программе заложен выбор того или иного цикла. исходя из исходных данных. В заключении программы вносятся команда правильности вычисления матрицы ортогонального преобразования, команды, которые позволяют визуально увидеть верность для справедливость теоретических выводов. а также формируются циклы для записи приведенной квадратичной формы:

```
if (k1=1)and(k2=1) then f2:=lambda1*z1^2+lambda2*z2^2+lambda3*z3^2;
end if;
if (k1=1)and(k2=2) then f2:=lambda1*z1^2+lambda2*z2^2+lambda2*z3^2;
end if;
if (k1=2)and(k2=1) then f2:=lambda1*z1^2+lambda1*z2^2+lambda2*z3^2;
end if;
```

Эта программа является автоматизированной и может применяться для квадратичных форм с 3-мя вещественными переменными. К достоинствам программы следует отнести избежание сложных вычислений, что непосредственно влияет на трудоемкость процесса решения и возможность минимальных временных затрат вычисления.

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CONSTRUCTION OF AN ORTHOGONAL MATRIX BY MEANS OF COMPUTER ALGEBRA MAPLE

Abstract: *An automated mathematical program for constructing a 4th-order orthogonal matrix in the Maple system has been developed. The use of the computer algebra package significantly reduced the complexity of the computational process and increased its speed.*

Key words: *Gram-Schmidt orthogonalization method, orthogonal matrix, orthonormal columns.*
Language: *Russian*
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ПОСТРОЕНИЕ ОРТОГОНАЛЬНОЙ МАТРИЦЫ СРЕДСТВАМИ КОМПЪЮТЕРНОЙ АЛГЕБРЫ MAPLE

Аннотация: *Разработаны автоматизированная математическая программа построения ортогональной матрицы 4-го порядка в системе Maple. Применение пакета компьютерной алгебры существенно снизило трудоемкость вычислительного процесса и повысило его скорость.*

Ключевые слова: *Метод ортогонализации Грамма – Шмидта, ортогональная матрица, ортонормированные столбцы.*

Введение

В настоящее время научное программирование претерпевает серьезную трансформацию: развиваются интегрированные среды, основанные на алгоритмических языках, растет применение универсальных математических систем (Maple, Mathematics, MATLAB. MatCad и др.). Эти системы имеют дружественный интерфейс, реализуют множество стандартных и специальных математических операций, снабжены мощными графическими средствами и обладают собственными языками программирования. Все это предоставляет широкие возможности для эффективной работы специалистов разных профилей, о чем говорит активное применение математических пакетов в научных исследованиях и в преподавании.

Рассмотрим построение ортогональной матрицы в пакете компьютерной алгебры Maple . Пусть матрица имеет вид:

$$A=\begin{pmatrix}1&1&1&0\\1&0&0&0\\0&1&0&0\\0&0&1&1\end{pmatrix}$$

скалярное произведение векторов столбцов матрицы определяется по формуле:

$$(a_i,a_j)=(a_i)^T\cdot a_j=(a_{1i},a_{2i},\dots,a_{ni})^T\cdot\begin{pmatrix}a_{1j}\\a_{2j}\\\dots\\a_{nj}\end{pmatrix}$$

Как известно для построения ортогональной матрицы используют метод ортогонализации Грамма – Шмидта для исходной матрицы A . Для этого необходимо подключить специализированный пакет *LinearAlgebra*. Вводим элементы квадратной матрицы A:

```
restart;
with(LinearAlgebra);

a11:=1;a12:=1;a13:=1;a14:=0;a21:=1;a22:=0;a23:=0;a24:=0;a31:=0;a32:=1;a33:=0;a34:=0;a41:=0;a42:=0;a43:=1;a44:=1;
A:=Matrix(4,[[a11,a12,a13,a14],[a21,a22,a23,a24],[a31,a32,a33,a34],[a41,a42,a43,a44]]);
```

$$A := \begin{bmatrix} 1 & 1 & 1 & 0 \\ 1 & 0 & 0 & 0 \\ 0 & 1 & 0 & 0 \\ 0 & 0 & 1 & 1 \end{bmatrix}$$

Как известно, матрица A должна быть невырожденная, задаем условие с помощью условного оператора *if*:

```
DETA:=Determinant(A);
if DETA<>0 then print('Nevirogdena');
else print('Virogdena');
fi;
```

$$DETA := 1$$

Nevirogdena

Используя формулы:

$$b_1 = a_1 = (a_{11}, a_{21}, \ldots, a_{n1}),\ b_2 = a_2 - \frac{(a_2, b_1)}{|b_1|^2} b_1 = a_2 - \frac{1}{2} b_1,$$

$$b_3 = a_3 - \frac{(a_3, b_1)}{|b_1|^2} b_1 - \frac{(a_3, b_2)}{|b_2|^2} b_2 = a_3 - \frac{1}{2} \cdot b_1 - \frac{1}{3} \cdot b_2,$$

$$b_4 = a_4 - \frac{(a_4, b_1)}{|b_1|^2} b_1 - \frac{(a_4, b_2)}{|b_2|^2} b_2 - \frac{(a_4, b_{31})}{|b_3|^2} b_3,$$

вычисляем последовательно ортогональные столбцы b_1, b_2, b_3, b_4, используя команды *Multiply*, *Trancpose* :

```
B1:=Column(A,1);
A2:=Column(A,2);
A2B1:=Multiply(Transpose(A2),B1);
B1B1:=Multiply(Transpose(B1),B1);
B2:=A2-Multiply(B1,A2B1/B1B1);
A3:=Column(A,3);
A3B1:=Multiply(Transpose(A3),B1);
A3B2:=Multiply(Transpose(A3),B2);
B2B2:=Multiply(Transpose(B2),B2);
B3:=A3-Multiply(B1,A3B1/B1B1)-Multiply(B2,A3B2/B2B2);
A4:=Column(A,4);
A4B1:=Multiply(Transpose(A4),B1);
A4B2:=Multiply(Transpose(A4),B2);
A4B3:=Multiply(Transpose(A4),B3);
```

```
B3B3:=Multiply(Transpose(B3),B3);
B4:=A4-Multiply(B1,A4B1/B1B1)-Multiply(B2,A4B2/B2B2)-Multiply(B3,A4B3/B3B3);
```

$$B1 := \begin{bmatrix} 1 \\ 1 \\ 0 \\ 0 \end{bmatrix}, B2 := \begin{bmatrix} \frac{1}{2} \\ \frac{-1}{2} \\ 1 \\ 0 \end{bmatrix}, B3 := \begin{bmatrix} \frac{1}{3} \\ \frac{-1}{3} \\ \frac{-1}{3} \\ 1 \end{bmatrix}, B4 := \begin{bmatrix} \frac{-1}{4} \\ \frac{1}{4} \\ \frac{1}{4} \\ \frac{1}{4} \end{bmatrix}.$$

Из полученных столбцов B_1, B_2, B_3, B_4, составим матрицу B:

```
B12:=<<B1|B2>>;
B123:=<<B12|B3>>;
B:=<<B123|B4>>;
```

$$B := \begin{bmatrix} 1 & \frac{1}{2} & \frac{1}{3} & \frac{-1}{4} \\ 1 & \frac{-1}{2} & \frac{-1}{3} & \frac{1}{4} \\ 0 & 1 & \frac{-1}{3} & \frac{1}{4} \\ 0 & 0 & 1 & \frac{1}{4} \end{bmatrix}$$

Нормируем столбцы матрицы B и получаем ортонормированные столбцы Q_1, Q_2, Q_3, Q_4, второй аргумент *Euclidean* команды *VectorNorm* указывает на евклидову норму :

```
Q1:=VectorScalarMultiply(B1, 1 / VectorNorm(B1,Euclidean));
Q2:=VectorScalarMultiply(B2, 1 / VectorNorm(B2,Euclidean));
Q3:=VectorScalarMultiply(B3, 1 / VectorNorm(B3,Euclidean));
Q4:=VectorScalarMultiply(B4, 1 / VectorNorm(B4,Euclidean));
Q12:=<<Q1|Q2>>;
```

$$Q1 := \begin{bmatrix} \frac{\sqrt{2}}{2} \\ \frac{\sqrt{2}}{2} \\ 0 \\ 0 \end{bmatrix},\ Q2 := \begin{bmatrix} \frac{\sqrt{6}}{6} \\ -\frac{\sqrt{6}}{6} \\ \frac{\sqrt{6}}{3} \\ 0 \end{bmatrix},\ Q3 := \begin{bmatrix} \frac{\sqrt{3}}{6} \\ -\frac{\sqrt{3}}{6} \\ -\frac{\sqrt{3}}{6} \\ \frac{\sqrt{3}}{2} \end{bmatrix},\ Q4 := \begin{bmatrix} \frac{-1}{2} \\ \frac{1}{2} \\ \frac{1}{2} \\ \frac{1}{2} \end{bmatrix}.$$

Составляем матрицу Q:

```
Q123:=<<Q12|Q3>>;
Q:=<<Q123|Q4>>;
```

$$Q := \begin{bmatrix} \frac{\sqrt{2}}{2} & \frac{\sqrt{6}}{6} & \frac{\sqrt{3}}{6} & \frac{-1}{2} \\ \frac{\sqrt{2}}{2} & -\frac{\sqrt{6}}{6} & -\frac{\sqrt{3}}{6} & \frac{1}{2} \\ 0 & \frac{\sqrt{6}}{3} & -\frac{\sqrt{3}}{6} & \frac{1}{2} \\ 0 & 0 & \frac{\sqrt{3}}{2} & \frac{1}{2} \end{bmatrix}.$$

Проверить является ли матрица Q ортогональной возможно, применив команду *IsOrthogond*, указывая в скобках проверяемую матрицу. Ответ *true* означает истинность, а *false* ложность вычисления:

```
IsOrthogonal(Q);
```

$$true.$$

При разработке программы построения ортогональной матрицы 4-го порядка достаточно трудоемким оказался процесс ортогонализации столбцов исходной матрицы A. Этот процесс можно минимизировать, если воспользоваться командой *GrandSchmidt* $([a1, a2, ..., an])$, которая ортогонализирует линейно - независимую систему векторов $a_1, a_2, a_3, a_4 ... a_n$.

Для ее применения в нашем случае, матрицу A необходимо разбить на вектор– столбцы, найти базис этих вектор - столбцов и применить команду *GrandSchmidt*. Это возможно сделать для невырожденной квадратной матрицы, так как столбцы такой матрицы представляют линейную независимую систему (из теории линейной алгебры известно, что если у квадратной матрицы линейно зависимы строки (столбцы) , то определитель матрицы равен нулю):

```
B:=Column(A,1..4);
B1:=B[1];B2:=B[2];B3:=B[3];B4:=B[4];
B:=Basis([B1,B2,B3,B4]);
```

$$B := \begin{bmatrix}1\\1\\0\\0\end{bmatrix}, \begin{bmatrix}1\\0\\1\\0\end{bmatrix}, \begin{bmatrix}1\\0\\0\\1\end{bmatrix}, \begin{bmatrix}0\\0\\0\\1\end{bmatrix}$$

$$B1 := \begin{bmatrix}1\\1\\0\\0\end{bmatrix}, B2 := \begin{bmatrix}1\\0\\1\\0\end{bmatrix}, B3 := \begin{bmatrix}1\\0\\0\\1\end{bmatrix}, B4 := \begin{bmatrix}0\\0\\0\\1\end{bmatrix}$$

$$B := \left[\begin{bmatrix}1\\1\\0\\0\end{bmatrix}, \begin{bmatrix}1\\0\\1\\0\end{bmatrix}, \begin{bmatrix}1\\0\\0\\1\end{bmatrix}, \begin{bmatrix}0\\0\\0\\1\end{bmatrix}\right]$$

Применяем команду *GrandSchmidt*, для множества векторов *B* и получаем ортогональную систему векторов:

OS:=GramSchmidt(B);

$$OS := \left[\begin{bmatrix}1\\1\\0\\0\end{bmatrix}, \begin{bmatrix}\frac{1}{2}\\ \frac{-1}{2}\\1\\0\end{bmatrix}, \begin{bmatrix}\frac{1}{3}\\ \frac{-1}{3}\\ \frac{-1}{3}\\1\end{bmatrix}, \begin{bmatrix}\frac{-1}{4}\\ \frac{1}{4}\\ \frac{1}{4}\\ \frac{1}{4}\end{bmatrix}\right].$$

Множества векторов *OS* разбиваем на отдельные вектор- столбцы и составляем матрицу *OS* с ортогональными столбцами:

OS1:=OS[1];
OS2:=OS[2];
OS3:=OS[3];
OS4:=OS[4];
OS12:=<<OS1|OS2>>;
OS123:=<<OS12|OS3>>;
OS:=<<OS123|OS4>>;

$$OS := \begin{bmatrix}1 & \frac{1}{2} & \frac{1}{3} & \frac{-1}{4}\\ 1 & \frac{-1}{2} & \frac{-1}{3} & \frac{1}{4}\\ 0 & 1 & \frac{-1}{3} & \frac{1}{4}\\ 0 & 0 & 1 & \frac{1}{4}\end{bmatrix}$$

Далее процесс нормирования столбцов совпадает с выше описываемым. Таким образом, процесс построения ортогональной матрицы с применением команды *GrandSchmidt* более удобный и не вызывает громоздких вычислений, как метод ортогонализации Грамма – Шмидта.

Как ясно видно, рациональным методом преобразований матриц является метод с использованием средств компьютерной алгебры Maple. Этот метод обладает неоспоримыми преимуществами, к числу которых относится минимальная затрата времени, эффективность решения и его автоматизация.

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QR – Issue QR – Article

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DEFINING THE ROLE OF TANDEM METHOD IN TEACHING FOREIGN LANGUAGE

Abstract: *The article is devoted to the discussion of the method Tandem in recent foreign language teaching policy. It primarily tries to give the presentation on the origin and principles of it along with the latest development carried out world-widely by other language experts. It also facilitates the chance to show what peculiar characteristics of the method in contrast with others of which it varies greatly with its main stress on developing both linguistic and cultural knowledge of EFL learners. In other words, its principles are evaluated by two criteria of gaining proficiency in target language and raised cultural awareness.*

Key words: *Tandem method, tandem network, cultural awareness, conversation exchanges, linguistic objectives.*
Language: *English*
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Introduction

The bi-national association DFJW (German-French Youth Organization) was the first initiator of the idea developing a method named Tandem on the basis of audiovisual method by the late sixties in teaching foreign language in a bilingual environment. A very simple clear picture of the method was an exchange of communication between two people from a totally different origin and language. A wide range of exercises, different activities were shared between each other such as dialogues previously prepared to discuss with a partner. However, in Spain, by the late seventies there occurred an immense upheaval in the usage and form of the method which started to be similar to its present concept and application as a Tandem method, precisely, that joins two native speakers of a different language to learn each other's language through interacting in their own native language in an autonomous way. Spread among other universities in the late eighties led to conduct deep theoretical investigations, to which main focus was driven towards the role of it as autonomy. Eventually, a very crucial milestone in the systematization of its principles as a modern language teaching method was developed in the nineties with the foundation of *International Tandem Network* and following other researches.

To start with, it is worth mentioning that Tandem lessons are often to happen in two parts. They can be carried out subsequently to each other or in two separate days, however, each session should be dedicated to the one target language only (*first Tandem principle: languages must not be mixed).* Unfortunately, this fundamental principle has often been neglected in theoretical findings. However, it is considered critically important factor which facilitates learners either to challenge them in communicating in a target language or encourage to use it more. This also improves communicative goals of learners along with developing overall language proficiency. Surely, this fundamental aspect ascertains participants to use either of theirs native language in respective turns resulting in the improvement of communicative goals for them, which is often believed to be rather challenging. After all, one can not deny the importance of this basic principle as a key factor in achieving consistent development of learners via Tandem method.

It should be born in mind that in tandem sessions both partners take turns in their own native language and they perform the function of both teacher and linguist expert due to a proficiency in their mother tongue. It is more realistic and ideal as long as they are engaged to practice times that often last one hour for each. Tandem is not a job requiring to be paid by its members. It only assists to enrich knowledge gain of language partners simultaneously relieving them from any financial compensation. It demands only high commitment and involvement from partners so that they can take advantage in developing language proficiency with a native speaker. It is main purpose here is to increase self-confidence and cultural awareness of learners. Therefore, it develops language and cultural knowledge of them through mutual exchange of ideas.

It is beyond a doubt that teaching foreign language enjoys a variety of methods, techniques and strategies presenting teachers an ample of opportunities to choose the one the most suitable and ideal to the needs and analysis of target group. In addition, forms of instruction also offer different settings ranging from individual sessions between a teacher and a student to group context in which learners often work collaboratively with other group members. Each of them has their own potential merits and drawbacks. However, in tandem method there can be seen a totally different context compared with others. It bears a special type of consolidation which delivers both forms - natural setting and formal instruction along with enhancing the chance to practice with combining the best aspects of both. Regarding its basic characteristics, one can be sure with the fact that Tandem can be referred as a learning environment:

a) A context which develops both sociability and individualization

b) Main responsibility is regarded as autonomy which leads to one’s own decision-making, not individually, but ‘with’ or ‘in relation’ the other (of course, a partner’s)

c) Depends on sharing and repeating the roles of who maintain the power of knowledge

d) Teacher’s role takes another position which swings between being a teacher and counselor

Due to above stated reasons Tandem can not be estimated totally by only linguistic competence it also entails to have deep understanding both in language and culture as well. As a matter of fact, it is hard to gain linguistic estimation or error corrections from partners in a simple conversation. Here, it is often controlled subconsciously by applying daily life conversation rules and norms. So, as soon as we are in a chat with our friends it happens that rather than focusing on meaning we tend to concentrate on how we talk. In this situation, automatic use of language chunks prevent us from noticing any error in target language. On the contrary, these are corrected by our partners through compliments and further encouragement so that we can accommodate ourselves into target language easily, to which time limit and face to face contact can be another restriction. Besides, due to the implicit negative meaning of correction in daily life contexts and because of certain conversational rules, it is quite difficult for them to correct our errors, even when they consciously notice them. Regardless of our friends’ willingness, therefore, target language feedback will not arise in very detailed ways during ordinary conversation with them. It needs persistence and commitment that is rather unachievable for a long-term period unless there is specific goal implemented in the beginning. All in all, one can be sure with one fact that tandem is a particular type of method that develops language proficiency with both linguistic and cultural knowledge for its learners in an unusual way.

The following is a list of latest innovations in Tandem teaching:

- Since 1983, the TANDEM model has been regarded as another form of language learning, in which fundamental elements of language teaching are abroad, youth exchange, cultural tours, class correlation and similar cross-border activities are implemented in chosen establishments over Europe.
- The network has a cooperation with different educational organizations along with the E-Tandem Network,- established in 1992, and changed its name to the International E-Mail Tandem Network in 1993.
- 'TANDEM Fundazioa was established in 1994 for the improvement of scientific collaboration and educational and competitive training with their head quarters in Donostia/San Sebastian, Spain.
- In 2016, Tripod Technology GmbH presented a certificate from TANDEM Fundazioa to launch the Tandem app.
- The number of the schools under the TANDEM Network founded the organization 'TANDEM International' with head office in Bremen, Germany. Since March 2014, TANDEM International has been ruling the brand 'TANDEM'.

In sum, although ordinary conversations with foreign friends or in daily life abroad do offer good opportunities to practice a foreign language, they are not to be confused with Tandem conversations, for the above stated reasons.

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QR – Issue QR – Article

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APPROACHES TO TRANSLATING PROVERBS OF "KUTADGU BILIG"

Abstract*: The article comparatively analyzes the proverbs of the poem "Kutadgu bilig" by Yusuf Balasaguni in English. In particular, the research aims to investigate the questions of translations by R. Dankoff and W. May. The author gives adequate versions of authentic proverbs in modern English and Uzbek.*
Key words*: "Kutadgu bilig", proverbs, original and translation, translator skills.*
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Introduction

Yusuf Khos Hajib's epic "Kutadgu bilig" is a work of art that combines the advanced socio-political and moral-educational views of his time. It contains the author's views and opinions on the state and power of the Karakhanids of the XI century, the ruler and his courtiers, their duties and responsibilities, various social strata, their role in society and the spiritual and moral image, the role of science and enlightenment in life, human qualities. Yusuf Khas Hajib's views on the above issues are also noteworthy for his fine art and elegant poetics. As noted by one of the great "Kutadgu bilig" scholars B.Tukhliev, Yusuf Khos Hajib's work "Kutadgu bilig" has an important place in the history of literature of the Turkic peoples and is one of the brightest examples of artistic discoveries in world literature. The creation of "Kutadgu bilig" marks the first period in the history of Turkic literature in the development of classical poetry. The emergence of this work is not accidental, but reflects all the achievements of Turkish poetry as a legitimate phenomenon of the development of poetry of the Turkic peoples with an ancient history"[1]. Indeed, the symbolic images in the work, beautiful metaphors, sentimental parables, threats, allegories, repetitions, cries, such as impressive poetic arts, take the epic to a high artistic and aesthetic level. "Yusuf Khos Hajib has a keen sense of the power of words and the inner potential of the mother tongue. He writes, "I knew Turkish words like a wild mountain deer, but I taught them to how to behave" [2]

Methods and materials

The preparation and publication of the scientific-critical text of the work by the Turkish scholar Rashid Rahmati Arat in 1947 served as a basis for many Turkic scholars and translators. In particular, the epic was rewritten in English and Russian in 1983 by the American Turkologist and translator Robert Denkof ("Wisdom of royal glory") and the Russian poet and translator Sergei Ivanov ("Blagodatnoe znanie") on the basis of this scientific and critical text. Based on Ivanov's translation, the second English translation of the work, Walter May ("Beneficent knowledge"), saw the light of day. This work, which is the first example of the literature of the Turkic peoples, has become a spiritual treasure of the peoples of the world due to the hard work and skill of the translators. One of the factors that ensured its success was the fact that the translators also tried to reflect the art of the work vividly in the translation.

Proverbs created as the cream of centuries-old life experiences and conclusions of mankind have a special place in the folklore of the peoples of the world. Proverbs reflect the mentality of each nation, that is, their life experiences, conclusions, teachings, based on their worldview, way of life and thinking. In all genres of fiction, proverbs are used to prove ideas, to summarize, to brightly reveal the character traits of the protagonists. It is well known that the science of the art of using proverbs in a work of art is called the art of proverbs.

One of the arts actively used in the epic is "irsoli masal" (fable). "Irsoli masal (fable) is the art of using proverbs, parables and wise sayings in a speech or poem through a parable for a specific purpose"[3]. The poet proves his thoughts and opinions through folk proverbs, and before quoting them, he refers to the proverbs as "Turkish parable", "Turkish word", "Hear". English translators translate the phrases "Turkish parable", "Turkish word", "Hear what he says" as "the Turkish proverb", "the Turks have proverb", "Listen", "Hear".

Below we consider the translations made by R. Denkoff and W. May of the examples of parable art used in "Kutadgu bilig".

Yusuf Khas Hajib quotes the following proverb in the chapter on the virtues and benefits of language:

Сөзунни көдәзгил башын бармасун
Тилинни көдәзгил тышын сынмасун[4].

Meaning:
Be careful what you say
Be careful with your tongue so that your teeth do not break.

The above Turkic proverb in modern Uzbek has the following variants:

Тилингни тийгин, тишинг синмасин,
Бу ерда турганлар сенга кулмасин.;
Тилини тийган бошини қутқарар.;
Тилнинг бўшлиги бошга етар.;
Тил ёмони бўйинга сиртмоқ солар.;
Тил бошни ейди, қўл – ошни.;
Тил узуни бош ейди [5].
Гапиргандан гапирмаган яхшироқ,
Гапирувдим тегди бошимга таёқ.;
Ёмон тил бошга бало келтирар[6].

(Keep your tongue, do not break your teeth,
Let not those who stand here laugh at you;
He who restrains his tongue saves his head;
The emptiness of the tongue reaches the head .;
The tongue puts a bad noose around the neck;
The tongue eats the head, the hand eats the soup;
The tongue eats a long head [5].
Better a poor horse than no horse at all.
I spoke and touched my head with a stick;
Bad language brings trouble to the head [6].)

The skill of both translators in translating the above article into English is commendable. In particular, Denkof uses the conjunction "lest" so skillfully that as a result, the compound form of the proverb is preserved, even if the adverbial conjunction without the original conjugation becomes a conjunctive adverb in translation. The phrase "be careful" is recreated in translation using the word "guard" – "guard, control", which in turn indicates that the content is stored in a form close to the original:

"Guard your speech lest you lose your head, and guard your tongue lest you break your teeth [7].

(Control your words so that your head does not move, control your tongue so that your teeth do not break.)

U.May's translation:

So bridle your speech - and thus good health you choose,
So bridle your tongue - and your teeth you won`t lose! [8].

(Curb your words - you will have chosen a healthy health,
Curb your tongue - you won't lose your teeth)

Although May skillfully used the word "bridle" to enhance stylistic coloring, he thus removed the meaning from the original by saying "thus good health you choose". One of the important factors in the change in content in May's translations is that the translation was done from the translation, not from the original. Although S. Ivanov referred directly to the translation, May uses Ivanov's translation as a subtext in translating the epic. Here is the Russian version of the above article:

Придерживай речь – будешь цел и здоров,
Язык придержи – не лишишься зубов![9].

The compound "*будешь цел*" in Ivanov's interpretation is omitted in May's translation, and only the compound "*будешь здоров*" is included in the translation. Hence, it is not only a question of indirect translation, but also of the fact that the translator does not fully understand the meaning and, consequently, shortens the expressions. We think that if May had given up the abbreviations, the above verse would have sounded different:

So bridle your speech - thus will be safe and sound,
So bridle your tongue - you won't be left teeth without!

"Safe and sound" is one of the most active compounds in modern English, meaning "целый и невредимый" [10] in Russian and "eson-omon"[11] in Uzbek.

The above proverb currently has the following versions and options in English:

One`s tongue runs before one`s wit [12];
A still tongue makes a wise head [12];
Speak when you are spoken to [12];
A closed mouth gathers no feet [13];
If you keep your mouth shut, you won`t put your foot in it [14].

If we look at the etymology of the above proverb in English, its core goes back to the judgments in religious sources. In particular, we can see the following proverbs in the covenants of Solomon:

An English standard version: whoever guards his mouth preserves his life; he who opens wide his lips comes to ruin [15]. (He who guards his mouth saves his life; he who opens his lips wide will perish).

An American standard version: he that guards his mouth keep his life; but he that open wide his lips shall have destruction [15]. (He who guards his mouth saves his life; he who opens his lips wide will be ruined.)

There is a proverb in the chapter "Kutadgu Elig tells Aytuldi what the qualities of justice are":

Өрүн сүт билә кирсә эдгү қылық

Өлүм тутмағынча эвүрмәс йорық [4].

Meaning:

A good deed comes in with white milk,

It does not change its style until death comes. [4]

This proverb now occurs in the following forms:

Enter with milk and come out with soul;

A customer who enters with milk comes out with a bone;

The good deed that enters with milk is not broken until death;

He who enters with blood comes out with the soul [5].

Denkof's translation:

"If a good character enters a man with his mother's milk, it does not leave until death takes hold" [7]. (Good behavior enters a person with breast milk and does not leave him until death comes)

May's translation:

"He, who with his mother`s milk, goodness did suck,

Till death he`ll count goodness as best of good luck"[8].

(Whoever sucks good with breast milk,

He considers goodness until death to be the best of luck)

To fully understand the byte created by May, we turn to the translation of S. Ivanov:

"Кто доброе в детстве всосал с молоком,

До смерти он только к добру и влеком" [9].

(Whoever soaked the good in milk in his youth,

Doing good until death becomes his constant good deed)

The translation made by Denkof fully reflects the content of the proverb. The phrase "does not change its style" is translated by the American translator as "does not leave", and this is the meaning expressed in the verse. There is some confusion in May's translation. As a result of the translator's understanding of the Russian word "всосал" by replacing it with "сосал", "absorb" becomes "suck". In English, these words differ from each other only by the preposition "in".

The author of the article speaks of "the absorption of goodness in mother's milk" and implies that "only death deprives of good habits and qualities." At the end of the byte, the misunderstanding of the content intensifies. The root of the word "влеком" in Ivanov's translation is "влечь", which means "to lead", "to attract", "to drag and pull"[16]. But it is unclear to us why the translator used a completely different expression. Still, we tried to recreate the byte that May converted a bit:

He who with his mother`s milk sucked in goodness,

Till death he will surely led to goodness.

In the chapter "A Conversation with the Soldiers in the Palace", Ogdulmish advises Ozgurmish about friendship and enmity:

Бир-өк душман эрсә мин-ул йаслықы

Минин достун эрсә бир-ул азлықы [4].

Meaning:

Even if the enemy is one, the damage is thousands,

Even if you have thousands of friends, a few are equal together.

Through this proverb, which is embedded in the verses, Yusuf Khas Hajib emphasizes that gaining more brothers and sisters means that the harm of a single enemy is greater than the good of a thousand friends. There are different versions of this proverb today:

Дўстинг минг бўлса ҳам – кам,

Душманинг бир бўлса ҳам – кўп [5].;

Умрим узоқ бўлсин десанг, душман орттирма.;

Йўлдоши кўпнинг – қўлдоши кўп.;

Ақли кўпни дов олмас,

Дўсти кўпни ёв олмас.;

Дўст қидирмаган киши ўзига душман.;

Улфат қанча кўп бўлса,

Кулфат шунча оз бўлади [17].

(Even if your friend is a thousand - less,

Even if the enemy is one - many [5].;

If you want me to live long, do not make enemies;

Many companions - many companions.;

The mind can't do much,

His friend can't hunt much;

He who does not seek a friend is an enemy to himself;

The more friends,

The disaster will be so small.)

In Denkof's translation, examples of sentimental art are also found in poetic form, and we have analyzed only the proverbial part of the quartet translated into English:

A thousand friends are no better than one;

One enemy causes a thousand woes. [7].

It is clear from the translation that the translator did not fully understand the content of the verse: the phrase "even if you have a few thousand friends" is misinterpreted as "one faithful friend is better than a thousand false friends." As a result, the semantic inconsistency of the proverb in the original and the translation becomes apparent. The second component of the translation of the proverb is in line with the author's opinion: "a single enemy brings thousands of misfortunes and sorrows." Apparently, the translation of some of the articles in Denkoff's translation is also a bit far from the original. So how accurately did May translate the above proverb?

"Though foes may be few - great the woes they bring you

You have many friends - but they seem to be few! " [8]

(Although the enemy is small, they are of great concern,

Even if you have a lot of friends, they seem rare.)

Traditionally, here is S.Ivanov's translation:

И мало врагов, да велик от них вред,

И много друзей, а как будто их нет![9].

(Although the enemy is small, he loses a lot of them,

It seems like you don't have many friends)

Apparently, May was able to maintain the unity of form and meaning in this proverb, revealing the meaning of the verses.

Conclusion

Of course, translation is a complicated process. While the task of fully and accurately translating the content that the author intends to express is the most important condition of translation, it is not always possible to accomplish it. It is obvious that the proverbs in "Kutadg'u Bilig", which are examples of parables, have been translated in different ways, but R. Denkoff, U. May and S. Ivanov have translated them in English and Russian. Most of the proverbs in the work are directly translated, i.e. the descriptive narration of the proverb appears to be the main method in both English translators. While this certainly ensured that the content of the articles was understandable to the English reader, the fact that the translators did not resort to creative translation in the translation process, i.e., did not cite alternative variations and variants of the articles in English, is a simple instruction. In our opinion, it would be appropriate for the translators of the work to cite the equivalent variations of the proverbs and proverbs that are included in the verses as an appendix at the end of the work.

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COMPOSITIONS BASED ON TRIPLE ETHYLENE-PROPYLENE COPOLYMER AND MODIFIED EPOXY OLIGOMER MIXTURES

Abstract: *The properties of compositions based on mixtures with modified epoxy oligomers (ED-20/SKN-26-1-3,7/ 0,3- 3,4/0,6) and epoxy oligomer of triple ethylene-propylene copolymer - breaking strength, tear resistance, fatigue resistance to repeated deformation, metal bond strength and etc. improved.*
Key words: *triple ethylene-propylene copolymer, modified epoxy oligomer (MED-20), composition, modification, breaking strength, fatigue resistance to repeated deformation, tear resistance, wear coefficients.*
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Introduction

As we know, triple ethylene-propylene copolymer (SKEPT) is a product obtained from the copolymerization of ethylene-propylene-cyclopentadiene monomers in solution under the action of a complex catalyst formed as a result of a combination of alkyl derivatives of aluminum and vanadium halide derivatives [1, p. 16; 2. p. 17; 3.p. 9]. The saturation of its main chain makes the vulcanizers obtained from it resistant to high temperatures, ozone, as well as to the effects of aggressive environments, while maintaining its elastic and strength properties Along with the cheap sources of raw materials for triple ethylene-propylene copolymers [4. p. 53; 5. p. 57; 6. p. 3] .

Rubbers based on triple ethylene-propylene copolymer are highly resistant to swelling in water and have excellent dielectric properties.

Data from rubber compounds based on SKEPT have the ability to be operated at high temperatures (up to 150^{0}C) and are widely used. In addition to the above-mentioned positive properties of rubber based on the triple ethylene-propylene copolymer, one of its disadvantages is its low (weak) bond strength to metals and fabrics [7. p. 63; 8. p. 75; 9. p. 1258;]

The low vulcanization rate of the triple ethylene-propylene copolymer and its limited compatibility with unsaturated rubbers limit its widespread use in the rubber industry [10. p. 81]. The main goal is to develop rubber compositions based on the modification of the triple ethylene-propylene copolymer with oligomer with functional group (epoxy oligomer) in different proportions in order to improve the above-mentioned disadvantage, ie its compatibility with other rubbers.

Experimental part

We pre-modify the epoxy oligomer with liquid butadiene nitrile (SKN-26-1) rubber in different proportions at 60-70^{0}C for 4-6 minutes, then compositions based on mixtures of triple ethylene-propylene copolymer with modified epoxy oligomer

(MED-20) in different proportions are prepared. (Table 1)

Table 1. Composition based on SKEPT-60 and MED-20 mixtures

№	The code of the mixture / Components	1	2	3	4	5	6
1	SKEPT-60	100	96	96	96	96	96
2	ED-20	-	3.7	3.4	3.1	2.8	2.5
3	SKN-26-1	-	0.3	0.6	0.9	1.2	1.5
4	Sulfur	2.0	2.0	2.0	2.0	2.0	2.0
5	Tiuram	1.5	1.5	1.5	1.5	1.5	1.5
6	Captaks	0.5	0.5	0.5	0.5	0.5	0.5
7	ZnO	5.0	5.0	5.0	5.0	5.0	5.0
8	Stearic acid	1.0	1.0	1.0	1.0	1.0	1.0
9	Technical carbon P-234	50	50	50	50	50	50
	Total	160	160	160	160	160	160

Compositions based on the SKEPT-60/MED-20 mixture are prepared in 25-30 minutes according to the recipe shown in Table 1. The prepared compositions are removed from the shafts of the propeller in the form of a sheet 2.5-3 mm thick and placed on a rack and stored at room temperature for 6-8 hours in accordance with the standard. Samples from the composition mixtures are then cut and placed in molds (hearts) and vulcanized in a hydraulic vulcanization press at a temperature of 155 ± 2^{0}C for 30 minutes.

The obtained vulcanizers are studied for physical, mechanical and chemical properties after storage at room temperature for 4-6 hours. (Table 2)

Table 2. Physical and mechanical properties of compositions based on SKEPT-60/MED-20.

№	The code of the mixture / Indicators	1	2	3	4	5	6
1	Fracture strength limit, MPa	20.4	21.4	21.2	20.8	19.8	19.3
2	100% elongation strength limit, MPa	3.1	3.4	3.3	3.2	3.0	2.80
3	300% elongation strength limit, MPa	13.2	14.4	14.3	14.1	13.0	12.9
4	Relative stretch, %	382	425	430	440	443	449
5	Residual deformation, %	14.5	14.5	14.0	13.9	13.6	13.2
6	Tear resistance, kN/m	32.1	37.0	38.1	38.7	38.1	37.5
7	Elasticity on the back jump, %	40.0	43.6	42.4	43.8	43.9	44.3
8	Hardness on TM-2, ş.v	70.2	69.4	69.0	68.0	67.8	67.1
9	Resistance to fatigue in repeated deformation (V = 250 rpm, Ldin = 200%, t = 23^{0}C) min.p.	1.108	1.952	2.225	2.389	2.198	2.005

10	Wear coefficients after storage at 120^0C for 25 hours On $\mathcal{E}_p$ On $\mathcal{E}_L$	0.80 0.43	0.84 0.47	0.85 0.48	0.83 0.48	0.80 0.49	0.79 0.46
11	Contact strength with metal (pol.3), MPa	1.40	2.30	2.38	2.48	2.33	2.0

Results and discussion

The study of the properties of compositions based on SKEPT-60/MED-20(ED-20/SKN-26-1-3,7/0,3- 3,4/0,6) showed that the properties of the compositions based on SKEPT-60 are significantly improved compared to the unmodified composition: breaking strength limit 21.1 MPa against 20.4 MPa, tear resistance 32.1 kN/m against 36.8 kN/m, resistance to repeated fatigue 1,108 cycles against 2,145 cycles, resistance to metal contact 1.40 MPa against 2.95 MPA.

The improvement of the properties of the composition on the basis of SKEPT-60/MED-20 is based on the structural change of the chemical structure of the triple ethylene-propylene copolymer of MED-20 during vulcanization.

Conclusion

Improvement of adhesive properties and fatigue resistance of multiple properties of compositions based on SKEPT-60 and MED-20 mixtures in relation to the composition based on SKEPT-60 can be widely used in the production of compositions based on rubberized fabrics, conveyor belts, forming rubber products and mixtures with functional group rubbers.

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PHYSICAL ACTIVITY AND ITS IMPACT ON THE PREVENTION AND TREATMENT OF CARDIOVASCULAR DISEASES

***Abstract**: Over the past 4 decades, numerous scientific reports have examined the relationships between physical activity, physical fitness, and cardiovascular health. It is widely accepted that regular physical activity is beneficial for cardiovascular health. Frequent exercise is robustly associated with a decrease in cardiovascular mortality as well as the risk of developing cardiovascular disease. This article reviews the role of physical activity in the prevention and treatment of cardiovascular disease. It provides a brief summary of the latest knowledge based on systematic reviews and meta-analyses, as well as scientific and policy summary statements.*

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Introduction

Physical activity (PA) refers to any body movement produced by skeletal muscles that requires energy expenditure and is an essential means of promoting physical and mental health. Physical activity reduces the risk of many non-communicable diseases and benefits the community by strengthening social interaction and increasing people's involvement in their local community. PA is not only a public health issue. It also contributes to the well-being of local communities, protects the environment, and is an investment in future generations.

PA plays a crucial role in the prevention and treatment of cardiovascular disease. The human body evolved to be physically active, yet much routine bodily movement has been removed from our daily lives. This has been associated with many aspects of poor health. Industrialization, urbanization and mechanized transport have reduced physical activity, even in developing countries, so that currently more than 60% of the global population are not sufficiently active. Physical exercise is linked to longevity, independently of genetic factors. Physical activity, even at an older age, can significantly reduce the risk of coronary heart disease, diabetes, high blood pressure, and obesity, help reduce stress, anxiety and depression, and improve lipid profile. It also reduces the risks of colon cancer, breast cancer and ischemic stroke. Doing more than 150 minutes of moderate physical activity or 60 minutes of vigorous physical activity a week – whether at work, in the home, or elsewhere – can reduce the risk of coronary heart disease by approximately 30% (WHO 2008).

Both regular PA and higher levels of cardiorespiratory fitness (CRF) are associated with a reduced risk of developing hypertension, type 2 diabetes mellitus, atrial fibrillation, chronic kidney disease, heart failure, and cardiovascular events. Each 1-MET increase in exercise capacity is associated with a ~15% reduction in mortality in patients with and without cardiovascular disease. Indeed, a recent landmark study reported that the most physically active cohorts of men and women demonstrated 7- to 8-year gains in life expectancy (Li et al., 2018). Increased levels of habitual PA prior to hospitalization for acute coronary syndromes are also associated with better short-term cardiovascular outcomes. In contrast, individuals with low CRF have higher annual health care costs, higher rates of surgical complications, and are more likely to die prematurely than their matched counterparts.

Cardiovascular disease (CVD) is the leading cause of morbidity and mortality worldwide: more people die annually from CVDs than from any other cause. An estimated 17.9 million people died from CVDs in 2016, representing 31% of all global deaths. Of these deaths, 85% are due to heart attack and stroke. Over three quarters of CVD deaths take place in low- and middle-income countries. Out of the 17 million premature deaths (under the age of 70) due to noncommunicable diseases in 2015, 82% are in low- and middle-income countries, and 37% are caused by CVDs. Most cardiovascular diseases can be prevented by addressing behavioural risk factors such as tobacco use, unhealthy diet and obesity, physical inactivity and harmful use of alcohol using population-wide strategies. People with cardiovascular disease or who are at high cardiovascular risk (due to the presence of one or more risk factors such as hypertension, diabetes, hyperlipidaemia or already established disease) need early detection and management using counselling and medicines, as appropriate (WHO 2017).

Literature review

The term "physical activity" should not be confused with "exercise," a subspecies of physical activity. Physical activity is a planned, structured, repetitive activity designed to improve or maintain one or more components of fitness. In addition to exercise, physical activity also includes other types of active movements performed during play, work, active movement, housework, and recreation.

The following physical activities have similar benefits to health:

Pictute 1.

Source: https://www.who.int/cardiovascular_diseases/en/cvd_atlas_08_physical_inactivity.pdf

Physical inactivity is associated with many of the leading causes of death, chronic morbidity and disability. The apparent protective effect of being more active, and consequently less inactive, was identified first through studies of occupational activity over 50 years ago. Subsequent research has investigated different types, duration, frequency and intensity of activity in association with various cardiovascular, musculoskeletal and mental health outcomes. Today, there is a significant amount of literature quantifying and qualifying the role of physical inactivity as a risk factor and worldwide interest and efforts to increase levels of participation (Ezzati et al., 2004).

It is known that regular physical activity (PA) reduces the risk of premature death, cardiovascular disease, hypertension, type 2 diabetes, breast and colon cancer, as well as depression and falls in old age (Nocon et al., 2008). Its main effect, however, is to reduce the risk of cardiovascular events. The PURE prospective cohort study with 168,916 participants showed that greater physical activity was associated with a lower risk of cardiovascular disease and premature death in high-, middle-, and low-income countries.

PA was classified as low at less than 600 MET-minutes (<150 minutes of moderate-intensity physical activity per week), medium at 600-3000 MET-minutes (150-750 minutes of physical activity per week), and high activity at more than 3000 MET-minutes (>750 minutes of physical activity per week). There were 5334 deaths (1294 cardiovascular deaths and 4040 non-cardiovascular deaths) over 6.9 years. When stratified by physical activity, with an increase in activity from low to moderate to high for all outcomes except cardiac deaths, there was a gradual decrease in frequency of occurrence by age and sex.

Participants who followed the physical activity guidelines had lower rates of all outcomes based on age and sex (Lear et al., 2017). A direct correlation between endothelial dysfunction and the development of cardiovascular risk factors has been proven. Improved parameters of endothelial function, oxidative stress and autonomic function may be an explanation for the beneficial effect of exercise (Millar et al., 2013).

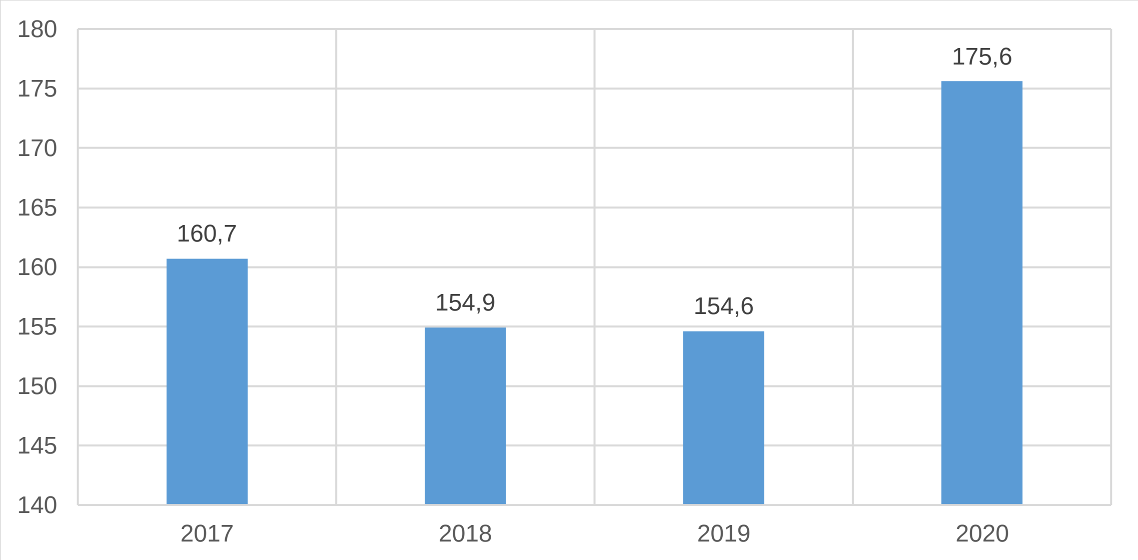
The main question to answer is: can heart rate (HR) be considered as an independent risk factor for cardiovascular complications or is it a marker of cardiovascular de-training?

HR is determined by the activity of autonomic nervous system, the content of circulating hormones in blood and the training of cardiovascular system, which directly depends on the level of physical activity (Verrier 2009, Jensen 2012). Given the known relationship between high physical fitness and low HR (Millar et al., 2013), low FA may be an important aggravating factor with regard to cardiovascular event risk. This is confirmed in a prospective cohort study conducted in Copenhagen (Jensen et al., 2013). The study investigated the significance of elevated resting heart rate in middle-aged men. FA was assessed by cycle ergometry. The result of this study was the conclusion that heart rate is a risk factor for death regardless of physical fitness and other potential risk factors. A high level of physical fitness serves as a strong predictor of longevity (Millar et al., 2013), which is also due to the positive effect on bone mineral density (Herbert et al., 2018. In the Paris study, resting HR was a predictor of death, and especially sudden death, taking into account the duration of physical activity (Jouven et al., 2005). However, the main part of the study included subjective estimation of FA level, and in some cases this information was not assessed. In the Copenhagen study, all participants had their oxygenation determined and their FA assessed at leisure time. It was found that people with low FA at high resting HR had a worse prognosis than those with low HR. One might suggest that high resting HR is not a marker of low FA but an additional risk of cardiovascular of cardiovascular complications (Jensen et al., 2013).

Nutrition, physical activity and obesity in Uzbekistan

Intercountry comparable overweight and obesity estimates from 2008 (WHO 2013) show that 44.2% of the adult population (> 20 years old) in Uzbekistan were overweight and 15.1% were obese. The prevalence of overweight was higher among men (45.1%) than women (43.4%). The proportion of men and women that were obese was 12.8% and 17.4%, respectively. Adulthood obesity prevalence forecasts (2010–2030) predict that in 2020, 13% of men and 20% of women will be obese. By 2030, the model predicts that 14% of men and 25% of women will be obese. The number of deaths in January-December 2020 amounted to 175.6 thousand people and, compared to the same period of 2019 (154.6 thousand people), increased by 21.0 thousand people (Figure 1).

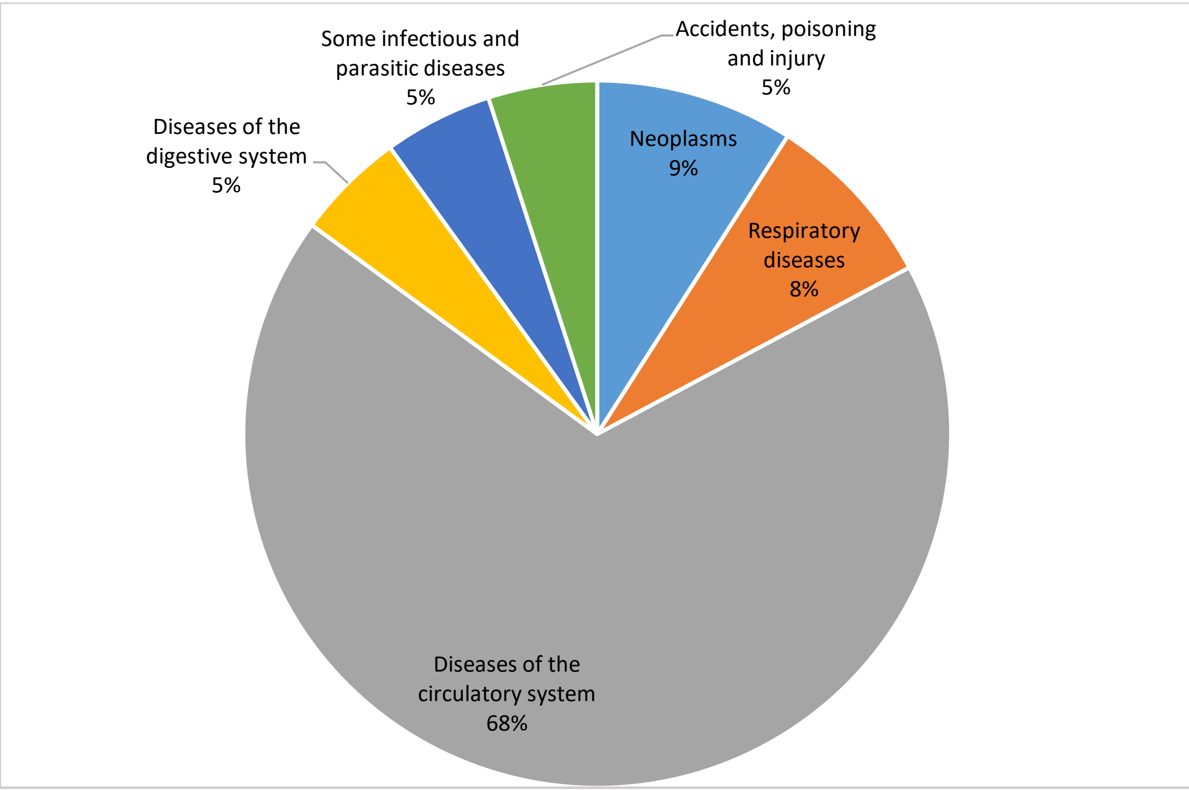
Figure 1. The number of deaths in the Republic of Uzbekistan
(for January-December 2020, thousand people)



Source: Quarterly reports of The State Committee of the Republic of Uzbekistan on Statistics https://stat.uz/en/quarterly-reports/5868-2020#january-december

In the structure of total mortality, 60.0% are diseases of the circulatory system, 8.0% are neoplasms, 7.2% are diseases of the respiratory system, 4.4% are diseases of the digestive system, 4.4% are accidents, poisoning and injuries, 4.4% - infectious and parasitic diseases and 11.6% - other diseases. (Figure 2)

Figure 2. Distribution of deaths by major causes of death
(for January-December 2020, in relation to the total number of deaths,%)



Source: Quarterly reports of The State Committee of The Republic of Uzbekistan on Statistics https://stat.uz/en/quarterly-reports/5868-2020#january-december

What Are the Benefits of Exercise?

A sedentary lifestyle is one of the 5 major risk factors (along with high blood pressure, abnormal values for blood lipids, smoking, and obesity) for cardiovascular disease, as outlined by the American Heart Association (Pate et al., 1995). Evidence from many scientific studies shows that reducing these risk factors decreases the chance of having a heart attack or experiencing another cardiac event, such as a stroke, and reduces the possibility of needing a coronary revascularization procedure (bypass surgery or coronary angioplasty). Regular exercise has a favorable effect on many of the established risk factors for cardiovascular disease. For example, exercise promotes weight reduction and can help reduce blood pressure. Exercise can reduce "bad" cholesterol levels in the blood (the low-density lipoprotein [LDL] level), as well as total cholesterol, and can raise the "good" cholesterol (the high-density lipoprotein level [HDL]). In diabetic patients, regular activity favorably affects the body's ability to use insulin to control glucose levels in the blood. Although the effect of an exercise program on any single risk factor may generally be small, the effect of continued, moderate exercise on overall cardiovascular risk, when combined with other lifestyle modifications (such as proper nutrition, smoking cessation, and medication use), can be dramatic (Figure 3).

Figure 3. Benefits of Regular Exercise on Cardiovascular Risk Factors

Source: Myers, J. (2003). Exercise and Cardiovascular Health. Circulation, 107(1).

There are a number of physiological benefits of exercise; 2 examples are improvements in muscular function and strength and improvement in the body's ability to take in and use oxygen (maximal oxygen consumption or aerobic capacity). As one's ability to transport and use oxygen improves, regular daily activities can be performed with less fatigue. This is particularly important for patients with cardiovascular disease, whose exercise capacity is typically lower than that of healthy individuals. There is also evidence that exercise training improves the capacity of the blood vessels to dilate in response to exercise or hormones, consistent with better vascular wall function and an improved ability to provide oxygen to the muscles during exercise. Studies measuring muscular strength and flexibility before and after exercise programs suggest that there are improvements in bone health and ability to perform daily activities, as well as a lower likelihood of developing back pain and of disability, particularly in older age groups (Myers 2003).

Conclusion

Physical activity, and especially systematic exercise, prevents or inhibits the development and progression of coronary heart disease and stroke, as well as other cardiovascular diseases, through many scientifically proven biological mechanisms. It is not known exactly which aspects of physical activity lead to optimal preventive effects. However, it is safe to say that, in general, the amount, intensity, frequency, type, and nature of physical activity consistent with current recommendations is necessary and sufficient to produce most of the potential benefits of most of these mechanisms. Moreover, it is clear that people who are (or have been) less physically active will benefit more from low amounts of physical activity.

There is strong epidemiological evidence for the beneficial effects of regular exercise that goes far beyond reducing the risk of cardiovascular disease. In addition, exercise combines preventive, multisystem effects, high availability, and low cost. Physical activity, and especially strength training, is a source of substances with therapeutic effects produced by the body itself. Regular physical activity has beneficial effects on homeostasis, tissue function and interaction. In contrast to exercise, no drug intervention has proven effective in maintaining muscle fitness, a key factor in high quality of life at all stages of life. Assessing the body's adaptation to exercise helps improve our understanding of the pathophysiology of chronic disease, changing old views and facilitating the exploration of new therapeutic approaches.

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ATOMIC ABSORPTION DETERMINATION OF CADMIUM IN SUNFLOWER OIL

Abstract: *An analisys of literature sources deals with determination of Cadmium in sunflower oil was done. It was shown that the best method to determine Cadmium in sunflower oil is atomic absorption spectrometry. Acidic extraction of Cadmium from oil was studied. It was established that mixture of Trilon B and nitric acid (1:1) is the best for the extraction. It let us to extract 81-90% of Cadmium per one time. After second extraction degree of it increase up to 92% and it is possible to enlarge it by boiling of the samples and mechanic mixturing with simultaneous shaking. It was established that using of ultrasound (US) to intensificate acidic extraction increase extraction degree up to 99%, and after the single extraction it is 96-97%. The optimal parameters of ultrasound are: frequency of 18-44 kHz, intensity 1,4-2,5 W/sm2,time-2-3 min. and ultrasound make an influence on the processes of Cadmium extraction. The methodic of atomic absorption determination of Cadmium in sunflower oil with detection limits of 0,005 mg/kg was developed.*

Key words: *atomic-absorption spectrometry, Cadmium, acidic extraction, sunflower oil,, ultrasound, metrologic characteristics.*

Language: *English*

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Introduction

Oils are of great importance in the life of modern man. First of all, oils are the most important food product, a person needs to consume 20-40 g of oil every day, depending on gender, age and weight. Secondly, oils are the basis for the preparation of many therapeutic ointments, pastes, emulsions, liniments and suppositories. It should also be noted that most vitamins are fat-soluble. Thirdly, fats and oils are very important in technology, they are used as a raw material in the production of many important products. Fats and oils can be used as lubricants [1,p.4;2,p.12;3,p.10;4,p.120;5,p53]

According to sanitary and anti-epidemic rules and regulations, cadmium is toxic, its content in oils should not exceed 0.05 mg / kg. Also, the safety indicators of vegetable fats and oils are given in the relevant standards and technical conditions, for example, in DSTU 4492: 2005 OILS. In this case, no more than 0.1 mg/kg, cadmium - 0.05 mg / kg, mercury - 0.03 mg / kg, copper - 0.5 mg / kg, arsenic - 0.1 mg / kg are allowed [6,p.3].

Product safety control in the food industry as a whole, including the oil and fat industry in Ukraine, is ineffective. This is due to the fact that the analysis of food products for toxic elements according to existing methods takes from 18 to 30 hours.

Polargraphic or atomic absorption methods after acid extraction are used to determine cadmium content in oils according to current standards. The analysis takes from 7 to 12 hours. The degree of extraction of cadmium does not exceed 90% . To increase the degree of extraction of elements in various mass transfer processes, the action of external physical fields is used, with ultrasound and microwave irradiation being the most effective.

The purpose of this work was to develop a method for atomic absorption determination of cadmium in oils using ultrasound to intensify acid extraction.

The analysis of oils is complicated by the need to carry out mineralization. The dry process of mineralization takes more than 40 years, and at the same time it is possible to lose certain elements. Wet mineralization also lasted about 16 years. In this regard, acid extraction of toxic elements (incomplete mineralization) is used, which consists in boiling of fats and oils with acids. However, the degree of extraction of toxic elements during two-time extraction does not exceed 92%.[7,p.67; 8,p.212; 9,p.100; 10,p.120; 11,p5, 12, p.77]

We have proposed to use the influence of US as the most powerful of all known physical influences for the intensification of acid extraction of cadmium from oil. An atomic absorption spectrophotometer AAS-3 with a non-flammable atomizer EA-3 of the Capl Zeitz Jena (Germany) was used. The parameters of the external acoustic field were determined by the post-calculation and experimental path according to the method. Substances not lower than chemical pure qualificatiov were used. The solutions were prepared on bidistilled water.

Experimental

A portion of the product in the sample was dissolved in an equal amount of CCl_4, which decrease formation of emulsions during acid extraction. A certain amount of HCl, HNO_3, EDTA and their mixtures were added. The mixture was boiled for a couple of hours. After separation of the mixture, the aqueous phase was transferred to a porcelain cup. The extraction was repeated. The extracts were evaporated. The dry extracts for the determination of copper and cadmium were dissolved in 5 ml of hydrochloric acid (1: 1), and for the determination of lead - in 5 ml of nitric acid (1: 1). Conditions for determination of cadmium by the flame atomic absorption method: wavelength - 228.8 nm, width of the spectral gap of the monocompator - 0.20 mm, magnitude c .

An experiment was performed to determine the impurities of the metals in the reagents used, as well as in the conditions of the impossibility of the flow of sound chemical reactions. To characterize various influence on cadmium extraction process the degree of extraction X was calculated:

$$X = \frac{m}{n} * 100\%$$

where

m- is the average arithmetic value of the six measurements of the element content, which is determined by the proposed method, mg / kg;

$$n = (p + g)/2,$$

where

p- is the average asymptomatic six measurements of the element content, which is determined by the atomic absorption method for dry ashing, mg / kg;

g- is the average apithmetic value of the six measurements of the element content, which is determined by the atomic-absorption method for acid extraction, mg / kg.

According to the results of the study of extraction reagents, a mixture consists of HNO_3 (1: 1) and Tpilon B in the amount of 0.2% was found. It allows to extract of 81 ... 90% of Cadmium by a single extraction. After the second extraction degree of it increase up to 92% (Table 1). The ratio of organic and aqueous phases should be 1: 1 or 1: 2 (Table 2). At using ultrasound and After the second extraction degree of it increase up to 96-97% (Table 3 and Table 4).

The frequency of ultrasound affects on the degree of cadmium extraction. Its optimal value is 18

... 44 kHz (Table 3). At ultrasonic frequencies above 44 kHz, the degree of microelements extraction decreases, which can be explained by the formation of emulsions. It is noted that ultrasound at low frequencies, on the contrary, promotes the destruction of emulsions. At the same time, the intensity of the ultrasound should be 1.4 ... 2.5 W / cm2 (Table 4).

At an ultrasound intensity of more than 2.5 W / cm2, emulsions are formed, and the degree of lead, copper, and cadmium extraction decreases (Table4). When exposed to ultrasound less than 2 hz, the positive effect is insignificant. There is a slight decrease in the degree of extraction, which, obviously, can be explained by the formation of emulsions (Table 5).

Methods for determination of cadmium in oils. A portion of oil about 15 g should be weighted in a centrifugal tube with a capacity of 50 ml and dissolved in 15 ml of CCl_4. Add 15 ml of nitric acid (1: 1) containing 0.2% of Tpilon B. The sample is placed in a centrifuge and centrifuged for 5 minutes. with a frequency of more than 3 thousand. r/min.The obtained mixture is transferred to the dividing funnel. After dividing the phases, the water part is poured into a porcelain cup, and the organic part is returned to the tube. The extraction is repeated, the extracts are combined. The combined extracts are evaporated. The dry precipitate is dissolved in 5 ml of hydrochloric acid (1: 1) to determine Cadmium. The detection limit of Cadmium is 0.005 mg / kg. The correctness of the method was determined by the method of additives in the analysis of sunflower oil and corn oil (Table 6).

Conclusions

It was shown that the simplest metdod to determine Cadmium in sunflower oil is atomic-absorption spectrometry. The methodic of atomic absorption determination of Cadmium in sunflower oil with detection limits of 0,005 mg/kg was developed.

Table 1. An influence of the extraction reagent and ultrasound on the degree of Cadmium extraction

Reagent	Degree of extraction, %											
	Sunflower oil «Dykanka»						Sunflower oil «Oleina»					
	Lead		Copped		Cadmium		Lead		Copped		Cadmium	
HCI (1:1) *	65,2	93,7	68,2	93,9	66,4	94,2	65,5	94,1	70,1	94,0	65,9	93,9
**	78,5	95,8	75,4	95,5	75,2	95,3	79,4	95,9	80,1	95,5	75,0	95,2
HNO_3 (1:1) *	66,5	95,0	70,2	95,5	67,2	95,7	66,8	95,1	72,3	94,6	66,5	95,0
**	80,2	96,5	76,7	96,4	76,4	96,6	83,4	96,9	83,2	97,0	76,0	96,2
+HNO_3(1:1) *	67,3	95,7	72,1	96,3	71,0	95,5	67,0	95,2	74,0	95,0	71,3	95,7
HCI (1:1) **	85,7	97,6	90,2	98,0	86,3	97,8	85,3	97,8	91,2	97,7	86,7	97,9
+HNO_3 *	81,2	96,9	85,4	96,4	87,3	97,4	81,9	97,8	83,9	96,3	86,6	97,8
ЕДТА 0,2% **	91,4	100,3	92,4	100,8	92,3	100,6	92,6	101,2	92,0	101,1	92,4	97,5
+HCI *	70,4	95,8	71,2	94,9	77,3	95,4	70,1	96,1	72,9	95,2	76,6	95,8
ЕДТА 0,2% **	86,5	97,2	90,4	97,3	90,3	97,9	87,6	97,9	90,3	97,7	90,0	98,3
ЕДТА 5%р-р *	60,5	91,5	62,4	93,5	62,0	93,3	60,8	92,5	63,5	94,1	63,6	93,8
**	72,3	94,6	75,2	95,4	77,3	95,7	74,5	95,0	78,3	96,1	80,2	96,0

Table 2. An influence of relation of organic and inorganic aqua phases on the degree of Cadmium extraction

Relation of organic and inorganic aqua phases	Degree of extraction, %					
	Without US action			With US action		
	Pb	Cu	Cd	Pb	Cu	Cd
3,0:1,0	36,0	43,4	42,3	92,2	94,6	93,5
2,0:1,0	65,6	71,2	67,8	99,0	99,3	99,2
1,0:1,0	91,4	92,4	92,3	100,3	100,8	99,6
1,0:1,5	91,7	92,8	93,2	100,1	99,5	99,1
1,0:2,0	92,4	93,2	93,3	99,9	100,5	99,7
1,0:2,5	92,5	93,5	93,4	100,2	99,4	99,8
1,0:3,0	92,5	93,7	93,4	99,6	100,3	98,2

Table 3. An influence of ultrasound frequency on the degree of cadmium extraction

US frequency	Degree of extraction, %		
	Pb	Cu	Cd
16	96,5	96,8	96,9
17	96,8	97,2	97,3
18	98,5	99,0	99,2
22	100,3	100,3	98,6
26	100,1	100,6	99,3
32	99,5	99,3	99,4
38	99,0	99,6	99,3
44	98,5	98,2	99,4
45	91,6	92,3	92,0
46	84,2	86,6	88,0
47	52,3	58,7	54,6

Table 4. An influence of ultrasound intensity on the degree of cadmium extraction

US intensity, W/sm^2	Degree of extraction, %		
	Pb	Cu	Cd
0,0	91,3	92,0	92,0
1,0	95,0	95,2	95,4
1,2	96,2	96,6	96,7
1,4	98,8	99,4	99,0
2,0	100,3	100,8	98,6
2,0	99,3	99,5	99,4
2,4	99,5	100,1	99,7
2,5	98,8	99,2	99,3
2,6	97,6	97,8	98,2
3,0	73,4	75,2	71,8
4,0	42,3	47,4	44,6

Table 5. Influence of time of influence of UZ on the degree of extraction of lead, copper and cadmium

Time of US action, min.	Degree of extraction, %		
	Pb	Cu	Cd
0,5	93,5	93,7	93,6
1,0	95,7	96,2	96,3
1,5	96,8	97,2	96,8
2,0	100,3	100,8	98,6
2,5	100,4	100,2	99,8
3,0	96,2	96,5	97,0
3,5	85,4	88,2	83,3

Table 6. The results of Cadmium determination in oil.

Sample	Injected Cadmium, mg/kg	Found out,mg/kg (n = 6, p= 0,95)					
		Lead		Copped		Cadmium	
		X	Sr	X	Sr	X	Sr
Determined by the developed methodics							
Sunflower oil "Generous gift"	0	0,067	0,085	1,072	0,048	0,035	0,076
	0,060	0,126	0,065	1,133	0,035	0,094	0,068
Sunflower oil "Gold"	0	0,073	0,082	1,153	0,037	0,042	0,070
	0,060	0,132	0,066	1,214	0,043	0,103	0,078
Sunflower oil "Oleyna"	0	0,052	0,078	0,321	0,050	0,020	0,082
	0,060	0,111	0,064	0,382	0,054	0,081	0,071
Mais oil "Kama"	0	0,024	0,083	0,493	0,049	0,016	0,079
	0,060	0,085	0,076	0,558	0,052	0,075	0,070
Determined by the methodics [11] using dry mineralization							
Sunflower oil "Generous gift"	0	0,062	0,118	0,973	0,111	0,031	0,125
	0,060	0,113	0,120	0,984	0,109	0,084	0,118
Sunflower oil "Gold"	0	0,067	0,119	1,120	0,110	0,038	0,125
	0,060	0,117	0,122	1,172	0,109	0,091	0,120
Sunflower oil "Oleyna"	0	0,021	0,120	0,283	0,114	0,017	0,132
	0,060	0,074	0,118	0,321	0,112	0,071	0,119
Mais oil "Kama"	0	0,060	0,119	0,441	0,112	0,014	0,135
	0,060	0,111	0,120	0,472	0,111	0,067	0,121
Determined by the methodics [12] using acidic extraction							
Sunflower oil "Generous gift"	0	0,064	0,110	1,026	0,105	0,033	0,117
	0,060	0,118	0,108	1,049	0,106	0,089	0,112
Sunflower oil "Gold"	0	0,070	0,109	1,142	0,102	0,040	0,115
	0,060	0,127	0,108	1,200	0,103	0,109	0,114
Sunflower oil "Oleyna"	0	0,055	0,110	0,318	0,109	0,018	0,119
	0,060	0,119	0,108	0,359	0,105	0,074	0,112
Mais oil "Kama"	0	0,022	0,114	0,469	0,105	0,015	0,122
	0,060	0,074	0,109	0,512	0,108	0,071	0,113

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QR – Issue QR – Article

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ILLEGAL TRAFFICKING OF NARCOTIC DRUGS, PSYCHOTROPIC SUBSTANCES, THEIR ANALOGUES AND PRECURSORS (UNDER THE LEGISLATION OF THE KYRGYZ REPUBLIC)

***Abstract**: In the article, the authors examine the illegal circulation of narcotic drugs, psychotropic substances, their analogues and precursors under the new criminal legislation of the Kyrgyz Republic.*

***Key words**: criminal legislation, the Kyrgyz Republic, illegal traffic, narcotic drugs, psychotropic substances, precursors.*

***Language**: Russian*

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НЕЗАКОННЫЙ ОБОРОТ НАРКОТИЧЕСКИХ СРЕДСТВ, ПСИХОТРОПНЫХ ВЕЩЕСТВ, ИХ АНАЛОГОВ И ПРЕКУРСОРОВ (ПО ЗАКОНОДАТЕЛЬСТВУ КЫРГЫЗСКОЙ РЕСПУБЛИКИ)

***Аннотация**: В статье авторы рассматривают незаконный оборот наркотических средств, психотропных веществ, их аналогов и прекурсоров по новому уголовному законодательству Кыргызской Республики.*

***Ключевые слова**: уголовное законодательство, Кыргызская Республика, незаконный оборот, наркотические средства, психотропные вещества, прекурсоры.*

Введение

Нелегальный оборот наркотических средств, психотропных веществ, их аналогов и прекурсоров (далее – НС,ПС,их АиПр) является общественно опасным явлением, которое ежегодно приобретает все более широкие масштабы своего распространения не только в Кыргызской Республике, но и во многих других странах мира.

В целях успешной борьбы с данным недугом на уровне мирового сообщества в 1961 году принята Единая Конвенция ООН о наркотических средствах [1, эл.ресурс], в 1971 году Конвенция о психотропных веществах [2, эл.ресурс], а в 1988 году принята Конвенция ООН о борьбе против незаконного оборота наркотических средств и психотропных веществ [3, эл.ресурс]. Данные нормативно-правовые акты являются основными международными документами по регулированаю нелегального оборота НС,ПС,их АиПр.

Основной задачей двух первых Конвенций о наркотиках и психотропных веществах является упорядочивание национальных законодательств принявших указанные договора. Конвенция 1961 и 1971 гг. содержат единое общее положение о нелегальном обороте наркотиков и психоторных веществах, описывают научные и медицинские цели применения веществ, а также установление законного и нелегального их применения в гражданском обороте.

Конвенция 1988 года включает дополнительные контрольные меры на прекурсоры, на нелегальный оборот денежных средств полученных от контрабанды, сбыта запрещенных наркотиков, психотропных веществ, прекурсоров. Также устанавливает сотрудничество по правовым, уголовным вопросам для сотрудничающих стран, включая при этом оказание правовой взаимной помощи.

В свою очередь Кыргызская Республика на национальном уровне приняла основной Закон Кыргызской Республики «О наркотических средствах, психотропных веществах и прекурсорах» 22 мая 1998 года № 66 [4, эл.ресурс].

Указанный закон включает в себя законный и незаконный оборот НС, ПС, их АиПр., содержит разъяснения по международной и государственной квоте на НС, ПС, их АиПр., включает основые понятие терминов, определяет государственный контроль на НС, ПС, их АиПр., меры противодействия их нелегальному обороту и потреблению и др.

Отвественность за нелегальный оборот НС, ПС, их АиПр. устанавливается в рамках уголовного законодательства Кыргызской Республики. Так, уголовный кодекс Кыргызской Республики принятое 2 февраля 2017 года № 19 [5, эл.ресурс] содержит главу 38 под названием «Преступления в сфере оборота наркотических средств, психотропных веществ, их аналогов и прекурсоров», которая включает в себя десять статей (ст. 267-276).

Законодатель устанавливает уголовную отвественность за незаконное изготовление НС, ПС, их АиПр. с целью сбыта и без цели сбыта; отдельной нормой рассматривается отвественность за нелегальное изготовление прекурсоров; за контрабанду; за хищение и вымогательство НС, ПС; за склонению к употреблению запрещенных веществ; за посев и выращивание наркосодержащей растительности; за нарушение легального оборота НС, ПС, их АиПр.; за содержание либо организацию притонов в целях употребления запрещенных НС, ПС, их АиПр.; за подделку либо выдачу документов, разрешающих получить НС, ПС, их АиПр.

Кодекс о проступках Кыргызской Республики также устанавливает отвественность за нелегальный оборот НС, ПС, их АиПр.

Так, глава 24 Кодекса о проступках КР «Проступки в сфере оборота наркотических средств, психотропных веществ, их аналогов или прекурсоров» содержит ст. 123 и ст. 124.

Статья 123 посвящена незаконному изготовлению НС, ПС, их АиПр. без цели сыба в небольших размерах.

Статья 124 рассматривает посев и выращивание растений, содержащих наркотические средства в небольших размерах [6, эл.ресурс].

По официальным статистическим данным оранов внутрених дел только за 10 месяцев 2020 года (март-декабрь) было обнаружено следующее количество противоправных деяний с наркотическими средствами: изъято – 224 кг. 682 гр. наркотических средств, психотропных веществ из них:

- героин (2 кг.296 гр.);
- опий (27 гр.);
- гашиш (38 кг. 947 гр.);
- марихуана (76 кг. 616 гр.);
- каннабис (41 кг. 216 гр.);
- серная кислота (65 кг. 80 гр.);
- димедрол (таблетки 10 000 шт. 500 гр.);
- ртуть (3 кг.).

Также, за этот период осмотрено 1 тысяча 262 гектара земли, из которых на территории 547 гектаров была выявлена незаконно выращенная дикоастущая конопля, примерное количество которой составило 389 тонн 920 кг [7, эл.ресурс].

При этом, необходимо учитывать, что латентность незаконного оборота НС, ПС, их АиПр. является очень высокой.

Причиной установления отвественности за столь широкий круг действий с НС, ПС, их АиПр. является их общественная опасность. Нелегальный оборот НС, ПС, их АиПр. приводит к таким последствиям как наркомания населения, коррумпированность власти, политическая дестабилизация, экономическая ослабленность страны, установление криминогенной ситуации в обществе и многое др. [8 с. 596].

Из вышеперечисленных негативных последствий от нелегального оборота наркотиков одним самых опасных и остро стоящихв настоящее время является наркомания.

Термин наркомания от греческого языка означает как оцепенение, страсть, безумие, влечение. Наркомания в большей степени понятие относящееся к медицинскому термину под которой понимается – зависимое состояние человека от определенных средств либо веществ.

В Законе Кыргызской Республики «О наркотических средствах, психотропных веществах и прекурсорах» от 22 мая 1998 года № 66 наркомания понимается как - болезненное психическое состояние, вызванное хронической интоксикацией вследствие злоупотребления наркотическими средствами, характеризующееся психической или физической зависимостью от них [9, эл.ресурс].

Если обратиться к ученым специалистам, то они дают следующие определения. Толпекин К.А. под наркоманией предлагает понимать - общественое явление суть которого лежит в употреблении наркотических средств отдельно взятой группой населения [10, с. 160].

Сбирунов Л.Н. полагает, что наркомания негативное явление определенное отрицательными условиями среды и антиобщественной ориентацией индивида, которое состоит в нелегальном потреблении наркотиков с прямым умыслом, при этом нанося вред как здоровью человека, так и приносящее вред социуму [11, с. 161].

Э.Г. Гасанов в свою очередь дает более широкое понятие указанному термину, так по его мнению наркомания – это отрицательное общественное явление, содержащее правовой, социальный, экономический, криминологический, экологический и биологический аспекты, касающиеся соответственно криминологическую, социальную, экономическую, правовую, экологическую и биологическую сферы, выделяющееся значительной степенью социальной опасности, выражающееся причинении вреда здоровью потребителей наркотических средств [12, с. 62].

Таким образом, рассмотрев понятие наркомании в медицинском, юридическом аспектах, а также проанализировав предложенные понятия учеными, можно отметить, что наркомания является общественно-опасным, социальным, правовым явлением, которое заключается в незаконном употреблении наркотических средств, психотропных веществ, их аналогов либо прекурсоров, последствия которого приводят к психической, физической зависимости человека.

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CURRENT ISSUES OF FAMILY VIOLENCE IN THE INTERNAL AFFAIRS OF THE KYRGYZ REPUBLIC

***Abstract**: The article examines the activities of the internal affairs bodies of the Kyrgyz Republic in the field of domestic violence. Analyzes legislation on domestic violence.*

***Key words**: domestic violence, victim, rapist, protection order, internal affairs bodies.*
***Language**: Russian*
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АКТУАЛЬНЫЕ ВОПРОСЫ СЕМЕЙНОГО НАСИЛИЯ В ОРГАНАХ ВНУТРЕННИХ ДЕЛ КЫРГЫЗСКОЙ РСЕПУБЛИКИ

***Аннотация**: В статье рассматривается деятельность органов внутренних дел Кыргызской Республики в сфере семейного насилия. Проводит анализ законодательств по семейному насилию.*

***Ключевые слова**: семейное насилие, потерпевший, насильник, охранный ордер, органы внутренних дел.*

Введение

В настоящее время в Кыргызской Республике вопрос насилия в отношении женского пола является наиболее социальной острой проблемой, которая нарушает в первую очередь права женщин представляя собой большую угрозу для их здоровья и жизни.

Согласно Закона Кыргызской Республики «Об органах внутренних дел Кыргызской Республики» от 11 января 1994 года № 1360-XII [1, эл.ресурс], сотрудники ОВД КР в рамках дозволенной компетенции обязаны выполнять возложенные на них меры, т.е. защищать и охранять граждан от любого насилия.

Такие нормативно-правовые акты как постановление Правительства Кыргызской Республики «О порядке осуществления охраны и защиты от семейного насилия» от от 1 августа 2019 года № 390 [2, эл.ресурс], Закон Кыргызской Республики «Об охране и защите от семейного насилия» от 27 апреля 2017 года № 63 [3, эл.ресурс], а также другие ведомственные акты МВД Кыргызской Республики определяют перечень обязанностей сотрудников в работе с семейным (бытовым) насилием.

В соответствии со ст. 10 вышеуказанного закона, полномочия сотрудников Министерства внутренних дел Кыргызской Республики в сфере семейного насилия разделена на две части. Так, первая часть предусматривает деятельность самого министерства, а вторая деятельность подчиненных территориальных органов.

На органы внутренних дел возлагаются такие функции как:

– организация профилактической деятельности;

– защита (охрана) от семейного (бытового) насилия;

– реализация профессиональной специальной подготовки, а также постоянное повышение квалификации специалистов;

– мониторинг осуществляющей деятельности;

– обмен и взаимодействие между субъектами исполнительной системы;

– предоставление итоговой информации (отчетов);

– ведение статистики;

– опубликование на портале статистики по семейному (бытовому) насилию.

Министерство также является инициатором законодательных изменений в сфере улучшения деятельности органов внутренних дел в работе с насилием. Служба общественной безопасности совместно с партерами провела мониторинг в 2018 году по правоприменительной практике в рамках нового уголовно-процессуального кодекса, которая также регулирует защиту (охрану) от насилия в быту (семье).

По ходу проведения мониторинга были проведены встречи с участковыми уполномоченными милиции, сотрудниками органов дознания, также с женщинами, пострадавшими от бытового (семейного) насилия, получившим охранные временные ордера.

При встрече было выявлено, что одной из проблем обеспечения безопасности жерт насилия было отсутствие решения изолировать насильника от его состава семьи хотя бы на какое-то время. Участковые рассказывали, что вынуждены отпускать насильника после выдачи охранного ордера несмотря на то, что он все еще находится в агрессивном или нетрезвом состоянии. Во многих случаях сотрудники были обеспокоены риском повторения семейного (бытового) насилия. Учитывая все это службой общественной безопасности, профессорским составом Академии совместно с экспертами по уголовным законодательствам и депутатами Жогорку Кенеша в июне текущего года были внесены в УПК КР (уголовно-процессуальныйв кодекс) нормы, разрешающие задерживать насильников.

Часть 31 статья 504 УПК КР допускает задержание лица, которого подозревают в совершении насилия (семейного) при наличии нижеуказанных оснований [4, эл.ресурс]:

1) если подозреваемый реально является угорозой причинения вреда жизни либо здоровью кого-либо из состава семьи (а также к ним приравненных);

2) если подозреваемый в состоянии опьянения (алкогольного либо другого вида опьянения) представляет угрозу жизни, здоровья членов семьи (а также к ним приравненных);

3) если явно видно, что подореваемый совершит дальше побои, угрозу, унижения, издевательства, оскорбления в отношении родных сленов семьи (а также к ним приравненных) [5, эл.ресурс];

Наличие данных норм позволяет арестовать семейного насильника на 48 часов, обеспечив тем самым охрану пострадавшим членам семейства. Данную норму закон позволяет применять совместно с выдачей временного охранного ордера и со статьей 75 Кодекса о проступках Кыргызской Республики.

Дополнение указанных оснований в УПК показывается пример успешного сотрудничества ОВД с гражданским обществом, международными организациями и депутатским корпусом.

Критерии наказания за насилие (семейное, бытовое) менялись очень часто, установленный штраф за такое противоправное деяние вышло абсолютно неэффективной карой, при этом необходимо учитывать только ее наличие. Учитывая то, что довольно много случаев семейного (бытового) насилия наблюдаются в семьях со сложными материальными условиями, такая санкция вызывает желание членов семейства скрыть любое насилие. Из-за этого, применение мер указанных в статье 75 КоП КР не улучшают ситуацию, не решают проблему, а иначе приводят только к замкнутому кругу. Установленные штрафы за насилие (семейное, бытовое) очень высокие, учитывая финансовое положение людей, оплата не всем и не всегда представляется возможным. Общественные, исправительные работы также невозможно в реальности исполнять.

Поэтому необходимо внести изменения наказаний по ст.75 и ст.76 КоП КР [6, эл.ресурс], так как они не достигают тех целей по изменению поведения лиц, совершивших насилие (семейное, бытовое) а напротив усугубляют дальнейшее взаимоотношения между членами семьи. Предлагается исключить из наказаний - штрафы и вместо него предусмотреть ограничение свободы.

На сотрудников ОВД республики возложены такие полномочия как - пресечение насилия;

реагирование на него; контроль охранных временных ордеров; их выдача и продление; профилактика. Сотрудники ОВД республики направляют жертв семейного бытового насилия с их согласия на судебно-медицинскую экспертизу, на освидетельствование медицинское, также информируют о службах помощи и правах.

Инструкция по совершенствованию либо организации работы правоохранительных органов Кыргызской Республики по защите и охране от насилия в быту, утвержденная приказом МВД КР от 25 ноября 2020 г. № 763, определяет следующие принципы при работе с насилием в семье:

1) соблюдение международных стандартов, законодательства с сфере гендерного равенства, прав человека (гражданина);

2) обеспечение безопасности лицу, которая стала жертвой насилия в семье от своих же родных;

3) обеспечение равного всем доступа (защите, охране) от бытового насилия и достойное обращение пострадавшими лицами, независимо от пола, этнического происхождения, инвалидности, образа жизни либо иных обстоятельств;

4) обеспечение конфиденциальности информации полной о лицах, ставших жертвами насилия;

5) изменение традиций, обычаев, приводящих к ущемлению свобод, прав человека;

6) обеспечение подхода, ориентированного на потребности жертв;

7) партнерство и взаимодействие межведомственное;

8) ответственность человека совершившего насилие в семье;

9) направленность именно профилактическая;

10) предоставление защиты, от насилия, от факта возбуждения уголовного дела или проступка.

Кыргызская Республика будучи светским государством ратифицировавшим многие международные стандарты, нормативно-правовые акты ООН в области свобод и прав человека, соблюдает принцип законности в сфере насилия в быту.

Безопасность человеку жертве пострадавшему от насилия в семье, приближенным, включает пресечение, оценку риска повторного совершения, размещение жертв насилия в отдаленного от насильника место, задержание насильника [7, с. 21].

Сотрудники милиции должны уважительно и деликатно обращаться со всеми жертвами, также должным образом реагировать на их потребности с учетом вероисповедания, наличия инвалидности, положения семейного, рода занятий, социального статуса и других особенностей. Подход направленный на потребности жертв во главу ставит потребности и желания последнего.

Опрос человека, посотрадавшего от насилия в быту, несовершеннолетних детей, также свидетелей нужно проводить без присутствия самого насильника. Это даст возможность пострадавшим и свидетелям более полно, без страха рассказать о произошедшем. При опросе несовершеннолетнего лица, не достигшего шестнадцатилетнего возраста, обязательно участие представителя государственного уполномоченного органа по защите прав детей, педагога или психолога. При опросе человека с инвалидностью обеспечивается участие помощников и посредников, в том числе проводников, чтецов и профессиональных сурдопереводчиков, для облегчения понимания, доступа в здания ОВД, определения потребностей или подачи заявления.

Сотрудникам надлежит проинформировать пострадавшего жертву о его правах на медицину, психологическую, социальную помощь, на адвоката, также на получение информации о специальных кризисных центрах.

Охранный временный ордер выдается лицу достигшему 18 летнего возраста, будь то он на месте жертвы либо насильника, т.е. выдается обеим сторонам. Для получения охранного ордера необходимо любому из членов семь сообщит о случившемся факте в милицию. Факт насилия проверяется сотрудниками органов внутренних дел учитывая содержание поданного заявления.

Охранный временный ордер выдается участковым уполномоченным сотрудником милиции на три дня по месту жительства обратившихся в течении 24 ч., также его полномочны выдавать дежурный сотрудник, сотрудник отдела по делам несовершеннолетних, специалисты службы дознания. Лицо обратившееся может продлить с разрешения органов внутренних дел срок ордера до 30 дней. Практические работники милиции обязаны ознакомить насильника, т.е. лицо в отношении которого выдан охранный временный ордер о последствиях неисполнения требований, о возможности посещения курсов по корректировке жестокого поведения, такая работа должна быть проведена обязательно в письменном виде.

Насильник обязан осуществить либо выполнить все требования охранного временного ордера [8, с. 23].

Информацию о желании продлить охранный временный ордер необходимо направить выдавшему его сотруднику ОВД. Информация о продлении (либо выдаче) охранного временного ордера направляется в отдел социального развития, органы местного самоуправления, по месту работы насильника, однако необходимо учитывать что такие действия должны осуществляться только с согласия жертвы. Продление, отказ либо выдача охранного временного ордера обжалуется в судебный орган или прокуратуру.

Жертвам которым нет 14 лет, недееспособным по решению суда, охранный временный ордер вручается их законный представителям или государственному, уполномоченному территориальному органу по защите несовершеннолетних детей, также могут вручить сотруднику по делам н/с. Для продления охранного временного ордера представляющие лица должны обратиться сами [9, эл.ресурс].

О выдаче охранного времнного ордера информация должна поступить государственному уполномуоченному территериальному органу по защите ребенка-детей, органу территериальному по социальному развитию, ОМС.

Органами внутренних дел ведется профилактическая и информационная работа по снижению семейного насилия, осуществляется взаимодействие с другими субъектами охраны и защиты от семейного насилия. Охранный временный ордер запрещает насилие в быте, семье, запрещает контактировать с жертвой. Форма охранного временного ордера согласовывается и утверждается Правительством страны.

Контроль выполнения условий охранного временного ордера проводится путем посещения семьи по месту проживания, беседы по телефону, с соседями, квартальными или путем приглашения насильника в ОВД. Должно быть не менее одной проверки в течении трехдневного срока выполнения ордера и не менее одной проверки в 15 дней при продлении ордера до 30 дней.

Сотрудники органов внутренних дел проводят информационную, профилактическую работу в целях уменьшения насилия в быту, при этом осуществляют тесную связь с другими исполнительными органами по защите от насилия (семейного).

Инструкция о порядке взаимодействия, органов социального развития по защите охране детей с правоохранительными органами в сфере защиты от насилия семейного, утвержденной приказом Министерства труда и социального развития КР от 25 октября 2019 г. №133 и Министерства внутренних дел КР от 25 октября 2019 г. №917 определяет порядок общей работы двух ведомств.

В Инструкции предусмотрено взаимодействие аппаратов министерств, взаимодействие подразделений территориальных социального развития, также органов внутренних дел. Определен порядок информирования о жертвах насилия и дано направление на освоение программ коррекционного характера.

Вопросам межведомственного взаимодействия и координации посвящено Постановление Правительства Кыргызской Республики от 22 августа 2019 года №418 «Об утверждении Положения о порядке взаимодействия органов государственной власти и местного самоуправления, а также иных организаций и граждан по снижению рисков насилия в отношении женщин и детей в чрезвычайных и кризисных ситуациях» (далее – Положение).

В нем, в частности, говорится, что субъекты органов взаимодействия, организуют взаимодействие по уменьшению рисков семейного насилия конкретно в отношении женщин, детей на основании межведомственных актов, ведомственных приказов, планов, инструкций, разрабатываемых на первоначальном этапе кризисной или чрезвычайной ситуации. В целях реализации положений данного по становления правительства, в Инструкции предусмотрен раздел, предусматривающий особенности деятельности ОВД в сфере охраны и защиты от семейного насилия в условиях чрезвычайных, кризисных ситуаций и чрезвычайного положения.

В Инструкции установлено, что при введении режима чрезвычайной ситуации и чрезвычайного положения ОВД проводят анализ динамики случаев совершения семейного насилия на территории, разрабатывают на его основе план срочных мер, обеспечивающих незамедлительное реагирование и эффективную профилактику семейного насилия, осуществляют мониторинг его выполнения и оценку эффективности принятых мер.

Важную роль в процессе борьбы с семейным насилием играют консультативно-профилактические центры (кризисные центры), которые, оказывают социально-психологическую, правовую и медицинскую помощь лицам, пострадавшим от семейного насилия [10, с. 192]. Между отдельными кризисными центрами и отделениями милиции существуют договоренности, на основании которых кризисные центры и сотрудники ОВД направляют жертв насилия друг другу. Успех работы с семейным насилием во многом определяется координированным взаимодействием социальных учреждений и сотрудников отделов внутренних дел, в частности участковых уполномоченных и сотрудников дежурных частей. Чтобы направить жертву насилия в социальные службы и кризисные центры, сотрудники ОВД должны знать, какие службы находятся на их территории, какой перечень услуг они предоставляют, есть ли при них убежища, правила направления и приема в эти учреждения. Кризисные центры, в свою очередь, должны хорошо знать правила направления пострадавших от семейного насилия в ОВД, принципы предоставления охранных ордеров.

Чтобы решить причины совершения насилия в семье, нужно провести анализ ситуации в каждой отдельно взятой семье. Нужно проводить работу в целях предотвращения семейного насилия не только с виновником, но и с жертвой и остальными членами семейства, поскольку проблема семейного насилия - это комплексная проблема, зависящая от множества факторов. Важным условием для уменьшения количества насилия является взаимодействие разных структур на основе систематической.

Комплексным подходом и ответственной отдачей всех структур, координацией их усилий возможно эффективно бороться с семейным насилием. К этому процессу должны активно привлекаться социальные службы, общественность, СМИ, правовые организации, органы местного самоуправления, органы попечительства и опеки, комиссии по делам детей, суды аксакалов, домовые и квартальные комитеты.

Грамотное применение сотрудниками ОВД законодательных мер позволит повысить эффективность профилактики семейного насилия, будет способствовать достижению мира и согласия в семьях кыргызстанцев, а также повысит уровень доверия населения к органам правопорядка.

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PROFESSIONAL-ORIENTED APPROACH TO TEACHING A FOREIGN LANGUAGE

Abstract: *Political, socio-economic and cultural changes have changed the role of a foreign language in society, and from an academic discipline, it has become a basic element of the modern educational system, a means of achieving professional realization of the individual. In this article highlights of professional-oriented approach to teaching a foreign language.*

Key words: *foreign language, modern education, innovation, education, innovation methods, education quality.*
Language: *English*
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Introduction

The new socio-economic and political situation requires the implementation of a language policy in the field of foreign language education in society, aimed at meeting both public and personal needs in relation to foreign languages. The implementation of new approaches in the study of languages is associated with the creation of a flexible system for choosing the conditions for their study, as well as a variable system of forms and means of teaching. A foreign language teacher should be able to act not according to strictly prescribed rules, but in accordance with their own choice from among the possible methodological systems of the one that is more adequate to the learning conditions. According to Loktyushina L.A., the main reason for the failures in the training of specialists of non-linguistic specialties for effective foreign language communication in the professional environment is the lack of unity in the development of professional and language experience in the process of foreign language training in an educational institution. These two experiences do not have a holistic view of the content of education as a professional competence of a qualitatively new type.

Currently, an intensive search is underway for a rational combination of the accumulated experience in teaching languages with fundamentally new methods of obtaining, transforming and using the information necessary for the professional development of a specialist. The main idea of the concept is the principle of ensuring the integration of the discipline "Foreign language" in the general course of professional training of the student, which involves the selection of linguistic material, terminology, lexical-syntactic and grammatical features, the format of oral and written texts, situational features. The main requirement of professionally-oriented foreign language teaching is to bring the content and methods of teaching closer to the practical needs of future specialists. The implementation of the set goals and objectives is facilitated by a set of pedagogical tools aimed at updating knowledge and skills through the use of different methods and means of teaching: - Interdisciplinary communication schemes-Integrated training sessions. - A certain structure of training sessions based on complex language learning (intra-disciplinary relations), organization of work with advertising, newspaper and magazine texts as a means of strengthening the practical orientation of English language teaching, updating of educational material-organization of research, independent work of students-A collection of texts and exercises. In the curricula of modern secondary vocational education, a foreign language is considered as an integral component of the holistic educational process, being a unifying component. Any teacher knows that in order to conduct a fully integrated training session, a gradual preparation is necessary, which includes the formation of certain knowledge, skills, and skills in students. The most effective language training is at the functional level, taking into account a specific profession.

In the educational environment, this is achieved by modeling situations of professional communication, which can serve as the basis for the formation of the necessary skills of professional foreign language communication. The formation of this knowledge, skills and abilities is possible by the following methods and techniques: Each lesson begins with working on vocabulary and basic grammatical structures. The work on the vocabulary is carried out in various forms. It involves reading texts containing mandatory lexical and grammatical units, largely adapted for students ' understanding. Along the way, students' ability to use the main sense-bearing units in a sentence is practiced, among which the greatest attention is paid to various types of modern forms of verbs. At the next stage, on the basis of the entered vocabulary, training exercises are performed to develop the skills of translating professionally-oriented texts using special dictionaries. You need to learn how to work with special dictionaries. One of the techniques of working on the text is working with a text editor, where it is possible to highlight various functional and semantic components of the text using different means - font selection, color selection, underlining.

One of the techniques of a professional-oriented approach is working with advertising texts. It is based on the materials of British advertising magazines. An algorithm for working with advertising text has been developed. The lexical units that are necessary and sufficient for filling out the order form for goods to a foreign company have been selected. These lexical units require preliminary analysis and phonetic development with students. The logical continuation of working with texts is to create your own advertising as a creative task for strong students. The exercises can be divided into three groups: exercises with the task "remember", for understanding and for searching. An interesting technique of a differentiated, personality-oriented approach to learning can be considered working with newspaper and magazine text. Some of the difficulties are removed by the available adaptation and selection of translated vocabulary, photos, diagrams, drawings. The attractiveness of the texts is that they create an atmosphere of creative communication between students and teachers, serve as a way of perceiving the educational material, the rules of good taste, the culture of communication, and expand the country-specific information. One of the methods of working on training exercises based on the text can be considered computer testing, i.e. test material in the function of auxiliary (corrective) control of the assimilation of the content of the text on the topic, which allows the teacher to find out directly during the lesson the degree of understanding of the educational material and here, in the classroom, to eliminate this misunderstanding or misunderstanding, i.e. the methodology of its application is aimed not at control, but at learning and development. To complicate the structure of tasks for working in pairs, models of evaluative expressions and emotions are introduced. The method of using text-based dialogues fixes the degree of proficiency in foreign vocabulary.

Effective, as close as possible to the live speech form of dialogues are role-playing games for a given situation, close to the tasks of real communicative acts in the framework of professional communication by text. Everything happens during the game — misunderstandings, conflicts, resentments, laughter, shouting, etc. But the only thing that is not observed during game classes is indifference and indifference. Even the most inactive students become unrecognizable: they rejoice, argue, quarrel. When organizing a role-playing game, the group is divided into three microgroups, each of which masters the language material at different levels: minimal, basic (intermediate), and creative. Special importance is attached to the preparatory stage of the role-playing game, during which the teacher works on intonation and phonetic models for the purpose of natural performance of roles. Dialogues consisting of 2-3 lines are worked out phonetically by the choir, in pairs, individually.

Audio-visual tools (showing role-playing videos, listening to role-playing audio models) are a great help when training situational dialogues. Role-playing tasks are prepared taking into account the level of knowledge of students and are distributed to them. The role card clarifies the communication situation. Weak students are given support cards in addition to the role card. During the training stage, after watching the video dialogue, "advanced" students in speech training are given the following tasks:

- simultaneously voice the twice-viewed video dialogue by roles;
- spontaneously play back an audio or video conversation you've listened to. Tasks for students working at the basic level:
- use professional vocabulary on a given topic to get a short situational dialogue;
- stage it. Role-playing tasks for students working at a minimum level;

- listen twice to the dialogue and transmit its content.

Tasks of this kind allow you to use the developed lexical and grammatical constructions in an unprepared speech, choose the most appropriate words from the synonymic series, express and defend your own opinion, conduct a well-founded argument, be able to accept and respect the opinion of your partner. Complex language learning involves such a technique as a combination of different types of speech activity, taking into account intra-disciplinary connections in one training session. The optimal form of training with a professionally-oriented approach is the integration of training sessions. With an integrated approach, the disunity in teaching different disciplines is reduced. Integrated training sessions require a depth of diverse knowledge. In such conditions, the opportunities for the synthesis of knowledge are expanded, the skills of transferring knowledge from one sphere to another are formed. They are possible at an advanced stage after careful preliminary work. Its content is an attempt by the teacher to find new, interesting and useful materials that complement the textbook and model the work of a specialist with advertising and advertising agencies.

On the basis of the information obtained from the advertising text, students need to issue an order form for goods either by mail, by phone, or by fax to these companies. The order form is projected on the screen. The teacher works out the lexical units necessary and sufficient for performing a practical task phonetically in chorus. They are also displayed on the screen. Every student has a similar form on paper. Teachers together with students analyze each line of the form, based on the previous knowledge of students and their language guess.

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THE IMPORTANCE OF STUDY MEDICAL TERMINOLOGY

Abstract*: Medical terminology is a set of words and word combinations used by specialists to refer to scientific concepts in the field of medicine and healthcare.*
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Language*: English*
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Introduction

Like any word, a term is a language sign that has a content, or meaning (semantics), and a form — a sound complex. In contrast to the words of common vocabulary, the meanings relate to everyday concepts, the meanings of terms are scientific concepts. The main form of existence of the term is the definition, or scientific definition, i.e., the establishment of the meaning of the term by highlighting the distinctive essential features of the concept.

Medical terminology is a naturally developed industry terminology system that expresses the exceptional diversity of almost all classes of concepts — generic and specific, general, concrete and abstract. Its categorical apparatus encompasses a thing, a process, an entity, a phenomenon, a trait, a property, a quality, a quantity, a relation, an interaction, a causality, and other categories. A list of names that are systematized according to certain rules, denoting objects of a single set that belong to one of the fields of science, such as anatomy, histology, embryology, microbiology, etc., is called "nomenclature".

The sound complex of a term can be represented by a single word or phrase. A term in the form of a phrase consists of a defined word (a noun) and its defining words (a noun in the genitive case or an adjective), or both. In the vast majority of terms are specially created in the course of scientific activity names.

In the medical terminology, the following main groups of terms can be distinguished, taking into account the differences in language origin, writing forms, and the function performed at the national or international levels:

1) native names;

2) internationalisms of Greek or Latin origin, from which some were borrowed in a ready-made form ("ready-made words") from classical languages, and others (scientific neologisms) were created artificially from the lexical and word-forming material of these languages according to their structural models, for example, cirrhosis, stethoscope, phagocyte, leukemia, allergy, etc.;

3) native West-Europeisms, i.e. words that arose on the basis of Western European languages from their lexical and word-forming material;

4) Latin terms (so called. termini technici) — special reference scientific designations, designed graphically and grammatically according to the rules of the Latin language. The latter provide mutual understanding between specialists who speak different languages. An example of termini technici is modern international nomenclatures that have an officially approved status. These include, for example, the Paris Anatomical Nomenclature (see), the Histological Nomenclature (see), etc. Termini technici, which denote diseases, pathological conditions, symptoms and syndromes, are not combined in officially approved classification lists, i.e. nomenclatures. The application of such termini technici is Traditional and optional rather than mandatory. Some termini technici do not have generally accepted equivalents in national languages, for example, spina bifida anterior, situs viscerum

inversus, carcinoma in situ, per os, per rectum, ex tempore, in vivo, etc.

Modern medical terminology is the result of the centuries-old development of world medicine and medical science. Regardless of the national language of the countries of the European and American areas or the peoples of the USSR, the terminology is presented, it includes a significant proportion of lexical and word-forming units that are common in language origin, as well as common structural models. This is due to the all-encompassing and persistent influence that the two classical languages of the ancient world — ancient Greek and Latin-have had on medical terminology for many centuries and continue to have to this day. Although the knowledge of the doctors of the Ancient East and above all of Assyria, Babylon and Ancient Egypt formed the basis of the medicine of Ancient Greece, in the extant writings of the Greek. doctors can find almost no linguistic evidence that would indicate a continuous connection with the med. the vocabulary of the peoples of Mesopotamia, India, Egypt, etc. Therefore, the chronology of the European T. M. it is customary to begin with the works of Hippocrates and the "Collection of Hippocrates" named after him, from which scientific medicine inherited many names, for example, amblyopia, cachexia, carcinoma, diapedesis, herpes, hippus, kyphosis, lordosis, coma, noma, paresis, polyp, typhus, cholera, emphysema, epidemic, erythema, symphysis, bronchus, urethra, etc. I did a lot to replenish the honey. dictionary of Aristotle. The next stage in the history of T. M. is associated with the activities of two outstanding doctors of the Alexandrian medical school of the Hellenistic era — Herophilos (Herophilos) and Erasistratus. They significantly replenished the honey. a dictionary of anatomical and physiological vocabulary. content. The medicine of Ancient Rome was only a further development of the medicine of Hellenism and to a lesser extent was an original phenomenon. The same applies to T. M. in Latin, as can be seen from the few surviving meds.

According to the writings of the Romans, the most significant of them was the work "On Medicine" by Aulus Cornelius Celsus. The tradition of Hellenistic medical schools was K. Galen. He clarified the meaning of the old ones, revived some almost forgotten or obscure Hippocratic names for his contemporaries, and introduced many new ones, for example, the thalamus. A significant Greek terminological heritage has been preserved for subsequent generations of doctors thanks to the writings in Greek. the language of the outstanding doctors of the Byzantine period — Oribasius (Oribasius, 325-403 AD), Nemesius (Nemesius, ca. 370), Aetius of Amida (Aetius, 502-575), Alexander Trallianus (Alexander Trallianus, 525-605), Paulus Aeginensis (Paulus Aeginensis, 625-690), etc. From the 8th-9th centuries. term-making in Greek. the language temporarily declined. In the 9th-10th centuries, almost all the works of Hippocrates and C. Galen were translated into Arabic. It was on the basis of these translations that the formation of the Arabic med took place. literatures.

An important aid in teaching medicine in Europe during the Middle Ages was Latin translations of Arabic works, which, in turn, were very often translations or compilations of Greek sources. Beginning in the 15th century, the role and influence of Arabic medicine and the Arabic language began to wane rapidly. A new Latin was formed - he Latin of the Renaissance (15-16 centuries), claiming to be a scientific language common to all European countries. One of its most active innovators were anatomists, who took as a model the work of A. Celsus, first published in 1478. A consistent and systematic reform of anatomical terminology in Latin was carried out by A. A. Tolstoy, Vesalius. Since the late Renaissance, the language of medicine has gradually adapted to the needs of the development of national languages. By the mid-19th century. Latin finally gave way (in different countries at different times) to national languages as the written or oral language of scientific communication, while retaining the most important nominative function — the naming of scientific objects in medical and biological classifications. In addition, the classical languages have remained the main international source for the replenishment of the T. M. To this day, the vast majority of new names introduced for the first time in the bear the stamp of Greek or Latin origin. Greek-Latin internationalisms easily penetrate the terminology in national languages and, being modified in accordance with their phonetic and morphological systems, become irreplaceable.

The whole set of medical terms together with the terms of related sciences used by doctors (biology, chemistry, physics, microbiology, radiology, genetics, psychology, engineering, etc.) is an extensive macrosystem, numbering several hundred thousand names, including synonyms and names of medicines. Its constituent sets of terms of individual sciences and fields of knowledge form particular microsystems of terms. Each term is an element of a specific microthermic system (anatomical, therapeutic, obstetric, endocrinological, hematological, etc.). Occupying a certain place in the microsystem, each term is in fixed generic or other relationships with other terms of this microsystem. At the same time, the terms of different microsystems form certain structures of relations between themselves at the level of the macrosystem. In the 20th century, these structures reflect the dual trend of scientific progress: the differentiation of medical sciences, on the one hand, and their integration, on the other. Branching off from a single honey. trees of narrow specialties, although they rely to some extent on a common terminological fund for all of them, but they develop primarily their highly specialized dictionaries. This facilitates the exchange of information within the microsystem, but makes it difficult to understand each other within the macrosystem as a whole. Under such conditions, there is a real danger of duplicated formulation and designation of concepts that reflect the same phenomenon (synonymy) and polysemy (polysemy) of certain terms.

The rapid quantitative growth of the number of terms, the contradictory interweaving of terms of many different microsystems, the epistemological specificity of medical activity, the objects of which often do not lend themselves to accurate identification on the basis of objective criteria, the presence of competing hypotheses, theories, scientific schools, the lack of systematic normalizing work on the ordering of individual microsystems — all this caused serious difficulties in the development of medical Terminology in the second half of the 20th century. These include, first of all, the spontaneous, almost uncontrolled growth of the term L.Fonda, which leads to constant clogging with incomplete and often unnecessary terms, as well as inaccuracy, vagueness, ambiguity of many terms, an abundance of synonyms, etc.

In the work on the ordering of naturally formed microsystems, as well as when introducing new terms into them, it is necessary to follow the basic and additional requirements for terms. Basic requirements:

1) adequacy — the content of the term should correspond to modern scientific data about the object;

2) accuracy-the concept should be strictly different from other concepts in terms of content and volume, and the sound complex should not contain elements that incorrectly orientate relative to the content;

3) unambiguity (monosemy) — one sound complex should express only one meaning, polysemy is not allowed.;

4) one-formedness — the same meaning must be expressed only by one sound complex, synonymy is not allowed. Additional requirements:

1) not only in content, but also in form, the term should reflect a certain classification of concepts, for this purpose, the same features of concepts should be expressed in different terms by the same language signs — words, term elements;

2) sound complexes of terms of the same type in terms of the expressed content should be constructed according to the same structural and semantic model.

For some permanent reasons, almost all of the above requirements are difficult to meet. One of the reasons is the absence in a number of leading fields of medicine of classification hierarchical schemes of concepts, in which for each link there would be identically understood and applied terms. The adequacy, accuracy, and unambiguity in the understanding and application of terms depend not only on the content, but also on the classifying qualities of the sound complex of the term. Often generic relationships are expressed in terms-phrases. The defined part in them expresses the generic concept, and the defining part, which has a clarifying, limiting function, the specific concept. From the epistemological point of view, it is very important that the defining parts of phrases expressing concepts of the same order also record the distinctive features of the same order, for example, feature-localization, feature-etiology, feature-pathomorphological substrate, etc.

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THE IMPORTANCE OF GERMAN LANGUAGE TEACHING IN STUDENT LIFE

***Abstract**: Improving the effectiveness of teaching a foreign language to students of non-linguistic specialties is one of the urgent tasks of modern methodological science. In the context of the rapid development of modern technologies and their wide application in the economic, scientific and educational spheres, foreign language proficiency becomes a necessity, which is confirmed by the qualification requirements for specialists.*

***Key words**: German language, effectiveness, term, education, teaching methods, innovative approach.*
***Language**: English*
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Introduction

In this article, we will analyze the problems faced by both students and teachers when teaching the language of the specialty. By the term specialty language, we mean the totality of all the language tools that are used in the field of communication limited to the specialty in order to ensure mutual understanding of people employed in this field.[1, p. 45] At the same time, in addition to professional vocabulary, the language of the specialty may include general scientific and special terminology. There are also other characteristics of the language of the specialty: the primary connection with other specialties; oral and written usage in special and interdisciplinary fields of communication; official use, choice and frequency of language means in lexical sections; tendency to normalize terminology and text structure.

We see a good moment for using interdisciplinary connections at the level of working with the professional vocabulary of future specialists in German and German in terms of the features of using borrowed words in speech and professional activity, lexical errors, the expediency of using foreign words, their grammatical compatibility, and the analysis of" diseases " of the official style (pleonasm, tautology, etc.). Find in the dictionary of foreign words the lexical meaning of words of German origin, explain the expediency of their use in professional activities (these words are active in German lessons): Work on German lexical and grammatical structures is associated with analysis — the main method of logical thinking.

Thus, the study of grammar in the classroom provides a solution to the general educational problem — the development of elements of logical thinking.

The purpose of this lesson is to find the optimal forms of training, to show the requirements for a specialist in unity, to model the future work of a specialist in terms of the features of the design of business correspondence for correspondence with foreign partners in English-speaking countries. The teacher names and analyzes the details, and the German teacher works on the lexical, grammatical and phonetic side of the terms. Each student has a business letter form. It is filled in gradually. This is followed by watching a video in order to observe the manager's behavior and situations of using familiar lexical units. At its core, this lesson is a practical lesson. There is work on filling out the business letter form in English-speaking countries with an analysis of the lexical units used in the German language.

The form of an integrated lesson helps the teacher to solve the problem of an individual approach: in a group with a high level of learning, this is an additional way to learn a foreign language at the final lesson, which helps to develop interest and consolidate the knowledge of graduates. A special feature of this training session is the invitation of second-year students of the same specialty to participate in a didactic game, to implement a kind of continuity of the initial and final stages of studying the German language course level.

The didactic game "Meeting with British Bankers" is not an end in itself, but a means of training and education (that is why even the business style of clothing of the participants of the game is carefully thought out). The didactic game goes well with the "serious" teaching. Students who have reached the threshold level of cross-cultural competence can combine a set of short, simple elements into a coherent presentation of thoughts to achieve understanding by foreign-speaking partners. The discussion of the students and "British bankers" begins with a multimedia projector showing slides depicting the building and office environment of the "bank". The show is accompanied by soft music and the words of one of the "bankers". Next, the "students" ask questions to the "bankers" and listen to the answers. Finally, the entire discussion is repeated in the language in the same persons in order to control the understanding and penetration into the business "space" of the country of the language being studied. Next, an integrated training session in the disciplines "English" — "German".

The peculiarity of the lesson is also that both teachers solve common training, development and educational tasks. They strive to teach students to go beyond the texts of the textbook of the first foreign language, to actively show all the knowledge and skills acquired in the first foreign language. Both teachers work synchronously. The lexical units are worked out the same in two languages. Slide on the screen, the vocabulary is mainly international Both teachers work simultaneously in a second foreign language; the same phrases. The method of semantics is translation. A video series is being viewed (slides with views of foreign hotels) The students are asked to carefully study the name, price, accommodation conditions, comfort level, and additional services in each of the hotels presented in the video series in order to extract information for the "Check-in" dialog.

Next, they should "work as a hotel administrator", be able to help a "foreign tourist" get a room in a hotel and fill out a registration form, adapting their speech. In this case, the "administrator" is a student with a first foreign language, and a foreigner is a student with a second foreign language. Their task is to make the" administrator "understand the" guest of the country", to be able to "put" him in the hotel, having received the completed registration form. Practical task: filling out the registration form in the first and second foreign languages. It is very relevant and appropriate to conduct extracurricular work in the discipline, which contributes not only to the activation of students ' cognitive activity, but also to instill interest in learning a foreign language, promotes practical mastery of speech activity, increases the active language stock of students, improves pronunciation, increases their cultural level, develops imagination, imagination, creativity of capable students. The educational work carried out in the discipline has a positive psychological impact on the relationship between teachers and students, creates an atmosphere of cooperation. The teacher as a person always arouses the interest and emotional attitude of students, and his pedagogical influence is positive and effective if he is a positively significant person for students. The motivation to study his discipline will also be positively significant. Expected results:

1. Formation of the following knowledge and skills:

- reading and translating professionally-oriented texts using various foreign-language dictionaries;
- performing lexical and grammatical exercises;
- mastering the lexical (1200-1400 lexical units) minimum of the specialty;
- the ability to apply the acquired professional vocabulary in dialogic and monologue speech;
- Ability to communicate (orally and in writing) in a foreign language on professional and everyday topics.

2. Practical mastery of the German language by students at the adaptive level determined by the specific professional situation.

3. Training of specialists whose language and speech competence will determine the quality of professional activity, the success of professional promotion. Thus, the combination of classroom and extracurricular classes in the process of teaching, the use of methods that allow the integration of the discipline "German language" with other disciplines that directly form professional knowledge, skills and abilities, allow students to form a high level of both subject and inter-subject, general academic competencies. During the period of work, the quality of students ' knowledge ranged from 50 % to 75 %, the absolute academic performance from 95 % to 100 %. The quality of knowledge based on the results of the administrative control works carried out this academic year is from 25% to 100 %. We can state the students ' interest in the discipline. Every year, research and creative work is conducted, as a result of which all research students are winners of general scientific student conferences of different years "Business education: the unity of science and practice" in the city of Volgograd. Topics of students ' research papers:

- The role and importance of the German language in the field of professional communications;
- Some techniques for forming a potential vocabulary of future lawyers when learning German;
- How to speak German on the phone;
- How to apply for a resume in German.

It is known that professionally-oriented vocabulary is studied mainly on the basis of texts, so a purposeful and careful selection of these texts will be of paramount importance.It should be focused on the latest achievements in a particular field of human activity, timely reflect scientific achievements in areas that directly affect the professional interests of students, and provide them with the opportunity for further professional growth. At the same time, it is impossible to select lexical material without taking into account the content of the training, which is reflected in the program. the content of teaching a foreign language should include:

- areas of communicative activity, topics and situations, speech actions and speech material that take into account the professional orientation of students;
- language material (phonetic, lexical, grammatical, spelling), rules for its design and skills of operating it;
- a set of special (speech) skills that characterize the level of practical mastery of a foreign language as a means of communication, including in intercultural situations;
- a system of knowledge of the national and cultural characteristics and realities of the country of the language being studied. Thus, the content of teaching foreign languages at non-linguistic faculties of higher education institutions is a set of what students should learn in the learning process, so that the quality and level of foreign language proficiency correspond to their needs and goals, as well as the goals and objectives of this level of training.

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FEATURES OF WORKING WITH A NEW VOCABULARY OF A FOREIGN LANGUAGE

Abstract: *The article considers the problem of training English language to work with new vocabulary. It provides information about the use of gaming technology for enlarging students' active vocabulary.*

Key words: *new vocabulary, foreign language, the primary stage of language learning, foreign language teaching, gaming technology.*
Language: *English*
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Introduction

As you know, the education system, as well as the teaching of academic subjects, including foreign languages, are sensitive to changes taking place in society. The economic and social transformations that have taken place in our country in recent decades have led to significant changes in the field of education. Previously, there was an educational-disciplinary, authoritarian-informational approach with a focus on the" average " student. Now it has given way to a personality-oriented approach, which is a child-oriented approach aimed at the full development of each student, at his self-determination and self-realization. It is the change of value orientations in society that has led to the fact that a free, developed and educated person has become recognized as the greatest value.

Modern educational institutions strive to constantly improve the quality of the educational process. The same trend is observed in the teaching of foreign languages. Throughout the XX century, methodologists and linguists solved many problems related to the methodology of mastering a foreign language at different ages. A. S. Lyubchenko came to the conclusion that there is a very serious problem that concerns teaching a foreign language both in universities and in schools. The fact is that the features of the process of assimilation of new vocabulary are not well studied today. Certain phrases and individual words are easy to remember, while others are much more difficult to learn. Therefore, they have to choose suitable exercises for them. But if you differentiate the work of students, you can contribute to the effective assimilation of the lexical minimum by students.

Important theoretical provisions were developed that allow creating new methods for mastering the vocabulary of a foreign language, dictionaries of the mandatory lexical minimum, textbooks on foreign languages, and educational programs were compiled. After graduation, student must possess a mandatory minimum of material intended for the school curriculum. If a student can name an equivalent word for word in a foreign language, does it mean that he knows it? Of course, yes. However, will he be able to correctly use this word to correctly express his thoughts? Sometimes it happens that the student, noticing a foreign word, immediately recognizes it, but can not remember its meaning. To understand the meaning of familiar words, he needs time and needs to think hard. Does the disciple then know the word? He knows, of course. But is this level of knowledge enough to read foreign texts? Of course, it is not enough. When reading, it is important to recognize words instantly. The same applies to the process of speaking: the student must be able to instantly remember the right words, suitable in meaning and meaning. He must also be able to combine them correctly.

Therefore, we are not talking about the fact that students should know foreign words. They should be able to use these words. It should be remembered that the main goal of the teacher is to help student master foreign language vocabulary. Given this, it must be said that the most important element of speech activity in a foreign language is vocabulary. It should occupy an important place in all lessons, it is necessary to form lexical skills, which the teacher constantly tries to pay attention to. Despite the fact that there is progress in teaching an active vocabulary, today there are still no methods that contribute to the effective and rapid acquisition of foreign speech. Therefore, the problem is still relevant today.

Vocabulary is the most important speech element of any language system. It allows you to listen to someone else's speech, speak independently, read written text and write. This should be given the main place in every lesson. The teacher constantly keeps in mind the development of speech skills. What is vocabulary? This is a system of words that forms the vocabulary of the language being studied. The words that a student uses in a foreign language are part of the active lexical vocabulary of a person. The more words there are in this stock, the easier it is for a person to use the language. The main goal of teaching a foreign language is to develop students ' lexical skills as the most important element of all types of speech activity. Lexical skills are quite conscious, this is manifested in what words a person chooses and how he combines them with other words, depending on the purpose of the statement. It is also important to develop the ability to analyze words, to be able to carry out word formation and construct word combinations.

There are a number of reasons to pay special attention to this aspect of learning a foreign language: the degree to which a person has mastered the vocabulary depends on the content of his speech; the vocabulary required for studying is heterogeneous in its content and in its psychological and linguistic properties; the lexical minimum is the basic basis of vocabulary, which is a reference element for further development; the ability to use language units is the most important component of activity in speech; the need to systematize previously studied vocabulary units. From the point of view of methodology, the study of foreign language vocabulary is a very complex process. In order for students to master the vocabulary, it is not just necessary to present it, but also to explain it, to provide them with a variety of exercises to perform, to train the use of new vocabulary, to control the process of developing lexical skills. The rules for the design of vocabulary are lexical rules. Introducing students to new material should not be just like communicating new information. It is important that student independently "extract" new knowledge by actively perceiving an interesting story. It is necessary to attract the attention of the students.

Teaching student foreign language speech, it is necessary to actively use game methods of organizing educational activities. This approach makes it possible to make classes fun and effective. It can be used at any age, adapting the content and form of classes to the age characteristics of each specific group of student. Thanks to the introduction of game elements, it is possible to create a psychologically pleasant atmosphere, which will allow students to perceive foreign speech as a real means of communication.

The game approach is especially effective at the initial stage of training. The game makes it possible to organize classes as natural communicative situations that are interesting for student and cause activity and a desire to mobilize their intellectual resources for the assimilation of new material. It also allows you to train the memory of student, so that new lexical material is more efficiently assimilated. Let's look at some games for teaching younger students new vocabulary, for example, games aimed at training and using vocabulary in oral speech. Guess who said it. The student goes to the blackboard and stands with his back to the class. The teacher shows the class a picture with the image of the word passed in the lesson. One of the students must pronounce this word, changing the voice, and the leader guesses who it is. (Is it she?) Guess the object (Guess the object). The student goes to the blackboard and stands with his back to it. On the board, the teacher places several pictures with the image of the lexical material passed. The student must guess at least one word by asking the class questions:

- Can I have an apple?
- No, sorry.
- Can I have a banana?
- Yes! The student takes the card and sits down.

Then the next student comes out (the cards must be changed every time). Game chain (Game "on the chain"). Students are seated in a circle. Continuing the theme of "fruit", students should say and show what fruit they like, replacing the last word with gestures:

- I like ... (miming e. g. a banana).
- Do you like pears?
- No, try again. Students ask questions in a circle.

Who is faster? (Who is faster?). Students are divided into two teams and line up in two lines in front of the board. On the board in advance for both teams, pictures are attached with the image of the words passed in the lesson. At the end of the line on the tables of both teams are the same pictures. The first person on the team is facing the board, the others are looking back. The moderator removes the card, says and passes the word to another student. And so on down the chain. The last person in the team must find the appropriate picture and take it to the teacher. Then the first in the team stands at the end. The task of the students is to get rid of all the cards correctly and as soon as possible. So, games are used for different purposes: to introduce new vocabulary, to consolidate it in both written and oral speech. Games for the formation of lexical skills perform the following tasks: introducing students to new words and phrases; training the use of these words in a natural communication situation; activating the speech mental activity of schoolstudent; forming speech reactions.

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